

Table S1. Selected source locations for historical first person narratives; logbooks of fur company posts; field notes recorded by local fisheries biologists; reports of various fisheries agencies; and articles in early fisheries periodicals that contained historical information on eulachon (*Thaleichthys pacificus*).

Source category	Source title, collection, or library	Date range	Source location or online URL
First-person narratives			
	University of Washington's Suzzallo and Allen Library		Suzzallo and Allen Library (Seattle, Washington, USA)
	King County Library System's Northwest Collection		King County Library (Washington, USA)
	Humboldt Room Special Collections		Humboldt State Univ. Library (Arcata, California, USA)
	Clark County Historical Museum Research Library		Vancouver, Washington, USA
	The Champlain Society Digital Collection		Online at: https://champlainsociety.utpjournals.press/
	Library of Western Fur Trade Historical Source Documents		Online at: https://user.xmission.com/~drudy/mtman/
	Digital collections of the Washington State Library		Online at: https://www.sos.wa.gov/library/digcolls.aspx
	Biodiversity Heritage Library		Online at: https://www.biodiversitylibrary.org/
	Library of Congress Digital Collections		Online at: https://www.loc.gov/collections/
	Making of America (MOA) digital library		Online at: https://quod.lib.umich.edu/m/moa/ and
	HathiTrust Digital Library		Online at: https://www.hathitrust.org/
	The Fisheries and Oceans Canada (DFO) Library		Online at: https://science-libraries.canada.ca/eng/fisheries-oceans/
Archived government agency records			
	Annual Report of the U.S. Commissioner of Fish and Fisheries	1872–1903	https://library.noaa.gov/Collections/Digital-Documents/Fish-Comm-Annual-Rep
	Annual Report of the Bureau of Fisheries	1904	https://library.noaa.gov/Collections/Digital-Documents/Fish-Comm-Annual-Rep
	Annual Report of the Commissioner of Fisheries	1905–1925	https://library.noaa.gov/Collections/Digital-Documents/Fish-Comm-Annual-Rep
	Annual Report of the United States Commissioner of Fisheries	1926–1940	https://library.noaa.gov/Collections/Digital-Documents/Fish-Comm-Annual-Rep
	Bulletin of the United States Fish Commission	1881–1903	https://library.noaa.gov/Collections/Digital-Documents/Bull-of-US-Fish-Comm
	Bulletin of the Bureau of Fisheries	1904–1911	https://library.noaa.gov/Collections/Digital-Documents/Bull-of-US-Fish-Comm
	Bulletin of the United States Bureau of Fisheries	1912–1938	https://library.noaa.gov/Collections/Digital-Documents/Bull-of-US-Fish-Comm

Source category	Source title, collection, or library	Date range	Source location or online URL
Washington			
	Annual reports of the State Fish Commissioner of the State of Washington	1890–1921	University of Washington's Suzzallo and Allen Library (Seattle, Washington, USA)
	Annual reports of the Washington State Supervisor of Fisheries	1921–1925	University of Washington's Suzzallo and Allen Library (Seattle, Washington, USA)
	Annual reports of the Washington State Department of Fisheries and Game	1925–1931	University of Washington's Suzzallo and Allen Library (Seattle, Washington, USA)
	Annual reports and bulletins of the Washington Department of Fisheries	1931–1994	University of Washington's Suzzallo and Allen Library (Seattle, Washington, USA)
Oregon			
	Annual reports of the Oregon State Board of Fish Commissioners	1887–1892	University of Washington's Suzzallo and Allen Library (Seattle, Washington, USA)
	Annual and biennial reports of the Oregon State Department of Fisheries	1900–1913	University of Washington's Suzzallo and Allen Library (Seattle, Washington, USA)
British Columbia			
	Annual Reports on the Fisheries of British Columbia (In: Sessional Papers of the Parliament of Canada)	1873–1917	Government Publications depository of the University of Washington's Suzzallo Library (Seattle, Washington, USA).
	Fisheries Statistics tables published by the Canada Dominion Bureau of Statistics	1917–1928	Government Publications depository of the University of Washington's Suzzallo Library (Seattle, Washington, USA).
	Fisheries Statistics tables published by the Canada Department of Trade and Commerce	1929–1949	Government Publications depository of the University of Washington's Suzzallo Library (Seattle, Washington, USA).
	Annual Reports of the Department of Indian Affairs of the Dominion of Canada	1882–1916	Online at: http://www.bac-lac.gc.ca/eng/discover/aboriginal-heritage/first-nations/indian-affairs-annual-reports/Pages/introduction.aspx
	Fisheries and Oceans Canada (DFO) publications		https://science-libraries.canada.ca/eng/fisheries-oceans/publications/
Notes of field biologists			
	Division of Fisheries Statistical Report Volume SR-1 and SR-2: Movement of fish runs reported from different districts.	1928–1931	Washington State Archives. Record Group: Department of Fisheries, Subgroup: Director's Office, Volumes of Hearings, Correspondence of Fisheries Board, Statistical Reports, 1921-1929, Box 2, Stack Location IAB-23-5 (Olympia, Washington, USA).

Source category	Source title, collection, or library	Date range	Source location or online URL
Fisheries periodicals			
	<i>Pacific Fisherman</i> - digital collections of the University of Washington library	1903–1911	http://content.lib.washington.edu/pacfishweb/index.html
	<i>Pacific Fisherman</i> -Northwest Fisheries Science Center Library		Seattle, Washington, USA
	<i>Pacific Fisherman</i> - University of Washington’s Suzzallo and Allen Library		Seattle, Washington, USA

Table S2. Available newspaper indices and records in online digital and microfilm format searched for reference to the presence of information on eulachon (*Thaleichthys pacificus*) spawning runs in British Columbia (BC), Washington (WA), Oregon (OR), and California (CA).

Newspaper	City, state or province	Keywords searched or visual search	Start date	End date	Sources, database and online URL
British Columbia					
<i>Abbotsford Post</i>	Abbotsford, BC	Visual search	6 May 1910	25 Jan 1924	British Columbia Historical Newspapers Collection https://open.library.ubc.ca/collections/bcnewspapers
<i>Bella Coola Courier</i>	Bella Coola, BC	Visual search	14 Sept 1912	6 Oct 1917	British Columbia Historical Newspapers Collection https://open.library.ubc.ca/collections/bcnewspapers
<i>The British Columbian</i>	New Westminster, BC	Visual search	13 Feb 1861	25 July 1869	Online at news.google.com http://news.google.com/newspapers?nid=RHpTSmoSYBkC
<i>British Colonist</i> <i>Daily Colonist</i>	Victoria, BC	Oolichan, oolachan	1 Jan 1869	30 June 1910	Index of Historical Victoria Newspapers, Victoria's Victoria, http://www.britishcolonist.ca/colonist.htm http://www.victoriasvictoria.ca/ , 2007
<i>The Chilliwack Progress</i>	Chilliwack, BC	Oolichan, oolachan, eulachon, oulachon, ooligan	April 1891	2007	Online at https://theprogress.newspapers.com/
<i>The Daily News</i> <i>Westminster Daily News</i> <i>The New Westminster News</i>	New Westminster, BC	Oolichan, oolachan, eulachon, oulachon, ooligan	March 1906	Aug 1914	British Columbia Historical Newspapers Collection https://open.library.ubc.ca/collections/bcnewspapers
<i>The Delta Times</i>	Ladner, BC	Oolichan, oolachan, eulachon, oulachon, ooligan	Sept 1903	Nov 1914	British Columbia Historical Newspapers Collection https://open.library.ubc.ca/collections/bcnewspapers
<i>Langley Advance</i>	Langley, BC	Oolichan, oolachan, eulachon, oulachon, ooligan	July 1931	Dec 2009	Online at Newspapers.com https://www.newspapers.com/
<i>Mainland Guardian</i>	New Westminster, BC	Visual search	4 Mar 1865	12 Jan 1889	Online at news.google.com http://news.google.com/newspapers?nid=bEWYMUwI8FkC

Newspaper	City, state or province	Keywords searched or visual search	Start date	End date	Sources, database and online URL
<i>The Pacific Canadian</i>	New Westminster, BC	Oolichan, oolachan, eulachon, oulachon, ooligan	16 Sept 1893 10 Mar 1916	19 May 1894 30 Mar 1917	British Columbia Historical Newspapers Collection https://open.library.ubc.ca/collections/bcnewspapers
<i>The Province</i>	Vancouver, BC	Oolichan, oolachan, eulachon, oulachon, ooligan	Mar 1894	Dec 1996	Online at Newspapers.com https://www.newspapers.com/
<i>Vancouver Daily Sun</i>	Vancouver, BC	Visual search	1 April 1918	30 April 1920 many issues missing	Online at news.google.com http://news.google.com/newspapers?nid=ZbQVaL1IMbQC
<i>Vancouver Daily World</i>	Vancouver, BC	Oolichan, oolachan, eulachon, oulachon, ooligan	Sept 1888	March 1924	Online at Newspapers.com https://www.newspapers.com/
<i>The Vancouver Sun</i>	Vancouver, BC	Visual search	1920 April-May	1939 April-May many issues missing	Online at news.google.com http://news.google.com/newspapers?nid=ifldVpG6JtcC
Washington					
<i>Cowlitz County Advocate</i>	Castle Rock, WA	Visual search	16 Dec 1915		University of Washington Library, Microfilm A-5890
<i>Cowlitz County News</i>	Kalama, WA Kelso, WA	Visual search	12 June 1914 Incomplete	30 Oct 1925 missing years	University of Washington Library, Microfilm A-5824
<i>Daily Kelsonian Tribune</i>	Kelso, WA	Visual search	16 July 1927 17 Sept. 1934	31 Dec 1928 26 Sept 1939	University of Washington Library, Microfilm A-5847
<i>The Daily Tribune and Kelsonian</i>	Kelso, WA	Visual search	2 Jan 1929	15 Sept 1934	University of Washington Library, Microfilm A-5847
<i>Kalama Beacon</i>	Kalama, Washington Territory	Visual search	19 May 1871	10 Feb 1874	University of Washington Library, Microfilm A-48
<i>The Kelsonian-Tribune</i>	Kelso, WA	Visual search	1 Jan 1926 29 Sept 1939	15 July 1927 9 Sept 1954	University of Washington Library, Microfilm A-5847
<i>Pacific Fisherman</i>	Seattle, WA and Vancouver, BC	Smelt, eulachon	20 Jan 1903	1 Dec 1911	Pacific Fisherman Journal, 1903-1911. http://content.lib.washington.edu/pacfishweb/index.html
<i>The Twice a Week Kelsonian</i>	Kelso, WA	Visual search	10 Aug 1906	22 Nov 1924	Washington State Library Microfilm Newspapers NEWSPAPER 8/63

Newspaper	City, state or province	Keywords searched or visual search	Start date	End date	Sources, database and online URL
<i>The Vancouver Independent</i>	Vancouver, Washington Territory	Smelt	8 Jan 1876	28 Dec 1888	Clark County Historical Museum Newspapers Archive http://archive.vancouver.wsu.edu/cchna/index.html
		Visual search	2 Jan 1879	27 March 1884	University of Washington Library, Microfilm A-7102
		Smelt	4 Sept 1875	27 March 1884	The Library of Congress National Digital Newspaper Program http://chroniclingamerica.loc.gov/lccn/sn87093109/
<i>Vancouver Register</i>	Vancouver, Washington Territory	Visual search	7 Oct 1865 15 Feb 1868 6 June 1868	14 Sept 1867 7 Mar 1868 9 Oct 1869	Historic Newspapers in Washington http://www.sos.wa.gov/history/newspapers_detail.aspx?t=34
Oregon					
<i>The Banner-Courier</i>	Oregon City, OR	Smelt, eulachon	5 Jan 1922	28 Dec 1922	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>Capital Journal</i>	Salem, OR	Smelt, eulachon	26 June 1893	31 Dec 1895	The Library of Congress National Digital Newspaper Program http://chroniclingamerica.loc.gov/lccn/sn99063954/
<i>Clackamas County Record</i>	Oregon City, Clackamas County, OR	Smelt, eulachon	5 Jan 1903	30 July 1903	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>The Clatskanie Chief</i>	Clatskanie, OR	Visual search	2 Jan 1948	25 Dec 1953	http://news.google.com/newspapers?nid=Pqt4MY2vwC&dat=19480102&b_mode=2&hl=en
<i>The Columbian</i>	St. Helens, Columbia County, OR	Smelt, eulachon	10 March 1882 or 1881	4 Feb 1886	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>The Columbia Register</i>	Houlton, Columbia County, OR	Smelt, eulachon	29 April 1904	1 June 1906	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>The Coos Bay Times</i>	Marshfield, OR	Smelt, eulachon	21 April 1907	23 May 1916	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/

Newspaper	City, state or province	Keywords searched or visual search	Start date	End date	Sources, database and online URL
<i>Coquille City Herald</i>	Coquille City, Or	Smelt, eulachon	11 Sept 1883	5 July 1904	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>Coquille Herald</i>	Coquille City, OR	Smelt, eulachon	3 May 1905	4 Sept 1917	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>The Daily Astorian</i>	Astoria, OR	Smelt, eulachon	1 May 1876 1 Sept 1877 1 Jan 1879 1 Jan 1881	30 June 1876 30 Nov 1877 29 June 1879 9 Nov 1883	The Library of Congress National Digital Newspaper Program http://chroniclingamerica.loc.gov/lccn/sn96061149/
<i>Daily Capital Journal.</i>	Salem, OR	Smelt, eulachon	1 Jan 1896	29 June 1899	The Library of Congress National Digital Newspaper Program http://chroniclingamerica.loc.gov/lccn/sn99063955/
		Smelt, eulachon	25 Nov 1903	12 Oct 1910	The Library of Congress National Digital Newspaper Program http://chroniclingamerica.loc.gov/lccn/sn99063957/
<i>The Daily Journal</i>	Salem, OR	Smelt, eulachon	30 June 1899	24 Nov 1903	The Library of Congress National Digital Newspaper Program http://chroniclingamerica.loc.gov/lccn/sn99063956/
<i>The Daily Morning Astorian.</i>	Astoria, OR	Smelt, eulachon	10 Nov 1883	1 Sept 1899	The Library of Congress National Digital Newspaper Program http://chroniclingamerica.loc.gov/lccn/sn96061150/
<i>The Enterprise</i>	Oregon City, OR	Smelt, eulachon	3 May 1888	27 March 1891	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>Eugene Register-Guard</i>	Eugene, OR	Umpqua, smelt	7 Feb 1902 1912	13 June 1902 2007	Online at news.google.com/newspapers
<i>The Morning Astorian</i>	Astoria, OR	smelt	2 Sept 1899	19 May 1909	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/

Newspaper	City, state or province	Keywords searched or visual search	Start date	End date	Sources, database and online URL
<i>Morning Enterprise</i>	Oregon City, OR	Smelt, eulachon	3 Jan 1912	23 Dec 1913	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>Morning Oregonian</i>	Portland, OR	Smelt, eulachon	1900	1922	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>The New Age</i>	Portland, OR	Smelt, eulachon	25 Nov 1899	6 May 1905	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>The New Northwest</i>	Portland, OR	Smelt	11 Aug 1871	21 Apr 1881	The Library of Congress National Digital Newspaper Program http://chroniclingamerica.loc.gov/lccn/sn84022673/
<i>The Oregonian</i>	Portland, OR	Visual search	4 Feb 1861 (Mid-November to May)	2016 (Mid-November to May)	University of Washington Library, Microfilm A-145
<i>Oregon City Courier</i>	Oregon City, OR	Smelt, eulachon	23 Nov 1883	13 June 1884	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
		Smelt, eulachon	31 Jan 1890	16 Sept 1898	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
		Smelt, eulachon	7 Nov 1902	3 July 1919	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>Oregon City Courier-Herald</i>	Oregon City, OR	Smelt, eulachon	23 Sept 1898	31 Oct 1902	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>Oregon City Enterprise</i>	Oregon City, OR	Smelt, eulachon	27 Oct 1866	17 Oct 1868	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
		Smelt, eulachon	10 Nov 1871	1 Dec 1887	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/

Newspaper	City, state or province	Keywords searched or visual search	Start date	End date	Sources, database and online URL
		Smelt, eulachon	3 April 1891	29 Dec 1922	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>Oregon City Press</i>	Oregon City, OR	Smelt, eulachon	9 Feb 1898	26 April 1899	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>Oregon Daily Journal</i>	Portland, OR	Smelt, eulachon	1 July 1904	2 Oct 1907	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>The Oregon Mist</i>	St. Helens, Columbia County, OR	Smelt, eulachon	15 July 1910	14 Feb 1913	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>Oregon Spectator</i>	Oregon City, Oregon Territory	Smelt, eulachon	5 Feb 1846	Mar 1855	Oregon Spectator Index, 1846–1855, Vol. 1 and 2
	Oregon City, Oregon Territory	Visual search	5 Feb 1846	10 Feb 1855	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/lccn/sn84022662/
<i>The Rainier Review</i>	Rainier, OR	Visual search	3 Nov 1905 (many missing issues)	28 March 1979	The Rainier Review online archive. http://www.cityofrainier.com/?view=rainier_review
<i>St. Helens Mist</i>	St. Helens, OR	Smelt, eulachon	2 Jan 1913	22 April 1921	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>St. Johns Review</i>	Portland, OR	Smelt, eulachon	11 Nov 1904	29 Dec 1922	The Library of Congress National Digital Newspaper Program http://chroniclingamerica.loc.gov/lccn/sn00063676/
<i>Sunday Oregonian</i>	Portland, OR	Smelt, eulachon	1900	1922	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/
<i>The West Shore</i>	Portland, OR	Smelt, eulachon	1 Aug 1875	28 March 1891	University of Oregon Libraries, Historic Oregon Newspapers http://oregonnews.uoregon.edu/

Newspaper	City, state or province	Keywords searched or visual search	Start date	End date	Sources, database and online URL
California					
<i>Blue Lake Advocate</i>	Blue Lake, CA	Smelt, candlefish, candle fish, eulachon	1 May 1888	3 April 1969	The California Digital Newspaper Collection https://cdnc.ucr.edu/cgi-bin/cdnc
<i>Crescent City Courier</i>	Crescent City, CA	Visual search	1873 (mid-February through April)	1880 (mid-February through April) (no March or April issues in 1877)	Humboldt State University Library, Arcata, CA (Microfilm MF-2546)
<i>Crescent City Herald</i>	Crescent City, CA	Visual search	1857	1859	Humboldt State University Library, Arcata, CA (Microfilm MF-2548)
<i>Daily Humboldt Standard</i>	Eureka, CA	Visual search	January-April 1911	January-April 1912	Humboldt State University Library, Arcata, CA (Microfilm MF-9)
<i>Del Norte Record</i>	Crescent City, CA	Visual search	1880 (mid-February through April)	1884 (mid-February through April)	Humboldt State University Library, Arcata, CA (Microfilm MF-2547)
		Visual search	1887 (mid-February through April)	1892 (mid-February through April)	Humboldt State University Library, Arcata, CA (Microfilm MF-2547)
		Visual search	May 1900		Humboldt State University Library, Arcata, CA (Microfilm MF-2547)
<i>Del Norte Triplicate</i>	Crescent City, CA	Visual search	1912 (mid-February through April)	1929 (mid-February through April)	Humboldt State University Library, Arcata, CA (Microfilm MF-1181)
		Visual search	1930 (January through May)	1949 (January through May)	Library loan – California History Section, California State Library, Sacramento, CA (Microfilm Service Copy)
<i>Triplicate</i>	Crescent City, CA	Candlefish, candle fish	3 January 1891	27 December 1924	The California Digital Newspaper Collection https://cdnc.ucr.edu/cgi-bin/cdnc
<i>Humboldt Standard</i>	Eureka, CA	Visual search	1952 (mid-February through April)	1967 (mid-February through April)	Humboldt State University Library, Arcata, CA (Microfilm MF-9)
<i>The Humboldt Times</i>	Eureka, CA	Visual search	1854	1892	Wainwright, D. L. 1965. The fisheries of Humboldt County from 1854 to 1892. (A collection of the activities of fishing in the county as reported in the <i>Humboldt Times</i> between 1854 and 1892). Humboldt State University Library, Arcata, CA. Humboldt Room (SH35.C3 W3)
		Visual search	mid-February 1934	through April 1934	Humboldt State University Library, Arcata, CA (Microfilm MF-10)

Newspaper	City, state or province	Keywords searched or visual search	Start date	End date	Sources, database and online URL
		Visual search	1940 (mid-February through April)	1967 (mid-February through April)	Humboldt State University Library, Arcata, CA (Microfilm MF-10)
		Smelt, candlefish, candle fish, eulachon	1 January 1874	31 December 1925	The California Digital Newspaper Collection https://cdnc.ucr.edu/cgi-bin/cdnc
<i>San Francisco Call</i>	San Francisco, CA	Smelt, candlefish, candle fish, eulachon	1895	1910	California Digital Newspaper Collection. https://cdnc.ucr.edu/cgi-bin/cdnc
<i>Times-Standard</i>	Eureka, CA	Visual search	1968 (mid-February through April)	1977 (mid-February through April)	Humboldt State University Library, Arcata, CA (Microfilm MF-10)

Table S3. Historical observations on eulachon in British Columbia.

Date	Location	Source	Quote
1802			
	Nass River	Gibson (1992, p. 231) [In Haskins, Ralph. "Journal of a Fur Trading Voyage from Boston to the Northwest Coast of America in the Ship <i>Atahualpa</i> 1800-03." Yale University Library (New Haven, CT), Western Americana Ms. S-126].	The main source of "shrow" [= eulachon] for shipmasters and northern Indians, however, was the early spring run in the Nass River ... The <i>Atahualpa</i> in 1802 was one of the first trading vessels to note ... that "all the Tribes in this vicinity repair thither for the purpose of procuring large quantities of a small fish, not unlike herrings [= eulachon], which serves them for food during the summer." It was likewise noted that "an oil they call sow-tow [=eulachon oil] is extracted from these small fish & is an article of trade much in demand among the neighbouring tribes."
1810			
March-April 1810	Nass River	Gibson (1992, p. 232) [In Martain, William "Ship <i>Hamilton</i> Log Book 1809-1815." Essex Institute (Salem, MA)]	... the <i>Hamilton</i> observed 300 canoes arriving at "Nass Roads" in one day in the middle of March and another 300 in one day at the beginning of April [to participate in the eulachon fishery].
7 April 1810	Nass River	Gibson (1992, p. 231) [In Furgerson, Samuel. "Journal of a Voyage from Boston to the Northwest Coast of America, in the Brig <i>Otter</i> Samuel Hill Commander." Yale University Library (New Haven, CT), Western Americana Ms. 207]	... in early April 1810 the <i>Otter</i> found that the Tsimshians of "Nass Sound" (Observatory Inlet) "are all employed in catching Shrow [= eulachon] for their Summers provision, the Shrow are small fish that goes up the Inlets in the Spring and which they catch with nets in great abundance, they are very fat and serve for the double purpose of eating, & making Oil. Indeed they were so preoccupied with catching and trading oolachen to visiting Haidas, whose "vast number of canoes" left Nass "loaded with dried Shrow packed in boxes," that they did little fur trading.
1820-1821			
	Nass River	Gibson (1992, p. 232) [In Allen, Peter. "Log of the Ship <i>Hamilton</i> ,	The <i>Hamilton</i> in 1821 bought 60 boxes of shrowtow, or shrowton [= eulachon oil], on 4 May and another 60 boxes on 6 May but it must have purchased much more both that year and the previous year because it transferred 1,290 "kelp" (a

Date	Location	Source	Quote
		Captain William Mart[a]in, from Boston towards the Northwest Coast of America, 1819-1823." Peabody Museum Salem (MA)]	container for oil of unknown capacity, possibly a scabbard) of oil to the <i>Ann</i> and 1,266 to the <i>Volunteer</i> on 24 July 1820, 800 to the <i>Arab</i> and 1,000 to the <i>Pedler</i> on 4 August 1821, 600 to the <i>Mentor</i> and 3,300 to the <i>Lascar</i> on 20 August 1821, 1,648 to the <i>Sultan</i> on 24 September 1821, and 1,361 more to the same ship on 25 September.
1826			
	Nass River	Gibson (1992, p. 232) [<i>In Underwood, Ebenezer. "Journal on board Brig Tally Ho."</i> BCPA, MS AB20.5 C76 2] and [<i>In Work to McLoughlin, 4 July 1842, Fort Simpson. Correspondence outward, 1841-1844. BCPA, MS. AB20 sil2]</i>	The <i>Tally Ho</i> on 13 June 1826 bought sixty boxes of shrowton [= eulachon oil] at Nass for trade at Skidegate and Lanacoon on the Queen Charlottes. The oil was as saleable as the fish itself. John Work described oolachen oil as "a great article of commerce among the natives and constitutes a principal article of food and is considered a great delicacy."
1828			
28 April 1828	Fort Langley, Fraser River	The Fort Langley Journals, 1827–1830. (MacLachlan 1998, p. 60)	Monday 28th. ... The little fishes which the Chinooks Call Ullachun [= eulachon] begin to make their appearance here, and are Joyfffully [sic] hailed by the Indians of the river.
29 April 1828	Fort Langley, Fraser River	The Fort Langley Journals, 1827–1830. (MacLachlan 1998, p. 60)	Tuesday 29th. We made a trial to take Some of the little fish Chinook fashion {with the rake}, and proved very Successful as enough were taken to give a prog [?] to all hands.
1829			
14 April 1829	Fort Langley, Fraser River	The Fort Langley Journals, 1827–1830. (MacLachlan 1998, p. 109)	Tuesday 14th. ... The Small fish in the Columbia called ulluchans [= eulachon] is also within the river, but not yet this high.
1830			
4 May 1830	Fort Langley, Fraser River	The Fort Langley Journals, 1827–1830. (MacLachlan 1998, p. 147)	Tuesday 4th. ... The Small fish Called Ulachans [eulachons] are arrived.

Date	Location	Source	Quote
1832			
	Nass River	Traits of American-Indian Life and Character (Ogden 1853, p. 57-58).	Six years ago, being- the spring of 1832, I was stationed on the north-west coast of America, at the recently-formed settlement of Fort Simpson, at the mouth of the Nass River. This establishment was the only one as yet maintained there, and its erection was so recent, that our knowledge of the savage tribes in the midst of whom we were settled, was very scanty. At this particular season, the natives from all quarters are in the habit of assembling- on the shores of the Nass, for the purpose of obtaining- a supply of small fish, of delicate flavour, termed <i>Olichon</i> [= eulachon], which resort to this stream in innumerable shoals to spawn, and afford active employment during the brief season they remain, to the native fishermen.
1835			
18 March 1835	Kitlope River	The Journals of William Fraser Tolmie (Tolmie 1963, p. 305)	Wednesday, March 18: Wacash has been trading. He & a large party of his gang are going to visit Sebassa & thereafter to proceed to the Kitloah [Kitlope] River to procure oolachan oil.
1840s			
		Gibson (1992, p. 233) [<i>In Work to McLoughlin</i> , 4 July 1842, Fort Simpson. Correspondence outward, 1841-1844. BCPA, MS. AB20 sil2]	In the early 1840s the Tsimshians brought more than 30,000 gallons of oolachen oil to Fort Simpson annually.
1841-1842			
	Nass River	An Overland Journey Round the World, During the Years 1841 and 1842 (Simpson 1847, p. 116, 122)	... at certain seasons, the ullachan, very closely resembling the sardine in richness and delicacy, is taken with great care in some localities. This fish yields an extraordinary quantity of very fine oil, which, being highly prized by the natives, is a great article of trade with the Indians of the interior, and also of such parts of the coast as do not furnish the luxury in question. This oil is used as a sauce at all their meals ... with fish, with seaweed, with berries, with roots, with venison, &c. ... it is made to supply the want of soap and water, smearing the face or any other part of the body ... In addition to this essential business of purifying and polishing, the oil of the ullachan does duty as bear's grease for the hair ... [p. 116] Many of these natives [at Fort Simpson] pay merely passing visits on their way to Nass Straits to fish for the ullachan, whose oil has been already mentioned,

Date	Location	Source	Quote
			not only as a luxury for the great, but also as a necessary of life to all classes. As this oil, by the by, was free from smell, it might be applied to many purposes in the civilized world; and I accordingly ordered a few jars of it to be sent to London, by way of sample [p. 122].
1848			
5 December 1848	Fort Langley, Fraser River	Fort Victoria Letters 1846-1851. (Bowsfield 1979, p. 24)	Letter from James Douglas and John Work (Fort Victoria, 5 December 1848) To the Governor, Deputy Governor and Committee Honorable Hudsons Bay Company: Our accounts from Fort Langley extend up to the 1st of last month ... The Fisheries were very closely attended and produced ... 22 Barrels of small Fish (Oolahans) [= eulachon].
	Fort Langley, Fraser River	Early Days at Old Fort Langley (Reid 1937, p. 80)	There was a poor run [of salmon] in 1847, yielding only 365 barrels, but this was compensated for in 1848, when Fort Langley produced 1,703 barrels of salmon and 22 barrels of small fish (probably oolachans or candle-fish) ...
1853			
	Klinaklini River	Report on black cod of the North Pacific Ocean (Swan 1885, p. 228- 229)	The late Capt. Edward Brothie ... fitted out a small vessel in 1853 to engage in the fishery for eulachon, <i>Thaleichthys pacificus</i> (Rich.) Grd. He took a quantity of salt and small kegs or half barrels in which to pack the eulachon, which are a small fish, in size and appearance like the smelt. He proceeded to Knight's Inlet, which makes into the mainland from the southeastern portion of Queen Charlotte Sound. The eulachon run up this inlet [to the Klinaklini River] every spring in myriads, and are followed by halibut, black cod, green cod, cod, dogfish, and every other variety of fish found in those waters, which prey upon them for food. They are taken in immense quantities by the Indians of Knight's Inlet for food and oil, and as articles of trade with other Indians. When Captain Brothie arrived at the village at the head of the inlet, the Indians utterly refused either to sell, give, or allow him to catch any eulachon.
1862			
		Four Years in British Columbia and Vancouver Island (Mayne 1862, p. 254- 255)	The oil obtained from the hou-li-kun is a common article of food among the northern tribes, and one of which they are very fond. This fish is not unlike a sprat, but somewhat longer and rounder, and is so oily that when dried it will burn like a candle. They are not found at the south part of the island, but are caught in great numbers to the northward. The process of extracting the oil from them is very primitive indeed. Mr. Duncan gives in one of his letters the following description of it, as witnessed by him at Nass River:—"In a general way," he says, " I found each house had a pit near it, about three feet deep and six or eight inches square, filled with the little fish. I found some Indians making boxes to put the grease in, others cutting firewood, and others (women and children) stringing the fish and hanging them up to dry in the sun; while

Date	Location	Source	Quote
			others, and they the greater number, were making fish-grease. The process is as follows: make a large fire, plant four or five heaps of stones as big as your hand in it; while these are heating fill a few baskets with rather stale fish, and get a tub of water into the house. When the stones are red-hot bring a deep box, about 18 inches square (the sides of which are all one piece of wood), near the fire, and put about half a gallon of the fish into it and as much fresh water, then three or four hot stones, using wooden tongs. Repeat the doses again, then stir the whole up. Repeat them again, stir again; take out the cold stones and place them in the fire. Proceed in this way until the box is nearly full, then let the whole cool, and commence skimming off the grease. ...
1863			
1 April 1863	Fraser River	<i>The British Columbian</i> , p. 2, col. 1 (New Westminster, BC)	THE RESOURCES OF BRITISH COLUMBIA, CONTINUED. ... PISCATORIAL. ... Next in importance, or perhaps it would properly rank above the last mentioned [herring], is a small fish known as the Uulahan, or Oolahan, respecting which we cannot do better than give a short extract from a paper written by Mr. W. E. Cormack, of this city, to accompany the specimens of fish prepared by that gentleman for the World's Fair recently held in London: "This little fish visits in dense shoals certain favorite bays and rivers along the entire west coast of British Columbia and Vancouver Island; but south of the Fraser River it is hardly known. Size, about a dozen weigh a pound. On account of its exquisite delicacy it will eventually become an article of export, salted, and probably preserved in other forms. It is so fat as to give rise to a saying that a gallon of them will yield a gallon of oil, which is of a peculiarly fine and valuable quality. Its bones are semi-cartilagenous [sic], and the entire fish is generally eaten, bones and all. During the Uulahan's stay the Lower Fraser swarms with canoes, carrying from two to four Indians each, armed with scoop nets and poles with hooks affixed in pursuit of this little fish. Fifty canoes and upwards, part of the continuous chain wafted up and down by the tide, may be seen at one view daily in front of New Westminster."
1864			
1865			
	British Columbia	Vancouver Island and British Columbia: Their history, resources, and prospects (MacFie 1865, p. 163-165)	<i>Hoolakans</i> ascend the streams in April in dense shoals. Their approach is indicated by the presence of sea-gulls swooping down to devour them, and causing the banks of the river to echo with their screeching. This species are about the size of a small herring, and are so fat as to baffle ordinary methods of cooking to prepare them for the table. Oil is pressed from them by the Indians on the coast, and disposed of to tribes in the interior. It possesses a medicinal value, and cannot fail to be useful where any hydrocarbonaceous food, such as

Date	Location	Source	Quote
			cod-liver oil, is prescribed. ... When dried, the hoolakan is often used by the natives as a torch, and, when lighted, it emits a brilliant light. The Indians catch this species of fish by impaling them on rows of nails at the end of a stick, about four feet long, and so thickly do they swarm, that every time this rude implement is waved in the water, two or three of them adhere to it.
	Fraser River	Milton and Cheadle (1865, p. 386-387)	In the spring two kinds of salmon ascend the Fraser, millions of "hoolicans" crowd into its mouth... The hoolican is like a sprat, but a little larger, and is a very delicious fish, rich in oil. Flocks of gulls hovering over the shoals announce the arrival of these fish; and their extraordinary numbers may be imagined from the way in which the Indians take them. The river is literally alive with fish, and the native fisherman carries a long piece of wood, armed with sharp-pointed wires on each side, like the teeth of a rake. This he sweeps through the water as he sits in his canoe, after the fashion of a paddle, and at each stroke brings up a row of hoolicans impaled upon the spikes.
1866			
	British Columbia	The Naturalist in Vancouver Island and British Columbia (Lord (1866, Vol. 1, p.90- 96)	Picture my home—an Indian village, on the north shore of British Columbia. ... And now, like a vast sheet of pearly nacre, we may see the glittering shoals of the fish-the water seems alive with them. ... To catch them, the Indians use a monster comb or rake, a piece of pinewood from six to eight feet long, made round for about two feet of its length, at the place of the hand-grip; the rest is flat, thick at the back, but thinning to a sharp edge, into which are driven teeth about four inches long, and an inch apart. These teeth are usually made of bone, but, when the Indian fishers can get sharp-pointed iron nails, they prefer them. One Indian sits in the stern of each canoe to paddle it along, keeping close to the shoal of fish; another, having the rounded part of the rake firmly :fixed in both hands, stands with his face to the bow of the canoe, the teeth pointing sternwards. He then sweeps it through the glittering mass of fish, using all his force, and brings it to the surface teeth upwards, usually with a fish impaled, sometimes with three or four upon one tooth. The rake being brought into the canoe, a sharp rap on the back of it knocks the fish off, and then another sweep yields a similar catch. It is wonderful to see how rapidly an Indian will fill his canoe by this rude method of fishing. ... steadily the canoes fill with their harvest of “living silver.” When they have heaped as much as this frail craft will safely carry, they paddle ashore, drag the boats up on the shelving beach, overturn them as the quickest way of discharging cargo, relaunch, and go back to rake up another load. This labour goes on until the moon has set behind the mountain-peaks and the fish disappear, for it is their habit rarely to come to the surface except in the night. ... The next labour is that of the squaws, who have to do the curing, drying, and oil-making. Seated in a circle, they are busy

Date	Location	Source	Quote
			stringing the fish. They do not gut or in any way clean them, but simply pass long smooth sticks through their eyes, skewering on each stick as many as it will hold, and then lashing a smaller piece transversely across the ends, to prevent the fish from slipping off the skewer. This done, next follows the drying, which is generally achieved in the thick smoke at the top of the sheds, the sticks of fish being there hung up side by side. ... When dry, the candle-fish are carefully packed in large frailts made from cedar-bark or rushes ... then they are stowed away on high stages made of poles, like a rough scaffolding. ... I have never seen any fish half as fat and as good for Arctic winter-food as these little candlefish. It is next to impossible to broil or fry them, for they melt completely into oil. Some idea of their marvellous [sic] fatness may be gleaned from the fact, that the natives use them as lamps for lighting their lodges. The fish, when dried, has a piece of rush-pith, or a strip from the inner bark of the cypress-tree, (<i>Thuja gigantea</i>), drawn through it, a long round needle made of hard wood being used for the purpose; it is then lighted, and burns steadily until consumed. I have read comfortably by its light... As soon as the Indians have stored away the full supply of food for the winter, all the fish subsequently taken are converted into oil. ... The fish reserved for oil-making have been piled in heaps until partially decomposed; five or six fires are blazing away, and in each fire are a number of large round pebbles, to be made very hot. By each fire are four large square boxes, made from the trunk of the pine-tree. A squaw carefully piles in each box a layer of fish about three deep, and covers them with cold water. She then puts five or six of the hot stones upon the layers of fish, and when the steam has cleared away, carefully lays small pieces of wood over the stone; then more fish, more water, more stones, more layers of wood, and so on, until the box is filled. The oil-maker now takes all the liquid from this box, and uses it over again instead of water in filling another box, and skims the oil off as it floats on the surface. A vast quantity of oil is thus obtained; often as much as seven hundredweight will be made by one small tribe. ... Nature ... provides ready-made bottles to store it away in. The great seawrack, that grows to an immense size in these northern seas, and forms submarine forests, has a hollow stalk, expanded into a complete flask at the root-end. Cut into lengths of about three feet, these hollow stalks, with the bulb at the end, are collected and kept wet until required for use. As the oil is obtained, it is stored away in these natural quart-bottles, or rather larger bottles, for some of them hold three pints.
1867			
8 May 1867	Fraser River	<i>The British Columbian</i> , p. 3, col. 3 (New	THE “HOULICANS HAVE COME. —The waters of the Fraser are now fairly swarming with these delicious little members of the piscatorial family,

Date	Location	Source	Quote
		Westminster, BC)	and we have the usual flocks of sea-gulls hovering over the <i>drumlie</i> stream, and the fleet of Indian canoes with the everlasting “klootchman” seated in the bow, and sweeping up the silvery little fish with the “houlican rake.” These fish are thus taken, we may say, by the ton, and are used more or less by all classes in the earlier part of the season. They are pickled by some, and are said to be excellent.
23 May 1867	Fraser River	<i>The Cariboo Sentinel</i> , p. 3, col. 2 (r, BC)	The Fraser river is said to be swarming with oolahans, a species of fish in great favor with the natives ...
1868			
9 May 1868	Fraser River	<i>The British Columbian</i> , p. 1, col. 2 (New Westminster, BC)	FRASER RIVER SALMON ABROAD. [letter to Mr. James Symes, New Westminster, BC] Dear Sir.—According to promise I write you a few lines to report on your fish. ... Your Ouhilans [= eulachon], I am afraid, are a failure in this market; but it is hard to say how soon people might acquire a taste for them. Some praise them very much, and a ship-master could always sell 10 or 12 kits amongst his friends, so that in time they may become better known and enquired after. ... Yours, &c., “ALEX BARRACK.”
13 May 1868	Fraser River	<i>The British Columbian</i> , p. 4, col. 2 (New Westminster, BC)	ULAHANS. — We have to acknowledge the kind attention of Professor Frederick De Frenchy, of the “Piscatorial Emporium”, Front Street, [French’s Fish Market] in sending us an uncommonly fine (although somewhat smaller than one could wish) sample of Ulahans, of this season’s catch, nicely dried and smoked, constituting, as they do, a delicious relish for breakfast.
16 May 1868	Fraser River	<i>The British Columbian</i> , p. 4, col. 2 (New Westminster, BC)	MORE ULAHANS. —We have just had evidence of an eminently practical character (a liberal sample of the delicious little fish laid on our table) that Professor Frederick De Frenchy, although enjoying a very aristocratic name, does not enjoy an absolute monopoly of smoked Ulahans. Mr. Jas. Syme, whose establishment stands on the opposite bank of the river, and who has embarked in the fish curing business, in all its branches, and with great energy and much system, appears to have been particularly successful in the article of dried and smoked Ulahans.
	Fraser River Nass River Columbia River	Observations on the medicinal and economic value of the oulachon ... (Brown 1868, p. 584-585)	The fish which forms the subject of this communication may, if we consider its importance to the Indians ... be ranked as one of the most valuable products of the western shores of America. Many of the earlier fur-traders and adventurers refer to it in enthusiastic terms under its Chinook name of <i>Oulachan</i> or <i>Eulachon</i> , and give accounts of its abundance in the Columbia River early in this century. ... On or about the 24th of March,—at nearly the same time each year,—it enters the northern rivers, and the southern ones a little later. It was once abundant in the Columbia, but that stream being now disturbed by the traffic of steamers, it is only now in exceptional years that they are caught there

Date	Location	Source	Quote
			in any quantity. In Fraser River, and in most of the rivers on the coast of British Columbia, they are still found at that season (March) in greater or smaller quantities; but it is in the Naas [sic] River,... that the Eulachon is found in the greatest quantities, and it is to its capture in that stream that these notes chiefly relate. ... During that season they swarm in inconceivable shoals, and I can well believe that the Indians indulge in no hyperbole when I have heard them say that their canoes have been lifted in the water by the countless swarms of fishes. Their arrival is at once heralded by flocks of <i>Laridae</i> and other marine birds swooping down to seize upon them ... The first shoal, as I have said, come into the river, from the 24th to the 27th of March, and stays three days. These are so exceedingly fat that they cannot be cooked in a pan, for they will “blaze up” like a mass of oil. Out of these the best portion of the oil is made. In about three days these begin to disappear, and are succeeded by a second shoal, not so large or so fat, and these again in a day or two by the third and last shoal, which is poorer, and are dried for winter use, being sufficiently free from oil to permit of this. ... The fish are chiefly taken by nets (in the Naas) but myriads get washed ashore and are caught by the old women and children and kept as their perquisite. In Fraser River they are principally captured by means of a flattened cedar pole, the edges of which for a couple of feet or so near the end being set with sharp teeth or nails, which act like so many spear-points.
1869			
13 April 1869	Nass River	<i>The British Columbian</i> , p. 1, col. 2 (New Westminster, BC)	RETURN OF THE OTTER. — ... There is very little news from the North. ... The schooner Kate had arrived at Naas River, to engage in the Oolachan fishing. ...
25 April 1869	Fraser River	<i>The British Columbian</i> , p. 4, col. 3 (New Westminster, BC)	The Oolahans made their appearance in the Lower Fraser on Friday [23 April 1869], and the Indian fleet was out yesterday morning, “Sweeping” these little fish into the canoes.
9 May 1869	Nass River	<i>The British Columbian</i> , p. 3, col. 3	Oolahan Expedition. —The party sent by Dawson to Nas[s] River in March last, to catch Oolahans have returned without any success, the fish having left the river before the party got there, no doubt, owing to the forwardness of the Spring.
1870			
	Nass River	From the Nass to the Skeena (Chismore, 1885, p. 450-451)	In February of each year, the Indians gather here [on the Nass River] to make camp ... and prepare for the run of the oolachaus [= eulachon] or candle-fish, known also as the small-fish. Though found in many other streams from Puget Sound to Sitka, they are taken here in far greater quantity than anywhere else on the coast. Here it is that the bulk of the fish grease is made, the distribution of which forms, probably, the best example of an inter-tribal commerce—

Date	Location	Source	Quote
			prosecuted long before the advent of the whites, and still in existence, substantially unchanged— that can be found upon this continent. The fish, a species of smelt, begin to run about the 17th of March, in most prodigious numbers. They are caught by means of scoop-nets and weirs, and so thick are they that they are baled [sic] out, in places, with wooden boxes fixed on poles. They are stored in immense heaps to await the trying-out process, after the run, which lasts about three weeks, ceases. There is another and smaller run in July, but the fish are then lean, and are not taken in quantity. A small portion of the fish are smoke-cured, when they not only serve as food, but are used by the Indians in place of candles. Lighted, they burn from end to end, like a torch, yielding a broad, flaring flame, and last from ten to fifteen minutes. But the great bulk of the catch, stored in huge piles, is allowed to become partially decomposed to increase the yield of fat, and is then made into grease by the following method. A large, square, wooden box, holding at least a barrel, is nearly filled with water, into which, from time to time, heated stones are plunged until furious boiling follows. Then a quantity of fish is thrown in, and the oil rising to the surface is skimmed off into smaller boxes, holding from thirty to sixty pounds, and allowed to cool. The result is a fatty mass, a little darker and softer than lard, with a strong putrescent odor, owing to the manner of preparation. It is capable of being preserved unchanged for a great length of time. It is eagerly sought after and highly prized as an article of diet by all the Indians of the northwest coast, and is eaten with fish, berries, snow, flesh, rice, and, indeed, with almost every variety of food. By canoe, it travels to Sitka on the north and Puget Sound on the south, as well as up all the navigable rivers. Inland, borne upon the backs of men, it goes, no white man knows how far; certainly to the head waters of the Frazer River and the Arctic slope, traded from tribe to tribe, and becoming more costly the farther it gets from its source. How long it has been made is mere conjecture, but the mountains and valley-lands stripped of their timber for fuel over an extent of several miles, bear witness that the occupation is an ancient one. The Hudson Bay Company prepare each year from fresh fish a quantity of grease which is then palatable, free from odor, and an excellent article for cooking. In this form it has within the last four years attracted some attention as a substitute for cod liver oil.
1871			
26 April 1871	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	The Oolachans are now in myriads in the river, and this community is blessed with this delicious addition to breakfast every morning. They are larger in size this year than formerly, and appear to be more numerous, if that was possible.
1872			

Date	Location	Source	Quote
4 May 1872		<i>Mainland Guardian</i> , p. 3, col. 3 (New Westminster, BC)	FISH.—The Oolachans disappeared yesterday and left our good citizens lamenting. These delicious little visitors are very shy and generally object to be exposed to the public gaze.
	Fraser River Gardner Canal Nass River	Andersen (1872, p. 30-31)	A very valuable fish entering Fraser River to spawn in early Spring, is the <i>Thaleichthys</i> (or preferably <i>Osmerus</i>) <i>Richardsonii</i>—locally known as the Oolâhan.* It appears in immense shoals, and is caught either with the scoop-net, or, like the Herring on the sea-board, with the rake. This simple device is merely a long light pole, flattened in one direction so as to pass readily through the water, and with the edge set towards the lower extremity with a row of sharply-pointed teeth. The fisherman, entering the shoal, passes the implement repeatedly through the water, with a rapid stroke, each time transfixing several fish. Thus a copious supply is soon secured. The Oolâhan is, in the estimation of most people, one of the most delicious products of the sea. Smaller than the Herring, it is of a far more delicate flavor; and so rich that, when dried, it is inflammable.† This fish is not confined to Fraser River, but frequents likewise the Nass, a large stream issuing on the frontier between British Columbia and Alaska; another stream debouching into Gardner’s Canal [perhaps Kemano, Kitlope or Kowesas rivers]; and probably other rivers along the Coast. Those caught at the mouth of the Naas are of a quality even richer than those of Fraser River. The natives, who assemble there in great numbers in Spring to prosecute the fishery, besides drying them in large quantities, extract from the surplus a fine oil, which is highly prized by them as a luxury, and forms a staple article of barter with the interior tribes. This oil, of a whitish colour, and approaching to the consistence of thin lard, is regarded by those of the Faculty who are acquainted with its properties, as equally efficacious with the Cod-liver Oil so commonly prescribed: and it is said to have the great advantage of being far more palatable. With the exception of a few scores of casks salted annually for local sale, and a quantity prepared like the Red-herring, this fish has not yet, I believe, been systematically cured, or become an article of exportation. There can be no question, however, that, when more widely known and properly prepared, it will be the object of much extraneous demand. * I was long under the impression that this fish was a variety of Pilchard (<i>Clupanodon Thrissa</i>) peculiar to the Pacific; and am indebted to Dr. Robert Brown, of Edinburgh, formerly in command of the Vancouver Island Exploring Expedition, for the correction adopted above. † So much so, indeed, that, in Alaska, where it is likewise found, it is I believe called the “Candle-fish.” It is mentioned by Franchère, in his account of the

Date	Location	Source	Quote
			Columbia River, under the name of <i>Outhelékane</i> , from which its present designation is modified; and, from the circumstance of its being strung on cords by the natives to dry, was called by the voyageurs <i>Poisson à la Brasse</i> , or Fathomfish. They were formerly very abundant in Spring on the Lower Columbia; but suddenly, about the year 1835, they ceased to appear, and thence-forward up at least to 1858, none frequented the river. I have been informed, however, that they have since reappeared, and that there is now a regular supply as formerly.
1873			
30 April 1873		<i>Mainland Guardian</i> , p. 3, col. 2 (New Westminster, BC)	Our much esteemed little friends the Oolachans have made their appearance. The meeting is a warm one for them, so much so that they become quite absorbed in us. So fond are we of these little ones that when we can find no more, we immediately take in and do for the sturgeon, who shares the oolachon feast with us.
		Parliament of Canada (1873, p. 178)	<i>Oulachans or Houlicans</i> . —This small fish, something about the size of a sprat, appears in the rivers of British Columbia and about certain estuaries on the coast towards the end of April. Their run lasts about three weeks, during which time they may be captured in countless myriads. Eaten fresh they are most delicious, and they are most excellent packed in a salted or smoked form. This fish produces oil abundantly, which is of a pure and excellent quality, and which, as held by some, will eventually supersede cod liver oil. This fish is caught with a pole of about ten feet in length, along which are arranged, for five feet at the end, nails like the teeth of a comb, only about an inch and a half apart. The comb is thrust smartly into the water, brought up with a back ward sweep of the hands, and is rarely found without three or four fish impaled on the nails. I have seen a canoe filled with them in two hours by a couple of hands.
		Extract from Rev. M. C. Lundin Brown's Pamphlet on British Columbia. (Published 1863). <i>In</i> Parliament of Canada (1873, p. 179-180).	Next, in the month of April, come the famous houlicans. They enter the river in millions, and their presence is at once made known by the sea-gulls which wheel above the shoals, and dart about among them for their prey, startling the usually still Fraser with their shrill cries. The houlican is somewhat larger than the sprat, and is a very delicate and delicious fish, so full of oil that it is said those caught in the north will burn like a candle. There can be little doubt that they would make excellent sardines; they could be preserved in their own oil.
1874			
	Nass River	Canada on the Pacific (Horetzky 1874, p. 117)	Since we left the [Skeena] river we met many of the Kitsigeuhlé Indians returning from the great feast at Kitwāncole; more than one hundred must have passed us, and they were, without a single exception, not only the men, but also the women and children, laden with large cedar boxes, of the size and shape of

Date	Location	Source	Quote
			tea-chests, which were filled with the rendered grease of the candle fish caught in the Naas [Nass River] waters.
1875			
28 April 1875		<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	The Oolachans!—We saw the first of these little delicacies on Monday (26 April 1875) ...
1876			
	Columbia River Fraser River Squawmish River Nass River	Parliament of Canada (1877, p. 345-346)	The <i>Oolá-han</i> , called also in Alaska, the <i>Candle-fish</i> , (<i>Thale-chthys</i> or <i>Osmerus Richardson</i>) although it may occur low down in the list of marine and anadromous fishes which I undertake at present only partially to furnish, is not therefore to be regarded as in my estimation the least important. I again venture to refer to certain notes which I have already made public; and I now repeat my increased conviction that the value of this fish for divers [sic] economical purposes has not yet been fully understood. Formerly resorting in enormous shoals to the estuary of the Columbia River, it disappeared suddenly about the year 1837, and continued to absent itself for many years, until recently, when it suddenly reappeared in shoals as numerous as of yore. In Fraser River these fish are found, and resort thither regularly in heavy shoals; but little advantage is taken of their advent, beyond what are caught and consumed as a luxurious adjunct to the table while fresh, and a few casks hastily salted for sale and consumption at home, chiefly in fulfilment of private orders. At the Squawmish River, discharging at the head of Howe Sound, I found, on inquiry, that these fish enter the river, as elsewhere, early in the spring, and ascend as high as the head of the Island of Stâ-â-mis, forming the delta; thence, after spawning, returning to the sea. Several other rivers along the coast are known to be frequented by these fish; and there are doubtless others of which we are not, so far, cognizant. The Nass River, however, discharging into Observatory Inlet, close to the Alaska boundary, stands pre-eminent as an <i>Oolá-han</i> fishery, as well for the enormous supply it yields, as for the superior quality of its fish. At this point, the shoals make their appearance with much regularity annually, from the 26th to the 28th of March, the period of arrival seldom varying, I am assured, more than two days. At their first coming the shoals are densely packed, to the depth of three feet or more near the surface, and occupy, in extent, an area of several square miles in the estuary of the river; for it is to be noted that it is only on reaching this point in the course of their instinctive annual migration that they approach the surface; nor is aught known of their movements after leaving the river, or of their permanent resort during the remainder of the year. The stay of the main shoal in the river is very short. They

Date	Location	Source	Quote
			do not ascend beyond the limit of tidewater; and having completed the natural functions, again retreat to the sea. Meanwhile, enormous quantities have been captured, by the numerous native fishermen, who have assembled to await their arrival. Some employ the rake, others the scoopnet, to capture their prey; but whatever the device adopted, certain success cannot but ensue. Afterwards, the first and principal shoal is succeeded, at intervals, by other minor shoals; and during some weeks the fishery is actively prosecuted; the more actively that, even under its primitive conditions, it has always been exceptionally profitable, not only on account of its productiveness, but on account of the intrinsic value of the product. The natives cure the fish partly by drying; and they also procure from the surplus of the catch, large quantities of oil, which they barter to other tribes who have not access to the fishery, and by whom, equally with themselves, it is highly esteemed. As prepared by the Indians, this oil is of a whitish colour, and of a semi-fluid consistence at an ordinary temperature. When properly extracted, and after having been duly refined, it assumes the appearance of cod-liver oil, all the curative properties of which it is asserted to possess, and being much more palatable, is therefore preferred in medicinal practice, where known. In addition to its value in this respect, I have been informed by Mr. Allen Francis, formerly U.S. consul in Victoria, that a small shipment of this oil, which he sent to New York for experiment two years ago, attracted much attention, as yielding the finest quality of fancy soap. Mr. Francis considers that there would be a large demand for this purpose, and at a lucrative price, could a regular supply of the article be assured. The other applications of the fish need only be glanced at: cured, as the red-herring, they are, in my opinion, superior to that fish; preserved in olive oil, they would, it is generally thought, far excel the ordinary imported sardine. Altogether, I confidently express the opinion that in the prosecution of this fishery, with skill and judgment, there is a wide and lucrative opening for enterprise.
1877			
	Nass River	Parliament of Canada (1878, p. 292)	The Oolá-han fishery has been partially prosecuted, and with success. I have not been able to communicate with Mr. Robertson, the proprietor of the fishery establishment, situated on the Nass River, and am indebted to Col. Powell, Indian Superintendent in Victoria, for what information I have obtained concerning the last season's proceedings. Mr. Robertson, provided with a certain steaming apparatus, the details of which I have not learned, started his business in March last, and was prosecuting it very successfully, when, through some magisterial influence which seems to have been perfectly uncalled for, his operations were interrupted at the most critical period. In consequence of this unfortunate interference the quantity of oil secured was much less than it should

Date	Location	Source	Quote
			have been; but I am glad to understand that the Provincial Government, on the case being represented to them at once took steps to prevent a recurrence of the proceedings complained of. Col Powell informs me that, as he is informed, Mr. Robertson employs the natives to catch the fish, either purchasing the fish from them or employing them on wages, at the rate of one dollar and a quarter a day. The Indians, consequently are well satisfied at Mr. Robertson's presence among them, and in this connection I may add, that I think it would be a profitable policy, in the event of further establishments along the coast, were the same economical and conciliatory system decided on. The whole of the oil, procured by Mr. Robertson and others, was eagerly purchased by the natives of the neighboring coast, at the rate of one dollar per gallon, so that none remained for export, so as to test the extraneous market; but, as I have elsewhere remarked, this oil—prized by the natives solely as an article of diet—is valued elsewhere for diverse purposes. Col. Powell has kindly undertaken to procure for me some samples, which, when received will be forwarded to Ottawa for your inspection. With increased appliances, and secure, it is to be presumed, from interruption, Mr. Robertson anticipates a rich return from the coming season.
1878			
27 April 1878	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 2 (New Westminster, BC)	If you want ... the delicious little oolichans, go to Ibbotson's Fish Market ... and you will get all you want at moderate prices.
29 May 1878	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 3 (New Westminster, BC)	If you want nice fresh salmon, sturgeon, codfish, or the delicious little oolachans, go to Ibbotson's Fish Market, back of Townsend's butcher shop, and you will get all you want at moderate prices.
	Nass River	Parliament of Canada (1879, p. 294)	Nass River ... The fishing station of Mr. Robertson,—the only station at present established here—is situated on the right bank, close to the main Oolâhan fishery of the Indians, who, during spring and early summer, resort thither from many quarters, and in large numbers. ... Attached to the lower part [of a building built by Mr. Robertson] was an extension containing the steam apparatus for heating the vats extracting the oolâhan oil, a business prospectively of much importance ... The Oolâhan, though frequenting some other rivers along the coast, including Fraser River, is nowhere found of so fine a quality as in the Nass. Of this fish the <i>Phaleichthys</i> , or <i>Osmerus Richardsonii</i> , I have already spoken in previous reports. The shoals, on their way to the spawning beds, reach the entrance of the Nass about the end of March. The river thenceforward till the termination of the season is crowded with the ascending fish as far as the tide water extends—the limit of their spawning ground. This point, on the Nass River, is some twenty

Date	Location	Source	Quote
			miles above the mouth. After spawning the fish return to the ocean in the ordinary way; but no knowledge of their resort during the interval of their visits is obtainable.
	Nass River	Up and Down the North Pacific Coast by Canoe and Mission Ship (Crosby 1914, p. 217-218)	We did not get away to the Upper Skeena until the summer of 1878. ... This trail had been used for years by the Upper Skeena people, who came down by hundreds to the Naas for the oolachan fishing in the early spring. ... They would get down to Fishery Bay on the Naas River in the early part of March to prepare for the small fish, which generally came up the river about the middle of that month. Here they would work in their primitive way by putting red hot stones into boxes partly filled with fish and water. When the grease was all rendered out in this manner, they put it into large boxes made of cedar slabs, without nails. This work ended about the last of April when, with borrowed canoes, they would make their way up the Naas River to the end of the trail, which was one hundred and forty miles in length. Sometimes, when they had a big catch, it would take them weeks to “pack” their stuff away.
1879			
17 May 1879	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 3 (New Westminster, BC)	Ibbotson’s Fish and Game Market, Front St., opp. Irving’s Wharf ... Smoke Salmon & Oolachans! A real treat for Breakfast. ... JOHN IBBOTSON.
	Nass River	Parliament of Canada (1880, p. 286)	The manufacture of Oolâhan oil at this station [Nass River] was not prosecuted to any extent during the past season, operations having been suspended, apparently until its marketable value shall have been more definitely established. About 200 gallons only were prepared for samples, a proportion of which has been sent to London and elsewhere, where its value for medicinal purposes, when recognized, will, it is believed, ensure a wide demand at encouraging prices. ... a few hundred barrels of Oolâhan, appearing in the return.
	Nass River	Canada Department of the Interior (1880, p. 123)	In March the famous little cand[l]e fish or “oolachan” ascend the stream [= Nass River] in fabulous numbers, and thousands of Indians repair thither for the purpose of obtaining their annual supply of oolachan oil in which the fish is so rich. Cooked when fresh, salted or smoked, the fish itself is a delicious article of diet for either the white or red man, but the oil obtained with so much facility is a staple with the latter, as much so indeed as bread with the former, and forms an extensive commodity for barter among themselves and the neighboring or distant tribes. Medicinally it is not much inferior to cod-liver oil in its fattening qualities, and hence there is less phthisis among the Nass nations than any other. The runs of the oolachan are so constant, so great and so regular, that there is little fear of starvation among the Indians, and none whatever, so long as there

Date	Location	Source	Quote
			is no failure in the annual arrival of this valuable little visitor.
1870s-1880s			
	Nass River	A. E. Green, Nass Missionary to Thomas Crosby <i>In Crosby</i> (1914, p. 209-210)	“In the spring, when the small fish come into the river, the gulls are so numerous as to resemble a heavy fall of snow. The eagles soar high above the myriads of gulls, seeking their chance. In the water are seals and larger fish after the small fish, all under intense excitement. We have Indians from the interior, from Skeena River, Alaska, Port Simpson, Metlakatlah, and other places, making in all about five thousand people ... a wonderful sight as they move about on the ice. We have man life, fish life and bird life, all seeking to destroy the delicious fish. In former years the people used to offer sacrifice to the Great Spirit for giving them the fish, and the one who caught the first fish would put it in his bosom and run about, crying, ‘Oh, you salvation fish, you salvation fish.’ When asked why they called them salvation fish, they said, ‘Oh, years ago, many Indians were here on this river, starving to death before the fish came, hence as soon as they did come we called them the salvation fish, for they saved the people from death.’ These oolachan fish are called also ‘small fish,’ ‘candle fish,’ or, as above, ‘salvation fish.’ They are most delicious, and the grease obtained from them is a wonderful help to health in that climate.
1880			
1 May 1880	Fraser River	<i>Mainland Guardian</i> , p. 2, col. 2 (New Westminster, BC)	THE OOLACHANS ARE HERE — These delicious little fish have just began to make their appearance, so that we may look for this rare breakfast relish during the coming fortnight.
5 May 1880	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 3 (New Westminster, BC)	SALMON. —Fine fish for table use are plentiful ... oolachans and sturgeon are plentiful.
8 May 1880	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	FROM LANGLEY—Our correspondent says: — “Since the advent of May, cold winds and steady downpours of rain have prevailed. The river is already showing signs of increasing volume. The “little fish” have come, and are the general diet in every household. ...
1881			
9 April 1881		<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	FROM YALE. — ... The higher stage of water and its discoloration, renders fishing more profitable and secures a better supply for our tables; oolachans will be in a few days.
14 April 1881		<i>Daily Colonist</i> , p. 1, col. 1 (Victoria, BC)	THE OOLACHAN RUN has commenced at Victoria. Yesterday George Vienna received a huge sturgeon from New Westminster, and upon opening the same discovered a fine fat oolachan in its stomach. Westminster had better look to her laurels. Should Victoria capture the oolachan “run” what will be left worth living for at the Royal City?

Date	Location	Source	Quote
23 April 1881	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 2 (New Westminster, BC)	The Oolachans are now in plenty, and, looking at the short reign of this delicious fish, everybody should secure a good supply before they disappear for the season.
	Klinaklini River Bella Coola River Nass River	Parliament of Canada (1882, p. 205-211)	Proceeding up Knight's Inlet we reached Suwatti, at the head of that extensive arm [at Klinaklini River] ... The tribes from a wide distance around resort thither annually in great numbers to prosecute the oolahan fishery, in early spring. ... The Oolahan fishery at this point, like the corresponding fishery on the Nass, is of extreme importance to the natives of the adjacent coast. The astounding numbers of this small anadromous fish, in size even inferior to the herring, may be conceived of when it is considered that from it, during spring and early summer, many thousands of the natives derive their chief, if not sole, support. Enormous quantities of oil, too, are extracted from it, which is greedily sought for as a luxurious article of diet both far and wide. It is, indeed, an important object of commerce among the native races, and, stored in impervious cedar boxes of ingenious construction, is bartered for furs even with the native races of the remote interior, who prize it for their feasts. ... Bit-hoola [= Bella Coola], our next station, is situated at the eastern extremity of the North Bentinck Arm, a continuation of the Burke Channel of Vancouver. ... A considerable stream, called the Nook-halk [= Bella Coola River], discharges at this point ... The Oolahan resorts to this river in the spring to spawn ... The Chimsyans (or Tsimpsyans) numbering, in all, probably 5,000 persons, resort annually, in the early spring, to the tidal portion of the [Nass] river for the purpose of catching the oolâhan, a small fish which resorts thither in immense shoals at that season to spawn, and from which large quantities of oil are extracted. This fishing terminates in May, after which the concourse of Indians disperses—not to return, for fishing purposes, till the following spring. ... The natives, amply provided for summer consumption with the products of the spring fishery of oolâhans, are careless of the earlier runs of salmon ... The establishment of Mr. Croasdaile, the operations of which outside of the oolâhan business, had been previously directed to the salting of the salmon for exportation, was last year converted into a cannery. ... The Nass River Fishing Company (Welwood & Co.) occupy a position lower down. Their business has hitherto been limited to the salting of fish; and they have during the past season put up several hundred barrels of salmon with about the same quantity of salted Oolâhans, besides some of the last mentioned fish in a smoked condition.
	Klinaklini River	Dominion of Canada (1882, p. xlii, 141)	Knight's Inlet is a great place of resort for all the Kwaw-Kewlth Indians. There they can obtain an unlimited supply of the Oolachan, a delicious fish much prized by the Indians for its flavor, as well as for its oil, which they barter with the southern tribes. ... Knight's Inlet (Tsawattee) ... like the Nass among the

Date	Location	Source	Quote
			Tsimpsheens, to which is second only in importance, is the great place of resort for all the Kwaw-kewlth tribes. The delicious eulachon, so highly prized by the natives as an element of food, visit this place in unlimited numbers, and every year, without fail, afford these Indians a carnival of delight. Not only is a winter's supply for themselves obtained with facility here, but large quantities of grease are secured for barter with the southern tribes. ... A river [= Klinaklini River] of considerable force and volume empties its turbid waters into ... [Knight's] Inlet at its head ... the oolachan and the oil taken from it for barter procure for them all they desire with little labor. ...
	British Columbia	The North-West Territories and British Columbia (Dawson 1881, p. 98-101)	There is a still more wonderful kind of salmon trout in the waters of British Columbia—one which affords to the uncivilized native, light as well as food. It can be eaten as a dinner or used as a candle, and hence its name, candlefish. It is also called, <i>Eulachon</i> , <i>Salmo Mallotus</i> , <i>Pacificus</i> and <i>Thaleichthys Pacificus</i> . This little fish which supplies so many wants, is not larger than a smelt, but, it is as pretty, perhaps, as any of the Salmonidae. ... The chief peculiarity of this little fish is its extraordinary fatness. ... All along the shores of British Columbia, Vancouver Island, Alaska and the adjacent Islands, the diminutive Eulachon furnishes an inconceivably great supply of fatty matter for maintaining the warmth of the body as well as for lighting the houses of the Aboriginal tribes. At certain seasons, it is the chief business of these tribes to trap and cure and store up for winter use, a fish that supplies so many wants. ... Pity that in catching them, they should use such a horrid instrument—a monster comb, or rake, armed with huge teeth, four inches long, and an inch apart. These teeth are for the most part, made of bone, although the Indians prefer iron, when it can be had, and beat it into sharp pointed rails. The comb itself consists of a piece of pine wood from six to eight feet in length, which is rounded at one end for a handle, the rest being shaped flat, thick at the back and thinner towards the edge in which the teeth are inserted. In the stern of each canoe sits an Indian, paddle in hand, for the purpose of impelling the tiny craft and keeping it in convenient proximity to a shoal of candlefish; another holds the rounded part of the rake firmly in both hands with its teeth pointing sternwards, whilst he himself looks towards the bow. As soon as he is near enough, he sweeps his terrible weapon through the glittering mass of fish, with a powerful effort, brings it to the surface, teeth upwards. There is almost always, at least one, but often three or four fish impaled on each tooth. The rake is now brought into the canoe, a rap on the back knocks off the fish, and the process of raking recommences. A canoe is very quickly filled by this rude way of fishing. ... It appears to be the peculiar habit of this fish to come to the surface only in the night. ...

Date	Location	Source	Quote
	Fraser River Nass River	The Eulachon or Candle-fish of the Northwest Coast (Swan 1881, p. 258-259)	The eulachon ... taken in Fraser's River near the boundary line between Washington Territory and British Columbia are superior to those taken further south, and are sold in the Victoria market, where their excellence is highly prized. ... The best kinds are caught further north, and great quantities are salted by the Hudson's Bay Company, at their trading post at Fort Simpson, British Columbia, and either sold in the Victoria market or shipped direct to London in tierces, barrels, and kits. As an article of food and for the grease or fat contained in them, the eulachon are highly prized by the Indians of northern British Columbia and southern Alaska, where they abound; particularly at the Nass River, British Columbia, where they are annually taken in enormous quantities, and where they seem to attain their very finest condition. The Nass River flows into Portland Inlet near the fifty-fifth parallel of north latitude, near the southern boundary of Alaska, and 30 miles north-northeast of Fort Simpson, British Columbia. At its mouth it widens out into a bay called Nass Bay or Strait, in which are various shoals favorable for the Eulachon spawning grounds. There are other rivers and streams in British Columbia and Alaska at the mouths of which Eulachon are taken, but as the Nass River fishery exceeds them all, and is, in fact, the principal place where the business is carried on by both whites and Indians, a description of that fishery will suffice. The principal run of the fish reaches Nass River in the latter part of March, generally from the 16th to the 22d, varying in exceptional years from the 28th to April 4. When the season approaches the Indians assemble in great numbers; not only the Nishka, or natives of the Nass country but from hundreds of miles distant, some in canoes and some overland. ... The Eulachon only travel up the Nass River as far as the flood tides reach which is from 15 to 20 miles from its mouth. For about 7 miles from Nass Strait the river is unsuited for fishing operations. From there to the Nass Village, at the head of tide-water, is a succession of sand-bars, and these form the spawning beds of the fish. Every available spot along the banks of the river is occupied by the Indians during the fishing season, who erect temporary wigwams for themselves. As the fishing season approaches the arrival of the fish is anxiously watched by the natives, as it is a season of the year in which they are generally out of food. ... The fish usually swim in deep water till they reach the mouth of the river and during their passage up the strait are followed by innumerable enemies. Porpoises, seals, dog-fish, ground-sharks, and halibut harass them in the strait, and if they rise to the surface they are attacked by clouds of gulls, ducks, and other sea-fowl. ... When the fish reach the mouth of the river they generally rise to the surface of the water, and are caught by the natives with a pole about 18 feet long, slightly flattened into an oar-shape at the lower end. Into one edge of this flattened blade are stuck a row of wooden pins

Date	Location	Source	Quote
			or pieces of wire sharpened. This implement is thrust down and with both hands drawn rapidly through the water, and the fish are impaled on the pins and are shaken off into the canoe in the same manner as the Indians about Puget Sound take herrings. The number of Eulachon caught in this way form a good estimate of the probable run of the fish for the season, whether they will be plentiful or not. As soon as the fish make their appearance at the sand-bars fishing operations begin in earnest. In former years a sort of large landing net, called by the natives <i>Bānak</i>, was used, but of late these have been discarded for purse-nets. About an hour after the tide has begun to ebb two strong poles are driven into the sand at the bottom of the river about 12 feet apart; to these the net is attached, the mouth being kept open by inserting two small sticks across it. It is then depressed in the water until the under rim rests on the sand; the fish are drawn into the aperture by the force of the current. The nets are generally six or eight fathoms long. A long crooked stick is used for raising the narrow end of the net. If it contains fish it is hauled into the canoe and, by loosening a string, its contents are easily shaken out. Sometimes the net for its whole length becomes blocked with fish. The greatest care and skill are then necessary to prevent its being carried away by the current. Another difficulty, and the cause of much damage to the nets, is the loose ice. The fish first come about the time the ice begins to break up. Of course, there are exceptions to this rule. Some years the ice remains solid until after the fish are caught, in which case holes have to be cut in the ice to put down the nets; other years, again, the ice has all disappeared before the fish arrive. When the tide begins to flow, the nets are all taken in and all the fish caught are thrown in heaps on the ground close to the wigwams. With a good run of fish, each net ought to catch about two tons each tide. When a sufficient supply of fish has been obtained they are not boiled down at once but are left on the ground in heaps from six to ten days, according to the state of the weather. This is done to facilitate the boiling, as the grease separates more rapidly from the fish after a partial decomposition than when fresh. ... After the fish have remained exposed on the ground five or six days a portion of them are strung up for drying by having their heads interwoven with thin strips of bark; they are then washed and hung on racks to dry; they are not covered up, but are thus exposed to the atmosphere in all weathers for three or four weeks and get perfectly dried and firm, and form a chief article of food for the Indians, who either toast them over the fire or boil them. They also use them as torches. It is only necessary to set them on fire and they will continue to burn until consumed. In extracting the grease from the fish the Indians place them in large wooden boxes and boil them by means of red-hot stones. As the grease rises to the surface it is skimmed off, and when all has risen the residue of the

Date	Location	Source	Quote
			fish bodies is taken out and pressed to get all the still adherent portion. A ton of fish makes from 24 to 30 gallons. This is then put in wooden boxes and any convenient receptacle, and forms a lucrative article of trade among the natives, and is known in Sitka and other white settlements as small-fish grease ... The ordinary price for the grease at Nass is twenty-five cents per gallon but in seasons of scarcity the price advances from one dollar to one dollar and twenty-five cents per gallon, although the latter figure is seldom attained. ... The Hudson's Bay Company salt a great quantity of these fish for export. They are simply put into casks or butts when first caught, and lightly salted. After remaining two or three days a brine is formed. They are washed in this brine, resalted, and packed in tight barrels, casks, or kits. For smoking, they are allowed to remain in brine a day or two, then strung on slender sticks, which are passed through the eyes, and hung in the smoke. When freshly smoked they have a bright golden appearance, much like red herrings, and are most delicious eating, but they are so excessively fat that they will not keep unless they are smoked quite dry. This is a tedious process, and turns the skin a dull dusty color. There is a second run of Eulachon in Nass River towards the end of June, but the quality is inferior, and but little grease is made from them. The Eulachon come suddenly in countless myriads into Nass River, and after spawning depart as suddenly. They evidently pass the remainder of the year in the deep water south of the Aleutian Islands, and make their appearance almost simultaneously in Cook's Inlet and Cross Sound, Alaska, where they are very abundant, and in Nass River. They make their appearance in Fraser's River a few weeks later, but are not as fat or as plentiful as they are farther north.
1882			
17 May 1882	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	THE SALMON.—Our fishermen have been occupied with the run—a species of sockeye—which always accompany the oolachans, it only continues during the run of the latter. This fish, strange to say, makes straight for the Coquitlam river, where it is always caught; the fishermen have taken as much as 100 to the boat. The next run will be our finest fish, the spring salmon.
	Nass River	Dominion of Canada (1883, p. 86-87)	... at the head of tidal water on the Nass River, 22 miles from its mouth ... stands the village of Lac-kal-tsap, ... this is the highest point at which oolachan, or small fish, are taken. ... Stoney Point, five miles below the village of Lac-kal-tsap, on the right bank of the Nass River ... is a place of much importance, not only to the Nass River Nation, but also to many of the coast tribes, who resort there in the early spring, during the oolachan fishing season, for the purpose of obtaining a supply of grease from that fish, an article much prized by the Indians. ... As before stated, the Indians of various tribes congregate here, and also on reserves Nos. 12 and 13, for the oolachan fishing, which lasts about

Date	Location	Source	Quote
			six weeks (commencing in the early part of March, and continuing till about the beginning of May) ...
1883			
14 April 1883	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 2 (New Westminster, BC)	BRIEF ITEMS. ... The vanguard of the oulahans has made its appearance. ...
22 April 1883	Nass River	<i>Victoria Daily Colonist</i> , p. 2, col. 2	THE NORTHWEST COAST. ... The oolachan run on the Naas river was a little below the average; but a large quantity are being smoked and sacked.
1884			
26 April 1884	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	BRIEF MENTION. ... The oolachans have made their welcome appearance, and consequently, sturgeon are plentiful.
	Klinaklini River	Dominion of Canada (1885, p. lix, 101)	... the Kwawkwalth tribe. ... The Oolachan, a most delicious fish, which abounds in the waters of these parts, was, for some inexplicable reason, not caught in as large quantities as usual by these Indians last season, and they consequently suffered from want of this nutritious food, the fat of which is described as possessing special healing properties which render its use beneficial to invalids. ... It is worth noting that the only two tribes who are steadily on the increase are those living at the Oolachan fishery, on Knight Inlet, where they have an unlimited quantity of good food, particularly the famed Oolachan grease. ... The great mortality can, in great measure, be traced to the neglect of the bulk of the Indians to procure their accustomed annual supply of Oolachan grease
1885			
11 April 1885	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 3 (New Westminster, BC)	BRIEFS. ... the oolachans are about due ...
22 April 1885	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	... Salmon and sturgeon are plenty in the river, but the oolachans have not yet appeared ...
22 April 1885	Nass River	<i>Victoria Daily Colonist</i> , p. 1, col. 3	FROM NAAS [Nass] RIVER. ... Failure of the Oolachan Fishery. To The Editor. ... the oolachan fishing, which I am sorry to say has proven a failure this year. The Indians have not caught enough to make one half the quantity of grease they require for their own use. They will catch enough for salting and drying purposes, but the grease is their staple food, as they use it on almost everything they eat. The want of this article is greatly felt by them. ... April 3 rd , 1885. W.
6 May 1885	Fraser River	<i>Mainland Guardian</i> , p.	Salmon and sturgeon supply the market; the Oolachans have disappeared.

Date	Location	Source	Quote
		3, col. 1 (New Westminster, BC)	
17 May 1885	Fraser River	<i>The Daily Astorian</i> , p. 3, col. 1 (Astoria, Oregon)	Oolachans are reported scarce in the Fraser river this spring. They are probably visiting somewhere with the Columbia smelt.
	Skeena River	Parliament of Canada (1886, p. 277)	Mr. F. Morrison, fishery guardian at Port Essington [on the Skeena River], on the coast, in his report states the Oolahen fishery was to all intents a failure.
	Nass River	Dominion of Canada (1886, p. 119)	In the month of March, or beginning of April, thousands of Indians from neighboring tribes congregate there [on the Nass River] for the purpose of taking their annual supply of the delicious oolachan and its highly nutritious oil.
1886			
26 April 1886	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	BRIEF MENTION. —The weather has been very like April—smiles and tears The Fraser seems to be rising very little at present.... The oolachans have made their welcome appearance, and consequently, sturgeon are plentiful.
30 April 1886	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 2 (New Westminster, BC)	BRIEFS.—Oolachans in large supply and consumption proportionate Weather magnificent ...
	Fraser River Nass River	Parliament of Canada (1887, p. 250, 266, 270)	Oolachans were not so abundant as usual, and as there were no facilities to export them fresh during the run in the Fraser, only a few were caught for local consumption. ... The Oolachans or Candle Fish, which are so well known and so highly prized on this coast as a food fish, make their appearance in April and May. They somewhat resemble in size and shape the capelin of the Atlantic, but are a great deal fatter and much superior eating. The body is covered with small silvery scales, which are easily removed on handling. They enter the principal rivers to spawn, seldom ascending above tidal water. They resort to the Nasse [= Nass] River in greater numbers than in any other stream on the coast, and the Skeena, Queen Charlotte, and several other Indian tribes of the interior, procure their supply of grease and oil therefrom. ... Oolachans, a small fish resembling capelin, appear on the coast in immense numbers every spring. They are very fat and valuable as food supply and as bait.
	Kingcome River Wakeman River	Dominion of Canada (1887, p. 193, 196)	Qua-ee—this reserve ... is situated at the head of Kingcome Inlet, on the Tsah-waw-ti-neuch River [= Kingcome River], two miles from its mouth. ... It is especially valuable as an oolachan and salmon fishery, and during the run of the former is visited by various tribes other than those for whom it is set apart. ... Al-al-co ... at the head of Wakeman's Sound, about a mile from the mouth of the Ah-kwaw-ah-mish River [= Wakeman River] ... a limited quantity of oolachans are taken here each spring, hence it is highly prized by the Indians.
1887			

Date	Location	Source	Quote
20 April 1887	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	BRIEFS. — ... The oolachans have arrived and W. Vianen, as usual, has the first lot of the season.
23 April 1887	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	BRIEFS. — ... Oolachans and salmon are improving in quality and quantity.
30 April 1887	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	BRIEFS. — ... The Oolachans are plentiful and our citizens are enjoying their feast on this delicious fish.
11 May 1887	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 6 (New Westminster, BC)	BRIEFS. — ... Salmon plentiful, Oolachans also.
	Fraser River	Bancroft (1890, p. 747)	The eulachon, a delicate table-fish, about seven or eight inches in length, and yielding an excellent oil, enters the Fraser in vast quantities during spring. [Footnote:] At certain seasons it is the chief business of some of the tribes to catch and cure these fish for winter use. Erecting lodges near the bays and inlets where they abound, their fishing is done by moonlight, for it is then only that the eulachon comes to the surface. For taking the fish a large rake is used, with teeth of bone or iron, four inches long and one inch apart. In the stem of each canoe sits an Indian, who propels it toward the shoals of eulachon, while another, holding it firmly in both hands, sweeps it through the mass of fish, bringing it to the surface with one or more on each tooth. After being loaded the canoes are paddled to land, drawn on the beach, overturned, and again launched for another catch. This work continues until the setting of the moon, when the fish disappear. The take is then handed over to the women to be cured and dried, and the oil tried out.
	Nass River	Parliament of Canada (1888, p. 243)	OOLACHANS. These fish are much sought after, but the run is usually so short in our southern rivers that only a sufficient quantity is taken for immediate use, and the demand is so great that the supply of smoked and salt fish has to come from the northern rivers, where they are caught in large quantities. They are sometimes caught through the ice, like the smelts on the Atlantic. The rivers north, according to Guardian McNab's report, seem to be the home of oolâchans. ... Another matter which I consider of great importance and to which I beg to draw your attention is that of the Oolachan fisheries at the Naase [= Nass] River. ... From the first to the fifteenth of March is the time when they are found in greater number.
	Klinaklina River Kingcome River Nass River	Dominion of Canada (1888, p. ix, cii)	The highly prized oolachan, the oil of which fish is so nutritious, is secured in large quantities at the head of Knight's Inlet [from the Klinaklina River] and Kingcome Inlet [from Kingcome River]. ... The oolachan fishery is of great

Date	Location	Source	Quote
			value. This little fish is obtained year by year on the Nass in incredible quantity. When the fish are boiled down the oil (or grease as it is called) extracted is of considerable and certain value, and forms the most important article of diet of the Indians accustomed to its use. It is with them a valuable medium of barter and exchange. Indians from far and near come to exchange for it their furs and skins or other commodities. Each man engaged in the fishing—which continues for about six weeks in the spring,—expects besides providing for himself and family enough grease for annual consumption, to put up ten boxes for sale; each box is of a certain size and shape and is of the average value of seven dollars, thus each man gets grease to sell to the value of seventy dollars, besides his own supply. The number of Indians assembling on the Nass for fishing is estimated by thousands, and so the enormous value of the fishery may be seen at a glance. As is well known, these delicate fish are also salted and dried by white people, and used as an article of commerce, while the oil properly extracted is of great medicinal value.
	Fraser River	Goode (1887, p. 629)	A large part of the supply of the Victoria market comes from Fraser's River. In their season (May) the eulachon (<i>Thaleichthys pacificus</i>) is the best pan-fish in this region. They can run up the lower Fraser in enormous numbers, and every fish feeds on them. Even the sturgeons gorge themselves upon them.
1888			
21 April 1888	Fraser River	<i>Mainland Guardian</i> , p. 4, col. 1 (New Westminster, BC)	BRIEFS. — ...The Oolachans are due, but so far have not put in an appearance. ...
27 April 1888	Fraser River	<i>Victoria Daily Colonist</i> , p. 1, col. 3	Oulachons Killed It. Yesterday afternoon while two of W. H. Vianen's little boys were engaged in netting the luscious oolachan, a seal, fully five feet in length, while the net was being hauled in would follow it close up to the edge of the boat and take the fish almost out of the children's hands. The little chaps felt pretty badly frightened and were about to abandon the fishing, when, as luck would have it, the seal got tangled in the net and set up a terrible splashing. Fortunately a fishing boat, with a couple of men in it, came along, and, after a hard struggle, killed his sealship and brought it up to the city where it now lies for inspection on Vianen's slip.— <i>Columbian</i> .
28 April 1888	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	BRIEFS. — ... The oolachans are running in large numbers. ...
2 May 1888	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	BRIEFS. — ... On Saturday last W. H. Vianen shipped ... about 300 lbs. of oolachans to Victoria. ...

Date	Location	Source	Quote
5 May 1888	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	BRIEFS. — ... W. H. Vianen shipped to Victoria nearly 1,000 lbs. of sturgeon and oolachans on Wednesday morning. ...
12 May 1888	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 2 (New Westminster, BC)	BRIEFS. — ... 1,500 pounds of salmon and oolachans were shipped by W. H. Vianen on Wednesday to Vancouver, Victoria and the east. ...
	Fraser River Nass River	Parliament of Canada (1889, p. 238, 239, 246, 250)	OOLACHANS. These fish appear to be decreasing in the Fraser River, whether from overfishing or other causes, I am unable to say; but I think the large amount of traffic on the river by stern wheel steamers has had a tendency to keep them away. ... SMELTS. These fish are being used in greater numbers than ever, and owing to the scarcity of oolachans, the demand is increasing [by Thomas Mowat, Inspector of Fisheries for British Columbia]. ... I might mention that the run of oolachans which generally takes place in May was an entire failure in this locality [Lower Fraser River], not sufficient having been caught to supply the local demand. I think the reason is that when they are not very plentiful they swim too deep on first entering the river to be caught with the usual appliances [by C. H. Green, Fishery Guardian, Lower Fraser River]. ... The Oolachan fishery on the Nass is becoming yearly of greater importance to the Indians as the oil is becoming of greater commercial value. White traders are on the spot during the fishing season, who purchase all that the Indians will sell. The quantity extracted is large, but it is impossible to get anything near a correct estimate from either traders or Indians, as they seem averse to giving much information on the subject, an idea may, however, be gained of the value of this commodity to the Indians, from the fact that several hundred families annually engage in the business, and that fifteen boxes of oil are retained for each family before any is sold. A box is of the capacity of at least ten gallons. The method of extracting the oil is very wasteful. Correct information in regard to the methods of fishing, or statistics of the quantity of fish caught, and oil extracted, could only be gained by an officer on the spot, during the fishing season in March [by John McNab, Fishery Guardian, Skeena and Naas Rivers].
	Toba River	Dominion of Canada (1889, p. 197)	Klahoose, situated on the river of that name at the head of Toba Inlet ... This place is of special value to the Indians as an oolachan and salmon fishery ...
1889			
6 April 1889	Fraser River	<i>Victoria Daily Colonist</i> , p. 2, col. 2	The Oulachan Run. The Columbian says a net was put out for a little while on Wednesday night [3 April] and one haul resulted in landing some 50 pounds of these delicious little fish known as the oolachan. The oolachan are nearly a month earlier this year than ever before.
8 April 1889	Fraser River	<i>Vancouver Daily</i>	The oolachans are now running. They are in great demand by our citizens. Mr.

Date	Location	Source	Quote
		<i>World</i> , p. 1, col. 4 (Vancouver, BC)	Vianen is unable to supply the orders he is receiving daily for these luscious fish, which are reported to be uncommonly large this season and of fine flavor.
10 April 1889	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	BRIEFS. — ... The oolachan catch is becoming greater. ...
13 April 1889	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	BRIEFS. — ... The catch of oolachans is reported to be good. ...
14 April 1889	Fraser River	<i>Victoria Daily Colonist</i> , p. 2, col. 3	Oolachans Plentiful. The <i>Columbian</i> reports that the oolachans are beginning to show themselves in the Fraser in large shoals, and consequently Indians and white fishermen are reaping a harvest. On Friday 1,200 pounds were caught. There is a great demand for this delicious fish and Victoria would consume a ton per day if procurable. No fish on the Victoria market is as much relished and so anxiously looked for as the delicious oolachan.
20 April 1889	Fraser River	<i>Mainland Guardian</i> , p. 3, col. 1 (New Westminster, BC)	BRIEFS. — ... oolachan run is good. ...
25 April 1889	Fraser River	<i>Vancouver Daily World</i> , p. 4, col. 1 (Vancouver, BC)	—The oolachan run at Westminster has reached its top notch, and the water of the Fraser may be said to be fairly alive with the delicious sweevies. As the supply of oolachans is now far in excess of the demand, the surplus stock is being salted for the fall and winter trade.
27 April 1889	Fraser River	<i>Vancouver Daily World</i> , p. 1, col. 5 (Vancouver, BC)	The boats engaged in the oolachan fishing have reaped a great harvest, and as a consequence the surplus supply has knocked the bottom out of the price of sweevies.
1 May 1889	Fraser River	<i>Vancouver Daily World</i> , p. 1, col. 5 (Vancouver, BC)	FROM THE ROYAL CITY. New Westminster, May 1. ... The market is so crowded with oolachans that they are being given away by the basket full.
11 May 1889	Fraser River	<i>Vancouver Daily World</i> , p. 1, col. 4 (Vancouver, BC)	FROM THE ROYAL CITY. New Westminster, May 11. ... A second run of the luscious oolachans has begun in the Fraser. Heavy hauls are being made.
	Fraser River	Parliament of Canada (1890, p. 250, 257)	OOLACHANS. As the delicacy of these fish becomes better known, each year finds an increasing demand, and when the Fraser River fails to supply them they are brought from the Naas, these being the only two streams in this Province where they are found in quantities, especially in the latter [by Thomas Mowat, Inspector of Fisheries for British Columbia]... The oolachan fishing on the Naas was quite successful in March, and the Indians obtained an abundant supply of the oil, which is such an important article of food with them [by John McNab, Fishery Guardian, Skeena and Naas Rivers]...

Date	Location	Source	Quote
1890			
3 April 1890	Fraser River	<i>Victoria Daily Colonist</i> , p. 2, col. 1	LITTLE LOCALS. The oolachan run in the Fraser has not yet materialized.
28 April 1890	Fraser River	<i>Vancouver Daily World</i> , p. 1, col. 6 (Vancouver, BC)	The run of oolachans continues good in the Fraser. Several shipment(s) have already been made.
9 May 1890	Fraser River	<i>Victoria Daily Colonist</i> , p. 2, col. 1	The high water in the Fraser has put a partial stop to the salmon run, the catch having fallen off perceptibly since the water commenced to rise. The oolachan, on the contrary, seems to thrive on high water, and their numbers are on the increase each day.
	Skeena River, Nass River	Niblack (1890, p. 276)	Eulachon (<i>Thaleichthys pacificus</i>), the so-called “candle-fish,” a kind of smelt, run in March and April at the mouth of the Skeena, Nass, and Stikeen [sic] Rivers. These have the greatest proportion of fatty matter known in any fish. In frying they melt almost completely into oil, and need only the insertion of some kind of a wick to serve as a candle.
	Skeena River, Nass River	Niblack (1890, p. 299)	Eulachon or “candle-fish” run only in the mouths of rivers, particularly the Skeena, Nass, and Stikine in this region. They are considered great delicacies, and are dried and traded up and down the coast by the Indians who are fortunate enough to control the season’s catch.
	Fraser River Nass River	Parliament of Canada (1891, p. 182)	OOLACHANS. The returns of these fish show a decline in fresh, salted and smoked, due to comparative failure in the fishery on the Fraser River, and a light run on the Naas. As steamboat traffic on the Fraser increases, the number of fish seems to diminish, and it is seldom now that the supply equals the demand. On the Naas, the wanton waste previously reported still continues, and in order to check the evil, an officer will have to be stationed at that point, about the time when the ice disappears from the river; as it is mostly through the ice that the Indians do their fishing.
	Klinaklini River	Dominion of Canada (1891, p. 75)	At the oolachan fishery at the Ta-nak-teuh village at the head of Knight Inlet, where formerly thousands of Indians used to congregate, I found only about fifty, besides the actual residents. They do not require so much oil as formerly and they find it easier to go and purchase it than to stop along time and make it themselves though the fish are as numerous as ever; two of my men, who borrowed a net, nearly filled a good sized canoe in two hours.
1891			
25 March 1891	Squamish River	<i>Vancouver Daily World</i> , p. 2, col. 1 (Vancouver, BC)	Squamish Valley. ... The oolachans have been running in the [Squamish] river for the past two weeks and have been taken in great numbers by the Indians.
11 April 1891		<i>Victoria Daily Colonist</i> ,	Where are the Oolachans? This is a question which is agitating the minds of the

Date	Location	Source	Quote
		p. 5, col. 1	fishermen on the Fraser, who usually make a neat little sum out of the oolachan run. The oolachans made their appearance in the Columbia river some six weeks ago, and were caught in great quantities. Two weeks ago they were ascending the Squamish in millions, but not a single one has yet been caught in the Fraser river. — <i>Columbian</i> .
16 April 1891	Fraser River	<i>Vancouver Daily World</i> , p. 1, col. 8 (Vancouver, BC)	LOCAL BREVITIES. ... The oolachans made their first appearance of the season in the Fraser river yesterday. About 100 lbs. were captured.
23 April 1891	Fraser River	<i>Vancouver Daily World</i> , p. 1, col. 8 (Vancouver, BC)	LOCAL BREVITIES. ... The oolachan run on the Fraser is decreasing daily, and it is thought the best of the catch has been made. The run has been much lighter than usual this season, and few of the little fish have been salted either by the fishermen of the Indians.
	Fraser River Nass River	Green (1891, p. 30–31)	The oolachan (<i>Thaleichthys pacificus</i>), an anadromous fish of about 9 inches in length, makes its appearance in the tidal waters of the Frazer [sic] about the middle of April, and in the Nass about the 23rd of March. When fresh is a delicious little fish, but it deteriorates with carriage, and is never seen to perfection in the Victoria market. Numbers of oolachans are put up in pickle in small kits, and some are cured and smoked like bloaters. Oolachan grease is an article much used and appreciated by the Indians. A large trade is done in this commodity between the Indians of the Nass river and those of the interior, in exchange for furs. In appearance and consistency it resembles lard, and is used on dried salmon or halibut, much in the same manner as we use butter on bread. A short account of its manufacture on the northern rivers may be of interest to you. As I before stated the oolachans arrive in March when the ice is still on the river. All the Indians who have any right to fish in the river, and this priveledge [sic] is jealously guarded, come from far and near to the fishery, and erect temporary dwellings along the banks or on the ice. The fire wood for trying [sic] out the oil has to be brought from a distance, all that in the immediate vicinity of the fishery having been used long ago. The fish are taken under the ice with purse nets, and are left in heaps until they are, to say the least of it, high; partial decomposition assisting the extraction of the oil. They are then boiled in troughs which are about 5 feet long by 2 feet wide, and the fat is skimmed off, and put into square cedar boxes about the size and shape of a coal oil tin. Originally the grease was extracted by filling a wooden trough with water, and heating it with red hot stones, this mode is now obsolete, the troughs having a sheet iron bottom built over a long and narrow furnace. The oolachan has more than its fair share of enemies; sturgeon, salmon and porpoises follow it into the rivers, while bears and the settler's pigs gorge themselves with the exhausted shotten [sic] fish. At Port Hammond I once saw two pigs standing up

Date	Location	Source	Quote
			to their backs in the water, and diving for oolachans; they seldom failed to bring one up.
	Fraser River	Parliament of Canada (1892, p. 176)	I consider that the oolachon ... fishing should be more extensively followed [on the lower Fraser River]. They are at present only fished for local consumption, but I feel sure they could be caught in large quantities, and would pay to export as well as salmon.
	Klinaklini River Kingcome River	Dominion of Canada (1892, p. 120)	In the spring they [the Tsa-waw-te-neuh Indians], with the Ta-nak-teuk Indians, go in a body to their summer villages at the head of Kingcomb [sic] and Knight Inlets, respectively, for the oolachan fishing, which is a source of considerable revenue to both these tribes—more so now than formerly, as few Indians fish themselves, but buy from these tribes all the oolachan oil they need.
	Kitlope River	Poudrier (1891, p. 355)	The end of Gardner's Inlet is known as Kitlobe Bay. ... In the bottom of the bay two rivers come in: a small one, from the north, and the main river, from the east, named the Kitlobe [Kitlope River]. ... This is one of the best places along the coast for the oolachan fishing, and large quantities are caught and reduced to oil by the Indians.
	Kemano River	Poudrier (1891, p. 356)	Kemano River ... On the delta there is a small peninsula formed of alluvial deposits, on which there is an Indian village of small size. ... The land in the valley is low, cut by channels, and subject to be overflowed. It is a favourite spot for the Indians, on account of the quantity of oolachans caught there.
	Nass River	Poudrier (1891, p. 366)	At this point [on the Nass River] is the mouth of the Shigaltin River [Cranberry River]. It is a stream of some importance and the trail from Kitwanga on the Skeena passes in its valley. ... as all the Indians from the Skeen get their supply of oolachan grease through it, it makes it the most travelled of all trails in the country explored.
	Nass River	Poudrier (1891, p. 368)	The trail leaves the Skeena two or three miles above the mouth of the Kit-wan-ga River. The trail follows the north edge of a fertile valley about three miles wide, in a north-westerly direction. At eight miles it touches Kit-wan-ga River ... at 18 [miles] is the village of Kit-wan-coole. ... This is a kind of market town, where the oolachan grease is taken from the lower Naas and sold to tribes of the interior, who have to pay very dearly for this highly prized luxury. It would be hard to estimate the quantity of that article imported to this spot, but the hundreds of boxes seen by us show well the great extent of the trade. These boxes are scattered all through the interior, to the foot of the Rockies, and, I am told, a long way beyond that. The name of this trail is the "Grease trail."
1892			
18 April 1892	Fraser River	<i>Victoria Daily Colonist</i> , p. 2, col. 1	NEWS OF THE PROVINCE. NEW WESTMINSTER, April 12. ...The oolachan run commenced today; the catch is light yet.

Date	Location	Source	Quote
3 May 1892	Fraser River	<i>Victoria Daily Colonist</i> , p. 2, col. 1	NEWS OF THE PROVINCE. NEW WESTMINSTER, May 2. ... The great oolachan run has commenced and the fish are passing up the river in millions.
5 May 1892	Fraser River	<i>Vancouver Daily World</i> , p. 3, col. 1 (Vancouver, BC)	WEEKLY MARKET REPORT. ... The oolachans are running in the Fraser, and this most delicious of all the finny tribe are in considerable demand and much appreciated by those who are votaries of this fish. They are selling at 10c per lb.
	Central Coast of BC	Dominion of Canada (1893, p. 230, 236)	KWAWKEWLTH AGENCY ... The salmon run has been light, which to a great extent has been compensated for by the abundance of the oulachon fish. ... Alert Bay ... The oulachon catch has been very good, and more Indians than usual took the opportunity to lay in a large supply of this nutritious oil.
1893			
18 April 1893	Fraser River	<i>Victoria Daily Colonist</i> , p. 2, col. 1	NEWS OF THE PROVINCE. NEW WESTMINSTER, April 17 ... The Oolachan run has set in, but does not amount to much.
9 May 1893	Fraser River	<i>Victoria Daily Colonist</i> , p. 2, col. 1	NEWS OF THE PROVINCE. NEW WESTMINSTER, May 8. ... The oolachan run keeps up remarkably well, the catch today being large. So great has been the demand for these fish that none have been salted this season, which is very unusual. Wood, Traves & Co. will ship fifteen tons of dried fish to the Orient by the next Chinese steamer.
9 May 1893	Fraser River	<i>Vancouver Daily World</i> , p. 8, col. 2 (Vancouver, BC)	Oolachans are reported to be running remarkably well in the Fraser at the present time. So great has been the demand for these fish that, so far, none have been salted. Fifteen tons of the dried article will be shipped to the Orient on the outgoing Empress.
1894			
2 May 1894	Fraser River	<i>The Chilliwack Progress</i> , p. 3, col. 2 (Chilliwack, BC)	PROVINCIAL. ... The Columbian says: The oolachan run is in full swing, and the fishermen believe it is at its best. As usual thousands of gulls accompany the sweevies and are living high off them.
13 May 1894	Fraser River	<i>Victoria Daily Colonist</i> , p. 1, col. 3	NEWS OF THE PROVINCE. NEW WESTMINSTER, May 12. ... The oolachan run is now nearly over, but a few stragglers are still in the river. The heaviest of the run took place about the beginning of the week and the Indians made some good hauls. The river banks above Port Hammond are covered with thousands of dead "sweevies."
	Central Coast of BC Nass River	Dominion of Canada (1894, p. 160, 163)	Alert Bay ... The oulachon fishing was, however, a great success this year, and I estimate that at least fifty thousand gallons of the oil were made by these Indians this year, which will bring them in a considerable sum, as they were selling it during the fishing time at one dollar the five gallon tin. ... Metlakahtla ... The catch of oulachon fish has been fairly good everywhere along the coast with the exception of Naas [sic] River, which was a partial failure.
1895			

Date	Location	Source	Quote
17 April 1895	Fraser River	<i>The Chilliwack Progress</i> , p. 3, col. 3 (Chilliwack, BC)	PROVINCIAL. ... The oolachan run is increasing.
1896			
1897			
	Fraser River Nass River	Parliament of Canada (1899, p. 222, 223)	Of the ... oolachans, Mr. James G. Swan wrote in 1884 ... "The oolachans when taken in the Columbia River are not much fatter than a smelt, but when these fish are taken in the Fraser River, they are rich with fat, and are considered most delicious eating." ... From the <i>Naas River</i> , <i>Guardian N. Allan</i> reports ... The Indians had secured a good supply of oolachans, and oolachan green, in the spring, and were well supplied.
	Nass River Fraser River	Gosnell 1897, p. 67, 120)	Another fish belonging to the salmonidae group, oolachan (<i>Thaleichthys pacificus</i>), spelled in a variety of ways and also locally known as the "candle fish," should be of considerable economic value. It runs in enormous quantities up the rivers and inlets of the coast, coming into the Naas about the middle or latter part of March, and reaching the Fraser about the middle of April, deteriorating somewhat in quality as it comes southward. This is a delicious pan fish and is greatly in favour in its season. It ... is too tender for carriage, and has, therefore, only a local market. It is about nine inches in length, and so plentiful at times when running as to be scooped up in bucketfuls. A good many are put up in pickle in small kits and cured like bloaters, but not much progress has been made in these directions ... The Indians catch them in immense quantities and extract the "oolachan grease," which they use much as we do butter. Oolachan oil, properly refined, might become of commercial value, there being practically no limit to their numbers. Experiments have been made with oolachan by bottling and canning, it is said, with success. The oolachans, besides the Indians, have numerous enemies. The seal, sturgeon, salmon, and porpoise follow them in their run, and even bears and pigs gorge themselves on them when the opportunity offers. ... Kitamaat Arm is favored with annual runs of oolachan.
1898			
27 April 1898	Fraser River	<i>The Chilliwack Progress</i> , p. 1, col. 2 (Chilliwack, BC)	Local and Other News. ... The sweet, juicy oolachan has arrived in large numbers, and will form a very pleasant variation to the ordinary bill of fare. Indian Joseph was in town on Monday and reports that while interviewing them he had a narrow escape from drowning.
1899			
	Klinaklini River	Dominion of Canada	Some members of nearly all the bands engage in the oulachon fishing at Knight

Date	Location	Source	Quote
	Kingcome River	(1899, p. 256)	Inlet, so as to obtain a supply of this oil for their own use. The Tanakteeck Indians of Knight Inlet and the Tsawawticneuk Indians of Kingcome Inlet make large quantities of this oil, which finds a ready sale among Indians of other bands.
1900			
	Central Coast of BC	Dominion of Canada (1901, p. 275)	Kwawkewlth Agency ... a large quantity of oulachon oil is made in the spring of each year. This year a very large quantity of this nutritious oil was made, so much that the price went down to half its usual figure.
	Fraser River	Rathbun (1900, p. 261)	The eulachon or candle-fish enter the Fraser River in the spring in large numbers for spawning, and although the run continues for only a few weeks, a considerable fishery is carried on. They also resort to other rivers of the region, and may be taken in the salt waters, but the catch in the State of Washington is small. The amount obtained on the Fraser, owing in part to the shortness of the season, is said to be insufficient to meet the demands of even the local markets, which have to depend largely for their supplies upon the more northern rivers of British Columbia, where the species occurs in much greater abundance. Those obtained locally are mostly disposed of fresh, while the salted and smoked fish come mainly from the north. The Indian practice of extracting the fat or oil of the eulachon for domestic use is well known.
1901			
1902			
		Parliament of Canada (1904, p. 210)	Oolachons. The returns of the salted and smoked quantities of this fish indicate an increasing demand, the supply of which, however, is liable to be affected by the fluctuations in the annual runs.
1903			
26 April 1903	Fraser River	<i>The Daily Colonist</i> , p. 1, col. 3 (Victoria, BC)	Bridging The Fraser. From Our Own Correspondent, New Westminster, April 24. ... There is not much doing here in the fisheries. Oolichans (or candle fish), which commenced running up the Fraser on March 17, are now being caught in paying quantities. ...
	Central Coast of BC	Dominion of Canada (1904, p. xxv)	Oulachon, the oil manufactured from which is largely used by the Indians in the coast agencies for culinary purposes, and as a substitute for butter, were unusually plentiful.
		Parliament of Canada (1905, p. 216)	Oulachons ... show a substantial increase. As yet there has been no attempt to any extent to find a market for these abroad and the figures given represent merely the local consumption, the Indians being the main consumers ...
1904			
February 1904		<i>Pacific Fisherman</i> 2	From Ottawa comes the news that a new industry has sprung into existence on

Date	Location	Source	Quote
		(2): 16.	the Pacific coast for the canning of a fish known as eulachon, somewhat like the smelt, which has hitherto been but little used, although it is well adapted for food purposes and found in millions in nearly all the coast waters of British Columbia. It is a great favorite with the Indians and the Federal Fisheries Department believes that the venture will broaden out into a flourishing branch of the canning industry.
	Nass River	Parliament of Canada (1906, p. 206)	OULACHON. The returns of these delicious “small fish” show a decrease in the catch this season owing to the fact that the Indians were unable to reach the fishing grounds on the Naas river, the “home of the oulachon.” During the month of April, all Indians for 100 miles around, proceed in their canoes to the Naas river, for the purpose of catching oulachons, and extracting the grease from them for food. Last April, however, there was a terrific gale blowing down the river, for eight weeks in succession, and they were unable to reach the fishing grounds, some 20 miles up the river; they eventually hired a tug but she was unable to proceed up river with her tow of canoes, on account of the heavy wind. The whole river was enveloped in a heavy fog caused by the wind catching up the water and atomizing it, the Indians never reached the grounds and returned to their reserves
	Nass River	Dominion of Canada (1905, p. xxv)	... the Indians on the northwest coast who went to the Nass river in the spring for oulachon fishery, had a very successful catch.
1905			
	Central Coast of BC	Dominion of Canada (1906a, p. 235)	Kwawkewlth Agency ... Alert Bay ... the Tswawtiano, Mamalillakulla and Stenawakta bands do the same with regards to the oulachon fisheries, and the supply of grease ... for all the other bands is obtained from them. Unfortunately in 1904, the Indians were too late in getting to work, and got no grease that year, and this year the fish did not come; consequently, at present the Indians are hard up for grease, the old supply having become exhausted; however, it does not matter much, as the Indians are beginning to use largely the white man's butter.
1906			
January 1906		<i>Pacific Fisherman Annual Yearbook</i> , p. 35	BRITISH COLUMBIA FISH AND FISHERIES. Prof. EDWARD R. PRINCE. Chairman of the British Columbian Fisheries Commission. ...OOLACHAN. That the oolachan has not become a recognized fish in the best markets is a matter of surprise to most people who have learned to appreciate its rich and palatable qualities. It is a small fish, about the size of the smelt, and from the Naas river in the north to the Fraser river in the south, it occurs in great abundance from early in March to the middle of April. The schools entering the northern estuaries, especially the Naas, are incredibly vast. They crowd in so

Date	Location	Source	Quote
			thickly that the Indians from an early period have been accustomed to make large catches by a very rude and, at first glance, inadequate method. Taking a pole about 10 feet in length, they insert nails, set about an inch and a half apart, and projection like the teeth of a comb. Putting this implement over the side of his canoe, the Indian draws the pole quietly through the dense school of moving oolachan, and with a backward sweep, impales a number of the fish, which he shakes off the sharp teeth into the canoe and then repeats the operation. In two or three hours it is usual to secure in this simple fashion a boatload of these esteemed fish. Seines are in some localities used and small mesh gill-nets. ... When the enormous schools of migrating oolachan crowd in solid masses into narrow estuaries to reach their spawning resorts, a short distance up from the open sea, they are destroyed by every imaginable enemy, seals, porpoises, seabirds, even bears and land animals join in the destruction. I have repeatedly found huge sturgeon whose stomachs were packed with partly digested oolachan.
January 1906	Fraser River	<i>Pacific Fisherman Annual Yearbook</i> , p. 36	BRITISH COLUMBIA FISH AND FISHERIES. Prof. EDWARD R. PRINCE. Chairman of the British Columbian Fisheries Commission. ... The movements of the sturgeon appear to be erratic for in February, 1895, when the smelt came up the Fraser, the schools of sturgeon followed them as far as Harrison Lake, and then apparently satiated with food they descended again. ... Oolachan are a favorite food and attract the schools of sturgeon in April ... I have also found the stomach distended with hundreds of oolachan and smelts
5 April 1906	Fraser River	<i>Vancouver Daily World</i> , p. 7, col. 2 (Vancouver, BC)	The first oolichans of the season were caught in the river yesterday and were placed on the market today.
30 April 1906	Fraser River	<i>The Province</i> , p. 9 (Vancouver, BC)	SALMON AND EULACHONS. Fishermen on the Fraser River Are Making Better Catches Now. New Westminster, April 30.--(Special.)-- ...The run of eulachons In the river this year Is exceptionally good, as is amply testified by the immense numbers of seagulls which come up the river every day to feed on these small fish. Not many are being caught for the market, and only few boats are being operated with eulachon nets, but the sight of the thousands of gulls on the sandbar opposite Sapperton catching these fish is a sight long to be remembered.
5 May 1906	Fraser River	<i>Vancouver Daily World</i> , p. 12, col. 5 (Vancouver, BC)	The run of oolachans this season has been very large and that is generally looked upon as presaging a big run of salmon and the canneries are working accordingly.
	Nass River	Dominion of Canada (1906b, p. 237, 239, 242)	Kinoolith Band ... The reserves of this band are situated on the lower Nass river ... In the month of March and part of April many of them go to the oulachon fishing, and prepare the fish for food, and extract the grease, from which they

Date	Location	Source	Quote
			derive a small income from the sales of same to interior and other Indians; but the principal portion of this commodity is used for food by themselves. ... Lachkalsap Band ... They engage largely in the oulachon fishing during march and April ... Port Simpson Band ... In March and April ... some of them can be found at the Nass river engaged in curing the oulachon, and extracting the grease for food
1907			
	Kingcome River	Dominion of Canada (1907, p. 236)	Early in April the run of little fish, called oulachons, commences in the river at Kingcome inlet ... All hands are kept very busy for two months or more catching these fish and manufacturing or rather extracting the oil from them. They are principally caught in bag nets made by the Indians themselves. A great many tons of fish are thus caught and stacked on the banks of the river in great heaps to rot. At the end of the run this mixture is cooked in large wooden boxes partly filled with cold water, which is boiled by throwing in red hot stones. The whole mixture is stirred and the oil rises to the top, and is skimmed off. Some of the Indians reboil the oil in large kettles, which materially refines it, but the greater part is used in its raw state. This grease or oil is a staple food for the Indians and finds a ready sale amongst other tribes. Apart from its offensive smell, it is very wholesome, and if made under modern and approved methods has very little taste.
16 April 1907	Vancouver, BC	<i>Vancouver Daily World</i> , p. 6, col. 1 (Vancouver, BC)	Our Fish Department. Is well stocked these days with every variety of Fresh Fish possible to be had. Fresh Oolichans. ...
19 April 1907	Fraser River	<i>Vancouver Daily World</i> , p. 17, col. 4 (Vancouver, BC)	Local oolachans are the new feature in the fish market. They call for 25 cents for 2 lbs.
26 April 1907	Fraser River	<i>Vancouver Daily World</i> , p. 12, col. 5 (Vancouver, BC)	Oolachons are still plentiful.
29 April 1907	Fraser River	<i>The Daily News</i> , p. 4, col. 2 (New Westminster, BC)	OOLICHANS NUMEROUS. Fishermen Observe No Close Time for Little Fish—Others Object. The run of oolichans has been so great during the past few weeks and the men who handle the small mesh nets see so much money coming their way that they do not feel as if they could ever get away from the river long enough to enjoy the twenty-four hours weekly rest proscribed by Divine law. On Saturdays, all fishermen are supposed to quit fishing, but the law appears to apply only to the salmon fishing, and is said not to govern the oolichan fishermen, who do not have to take out a license. On Saturday, a request was made by the authorities that the fishermen out in the river should

Date	Location	Source	Quote
			come in and quit their task, but this did not meet with the approval of the fishermen, and they refused, continuing their task throughout the day. Two men are reported to have brought in over 2000 pounds of the little fish on Saturday evening, while several other large catches are reported.
11 May 1907	Fraser River	<i>The Daily News</i> , p. 2, col. 3 (New Westminster, BC)	M. Monk sold fish at his usual corner, and did a lively trade. ... About 75 pounds of oolichans were displayed on the stall, the last that will be sold there this season, as the fishermen have abandoned the oolichan fishing, as there is scarcely any fish left in the river. ...
1908			
14 April 1908	Fraser River	<i>The Daily News</i> , p. 5, col. 3 (New Westminster, BC)	The oolichans are now running thickly in the river and yesterday the market in the city was nearly glutted with the fish. One boat after being out for a few hours only, brought in over a thousand pounds of the small fish. ...
17 April 1908	Fraser River	<i>The Daily News</i> , p. 5, col. 4 (New Westminster, BC)	City News. ... Oolichans are as numerous as ever, running in patches, some nets being overloaded and others obtaining only slight catches on the drift.
18 April 1908	Fraser River	<i>Vancouver Daily World</i> , p. 12, col. 1 (Vancouver, BC)	OOlichans Running Heavy Everywhere. The oolichans are running tremendously heavy both up the coast and on the Fraser. Big catches are being reported by every boat coming down. On the Fraser one boat is said to have caught 1000 pounds in a few hours and that breaks a record.
25 April 1908	Fraser River	<i>The Daily News</i> , p. 1, col. 5 (New Westminster, BC)	OOlichans Selling at a Nickle a Pail. Rival Dealers Ruin Prices in Frantic Effort to Undersell Each Other. ... An interesting and humorous war between fish vendors was an attraction to a good sized crowd of citizens and farmers yesterday on Front street. The oolichans are now swimming up the river in heavy shoals and day by day the catch is becoming larger. As a result the fish store counters were loaded down with these delicate little fish, and competition became keen between the dealers for the sale of their large supplies. This, however, merely resulted in a slight fall in the price, but when a fisherman with a full boat load tied up at the foot of sixth street and started to sell to the crowd direct from the boat at reduced prices, the fun commenced. The new-comer put out a shingle announcing oolichans at four-bits a pail, while the Royal City Fish company across the street were selling a dollar a pail. The latter retaliated and put out a sign, "two-bits a pail." The fisherman sold down to fifteen cents, and by this time the crowd had gathered to the number of over fifty and sacks were being produced from every wagon on the market square. Percy Venables came down to a dime a bucket and those who could not rustle a sack pulled out handkerchiefs, pieces of paper and even hats in which to carry away their purchases. The boatman again cut, this time to a nickel and it is possible that they would soon have been giving premiums with

Date	Location	Source	Quote
			the fish had not the eagerness of the purchasers run both parties out of supplies.
25 April 1908	Fraser River	<i>The Daily News</i> , p. 2, col. 1 (New Westminster, BC)	There was a heavy demand for fish and although the supply was large, all was disposed of. ... Salmon and oolichans were plentiful, especially the latter, which are now running heavily in the river. ...
25 April 1908	Fraser River	<i>The Province</i> , p. 1 (Vancouver, BC)	Selling Fish Cheap. New Westminster. April 25. --- (Special.) --- The run of oolichans in the river this year has been so heavy that the fishermen have been cutting and slashing prices during the past few days until today these toothsome little fish were offered to the dealers for five cents for a pailful.
29 April 1908	Chilliwack, BC	<i>The Chilliwack Progress</i> , p. 6, col. 1-2 (Chilliwack, BC)	Inside the Building. ... The only commodity which varied in price was in the fish business and a merry price war was carried on between M. Monk and the Royal City Fish company in Oolichans. The oolichans are thick these days and big catches were made this morning with the result that Mr. Monk found himself with more than he could handle, consequently he stationed one of his boats at the foot of Sixth street and posted a sign "Oolichans 50 cents a pail." As this is a straight cut of half a dollar on the regular price, Percy Venables immediately opened a large consignment and announced that he was selling for "two-bits" per pail. By this time business was humming and Mr. Monk came back with another notice reading "Fifteen Cents per Pail," which was capped by Percy with a bulletin reading "ten cents" and oolichans were selling like wildfire around Venables store, when the tide fluctuated across the street again where another cut of five cents per pail had been made by Mr. Monk. The climax was reached, when Venables hoisted a placard in front of his store reading "Two Pails for Five Cents," this put an end to the war, Mr. Monk gavie it up as a bad job, and today prices for oolichans have resumed their normal quotations. ... oolichans, 3 lbs for 25 cents ...
		Dominion British Columbia Fisheries Commission (1908, p. 44-46)	That the oulachon has not become a recognized fish in the best markets is a matter of surprise to most people who have learned to appreciate its rich and palatable qualities. It is a small fish, about the size of the smelt, and from the Naas river in the north to the Fraser river in the south, it occurs in great abundance from early in March to the middle of April. It is numerous at points on the west coast of Vancouver Island, as off Ucluelet, Barclay sound. The schools entering the northern estuaries, especially the Naas, are incredibly vast. They crowd in so thickly that the Indians from an early period have been accustomed to make large catches by a very rude and, at first glance, inadequate method. Taking a pole about 10 feet in length, they insert nails, set about an inch and a half apart, and projecting like the teeth of a comb. Putting this implement over the side of his canoe, the Indian draws the pole quickly through the dense school of moving oulachon, and with a backward sweep, impales a number of the fish, which he shakes off the sharp teeth into the canoe and then

Date	Location	Source	Quote
			repeats the operation. In two or three hours it is usual to secure in this simple fashion a boatload of these esteemed fish. Seines are in some localities used and small meshed gill-nets. Like the smelt, the oulachon soon loses its delicate flavour, and 'when cooked and canned the flesh drops from the bones, so that it presents, when the can is opened, a jumbled, uninviting appearance. In a freshly caught condition it is a most delicious fish, and when salted, or rather pickled, it is after boiling, a very toothsome article of diet, being most digestible and nutritious. Indeed the flesh of the oulachon is stated to be as restorative to the wasted human system as cod-liver oil. Related as the oulachon is to the trout and salmon, it has few bones and the flesh is solid and flaky. When cooked the flesh is easily removed by passing a fork along each side of the backbone and on that account it is more convenient for table use than most small fishes. The oil, which is so abundant in the 'tissues of the oulachon, has very superior qualities and might be made commercially important. The flesh is so permeated with the oil that it is commonly called the candle fish, and by simply inserting a piece of pith through the axis of the fish; when dried, it may be used as a candle or torch, the pith burning like the wick of a well-filled lamp. The Indians merely press vast numbers of the fish into a wooden vat or barrel and allow the oil to ooze out by sheer pressure. It rapidly turns rancid and is most offensive in odour, but is highly relished by the Indians and all along the British Columbian coast oulachon oil is a highly esteemed condiment. The Haida Indians who are unable to secure supplies of this fish on Queen Charlotte Islands are accustomed to cross over to the Naas and Skeena rivers, where they barter their halibut and other products for the much-prized oil. The oil is consumed with seaweed, berries, dried fish-roe, and indeed, with every form of food. White settlers who have lived long upon the coast acquire a relish for this crude oil preparation, but a refined and clarified oil would be an attractive and merchantable article, if it were placed upon the market. Thirty years ago an industry was started for manufacturing oulachon oil. Mr. Robertson, the pioneer in the enterprise, located on the Naas river and purchased the fish from the Indians, or paid them \$1.25 per day to catch the fish. ... somewhat crude steaming apparatus he extracted the oil. During March, 1877, he prepared a large quantity of the oil which he sold to the Indians in various parts of the province at \$1 per gallon. It found such a ready market that he could not carry out his intention of originating an export trade; none remained to export. When the enormous schools of migrating oulachon crowd in solid masses into narrow estuaries to reach their spawning resorts, a short distance up from open sea, they are destroyed by every possible enemy, seals, porpoises, sea-birds, even bears and land animals eagerly strive to secure and devour them. The spawning habits of

Date	Location	Source	Quote
			this species have not been sufficiently investigated to permit of framing regulations for preventing the undue destruction of these fish, which in some areas, Rivers inlet, for example, are said to have decreased seriously in quantity. They are irregular and erratic in their occurrence and numbers, yet there appears no sufficient reason why they should not be as regular and plentiful as smelts in the Atlantic estuaries, if reserve areas for spawning could be defined. The terrible inroads made upon them as they move in from the sea, and after they have entered the rivers for spawning purposes no doubt affect the supply in the seasons following. The protection is most necessary when the fish are engaged in spawning, and the matter is one calling urgently for scientific investigation.
		Dominion British Columbia Fisheries Commission (1908, p. 52)	Oulachon are a favourite food [of the sturgeon], and attract the schools of sturgeon in April, but they appear to devour other species, chub and similar fish. Parties affirm that such small fish are often found alive inside the sturgeon, the stomach being distended with hundreds of oulachon and smelts.
1909			
7 April 1909	Chilliwack, BC	<i>The Chilliwack Progress</i> , p. 6, col. 1 (Chilliwack, BC)	THE MARKET. ... NEW WESTMINSTER, April 3. ... M. Monk sold two pounds of oolichans.
9 April 1909	New Westminster, BC	<i>The Daily News</i> , p. 7, col. 4 (New Westminster, BC)	Market Report. ... A large quantity of fish was offered, prices running high. The varieties stalled were halibut, spring salmon, oolichans, smelts and sturgeon.
1910			
29 April 1910	Fraser River	<i>Vancouver Daily World</i> , p. 19, col. 5 (Vancouver, BC)	Fraser River Oolachans Now on the Market -
30 April 1910	New Westminster, BC	<i>The Daily News</i> , p. 4, col. 2 (New Westminster, BC)	Market Report. ... fresh fish, including some oolichans, were offered on the market for the first time this season and brought good prices.
4 May 1910	Fraser River	<i>Abbotsford Post</i> , p. 3, col. 2 (Abbotsford, BC)	THE MARKET. ... There was a good supply of fresh fish offered for sale ... Some Oolachans found a good demand, being seasonable just now ...
	Kingcome River	Dominion of Canada (1910, p. 234)	The oulachon run [in the Kingcome River] starts in April of each year, and from this fish is made an oil that is largely used as an article of food amongst all the Indians, and they derive a good income from the sale of it.
1911			
6 April 1911	Fraser River	<i>Vancouver Daily World</i> , p. 13, col. 2 (Vancouver, BC)	Oolachans are now running in the river but owing to the cool weather they are swimming deep and it takes a net of a good depth to catch this tasty little fish. Many tons are being caught and salted down.
14 April 1911	New Westminster, BC	<i>The Daily News</i> , p. 5,	Market Report. ... Oolichans made their initial bow, so to speak, for the

Date	Location	Source	Quote
		col. 2 (New Westminster, BC)	season and readily sold for 25 cents for two pounds.
19 April 1911	Chilliwack, BC	<i>The Chilliwack Progress</i> , p. 3, col. 4 (Chilliwack, BC)	First Oolichans. The first oolichans of the season made their appearance on the market this morning, from the nets of M. Monk & Co. They retailed at two pounds for 25c.
24 April 1911	New Westminster, BC	<i>The Daily News</i> , p. 2, col. 3 (New Westminster, BC)	Market Report. ... Fish made a brave showing on the stands and the supply of oolichans being more plentiful than last week affected the prices. ... Oolichans, per lb. ... 10c
28 April 1911	Fraser River	<i>Abbotsford Post</i> , p. 1, col. 5 (Abbotsford, BC)	THE MARKET. ... The oolichans are now running more freely in the river and are of a very high quality although smaller than last year. The increased number caused the price to fall slightly, the small fish selling at 10c a lb., instead of two pounds for 25c.
29 April 1911	New Westminster, BC	<i>The Daily News</i> , p. 4, col. 2 (New Westminster, BC)	Market Report. ... Oolichans on the other hand have had their day and the little fish are now going cheaply. ... Oolichans, per lb. ... 12½c
10 May 1911	Chilliwack, BC	<i>The Chilliwack Progress</i> , p. 6, col. 2 (Chilliwack, BC)	THE MARKET. ... NEW WESTMINSTER, May 5. ... Oolichans 3 lbs 25c.
13 May 1911	New Westminster, BC	<i>The Daily News</i> , p. 2, col. 4 (New Westminster, BC)	Market Report. ... Oolichans and halibut continue to arrive in greater quantities than there is call for ... Oolichans, per lb. ... 6c to 8c
24 May 1911	Chilliwack, BC	<i>The Chilliwack Progress</i> p. 3, col. 6 (Chilliwack, BC)	The fish market, so far as prices are concerned, showed little change, but there were no oolichans offered for sale, the season for these tender, dainty little fish having ended.
26 May 1911	Fraser River	<i>Abbotsford Post</i> , p. 4, col. 2 (Abbotsford, BC)	THE MARKET. ... there was no oolichans offered for sale, the season for these tender dainty little fish having ended.
1912			
21 February 1912	Fraser River	<i>Vancouver Daily World</i> p. 5, col. 3 (Vancouver, BC)	OOLICHANS REPORTED RUNNING IN FRASER. It is reported from New Westminster that the oolichans are running in the Fraser river. In other years the run has not commenced on the Fraser until early in April, and last year the oolichans were not in evidence until about April 5. However, the rumor is persistent. Mr. Monk, chairman of the Canner's association states that during his fifteen years' experience, such an event has been unheard of. The oolichans have been seen in the Fraser about this time in other years, but they ran so near the bed of the river that the nets were practically useless.
5 April 1912	Fraser River	<i>Abbotsford Post</i> , p. 2, col. 2 (Abbotsford, BC)	THE MARKET. ... there were no oolichans on the market. ...
20 April 1912	Fraser River	<i>The Delta Times</i> , p. 1,	OOLICHAN COMING. First Catch of Season Made This Morning—Main

Date	Location	Source	Quote
		col. 4 (Ladner, BC)	Run in a Few Days. (From the British Columbian.) The oolichan run has reached the Fraser. This morning one of Martin Monk's fishermen took a small catch, approximating forty-five pounds, and other catches are reported, but this is merely the vanguard of a mighty army of these small but prized fish which will now reach the river within a day or two. The run is due on April 5, but owing to certain circumstances, notably the extreme shallowness of the river and the clarity of the stream, it is later than usual this year. Now that the advance agents are here, as it were, it is only a matter of days before the main run arrives.
26 April 1912	Fraser River	<i>Abbotsford Post</i> , p. 1, col. 5 (Abbotsford, BC)	THE MARKET. ... Fish were as plentiful as ever, oolichans being the leader and selling well.
15 May 1912	Fraser River	<i>The Chilliwack Progress</i> , p. 4, col. 4 (Chilliwack, BC)	Oolichans have at last reached this portion of the Fraser River and the native is making his little pin money peddling this toothsome little fish amongst the residents of the city. It is almost a month since the first announcement of their appearance at the mouth of the river
24 May 1912	Fraser River	<i>Abbotsford Post</i> , p. 4, col. 4 (Abbotsford, BC)	THE MARKET. ... Oolichans having run their cycle, have disappeared from the fish market. ...
	Kingcome River Klinaklini River	Dominion of Canada (1912, p. 226, 228)	During the spring at Kingcome Inlet, tons of small fish called oulachon, are caught and piled on the banks of the river to rot in order to release the oil, which is used as an article of food. ... The Tsawati river [= Klinaklini River], which flows into Knight inlet, is the best place in the agency to catch oulachon, and a great deal of oil is made there by this band.
1913			
19 April 1913	Fraser River	<i>The New Westminster News</i> , p. 6, col. 3	The Market ... Oolichans caught in the Fraser river were placed on sale for the first time this year and what supply was on hand was soon snapped up.
23 April 1913	Fraser River	<i>Abbotsford Post</i> , p. 3, col. 3 (Abbotsford, BC)	THE MARKET. For the first time this year fresh local oolichans were offered for sale at the regular weekly market, New Westminster, selling at three pounds for 25c; those which have been on sale heretofore having been imported from the Columbia River.
23 April 1913	Fraser River	<i>The Chilliwack Progress</i> p. 2, col. 4 (Chilliwack, BC)	Oolichan Run Is On. — Rivermen report that the vanguard of the oolichan run is coming up the river. This is about ten days later than usual for this tasteful little fish to make its appearance in the Fraser. Small supplies of oolichans have been on the fish markets of the coast the past couple of weeks, being brought in from the Columbia river stations.
30 April 1913	Fraser River	<i>The Chilliwack Progress</i> p. 5, col. 1 (Chilliwack, BC)	Spring Salmon Scarce. —While the Fraser River is full of oolichans ... The oolichan run is expected to last until the second week in May.
2 May 1913	Fraser River	<i>Abbotsford Post</i> , p. 2,	THE MARKET. ... Oolichans, in unlimited supply, were offered for the

Date	Location	Source	Quote
		col. 2	shoppers and found a ready sale at three pounds for 25 cents. ...
17 May 1913	New Westminster, BC	<i>The New Westminster News</i> , p. 6, col. 3	The Market ... Oolichans, however, were a minus quantity, having disappeared from the market.
21 May 1913	Fraser River	<i>The Chilliwack Progress</i> p. 3, col. 3 (Chilliwack, BC)	Flights of Seagulls. — The past week this section of the Fraser River has been visited daily by large flocks of seagulls. They follow the schools of oolichans in thousands up the river, feeding on them during the day and returning to the salt water after sunset. The oolichan run this year, while late than usual, has been large. They travel in large schools, millions of them being in one school, and during the bright days the water has the appearance of silver glittering and flashing in the sunlight in the parts where these tiny fish are.
23 May 1913	Fraser River	<i>Abbotsford Post</i> , p. 3, col. 2 (Abbotsford, BC)	MARKET DAY. ... In the fish section the disappearance of oolichans was the only feature worthy of note. ...
1914			
16 April 1914		<i>The Chilliwack Progress</i> p. 2, col. 2 (Chilliwack, BC)	It is expected that within the next few weeks the first catch of Fraser river oolichans will be offered for sale. Up to the present the oolichans on the market have come from the Columbia river.
17 April 1914		<i>Abbotsford Post</i> , p. 2, col. 3 (Abbotsford, BC)	THE MARKET. ... It is expected that within the next few weeks the first catch of Fraser river oolichans will be offered for sale. Up to the present the oolichans on the market have come from the Columbia river. ... Oolichans, per lb. 10c
18 April 1914	Fraser River	<i>The New Westminster News</i> , p. 4, col. 5	Fraser river oolachans made their initial appearance yesterday although the Columbia river product has been offered for sale for several weeks.
18 April 1914	Bella Coola River	<i>Bella Coola Courier</i> , p. 1, col. 4	The anxiously awaited run of Oolichans is slow in arriving, and it seems probable that this delicate fish will this year give Bella Coola the go-bye.
21 April 1914	Nass River	<i>The New Westminster News</i> , p. 2, col. 3	Nass Fishing. "The Nass is having the greatest run of oolachan in the history of the river," according to a statement made by H. S. Irwin, the provincial district forester, in an interview given to the Daily News, of Prince Rupert. ... The ice in the Nass broke up very early this year ... "At Fishery bay," said Mr. Irwin, "there were over 400 Indians camped, all fishing oolachans. It is not often they are able to fish from boats, as the river is usually frozen over in oolachan time. This year the river is clear of ice and there are lots of fish. The fish bins are lined along the river for a mile and the fish are four feet deep in them. There must be 2000 tons of fish already caught. Indians from all the villages on the Nass and many of the other coast settlements are there.
1 May 1914	Fraser River	<i>Abbotsford Post</i> , p. 2, col. 4-5 (Abbotsford, BC)	24 May 1912. ... Fraser River oolichans in large quantities were a feature of the fish market again ... Oolichans dropped slightly in price selling at three dozen at 25 cents. ...
7 May 1914	Fraser River	<i>The Chilliwack</i>	Fraser river oolichans again were the feature of the fish department, which

Date	Location	Source	Quote
		<i>Progress</i> p. 2, col. 1 (Chilliwack, BC)	dropped in price from three pounds for 25 cents to four pounds for 25 cents. This will be the last appearance of the oolichans.
8 May 1914	Fraser River	<i>Abbotsford Post</i> , p. 2, col. 3 (Abbotsford, BC)	H[E]AVY OFFERING OF THE SPRING VEGETABLES ... Fraser River oolichans again were the feature of the fish department which dropped in price from three pounds for 25 cents to four pounds for 25 cents. This will be the last appearance of the oolichans. ...
1915			
3 April 1915	Bella Coola River	<i>Bella Coola Courier</i> , p. 1, col. 5	The first of the oolichan run has reached here and fair catches are being made by the Indians. Needless to say they are thoroughly appreciated and are in big demand. Next week will probably see the best of the run.
15 April 1915	Fraser River	<i>The Chilliwack Progress</i> p. 1, col. 5 (Chilliwack, BC)	In the fish stalls, Fraser river oolichan were the new feature and the stock was quickly disposed of at 8 cents per pound.
		Parliament of Canada (1915, p. 262)	<i>Oulachons</i> .—The catch of oulachons was larger this year than ever before. Last year the catch was 550 cwts., but this year 800 cwts. were taken. These fish are nearly all taken in the waters adjacent to the mainland part of the district.
	Kitlope River	Collison (1915, p. 62)	I embarked again, to pay a visit to the Giatlaub Indians at the head of Gardiner's Channel [=Gardner Canal]. ... I found them encamped at the head of their wonderful channel, on a stream [Kitlope River] which flows into the head of the inlet. They were engaged in the olachan fishing, for this little fish is found there also, though in but small measure as compared with the Nass River. They are not so rich in grease, either, as those caught on the Nass.
	Nass River	Collison (1915, p. 67-70)	For centuries the olachan fishing on the tidal waters of the [Nass] river has attracted the Indians of the tribes from all quarters. ... the fish ... usually arrive about the middle of the month of March. ... The olachan, because of its richness in oil, was formerly known as the "candle fish," as when partly dried the Indians used it as a torch by night. As already stated, the first shoal of fish arrive about the middle of March. I have witnessed them followed into the mouth of the river by hundreds of seals, porpoises, sea-lions, and fin-back whales, feasting both on the olachans and upon one another. ... The question has repeatedly been discussed by the Indians and others, how any of the fish survive to reach the spawning grounds, when their enemies are so numerous. The explanation is, we believe, that the shoals are not formed in the open ocean but rather in the mouths of the rivers, to which the fish make their way as the season approaches. Here they appear to swim around for a day or two till the shoal is formed, when they move onward to the spawning grounds. ... with the arrival of the fish the scene changes. First there are the Indians in their boats or canoes, or with their dogs, hauling their sleighs along the ice to their various camps. Then the sea-

Date	Location	Source	Quote
			gulls begin to arrive, first in flights of hundreds or more, but soon to increase to thousands and myriads, until they appear as snowflakes filling the air. They are usually accompanied by numbers of the white-headed eagle, which wings a higher flight, and circles round and round whilst the sea-gulls feast. The Indians prefer to fish on the ice, as it is so much easier, and because they can use their dogs and sleighs to advantage. Each party or household proceeds to saw openings in the ice, which is usually from two to four feet in thickness. Two openings are necessary for each net, one about twenty feet in length by about one foot in breadth, through which the net is let down. This opening has a pole driven down at either end on which the mouth of the net is hung by rings made from withes of red cedar. These rings are pushed down by another pole with a crook on the end until the net rests on the bottom, when the mouth is kept open by a fixture for this purpose. As the net is long and purse-shaped, narrowing from the mouth, another opening is made in the ice at right angles from the first, about four feet by eight. Through this the narrow end of the net is hauled up with a stick shaped for this purpose, and as the smaller end of the purse of the net is open, but tied when let down, when drawn up the end is untied, and the fish thrown out on the ice or into the boat or canoe as the conditions may be. Should the ice have broken up and cleared out before the fishing opens, then all the work is done in their boats and canoes. ... Much of the fishing is done at night, as they must put down their nets with every falling tide; then hundreds of lanterns are seen flitting and flashing to and fro, which with the shouting and hammering produces quite a busy scene. During the day men and women and even the children are engaged with dogs and sleighs conveying the fish to the shore, where they are heaped up in square or oblong bins three or four feet in depth. Each household will thus have from five to ten tons of fish, and more, from which to extract the oil or grease after they have salted sufficient for future use, and also a quantity to be sun-dried or smoked. ... Though the Indian fishermen land thousands of tons of this fish, yet the sea-gulls catch and consume a greater quantity. The Indians rather challenged this statement when I made it, but I convinced them of the truth of it in a practical manner. I called upon them to ascertain for themselves about how many fish a sea-gull devoured in a day. It was found that those sea-gulls which were shot at noon had swallowed six fish on an average, consequently it may be assumed that each bird would catch and consume as many more in the afternoon of each day. This would equal twelve fish on an average to each sea-gull, and on weighing this number of fresh fish it was found that they weighed just one pound. At this rate one hundred thousand sea-gulls would consume the same number of pounds of fish, or just fifty tons per day. This would equal fifteen hundred tons in a month

Date	Location	Source	Quote
			of thirty days as April, when the fishing is in full operation. And if the sea-gulls make away with such a quantity, what shall we say of the seals with their greater capacity and opportunity, being in the same element ?
1916			
14 April 1916	Fraser River	<i>The Pacific Canadian</i> p. 3, col. 4 (New Westminster, BC)	City Market. ... The first oolichans of the season were on the market, at 10c per lb.
20 April 1916	Fraser River	<i>The Chilliwack Progress</i> p. 7, col. 4 (Chilliwack, BC)	Oolichans from the Fraser river were on sale for the first time, bringing the price down to 10 cents a pound.
	Kingcome River Klinaklini River	Dominion of Canada (1916, p. 89)	In the spring, commencing about April 10, the oulachon fish run in the rivers at Kingcome Inlet and Knight Inlet, and large quantities are caught; but at present the only use made of them is for the oil, which is extracted and boiled, and forms an article of commerce amongst themselves.
1917			
1918			
18 April 1918	Fraser River	<i>The Chilliwack Progress</i> p. 8, col. 3 (Chilliwack, BC)	THE FOOD MARKET. New Westminster, April 14. ... In the fish section, the feature was the first of the season's run of Fraser river oolichans, which sold for 15c. a pound. Hitherto all the oolichans that have been on the market were Columbia river fish.
2 May 1918	Fraser River	<i>The Chilliwack Progress</i> p. 5, col. 1 (Chilliwack, BC)	Fraser River Oolichans, 3 lbs ..25c.
1919			
1920			
	Kingcome River Klinaklini River	Parliament of Canada (1916, p. 262)	<i>Oulachons.</i> —There was a splendid run of oulachons in the northern part of the district [District No. 3] this year, especially on the mainland coast, and the catch was in advance of that of previous years.
15 April 1920	Fraser River	<i>The Vancouver Daily Sun</i> , p. 2. col. 4 (Vancouver, BC)	ROYAL CITY NEWS. Spring Salmon Running Heavily in Fraser River. ... NEW WESTMINSTER—Yesterday the oolichans started to run in the Fraser and in consequence a very considerable number of sea gulls could be observed hovering over the waters of the river opposite this city. The oolichans constitute almost exclusively a fresh fish supply, very few are shipped out and they are not taken for canning purposes. About 8 cents per pound is paid to the fishermen for these fish, but the prices vary. ... it is recorded that the oolichans, although never over fished in any season, have been of a much lighter run in the past five years than in any previous period in the history of the industry.

Date	Location	Source	Quote
22 April 1920	Fraser River	<i>The Chilliwack Progress</i> p. 3, col. 4 (Chilliwack, BC)	FRASER VALLEY MARKET PRICES. NEW WESTMINSTER, April 16. ... no changes were quoted in the fresh fish market where oolichans made their first appearance of the season. Fifteen cents a pound was asked for these.
1921			
26 April 1921	Vancouver, BC	<i>The Province</i> , p. 4 (Vancouver, BC)	FRASER RIVER OOLICHANS, 3 LBS ... 25C
13 May 1921	Fraser River	<i>Abbotsford Post</i> , p. 4, col. 3 (Abbotsford, BC)	The ollichans [sic] are running in the Fraser river, the largest run, it is said, for five years.
1922			
1 April 1922	New Westminster, BC	<i>The Vancouver Sun</i> , p. 2, col. 4	Carloads of Prairie. Livestock Are coming to Royal City Market. ... NEW WESTMINSTER. March 31— ... oolichans 2 lbs. for 25c
8 April 1922	New Westminster, BC	<i>The Vancouver Sun</i> , p. 2, col. 5	Easter Market Day is Thursday. ... NEW WESTMINSTER. April 7— ... oolichans 1 lb. for 25c
14 April 1922	New Westminster, BC	<i>The Vancouver Sun</i> , p. 2, col. 5	Easter Flowers Feature Market. NEW WESTMINSTER. April 13— ... oolichans 2 lbs. for 25c
6 May 1922	New Westminster, BC	<i>The Vancouver Sun</i> , p. 2, col. 5	Royal City Mart. NEW WESTMINSTER. May 5— ... Oolichans 3 lbs. for 25c
1923			
20 April 1923	Fraser River, New Westminster, BC	<i>The Vancouver Sun</i> , p. 2, col. 3	NEW WESTMINSTER, April 19.—... PLENTY OF “OULICHANS” The yearly run of oulachans or “candle fish” has started in the Fraser river and fair sized catches are reported. This small fish, according to an authority, runs only for a period of six weeks. The term “candle fish” is derived through Indians using the fish when in a dried state as candles; the fatty substance burning brightly and throwing a clear light. Indians boil them in large cauldrons and use the melted fat as butter.
1924			
8 May 1924	Fraser River	<i>The Chilliwack Progress</i> p. 5, col. 3 (Chilliwack, BC)	LOCAL AND GENERAL. ... The annual run of “Oolichans” in the Fraser has been offering considerable sport and many a tasty dish during the past few days.
1925			
13 May 1925	Fraser River	<i>The Chilliwack Progress</i> p. 3, col. 4 (Chilliwack, BC)	THE WEEKLY MARKET. ... Four fishing boats were tied up at the market wharf and the owners did a land office business disposing of oolichans at 8 pounds for 25 cents.
1926			
1927			
1928			

Date	Location	Source	Quote
1929			
25 April 1929	Fraser River, New Westminster, BC	<i>The Vancouver Sun</i> , p. 7, col. 3	Oolichan Catch Large on Fraser. NEW WESTMINSTER, April 25.—Oolichans, or candle fish, have started on the annual run up the Fraser river. The catch is averaging two or three tons daily, and is disposed on the fresh fish markets. ...
1930			
1931			
27 April 1931	Vancouver, BC	<i>The Province</i> , p. 5 (Vancouver, BC),	Fraser River oolichans, 4 lbs for 25C
24 April 1931	New Westminster, BC	<i>The Vancouver Sun</i> , p. 2, col. 4	Royal City Mart. NEW WESTMINSTER. April 24— ...Oolichans, 4 lbs. ... 25c
1 May 1931	New Westminster, BC	<i>The Vancouver Sun</i> , p. 2, col. 6	Royal City Mart. NEW WESTMINSTER. May 1— ...Oolichans, 4 lbs. ... 25c
6 May 1931	Chilliwack, BC Fraser River	<i>The Vancouver Sun</i> , p. 10, col. 6	Oolichans Galore in Fraser. WIRE BASKETS ON POLES TAKE OUT THOUSANDS. CHILLIWACK, May 8.—Oolichans by the thousands are being scooped from the Fraser River here. Wire net baskets on the end of poles, pails and other devices are being used in capturing them. Indians in canoes have loaded all they can carry by bailing them out of the river. Residents of the district are indulging in the sport, and Oolichans are gracing the daily menu card. They are exceedingly plentiful this spring, but are not expected to move any further up the river. Sunday [3 May 1931] was the heaviest run. Reports today show the numbers decreasing.
7 May 1931	Fraser River	<i>The Chilliwack Progress</i> p. 8, col. 4 (Chilliwack, BC)	The people of Sumas and Atchelitz districts enjoyed great sport Sunday and Monday with their dip nets on the shores of the Fraser river. Catches of ooligans weighed as much as 100 pounds in some cases.
8 May 1931	New Westminster, BC	<i>The Vancouver Sun</i> , p. 2, col. 5	Royal City Mart. NEW WESTMINSTER. May 1— ...Oolichans, 4 lbs. ... 25c
22 May 1931	New Westminster, BC	<i>The Vancouver Sun</i> , p. 2, col. 6	Royal City Mart. ...Oolichans, 4 lbs. ... 25c
1932			
22 April 1932	New Westminster, BC	<i>The Vancouver Sun</i> , p. 22, col. 5	New Westminster Market. NEW WESTMINSTER. April 22. — ... Oolichans made their appearance on the stalls today, the spring run having started on the Fraser River. ... Fish—Wholesale ... Oolichans, 3 lbs. ... 25
29 April 1932	New Westminster, BC	<i>The Vancouver Sun</i> , p. 28, col. 5	Royal City Market. ... Fish—Wholesale ... Oolichans, 3 lbs. ... 25
13 May 1932	New Westminster, BC	<i>The Vancouver Sun</i> , p. 29, col. 6	New Westminster Market. NEW WESTMINSTER. May 13. — ... Fish—Wholesale ... Oolichans, 3 lbs. ... 25

Date	Location	Source	Quote
1933			
1 May 1933	New Westminster, BC	<i>The Vancouver Sun</i> , p. 18, col. 6	Spring Salmon Run Late on Fraser. NEW WESTMINSTER. May 1. ... The catch of oolichans is also reported to be below normal.
5 May 1933	New Westminster, BC	<i>The Vancouver Sun</i> , p. 24, col. 4	Royal City Market. NEW WESTMINSTER. May 5. — ... Fish—Wholesale ... Oolichans, lb. ... 02
12 May 1933	New Westminster, BC	<i>The Vancouver Sun</i> , p. 22, col. 5	Royal City Market. NEW WESTMINSTER. May 12. — ... Fish—Wholesale ... Oolichans, lb. ... 06
19 May 1933	New Westminster, BC	<i>The Vancouver Sun</i> , p. 22, col. 5	Royal City Market. NEW WESTMINSTER. May 19. — ... Fish—Wholesale ... Oolichans, lb. ... 06
1934			
1935			
1936			
1937			
1938			
27 April 1938	Fraser River	<i>The Chilliwack Progress</i> p. 6, col. 7 (Chilliwack, BC)	Fraser Valley Market, New Westminster, Friday. ... Fish stalls attracted big custom, oolichans, now running, being sold out quickly at six cents a pound.
29 April 1938	Vancouver, BC	<i>The Province</i> , p. 2 (Vancouver, BC),	Fraser River oolichans, lb. 5c
1939			
12 April 1939	Fraser River	<i>The Chilliwack Progress</i> p. 6, col. 5 (Chilliwack, BC)	New Westminster Market - Friday. ... Fish dealers offered new supplies of fresh oolichans from the Fraser river at two pounds for 25 cents.
14 April 1939	New Westminster, BC	<i>The Province</i> , p. 31 (Vancouver, BC)	MARKET AWAITS LOCAL PRODUCE First Oolichans Appear At New Westminster. ... NEW WESTMINSTER, April 14.— ... Appearing in the fish list were oolichans, which were quoted at 3 pounds for 25 cents.
12 May 1939	New Westminster, BC	<i>The Vancouver Sun</i> , p. 3, col. 4	Royal City Market. NEW WESTMINSTER. May 12. — ... Fish—Wholesale ... Oolichans, lb. ... 02
1940			
26 April 1940	Fraser/Pitt River	<i>The Vancouver Sun</i> , p. 30, col. 2	Those folks who like Oolichans have been having a great time at the Pitt during the last few days. The annual run is at its peak right now.
1941			
3 April 1941	Langley, BC	<i>Langley Advance</i> (Langley, BC), p. 4	Ooligans are now running, fresh daily, per lb. 10c [Valley Meat Market advertisement].
7 May 1941	Fraser River	<i>The Chilliwack Progress</i> p. 10, col. 4	Oolachan fishing has been good at the foot of Wellington avenue, it is reported.

Date	Location	Source	Quote
		(Chilliwack, BC)	
1942			
23 April 1942	Langley, BC	<i>Langley Advance</i> (Langley, BC), p. 4	FRESH OOLIGANS at the Ferry Wharf. Fort Langley, every day while they last. E, Magnussen.
6 May 1942	Fraser River	<i>The Chilliwack Progress</i> p. 2, col. 3-5 (Chilliwack, BC)	SILVER HORDE INVADES FRASER RIVER, Oolichan Fishing Popular Pastime This Week ... By J. W. Burns (<i>Special to The Progress</i>). Oolichan fishing reached its peak in the Chilliwack waters of the Fraser River this week when many tons of the mysterious, oily little fish were taken by local Indians and whites. Thousands of seagulls followed the silvery horde all the way up the Fraser to Laidlaw, the farthest point on the Fraser where the fish spawn. Oolichans were so plentiful and so easily obtained this season that there is hardly any doubt but that everybody in the Fraser Valley, including the fish guardians, sampled this little fish—and they should—for it only visits our coast once a year and then only for ten days.
1943			
21 April 1943	Vancouver, BC	<i>The Province</i> , p. 18 (Vancouver, BC)	FRASER RIVER SMELTS, Oolichan, lb. 10c
1944			
1945			
1946			
1947			
25 April 1947	Vancouver, BC	<i>The Province</i> , p. 7 (Vancouver, BC)	Woodward's grocery, FRASER RIVER OOLICHANS—Fresh, 2 lbs. 21c
1948			
22 April 1948	Langley, BC	<i>Langley Advance</i> (Langley, BC), p. 1	THE OOLACHAN HARVEST. Oolachans! Those little fish that are becoming big business are coming out of the Fraser once more by the thousands. Fishing for the silver harvest started on Monday morning at Fort Langley when Harry Wask and his brother, Mike, put out three boats with three nets. Harry reports that the oolachans seem exceptionally large this year. Indian lore claims that this is an indication of a good fishing season in all types of fish for the balance of the year. ... The fish, insignificant a few years ago to the white man, are now being exported all over the North American continent. They are used for fresh fish, mink feed, frozen fish and oil. ... The rich oil makes them very tasty for the dinner table and consequently considered by many as a toothsome delicacy.
23 April 1948	Vancouver, BC	<i>The Province</i> , p. 7 (Vancouver, BC),	Woodward's grocery, OOLICHANS---Fresh, Fraser River per lb. 12c
5 May 1948	Fraser River	<i>The Chilliwack</i>	OOLACHANS REACH DISTRICT. Oolachan hunting has become one of the

Date	Location	Source	Quote
		<i>Progress</i> p. 1, col. 7 (Chilliwack, BC)	favorite outdoor sports of Chilliwack and district residents. Over the week-end, dozens of Chilliwack folk went hunting for the famed candlefish off Miller's landing and found fishing was good.
1949			
13 April 1949	Vancouver, BC	<i>The Province</i> , p. 6 (Vancouver, BC)	Woodward's grocery, Fresh OOLICHANS--- Fraser River per lb. 14c
19 April 1949	Fraser River	<i>The Province</i> , p. 1 (Vancouver, BC),	IVERSON MAKES FIRST CATCH. Oolichans Running in Fraser Again. From The Vancouver Daily Province New Westminster Bureau. NEW WESTMINSTER – It's oolichan time again. The tiny, tasty fish, which run in the Fraser for three weeks each year, went on sale Monday [18 April 1949] at Fishermen's Dock here. First man to bring them in was E. A. Iverson of Sunbury, who has gone out after oolichans for 47 years. He caught 75 pounds in his first drift, averaging 12 fish a pound. Because the season is so short and equipment costs a lot, only 20 or so oolichan fisherman are on the river this year. For years, before oolichans became recognized as a delicacy, sale was limited to door-to-door peddling, to fur farmers who paid a cent a pound, and boat-side customers. In the last three years, however, commercial dealers have been shipping surplus catch to eastern Canada and the U.S. Indians, who call them candlefish, catch them in the north for oil, used in butter and for lamps. Oolichans also are known as Columbia River smelts. ...
1950			
20 April 1950	Fraser River	<i>The Province</i> , p. 3 (Vancouver, BC)	Fishermen Prepare For Oolichan Catch. Special to The Vancouver Daily Province. ALBION—Fishermen here are already setting out oolichan nets and others are getting nets and boats ready for the run on the Fraser, expected to reach its peak next week. The oolichan run generally lasts about three weeks. From April 25 to the end of the month is expected to be the busiest part of the season. For some unknown reason the run here was poor last year. Most of the fish only reached Hammond, some eight miles down the river from Albion. ...
24 April 1950	Vancouver, BC	<i>The Province</i> , p. 7 (Vancouver, BC)	Woodward's grocery, FRESH FRASER RIVER OOLICHANS—per lb. 16c
18 May 1950	Fraser River	<i>The Province</i> , p. 12 (Vancouver, BC)	Oolichans Short. ALBION —The oolichan run was nearly a complete failure here. Fishermen blame the 1948 flood.
1951			
25 April 1951	Vancouver, BC	<i>The Province</i> , p. 21 (Vancouver, BC)	They're here again' Fresh from the Fraser -Oolichans lb. 22c
26 April 1951	Langley, BC	<i>Langley Advance</i> (Langley, BC), p. 4	Oolachans Are Running. Oolachans, those small, oily, tasty morsels which are taken ... on the Fraser ... each year have begun their annual run again this year.

Date	Location	Source	Quote
			When fishing closed last weekend on the Fraser the silver fingerlings had only made a sparse representation as far up the river as Fort Langley, although the run was reported to be fairly heavy at the mouth of the river. [A] Heavy run of the fish is expected to start around Fort Langley this Thursday or Friday. Progress of the oolachans up the river can be followed by the flights of the gulls. The gulls follow the fish up the river during the day and return in large flights each evening about dusk.
30 April 1951	Vancouver, BC	<i>The Province</i> , p. 7 (Vancouver, BC)	FRESH OOLICHANS Fraser River, per lb. 16c [grocery advertisement].
3 May 1951	Vancouver, BC	<i>The Province</i> , p. 7 (Vancouver, BC)	FRASER RIVER OOLICHANS Fresh 17c per lb. [grocery advertisement].
10 May 1951	Langley, BC	<i>Langley Advance</i> (Langley, BC), p. 1	Heavy Oolachan Catch Consigned To U.S. Army. The entire catch of oolachans now being harvested from the waters of the Fraser near Fort Langley are being consigned to the American Army. Harry Waska, commercial fisherman operating the small oolachan fleet at Langley says he does not know what the fish are being used for but he suspects the US Army to making use of the high oil content in the fingerlings. Thousands of boxes of the oolachans (Indian term for "candle fish") are daily leaving the wharf on the far side of McMillan Island Indian Reserve to be placed in cold storage until the American Army calls for them. Mr. Waska reports that the catch this year is quite an improvement over last year. Only a few that are sold locally are not being put into cold storage. In past years the oolachan market depended entirely on local sales, and cold storage for fox and mink feed, with the surplus going for fertilizer. Local sales are for housewives to cook fresh, can or salt away for use in the wintertime. ... Mr. Waska is operating two oolachan fish boats from the Fort wharf and has another two boats to serve as auxiliaries. They make their drifts, returning to the covered scow at the wharf where a crew of men and women wait to shake the silverlings out of the close mesh. Fish literally [sic] fly through the air as the nets are tossed as one would flip a sheet. After a net has been emptied fish are picked up with scoop shovels and crated in boxes that weigh about 50 pounds each.
1952			
1953			
1954			
20 April 1954	Fraser River	<i>The Province</i> , p. 20 (Vancouver, BC)	Fishermen Out In Fraser River Today Looking for First Candle Fish Catch. NEW WESTMINSTER —The Fraser River's big oolichan run is expected this week. Sturgeon have already started to move downstream to meet the run and several fishermen are on the river today looking for the first catches.

Date	Location	Source	Quote
			Although oolichans are delicious as a fresh fish it is not expected there will be too much of a commercial demand for them this year. Several years ago quantities of them were canned but the market was soon flooded and last year fishermen were unable to sell their catches. ...
06 May 1954	Vancouver, BC	<i>The Province</i> , p. 9 (Vancouver, BC)	FRESH FRASER RIVER OOLICHANS 14c per lb. [Woodward's grocery advertisement].
12 May 1954	Fraser River	<i>The Chilliwack Progress</i> p. 1, picture caption (Chilliwack, BC)	Little groups like this one have been lining both banks of the Fraser River from Ballam Slough to Mission during the last week. One local man reported that at Bowman's Mill Sunday he and some friends took about 500 pounds of oolachans. The fish, small and silvery, are called by Indians candle fish. They are extremely oily but many a Chilliwack home would miss its annual feed of oolachans. — Staff photo. ... Bowman's Mill was the hot spot Saturday and Sunday but Monday night one man reported his bag was nil. The fish apparently had moved upstream, chased by flocks of gulls. — Staff photo.
12 May 1954	Fraser River	<i>The Chilliwack Progress</i> p. 10, col. 3 (Chilliwack, BC)	Annual "Oolichan" run on in Fraser.
1955			
18 April 1955	New Westminster, BC	<i>The Province</i> , p. 1 (Vancouver, BC)	Sturgeon, gulls on prowl. The oolichan run is on! Rivermen net tiny tidbit. NEW WESTMINSTER – The oolichan run is on. First schools of the tiny, silver fish arrived in the Fraser during the weekend [16 April 1955] and they should be here in full force by the end of the week.
20 April 1955	Fraser River	<i>The Province</i> , p. 3 (Vancouver, BC)	Oolichan run is on. CANDLE FISH are running! coming in on the Fraser River slack tides in limitless millions are those distinctly native fish, the oolichans! Andrew Waterman, 23, 1869 Westminster highway, Lulu Island, snapped 150 pounds in his first drift. Before the three-week run ends single drifts may net more than a ton. The run is accompanied by hordes of screaming seagulls which pluck the squirming fish from the water. Huge half-ton sturgeon, also rise from their riverbed holes to feast on the succulent fish. Known also as candlefish, the Oolichan played an important part in the diets of trappers and the first settlers. DELICIOUS DISH The fish are delicious pan fried and were once rendered for their rich fat and oil. The Indians would run a wick through it when dried and use it for a candle. There is little commercial use for the Oolichan now but thousands look for the run and "a few good meals." Most of the fish are sold from river-front wharves but are carried in a few stores. NET BOATS OUT. Many people still go to the river with dip nets and harvest their own catch from a dock or boom of logs. Two gillnetters were out in the river this morning but

Date	Location	Source	Quote
			catches are still poor. “The big part of the run won't be here for a few days, when the weather warms up,” a fisherman said.
20 April 1955	Fraser River	<i>The Chilliwack Progress</i> p. 1, col. 1-2 (Chilliwack, BC)	OOLICHAN START RUN UP FRASER. Annual run of oolichans — or candle fish — has started in the Fraser river. First trace of the... a sign of Spring in the marine world, was reported on the New Westminster waterfront within the past few days and the big run is expected there later this week. [torn, unreadable]
11 May 1955	Fraser River	<i>The Chilliwack Progress</i> p. 1, col. 7-8 (Chilliwack, BC)	MORE OOLICHAN FISHERMEN THAN OOLICHANS. Hunting for oolichans has been proving a popular sport in Chilliwack this week. There have been more hunters than oolichans. Dozens of oolichan searchers, armed with the traditional long handled wire scoop have been roaming the banks of the Fraser river looking for the elusive candlefish. Some fair catches have been made at Bowman's mill, Arnold's and off the mouth of the Sumas river, according to reports but upstream, catches have been practically nil. Most of the fish apparently are running in channels on the north side of the river where hundreds of seagulls betray their presence.
1956			
12 April 1956	Fraser River	<i>The Province</i> , p. 4 (Vancouver, BC)	First oolichans caught in Fraser. NEW WESTMINSTER – First oolichan runs are in the Fraser – but not enough to make a good meal. Fishery officials report a few candle fish have been caught near Silverdale and others have been seen jumping near Sunbury. Several commercial boats have been fishing this week but without any results.
23 April 1956	New Westminster, BC	<i>The Province</i> , p. 8 (Vancouver, BC)	FIRST BIG catches of oolichans were landed in the Royal City today. The fish are being sold at Eighth Street Wharf and other fish boat docks for about 20 cents a pound. Fishermen expect the tiny candlefish will continue in their prime for another two or three weeks.
26 April 1956	Langley, BC	<i>Langley Advance</i> (Langley, BC), p. 8	OOLACHANS FOR SALE FORT LANGLEY WHARF 24-Hour Service
1957			
March 1957		<i>Pacific Fisherman</i> 55 (4): 33.	B. C. Smelt Fishermen Find Trawls are Effective Gear. Fraser River fishermen harvested a catch of about 400,000 pounds of eulachons (smelt) this season, most of the catch being processed into packaged frozen smelt. Fraser river fishermen have tried out several new forms of gear in the eulachon fishery this year. Converted shrimp trawls and a number of experimental hoop trawls have been tested. A modification of one or more of these types of gear may eventually replace the eulachon gillnet which has been used for many years. In this spring eulachon fishery highest catches were made with converted shrimp trawls towed by two gill-net boats. Fishermen have found this gear more

Date	Location	Source	Quote
			effective in catching, and easier to clear the net of fish after completing the drag. A trawl net hung on a 20' diameter hoop which drags the net clear of the bottom, has also proved effective. With this gear a slip knot on the cod end enables the catch to be released into the hold and does away with the tedious picking necessary with gill nets.
15 April 1957	Fraser River	<i>The Province</i> , p. 9 (Vancouver, BC)	\$40,000 OOLICHAN RUN HITS FRASER ON WEEKEND. NEW WESTMINSTER - The big Fraser River oolichan run will begin this weekend. First schools of the tiny, silver fish are in the river now and the big run will be here by Easter. The run is accompanied by hordes of screaming seagulls which pluck the squirming fish from the water. Huge half-ton sturgeon will rise from their riverbed holes to feast on the succulent fish and become entangled in gillnets. THE RUN IS worth between \$30,000 and \$40,000 a year to Fraser River fishermen. Last year's experiment of trawling has been banned by fisheries officials and gillnets will be used again this year. It is feared the run could be decimated if there are too many trawls on the river. Weekend closures for oolichans will be observed from 8 a.m. Friday to 8 a.m. Sunday, each week. The fish are delicious pan fried and were once rendered for their rich, fat and oil. THE FISH received their name from the Indians who would run a wick through them when dried and use them for a candle. There is little commercial use for the oolichan now but thousands look for the run and "a few good meals." Most of the fish are sold from river-front wharves and a few fishermen in Sunbury are now smoking them. Many still go to the river with dip nets and harvest their own catch from a dock or boom of logs.
27 April 1957	Fraser River	<i>The Province</i> , p. 3 (Vancouver, BC)	Fraser teeming with Oolichans. LADNER -- The oolichan run is at its best in the Fraser River this week and many Delta residents are availing themselves of a meal of this tasty little fish.
2 May 1957	Fraser River	<i>The Province</i> , p. 8 (Vancouver, BC)	Fishermen leaving oolichan run alone. 'No point' in fishing for them as margin of profit too small. ALBION --The Fraser River's annual oolichan run has hit Albion and is expected to reach its peak this week. Several years ago quantities of them were canned but this year the wholesale market is so poor that it does not pay fishermen to catch them. W. A. Lahti of 6th road, Albion, has in former years run a fleet of five or six gillnet boats and would sell from 50 to 100 ton of the rich, tasty fish, to the cannery at Steveston. Last year, the fishermen received five cents a pound from the cannery, this year they are only offered 4½ delivered to Steveston. "The margin of profit is small, even at five cents, and there is just no point in fishing if we are only offered 4½," said Mr. Lahti. "This will deprive many local fishermen of a source of income." "However," he continued, "for those who enjoy these little fish, they can be obtained from fishermen at the wharf at 17th avenue, Albion. Many tourists

Date	Location	Source	Quote
			avail themselves of this service." The oolichan, or candlefish, is a small fish and peculiar to the Pacific coast of the United States and Canada. It is allied to the smelt family and formed an important part of the diet of the Indians in the early days. It is so oily that when dried and a wick drawn through it, it will burn like candle. So, in times past it has been used by man both for food and light. Fishermen say the main run will last about 10 days.
1958			
22 April 1958	Vancouver, BC	<i>The Province</i> , p. 9 (Vancouver, BC)	Oolichans Fraser River 15C per lb. [Woodward's grocery advertisement].
17 May 1958	Fraser River	<i>The Province</i> , p. 2 (Vancouver, BC)	Fishermen get top springs. ALBION – Fraser river ... Oolichans are done for this season after a good run through April, which fishermen say was longer than usual.
1959			
13 April 1959	Fraser River	<i>The Province</i> , p. 2 (Vancouver, BC)	SPRING BUSTING OUT ALL OVER MAINLAND. ... Along the Fraser River from Richmond to New Westminster thousands of screeching seagulls circled high in the bright sunlight, heralding the arrival of the oolichan run in the river.
25 April 1959	Fraser River	<i>The Chilliwack Progress</i> p. 9, col. 5-6 (Chilliwack, BC)	Ooligans For Sale, at Fort Langley Wharf.
1960			
29 April 1960	Fraser River	<i>The Chilliwack Progress</i> p. 9, col. 3-4 (Chilliwack, BC)	OOLIGANS FOR SALE. Fort Langley Wharf.
1961			
21 April 1961	Fraser River	<i>The Chilliwack Progress</i> p. 7, col. 4-5 (Chilliwack, BC)	FOR SALE ... OOLIGANS At Fort Langley Wharf.
1962			
10 April 1962	Fraser River	<i>The Province</i> , p. 1 (Vancouver, BC)	Oolichan run hits Fraser. THE ANNUAL month-long Oolichan run has started on the Fraser River. Fishermen expect the heaviest part of the run to arrive next week.
25 April 1962	Fraser River	<i>The Chilliwack Progress</i> p. 9, col. 8 (Chilliwack, BC)	OOLICHANS FOR SALE. Fort Langley Wharf.
2 May 1962	Fraser River	<i>The Chilliwack Progress</i> p. 17, col. 3	Oily Oolies In Vast Swarms. Oolichans — 400,000 pounds of them — are attracting Fraser River fishermen throughout the Valley, and the local fraternity

Date	Location	Source	Quote
		(Chilliwack, BC)	have been as active as anybody pursuing the oily little fish. The two-week season was tapering off this week as vast swarms of oolichans moved up the river to spawning grounds. Some 50,000 ponds of the fish was expected to be hauled in to bring the total catch to its yearly expected average of 400,000 pounds. Gillnetter operators working the Fraser waters receive up to 20 cents a pound for the fish in sales to canneries.
1963			
05 April 1963	Fraser River	<i>The Province</i> , p. 21 (Vancouver, BC)	Oolichan run starts on Fraser. THE ANNUAL OOLICHAN run has started on the Fraser River and Raye Richards, 19, of New Westminster, buys some at the bargain price of 25 cents a pound. The run ends in about three weeks.
1964			
29 April 1964	Fraser River	<i>The Chilliwack Progress</i> p. 13, col. 1 (Chilliwack, BC)	OOLACHANS FOR SALE. Fort Langley Wharf and 9150 Glover Road, Waska Bros.
1965			
28 April 1965	Fraser River	<i>The Chilliwack Progress</i> p. 10, col. 2 (Chilliwack, BC)	OOLACHANS FOR SALE. Fort Langley Wharf, Waska Bros.
1966			
14 April 1966	Fraser River, New Westminster, BC	<i>The Sun</i> , p. 41, col. 4 (Vancouver, BC)	Oolichan Run Starts On Fraser. New Westminster—The annual month-long oolichan run has begun in the Fraser River and is expected to yield a catch of about 250,000 pounds. The fish, which grow to a maximum size of six to seven inches, began to appear in the river at the weekend [~9-10 April], but the run is not expected to reach its peak until the end of the month. About 1,000 pounds have been netted so far by 20 boats, a fisheries department spokesman said. Market demand for the oolichans, which are frozen and sold as Fraser River smelt, has been declining steadily since 1961 when the catch was 462,000 pounds. Oolichans are known also as candlefish because their bodies contain an oil sac which is highly prized by Indians. In early days it was used by them both as a fuel and food.
28 April 1966	Fraser River	<i>The Province</i> , p. 16 (Vancouver, BC)	Fraser run starts. OOLICHANS BACK. The oolichan run has returned to the Fraser River. Millions of the silver fish are on their way to the silt river bars near Mission City where they will spawn and die. They are the delight of seagulls and gourmets. Clouds of shrieking gulls follow the fish up river and dive on them when they swim near the surface. The fish are being sold at the Eighth Street wharf in New Westminster and in a few other fish markets. ... The run will last for several weeks.

Date	Location	Source	Quote
1967			
28 March 1967	Fraser River, New Westminster, BC	<i>The Sun</i> , p. 25, col. 5 (Vancouver, BC)	IN FRASER. Oolichan Run Due. New Westminster—Fraser River fishermen are readying their nets for the oolichan run. Cannery officials say the run should begin in three or four weeks but will not reach substantial proportions until about April 20. The oil-rich oolichan, similar to the freshwater smelt, has for centuries been highly prized by B.C.'s native Indians, who boil them to extract oil and dry them for winter storage. The oolichan is also known as the candle fish because it will burn when dried.
1968			
24 April 1968	Fraser River	<i>The Chilliwack Progress</i> p. 7, col. 2 (Chilliwack, BC)	OOLACHANS FOR SALE by Woska Bros., 9150 Glover Road, Ft. Langley Ferry Wharf
1976			
29 April 1976	Fraser River, Langley, BC	<i>Langley Advance</i> (Langley, BC), p. 7	Oolachans are in the Fraser. RECORD OOLACHAN harvest was found in the net of Waska's Bros. boat after it made a drift on the Fraser at Fort Langley Monday morning [26 April]. Operator Dave Weedmark had to call for help from nearby boats to get the net aboard with more than a ton of the little silver fish. Back at the dock, Dave, Harry Waska, and Linda Hamilton had their hands full stripping the net into the packing shed. The specialty catch is shaken out of the net inside and loaded into baskets each holding 40 pounds. Quality of the catch was admired by Mike Waska, before Dave carried the baskets up the wharf ramp to a waiting truck or dock-side customers. Most of the fish are put into cold storage for local sales and for distribution to specialty markets throughout the year. Oolichan run on the Fraser this year so far has been spotty, light on one drift and fairly heavy on others. The Fraser at Fort Langley is one of the few places in the world where white persons bother to harvest the little fish which have a high oil content and are considered to be a delicacy either fried fresh or smoked.
1981			
29 April 1981	Langley, BC	<i>Langley Advance</i> (Langley, BC), p. 6	HANDFULS of Oolachans were weighed by Mike Waska and son Rick at the Fort Langley Ferry landing as the fresh fish go on sale during their short run up the Fraser to spawning grounds. The season of the Oolachans began two weeks ago and fishermen hope it lasts to May 9th.
1985			
24 April 1985	Fraser River	<i>The Chilliwack Progress</i> p. 2, col. 8 (Chilliwack, BC)	Fresh From The Fraser OOLACHANS 49c lb.

Date	Location	Source	Quote
1986			
14 April 1986	Fraser River	<i>The Vancouver Sun</i> , p. 1, col. 2-6 (Vancouver, BC)	Sea lions feast in readiness for summer of sex. By Larry Pynn. As many as 200 California sea lions have gathered near the mouth of the Fraser River to gorge on greasy oolichans before returning south for a summer of sex. They've congregated at the Sand Heads, and their numbers could swell to 500 before the annual oolichan spawning run winds down at the end of the month. ... About 3,000 migratory Californian sea lions—all males—visit southern B.C. waters over the winter to fatten before returning to breed in the summer at rookeries off the California coast. ...
23 April 1986	Langley, BC	<i>Langley Advance</i> (Langley, BC), p. 1	IT'S A LITTLE FISHY on the government wharf in Fort Langley these days as the Oolachan run began Monday morning. The small, somewhat oily fish only makes its debut in these parts once a year for a brief two weeks at the end of April. ...
7 May 1986	Fraser River	<i>Langley Advance</i> (Langley, BC), p. 1	More oolachans ended run in Fraser fishermen's nets. About 50 tonnes of oolachans were caught commercially during this year's two-week Fraser River run—double the 1985 haul. Fisheries Department spokesman Randy Webb said Tuesday that this spring's run was considerably better than last year. The oolachan season started in late April and though some of the small fish are still to be found, the run ended this week. Webb reported that some 50 tonnes of oolachans were nabbed this year, compared with 25 tonnes last spring. He added that as many as 17 boats were out this season, compared with about 13 last year. Despite the large increase, Webb says the catch is still far below historic levels of the forties, fifties, and early sixties. Local fisherman Mike Waska of Fort Langley said seals and sea lions have been devouring huge amounts of oolachans in recent years and contributing to the drop in catches. ... Market demand for oolachans is not high and local sales make up the majority of return for fishermen.
1995			
3 May 1995	Fraser River	<i>The Chilliwack Progress</i> p. 13, col. 1-4 (Chilliwack, BC)	A whale of a tale. ...Because the river is rich in Oolichans right now it provides an ideal feeding ground for seals and sea lions.
1997			
21 January 1997	Fraser River	<i>The Chilliwack Progress</i> p. 10, col. 5-6 (Chilliwack, BC)	Fraser's oolichan are in decline. By Sandy Macdougall, Metro Valley Reporter. A couple of decades ago almost every young boy living within striking distance of the Fraser River would head for the river during the annual oolichan run to scoop up the tiny fish with buckets, pails and makeshift nets. The fish were plentiful and it was a pleasant diversion, even if it meant playing hookey to take part. It's an experience that has all but disappeared as stocks of

Date	Location	Source	Quote
			oolichan have dwindled. The scarcity of the little fish has led the elders from three First Nation reserves to circulate a petition calling for a halt of all commercial oolichan fishing on the Fraser River. "Oolichans have been a crucial source of food for our people from time immemorial," Katzie, Kwantlen and Tzeachten elders said. The small silvery fish made their annual appearance in the Fraser and other coastal rivers in great numbers until less than a decade ago but the fish are becoming less abundant every year. "We used to catch oolichans all the way up to Chilliwack but now there are very few caught above New Westminster," said Mel Bailey, a Katzie elder. Sixty boats took part last year in the commercial oolichan fishery but they caught a total of only 79 tonnes and most of that was down river from New Westminster, Bailey said. "This is the seventh year of this disaster. We don't even catch enough for our traditional uses," he added.
4 April 1997	Fraser River	<i>The Chilliwack Progress</i> p. 9, col. 1-2 (Chilliwack, BC)	Fraser oolichan fishery shut down. By Robert Freeman. Staff Reporter. No commercial oolichan fishery on the Fraser River will be opened this year by the Department of Fisheries and Oceans. Aboriginal and recreational fisheries will continue, but the one-year commercial cancellation may not be long enough for the little fish that loom large in traditional Sto:lo diets. "They need to be allowed sufficient time to re-build," said Sto:lo Nation fisheries director Ernie Crey. He called on federal fisheries officials to continue studies into the decline of the fish, even though there is not a large commercial interest in oolichan. About a dozen commercial fishers have been taking about 20 tonnes of oolichan a year, but last year about 70 commercial fishing boats harvested oolichan, increasing DFO's concern about survival of the fish, a member of the smelt family. Federal fisheries officials were not available for comment at press time yesterday. Millions of oolichan once swam up the Fraser River past the Agassiz-Rosedale Bridge, but now barely make it to Deroche, Crey said. The fish have been in sharp decline all along the Pacific Coast for the past 10 to 12 years, but exactly why remains unclear.

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Table S4. Historical observations on eulachon in the Columbia River Basin.

Date	Place	Source	Quote
24 February 1806	Fort Clatsop	The Definitive Journals of Lewis and Clark, Down the Columbia to Fort Clatsop (Moulton 1990, p. 342–344)	This evening we were visited by Comowool the Clatsop Chief and 12 men women & children of his nation. ... The chief and his party had brought for sail ... a species of small fish which now begin to run, and are taken in great quantities in the Columbia R. about 40 miles above us by means of skimming or scooping nets. On this page I have drawn the likeness of them as large as life; it is as perfect as I can make it with my pen and will serve to give a general idea of the fish. The rays of the fins are boney but not sharp tho' somewhat pointed. The small fin on the back next to the tail has no rays of bone being a thin membranous pellicle. The fins next to the gills have eleven rays each. Those of the abdomen have eight each, those of the pinna-ani [anal fin] are 20 and 2 half formed in front. That of the back has eleven rays. All the fins are of a white colour. The back is of a bluish duskey colour and that of the lower part of the sides and belley is of a silvery white. No spots on any part. The first bone of the gills next behind the eye is of a bluis cast, and the second of a light goald colour nearly white. The puple of the eye is black and the iris of a silver white. The underjaw exceeds the upper; and the mouth opens to great extent, folding like that of the herring. It has no teeth. The abdomen is obtuse and smooth; in this differing from the herring, shad anchovey &c of the Malacopterygious Order & Class Clupea, to which however I think it more nearly allyed than to any other, altho' it has not their accute and serrate abdomen and the underjaw exceeding the upper. The scales of this little fish are so small and thin that without minute inspection you would suppose they had none. They are filled with roes of a pure white colour and have scarcely any perceptable alimentary duct. I find them best when cooked in Indian stile, which is by roasting a number of them together on a wooden spit without any previous preparation whatever. They are so fat they require no additional sauce, and I think them superior to any fish I ever tasted, even more delicate and lussious than the white fish of the lakes which have heretofore formed my standart of excellence among the fishes. I have heard the fresh anchovey much extolled but I hope I shall be pardoned for believing this quite as good. The bones are so soft and fine that they form no obstruction in eating this fish. We purchased all the articles which these people brought us. ... The sturgeon which they brought us was also good of it's kind. We determine to send a party up the river to procure some of those fish.
25 February 1806	Fort Clatsop	Journal of Patrick Gass [Sergeant on the Lewis and Clark Expedition] (Gass 1807, p. 194–197 in Moulton's 1996 reprint edition)	Tuesday 25. The rain continued and the weather was stormy. About 10 o'clock the Natives went away, though it continued to rain very fast. They brought us yesterday a number of small fish [eulachon], of a very excellent kind, resembling a herring, and about half the size.
26 February 1806	Fort Clatsop	Journal of Patrick Gass	Wednesday 26. We had a fair morning; some of the hunters went out, as our store of

Date	Place	Source	Quote
		(Gass 1807, p. 194–197 in Moulton’s 1996 reprint edition)	provisions was getting small, and three men went in search of these small fish, which we had found very good eating.
26 February 1806	Fort Clatsop	The Journals of Joseph Whitehouse [Sergeant on the Lewis and Clark Expedition], May 14, 1804–April 2, 1806 (Moulton 1997, p. 423–430)	... 2 of our men went in a canoe in order to go to the Clatsop & Cathlamet Village in order to purchase some fish from the Natives. We found the fish that we had purchased from them 2 days past, to be well tasted & fat, especially the small fish [eulachon], which had the resemblance of a herring but much better tasted.
2 March 1806	Fort Clatsop	The Definitive Journals of Lewis and Clark, Down the Columbia to Fort Clatsop (Moulton 1990, p. 368)	... late this evening Drewyer arrived with a most acceptable supply of fat sturgeon, fresh anchovies [eulachon] and a bag containing about a bushel of wappetoe. We feasted on anchovies and wappetoe.
2 March 1806	Fort Clatsop	Journal of Patrick Gass (Gass 1807, p. 194–197 in Moulton’s 1996 reprint edition)	Sunday 2. This day was also wet. The fishing party returned at night, and brought with them some thousands of the same kind of small fish, we got from the Natives a few days ago, and also some sturgeons.
2 March 1806	Fort Clatsop	The Journals of John Ordway [Member of the Lewis and Clark Expedition] May 14, 1804–September 23, 1806, (Moulton 1995, p. 275–278)	... in the evening the three men returned from the village with a considerable quantity of the little fish [eulachon] resembling herren [sic] only a size smaller—and some sturgeon and a few wapatoes, which they purchased from them. The Natives catch a vast quantity of fish.
2 March 1806	Fort Clatsop	The Journals of Joseph Whitehouse May 14, 1804–April 2, 1806 (Moulton 1997, p. 423–430)	In the evening, three of our men returned who had been trading at the Clatsop Village. They brought with them a considerable quantity of those small kind of fish [eulachon], which we purchased from the Natives some days past; these fish were a size smaller than the herring. ... The Natives gave them some fish without any recompence being made to them. These Indians catch great quantities of different kinds of fish in a creek lying a small distance above their village.
4 March 1806	Fort Clatsop	The Definitive Journals of Lewis and Clark, Down the Columbia to Fort Clatsop (Moulton 1990, p. 378)	The anchovey [eulachon] is so delicate that they soon become tainted unless pickled or smoked. The Natives run a small stick through their gills and hang them in the smoke of their lodges, or kindle a small fire under them for the purpose of drying them. They need no previous preparation of guting &c and will cure in 24 hours.
5 March 1806	Fort Clatsop	The Journals of Joseph Whitehouse May 14,	... a number of the Natives came in canoes to the fort. They brought with them some sturgeon & some small fish [eulachon] to trade with us. Our officers purchased the whole

Date	Place	Source	Quote
		1804–April 2, 1806 (Moulton 1997, p. 423–430)	of them.
6 March 1806	Fort Clatsop	Journal of Patrick Gass (Gass 1807, p. 194–197 in Moulton’s 1996 reprint edition)	Thursday 6. Our stock of provisions being nearly exhausted, six men were sent out in different directions to hunt, and three more were sent to endeavor to procure some fish, as the Natives take a great number of the small fish [eulachon] about 20 miles distant from the fort by water.
9 March 1806	Fort Clatsop	Journal of Patrick Gass (Gass 1807, p. 194–197 in Moulton’s 1996 reprint edition)	In the afternoon some of the Natives came to visit us, and brought some of the small fish, which they call ulken.
9 March 1806	Fort Clatsop	The Journals of John Ordway May 14, 1804– September 23, 1806, (Moulton 1995, p. 275– 278)	Several of the Clatsop Indians came to the fort with some small fish [eulachon] ... to trade to us.
11 March 1806	Fort Clatsop	Journal of Patrick Gass (Gass 1807, p. 194–197 in Moulton’s 1996 reprint edition)	At noon our fishermen returned with some ulken [eulachon] and sturgeon.
11 March 1806	Fort Clatsop	The Journals of John Ordway May 14, 1804– September 23, 1806, (Moulton 1995, p. 275– 278)	Sergt. Pryor returned with a considerable quantity of small fish [eulachon] and sturgeon.
16 March 1806		The Definitive Journals of Lewis and Clark, From the Pacific to the Rockies (Moulton 1991, p. 44)	The anchovey [eulachon] had ceased to run; the white salmon trout [steelhead] have succeeded them
17 March 1806	Fort Clatsop	The Journals of Joseph Whitehouse May 14, 1804–April 2, 1806 (Moulton 1997, p. 423– 430)	... purchased from the Natives ... a few small fish [eulachon], the small fish not unlike a herring getting scarce among the Natives.
21 March 1806	Fort Clatsop	The Journals of John Ordway May 14, 1804– September 23, 1806, (Moulton 1995, p. 275–	... a number of Natives visited us with some dried small fish to trade which they call in their language oll-can [dried eulachon].

Date	Place	Source	Quote
		278)	
21 March 1806	Fort Clatsop	The Journals of Joseph Whitehouse May 14, 1804–April 2, 1806 (Moulton 1997, p. 423–430)	The Natives came to the fort & brought some dried fish, which the Indians called all-can [dried eulachon], we purchased some of these fish from them.
25 March 1806		The Definitive Journals of Lewis and Clark, From the Pacific to the Rockies (Moulton 1991, p. 12)	... at noon we halted and dined. Here some Clatsops came to us in a canoe loaded with dried anchovies, which they call olthen [Chinookan ú-lxan, meaning dried eulachon], wappetoe and sturgeon.
29 March 1806	Sauvies Island	The Definitive Journals of Lewis and Clark, From the Pacific to the Rockies (Moulton 1991, p. 27)	They had large quantities of dried anchovies [eulachon] strung on small sticks by the gills and others which had been first dried in this manner were now arranged in large sheets with strings of bark and hung suspended by poles in the roofs of their houses.
1812			
2 February 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999 p. 70).	The Natives, who have been lodged for 3 Months past in the bay below the Fort have departed for the upper part of the River to catch Uthelchans* which entered the River a few days ago. ... [footnote] *or small fish resembling smelts.
9 February 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 71).	9th. Sunday. ... Visited by Watatchum who brought us a few Uthelchans, the first we have seen this year. The Indians begin to catch them in abundance.
12 February 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 71-72)	12th. Wednesday. ... In the morning Mr. Farnham arrived from the Chilwits Village, with 9 Sturgeon & 1 Bushel of Uthelchans.
14 February 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River,	14th. Friday. Clear sunshine. Several canoes of Clatsops went down, laden with Sturgeon & Uthelchans, but they would not dispose of them on any account what ever.

Date	Place	Source	Quote
		1811-1813. (Jones 1999, p. 72).	
15 February 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 72).	15th. Saturday. Mild & agreeable wea[ther] ... One of the Cathlamets presented us with about 2 Barrels of Uthelchans.
15 February 1812	Columbia River	Wilson Price Hunt's Diary of his Overland Trip Westward to Astoria in 1811-12 (Rollins 1995, p. 308)	On the 15th, we passed several large islands. The land on the left bank was covered with oaks and ash trees, but all was inundated. I stopped at some Indian huts where I found four of our fellow countrymen who were bartering for sturgeon and were fishing for excellent small fish, which were about six inches long. The Indians call them othlecan [eulachon], and catch many of them in the springtime.
16 February 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 73).	16th. Sunday. Wind & Wea: as yesterday. About noon Messrs. R. Stuart & R. McLellan with their party returned, having met with very little success, and brought us the meat of a small Deer, with a few Uthlecan. About dusk Kanakers arrived with a canoe load of Uthlecan.
19 February 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 73).	February 19th. Wednesday. Clear, pleasant Wea[ther] ... Visited by a few natives, who brought us some Uthlecan.
21 February 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 73-74).	21st. Friday. Clear pleasant wea[ther]. ... At dusk Cardinal & Vallee arrived not being able to find the timbers they had been sent after. They brought down a few Uthlecan & some axe handles. ...
28 February 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 75).	28th. Friday. Cloudy with a few Showers of rain. ... Visited by a few Indians who brought us some Uthlecan to trade.
	Columbia River	The Journal of Gabriel Franchère, 1811-1814	At the beginning of February [1812] the Indians brought us large quantities of a small fish [eulachon] six or seven inches long, which we found excellent. ... The Natives

Date	Place	Source	Quote
		(Franchère 1969, p. 110–111)	continued to supply us with small fish until the 20th, when the season was over. This fish, which is very abundant, is caught by means of a scoop or rake, which is simply a long pole to one end of which they have fastened sharply pointed pegs; by pulling it back and forth through the water they catch the fish on the pegs and soon have a canoe full. The women dry these fish, which furnish their principal food supply during the months of April, May, and June, threading them when dry in a double row on cords which are six feet long. They even trade in them with the Natives of the upper river, for these fish are not caught further up than the territory of the Chreluits [Chinook Indians], about 15 leagues from the mouth of the Columbia.
	Columbia River	Adventure at Astoria, 1810–1814 (Franchère 1967, p. 108)	February brings a little fish, somewhat longer and broader than the sardine, that we took at first to be a smelt [eulachon]. It has a delicate flavor and is abundant, but the season for catching it lasts only a short time.
	Columbia River	A Voyage to the Northwest Coast of America (Franchère 1968, p. 180)	February brings a small fish about the size of a sardine. It has an exquisite flavor and is taken in immense quantities by means of a scoop net which the Indians, seated in canoes, plunge into the schools: but the season is short, not even lasting two weeks.
26 March 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 79).	26th. Thursday. Cloudy, mild wea[ther] ... Visited by two or three canoes of the Chinooks, who brought us a few Beaver & some dried Uthlecans
29 March 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 79).	29th. Sunday. Fine mild wea[ther] ... Visited by Comcomley, who brought between 30 & 40 Beavers to trade; also by Kamaqhiah, who brought us some Uthlecan.
1 April 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 79-80).	April 1. Wednesday. Fine mild wea[ther] ... Visited several canoes of Chinooks who brought Uthlecans for sale ... Towards evening, Mr. Mumford arrived with the three men that had been sent up the river after Sturgeon, informing us that they could not catch any more. They brought with them a load of dried Uthlecans & Sturgeon.
2 April 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999,	2. Thursday. Cloudy wet wea[ther] ... A number of Indians about us. Traded a few fathom of Uthlecans. Sic list as yesterday. ¹⁷⁶ [footnote 176] This is the first reference to a common way of "packaging" uthlecans, i.e., by stringing

Date	Place	Source	Quote
		p. 80).	them through the body and selling or trading them by the fathom, i.e., the length of a man's outstretched arms, five to five and one-half feet.
4 April 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 80).	4th. Saturday. Fine clear wea[ther] ... Visited by a few natives who brought us some uthlecans
5 April 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 80).	5th. Sunday. Wind & wea[ther] ... Visited by some Chinook Indians who traded some beaver and Uthlecans.
6 April 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 80).	6th. Monday. Wind & weather much the same as yesterday. ... Visited by a few Indians who traded some Uthlecans
19 April 1812	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 89).	April 19th. Sunday. Cloudy, dry, cold weather. Wind S. W. The scarcity of provisions, and understanding from the Indians that there was a good fishery of Sturgeon at the Chelwits, about thirty miles above the Factory, induced us to send a clerk & 2 men to attend lines, etc., at which they were steadily employed from third February last to this day. During which time they supplied the Factory with Sturgeon and [gap] of uthlecans or smelts. 4 men were almost constantly employed during the same time to fetch the Fish. The misfortune of having our only Hunter laid up with a sore foot since last 13th February retarded the progress that would otherwise have been done at the establishment and compelled us to purchase from the natives about [gap] fathoms of dried Smelts at the rate of three fathoms of fish for 1 fathom Gurrahs [a muslin, usually made in India and traded in fathom-long lengths] as also ten or twelve bales of dried Sturgeon, at the rate of one fathom Calico for a Bale containing 10 Pieces of which dried fish we have now a supply for nearly a month, by which time we hope the salmon will be in abundance.
1 July 1812		The Discovery of the Oregon Trail: Robert Stuart's Narratives of his Overland Trip Eastward from Astoria in 1812-13	Here are the best and almost only fisheries of uthulhuns [eulachon] and sturgeon—the former they take in immense numbers by the operation of the scoop net from the middle of March till the middle of April, and the latter [principally] by the hook and line during the spring and fall seasons—the uthulhuns are a kind of smelt, and when dried for preservation, are much similar to smoked herrings.

Date	Place	Source	Quote
		(Rollins 1995, p. 30)	
	Columbia River	The Discovery of the Oregon Trail: Robert Stuart's Narratives of his Overland Trip Eastward from Astoria in 1812-13 (Rollins 1995, p. 8)	... the dreary months of January and February, after which sturgeon and uth-le-chan [eulachon] may be taken in great numbers, the former sometimes by the spear, but more generally by the hook and line; and the latter by the scoop net. The uthlechan is about six inches long and somewhat similar to our smelt, is a very delicious little fish, and so fat as to burn like a candle, and are often used for that purpose by the Natives.
1813			
3 January 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 143).	3rd. Sunday. Pleasant Moderate Weather. Continue still to give to all hands a weekly allowance of Flour, and have no prospect of doing otherwise untill the season of Sturgeon & Uthlecan shall arrive.
13 February 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 154-155).	13th. Saturday. Weather exceedingly pleasant & moderately warm. Early in the forenoon were visited by Comcomly in a small Canoe, with 3 persons only beside himself bringing a few Uthlecan, the first seen by us this season, and in fact some of the first taken in the river. As he came over with these immediately on receiving them in order to be the first who brought the Kind to us, and for this he was presented with a wool Hat, a present of no great value, sufficient however to satisfy him. ... He left the small Canoe with 4 men below to fish for Uthlecan and to return here if successful. ... Just at evening our Canoe left, as mentioned in Mr. Franchere's note, arrived with about eight bushels of uthlecan.
14 February 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 156).	14th. Sunday. Pleasant Weather ... In the afternoon our other large Canoe with Pillon and Cote (two sawyers), Brosseau & one Sandwich Islander arrived, bringing 7 Sturgeon and a considerable quantity of Uthlecan. At the same time a young Cathlamet Indian arrived with a small canoe full of the same kind. He had promised to bring the first he should catch. We therefore received them as a present. He was the first Indian who brought them to the Factory last year and says now that sickness prevented him being the first this season. Gave him in return for his fish a Blue blanket & 1 head Tobacco. We have now for the first in a long time provision plenty for all hands. Further short allowance will be done away.
15 February 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 156-157).	15th. Monday. ... Visited by a few Clatsop Indians on their way to the fishing place. Our supply of provisions is now so plenty that many of the Uthlecan are fed to the hogs, as they would otherwise become good for nothing.
24 February 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the	24th. Wednesday ... Toward evening Mr. Franchere arrived in the large Canoe with 5 men bringing 5 Sturgeon only, and a small quantity of dried Uthlecan.

Date	Place	Source	Quote
		Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 159).	
2 March 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 161).	2nd. Tuesday. ... In the forenoon visited by Comcomly, 2 sons & suite who traded two or three hundred smoked Salmon & a few fresh Uthlecans.
5 March 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 162).	5th. Friday. ... No account from our Fishermen above from which we conclude they catch no Sturgeon. All hands here have been for several days been living on the few Uthlecans that were Salted. Near a hogs head of these were cured in this manner, when we first received them.
17 March 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 165).	17th. Wednesday. ... Visited by some Indians who traded a few Uthlecans.
21 March 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 166).	21st. Sunday. ... Several canoes of Clatsops passed last night loaded with Uthlecans, which they now catch in abundance. [footnote] The coming of the uthlecans in abundance has again eased the food situation at Astoria for a time.
2 April 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 169).	2nd. Friday. Fine clear Weather. ... Visited by Gassacass, who brought some few dried Uthlecans.
8 April 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999,	8th. Thursday. ... Visited by a few Chinooks, who brought some dried Uthlecans & Salmon for trade.

Date	Place	Source	Quote
		p. 170).	
13 April 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 173).	13th. Tuesday ... Visited by numbers of the natives who traded some dried Uthlecans. We value them at the same rate as last year, but find we cannot purchase them with articles of the like kind, and are now under the necessity to pay for them with knives, files, small axes etc. ... Shortly after them Kalaskan, Chief of the Chelwits, & the last of our Fishermen to be settled with, arrived with his party in a large Canoe, brought three fresh Sturgeon & some dried Uthlecans ...
15 April 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 174).	15th. Thursday. ... Visited by Comcomly, 2 Sons & a great number of his people. Some for the purpose of trade, others through curiosity to see the strangers. Purchased from the old man & his people 180 fathoms dried Uthlecans, for which we were under the necessity of paying in part small axes, knives, & files.
16 April 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 174).	16th. Friday. ... Visited by Calpo & his wife & many other Chinook Indians. Traded with the former 180 fathoms dried Uthlecans & 110 pieces dried Sturgeon, in the same manner as the fish traded yesterday, amounting in value to 71 Beaver. Traded with others 93 fathoms Uthlecans & a few dried Salmon.
17 April 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 174-175).	17th. Saturday. ... Visited by several Canoes of Chinooks, from whom we traded one hundred & thirty four fathoms dried Uthlecans. Comcomly was of the number & had about 50 fathoms.
18 April 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 175).	18th. Sunday. ... Traded also 20 fathoms fish.
21 April 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 175).	21st. Wednesday. ... Visited by numbers of the natives from whom traded 76 fathoms fish.
25 April 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the	25th. Sunday. ... Purchased a few fathoms of Uthlecans.

Date	Place	Source	Quote
		Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 176).	
30 April 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 177).	30th. Friday. ... Traded with Kalaskan & other Indians that came about for several fathoms dried fish. Having now almost a sufficient supply on hand, cannot longer afford to pay any Iron works for them. If we purchase more it must be for such articles as we chuse [sic] to offer.
5 May 1813	Astoria Columbia River	Annals of Astoria: the headquarters log of the Pacific Fur Company on the Columbia River, 1811-1813. (Jones 1999, p. 178).	5th. Wednesday. ... Traded a few fresh Salmon, partly dried, which came from the rapids, & some dried Uthlecons.
1810–1813	Columbia River	Adventures of the First Settlers on the Oregon or Columbia River 1810-1813 (Ross 1849, p. 94–95)	There is a small fish resembling the smelt or herring, known by the name of ulichan, which enters the [Columbia] river in immense shoals, in the spring of the year. The ulichans are generally an article of trade with the distant tribes, as they are caught only at the entrance of large rivers. To prepare them for a distant market, they are laid side to side, head and tail alternately, and then a thread run through both extremities links them together, in which state they are dried, smoked, and sold by the fathom, hence they have obtained the name of fathom-fish.
1814			
6 January 1814	Columbia River	The Journal of Alexander Henry the Younger 1799–1814 (Gough 1992, p. 635)	This evening a canoe arrived from above which brought us four large sturgeon and a few smelt [eulachon]. These are the first of these small fish we have seen here this season. They generally make their appearance here in February, but the gentlemen who arrived today from above tell us the Indians take them at present in great abundance about the entrance of the Willamette River.
7 January 1814	Columbia River	The Journal of Alexander Henry the Younger 1799–1814 (Gough 1992, p. 637)	The great smoke which now rises from the three Chinook villages denotes the return of these people to their winter quarters, which is usually at this period. They will contrive to augment in numbers daily, as the smelt [eulachon] fishing is approaching fast and then the sturgeon fishing follows, and, as the spring draws near, the salmon fishing approaches, the Natives from the northward will also bend their course here also.
11 January 1814	Mount Coffin, Columbia River	The Journal of Alexander Henry the Younger 1799–1814 (Gough 1992, p. 642)	Passed Mount Coffin on the north side. ... We saw ... many of the Natives fishing smelt [eulachon] with a scoop net along the shores.
27 January 1814	Between Mount Coffin	The Journal of	The insides of these Indians houses are crowded with smelt [eulachon] drying, suspended

Date	Place	Source	Quote
	and Oak Point on the Columbia River	Alexander Henry the Younger 1799–1814 (Gough 1992, p. 665)	by the heads to poles, the roofs are lined everywhere excepting the fire place is full, all hanging tail downwards. Several canoes were also full laying off at anchor. ... We passed several fishing parties, tented on the beach, who had ... canoes loaded with smelt. At 9 o'clock we passed Mount Coffin, and at 11 o'clock we passed Oak Point. We saw several sea lions. ... The number of gulls and other birds that feed on fish are surprisingly numerous here at present, much more so than last fall. The cause I presume is they are attracted by the numerous shoals of smelt which are going up the river at this season of the year. Seals are very numerous also.
8 February 1814	Between Mount Coffin and Oak Point on the Columbia River	The Journal of Alexander Henry the Younger 1799–1814 (Gough 1992, p. 676)	We observed on the beach and floating on the surface of the water great numbers of smelt [eulachon] dead and dying, the same fate which attends the salmon, and seems to attack the small fish in the river. They all die apparently for want of food, there being not the least particle of any substance in their gut, which consists of only one very small green filament. Gulls, shell drakes, and other waterfowl that feed on fish are uncommonly numerous, also eagles both baldhead and grey. Herons are very common along the shore and perched on the trees.
26 February 1814	Fort George (Astoria, Columbia River)	The Journal of Alexander Henry the Younger 1799–1814 (Gough 1992, p. 683)	Two Indian canoes came over, on their way up to catch sturgeon and smelt [eulachon]. I saw a kind of pole about 10 feet long and 2 inches broad, one side was fixed a range of small bones, about a ¼ of an inch asunder, and about one inch in length, and very sharp; the range of teeth extending about six feet up the blade, this I understand is used in the smelt fisheries.
6 March 1814	Fort George (Astoria, Columbia River)	The Journal of Alexander Henry the Younger 1799–1814 (Gough 1992, p. 695)	Several canoes deeply loaded with smelt [eulachon] and sturgeon arrived from above and proceeded to the Calpoh's Village, having sold some of the smelt to us and passed on.
19 March 1814	Fort George (Astoria, Columbia River)	The Journal of Alexander Henry the Younger 1799–1814 (Gough 1992, p. 701)	The sturgeon continue to be plenty, and the smelt [eulachon] few; they do not all die as soon as I had imagined when I was last above in the beginning of February, as Mr McKay tells me they are now in the same state as they were then, a few found dead along the beach, and others dead and dying in the water.
3 April 1814		The Journal of Alexander Henry the Younger 1799–1814 (Gough 1992, p. 708)	We now have sufficient of their dried smelt [eulachon] which has been purchased mostly from the Chinooks and Clatsop, who buy the fish above themselves, and before it is brought down and strung up to dry it is spoiled. The dried smelt from above is much better by being dried on the spot. I now desired them to be traded at 1 fathom of small blue Canton beads for 5 fathoms of smelt. Yesterday we had traded at 4 fathoms.
1821			
April 1821	Fort George (Astoria, Columbia River)	Trading Beyond the Mountains: The British Fur Trade on the Pacific, 1793–1843 (Mackie 1997, p. 30)	In April 1821, James Keith of Fort George [at Astoria, Oregon] wrote to his supplier, Perkins and Company, about the difficulties of obtaining a provision supply in this extremely remote region. Keith was dependent on the Chinook people of the lower Columbia for salmon, sturgeon, and wildfowl. "The winter has been unusually severe both as to the degree of cold & quality & duration of the snow," he wrote. "The fishery

Date	Place	Source	Quote
			of the smelt [eulachon] being lately over, the Natives begin to bring us a chance sturgeon & wild fowl, which when more abundant will be gratifying to people from a long sea voyage....”
1830s		<i>Salmo (Mallotus?) pacificus</i> (Richardson) North-west Capelin (Richardson 1836, p. 226–227)	The Indian name of this fish is oulachan. It comes annually in immense shoals into the Columbia about the 23rd of February, but ascends no higher than the Katpootl [Lewis River], a tributary which joins it about 60 miles from its mouth. It keeps close to the bottom of the stream in the day, and is caught only in the night. The instrument used in its capture by the Natives is a long stick armed with sharp points, which is plunged into the midst of the shoal, and several are generally transfixed by each stroke. It is the favourite food of the sturgeon, which enters the river at the same time, and never has a better flavour than when it preys on this fish. The oulachan spawns in the different small streams which fall into the lower part of the Columbia. It is much prized as an article of food by the Natives and arrives opportunely in the interval between the expenditure of their winter stock of dry salmon and the first appearance of the quinnat [Chinook salmon] in May.
1830s-1860s			
	Columbia River	Journal of an Exploring Tour Beyond the Rocky Mountains (Parker 1842, p. 212)	A small fish, like the anchovy, about six inches long, very fat and well flavored, come into the river in great numbers about the same time or a little before the sturgeon. The Indians obtain large quantities of oil from them, by putting them into a netting strainer and exposing them to gentle heat.
	Columbia River	Report on the Fishes Collected on the Survey (Suckley 1860, p. 348–349)	They [eulachon] formerly entered the Columbia River in great numbers, and were equally abundant in Puget Sound. At present, although sparingly found in the waters named, they cannot be considered as occurring in large numbers south or east of the southern end of Vancouver’s Island. In the latter locality they are very abundant in certain seasons, but nearly always a season of abundance is followed by three or four years of scarcity. Further northward they are constantly abundant. The Haida, Stickene, and Chumtseyan Indians, living along the coasts of British and Russian America, bring vast quantities of these fish with them when visiting the white settlements on Puget Sound. The fish thus brought are for the consumption of the strangers during their stay, and have been simply dried, without salt, and for convenience in drying or transportation have been strung on sharp, pliable sticks which are passed through the heads. In July 1856, Dr. William Fraser Tolmie, chief factor of the Hon. Hudson Bay Company, a gentleman well known to naturalists for his interest in science, presented me with a bunch of dried eulachon, which he had obtained from some of the “Northern” Indians. Dr. Tolmie also gave me the following memoranda: “These fish were caught at the mouth of Nass River, which empties into salt water near latitude 54°40’ north. The Indian name of the species is almost unspellable. Formerly they were quite abundant between the 46th and 49th parallels of north latitude. They are now but seldom caught south of

Date	Place	Source	Quote
			latitude 50° north in any great number. North of that point they are still taken by the savages in vast quantities, and are smoked and dried for trade and home consumption. When eaten after being thus prepared they should be either steamed or broiled.”
	Columbia River	The Naturalist in Vancouver Island and British Columbia, Vol. 1 (Lord 1866, p. 96)	Some 50 years ago, vast shoals of eulachon used regularly to enter the Columbia; but the silent stroke of the Indian paddle has now given place to the splashing wheels of great steamers, and the Indian and the candle-fish have vanished together. From the same causes the eulachon has also disappeared from Puget’s Sound, and is now seldom caught south of latitude 50°N.
	Columbia River, Fraser River	The Dominion at the West: A Brief Description of the Province of British Columbia, its Climate and Resources (Anderson 1872, p. 30–32)	A very valuable fish entering Fraser River to spawn in early spring, is the <i>Thaleichthys</i> (or preferably <i>Osmerus</i>) <i>Richardsonii</i>—locally known as the oolâ-han.* It appears in immense shoals, and is caught either with the scoop net, or, like the herring on the seaboard, with the rake. This simple device is merely a long light pole, flattened in one direction so as to pass readily through the water, and with the edge set towards the lower extremity with a row of sharply pointed teeth. The fisherman, entering the shoal, passes the implement repeatedly through the water, with a rapid stroke, each time transfixing several fish. Thus a copious supply is soon secured. The oolâhan is, in the estimation of most people, one of the most delicious products of the sea. Smaller than the herring, it is of a far more delicate flavor; and so rich that, when dried, it is inflammable.† This fish is not confined to Fraser River, but frequents likewise the Nass, a large stream issuing on the frontier between British Columbia and Alaska; another stream debouching into Gardner’s Canal; and probably other rivers along the coast. Those caught at the mouth of the Nass are of a quality even richer than those of Fraser River. The Natives, who assemble there in great numbers in spring to prosecute the fishery, besides drying them in large quantities, extract from the surplus a fine oil, which is highly prized by them as a luxury, and forms a staple article of barter with the interior tribes. * I was long under the impression that this fish was a variety of Pilchard (<i>Clupanodon thrissa</i>) peculiar to the Pacific; and am indebted to Dr. Robert Brown, of Edinburgh, formerly in command of the Vancouver Island Exploring Expedition, for the correction adopted above. † So much so, indeed, that, in Alaska, where it is likewise found, it is I believe called the “candle-fish.” It is mentioned by Franchère, in his account of the Columbia River, under the name of outhelekane, from which its present designation is modified; and, from the circumstance of its being strung on cords by the Natives to dry, was called by the voyageurs poisson à la brasse, or fathom-fish. They were formerly very abundant in spring on the lower Columbia; but suddenly, about the year 1835, they ceased to appear, and thence forward up at least to 1858, none frequented the river. I have been informed, however, that they have since reappeared, and that there is now a regular supply as formerly.
	Columbia River, Fraser	Report of the Inspector	The oolâ-han, called also in Alaska, the candle-fish, (<i>Thale-chthys</i> or <i>Osmerus</i>

Date	Place	Source	Quote
	River, Nass River	of Fisheries for British Columbia for the Year of 1876 (Anderson 1877, p. 345)	<i>Richardson</i>) although it may occur low down in the list of marine and anadromous fishes which I undertake at present only partially to furnish, is not therefore to be regarded as in my estimation the least important. I again venture to refer to certain notes which I have already made public; and I now repeat my increased conviction that the value of this fish for diverse economical purposes has not yet been fully understood. Formerly resorting in enormous shoals to the estuary of the Columbia River, it disappeared suddenly about the year 1837, and continued to absent itself for many years, until recently, when it suddenly reappeared in shoals as numerous as of yore. In Fraser River these fish are found, and resort thither regularly in heavy shoals; but little advantage is taken of their advent, beyond what are caught and consumed as a luxurious adjunct to the table while fresh, and a few casks hastily salted for sale and consumption at home, chiefly in fulfilment of private orders. At the Squawmish River, discharging at the head of Howe Sound, I found, on enquiry, that these fish enter the river, as elsewhere, early in the spring, and ascend as high as the head or the Island of Stââ-mis, forming the delta; thence, after spawning, returning to the sea. Several other rivers along the coast are known to be frequented by these fish; and there are doubtless others of which we are not, so far, cognizant. The Nass River, however, discharging into Observatory Inlet, close to the Alaskan boundary, stands preeminent as an oolâ-han fishery, as well for the enormous supply it yields, as for the superior quality of its fish.
	Columbia River	Astoria, or, Anecdotes of an Enterprise beyond the Rocky Mountains (Irving 1868, p. 404-405)	About the beginning of February, a small kind of fish, about six inches long, called by the Natives the uthlecan, and resembling the smelt, made its appearance at the mouth of the river. It is said to be of delicious flavor, and so fat as to burn like a candle, for which it is often used by the Natives. It enters the river in immense shoals, like solid columns, often extending to the depth of five or more feet, and is scooped up by the Natives with small nets at the end of poles. In this way they will soon fill a canoe, or form a great heap upon the riverbanks. These fish constitute a principal article of their food; the women drying them and stringing them on cords. As the uthlecan is only found in the lower part of the river, the arrival of it soon brought back the Natives to the coast; who again resorted to the factory to trade, and from that time furnished plentiful supplies of fish.
1860s			
	Cowlitz River	Reminiscences of Cowlitz County (Huntington 1963, p. 5)	Not within the memory of the oldest white inhabitant had there been any smelt in the Cowlitz River until some time in the early sixties. I am not certain what year I first saw them, but there was a heavy run and nobody paid much attention to them—not even the Indians. The Indians and white people at times caught a few with a stick with a sharp nail in it. After the second or third year of their return, people began to sit up and take notice. In 1865, a young lady school teacher, Miss Baker (afterward my wife), having learned how to make hair nets, conceived the idea of making dip nets in which to catch them and soon everybody had nets and were catching them by the ton and shipping them to Portland. The Indians had a tradition that there had been smelt here many many years

Date	Place	Source	Quote
			before, but to punish them for some offense the Sahely Tyee had taken them away and it must have been a good many years as the oldest of them did not seem to know much about tradition.
1865			
	Cowlitz River	Narrative of the Overland Journey to Oregon (Crawford 1878, unpublished manuscript, p. 369)	Events of 1865. Appearance of Smelts on Cowlitz. ... In Feby and March 1865, there appeared a strange little fish unknown to the early settlers of Cowlitz or lower Columbia River. Although the Indians declared that those little finny swarming beings of the deep had frequented the waters of the Cowlitz River before but had absented themselves for 17 years, during which period no Indian had seen a school. They always go along in close trains from one foot wide to two or three feet wide, falling in close concert. The early settlers on the lower Cowlitz remember having a few such little fellows in small numbers.
1866			
24 February 1866	Portland, OR	<i>Oregonian</i> , p. 4, col. 2	Retail Prices Current. Smelt [per] lb. 10 and 15.
26 February 1866	Columbia River at Astoria, OR	<i>Oregon Statesmen</i> , p. 3, col. 2	Smelt , one of the most delicate and delicious of all the finny tribes, have made their appearance in the Salem markets. They are caught in nets by the Indians down about Astoria, or somewhere else, and sold here for a bit per pound.
5 March 1866	Columbia River at Rainier	<i>Oregon Statesmen</i> , p. 3, col. 2	PORTLAND —... Parties at Rainier have entered largely upon the business of curing smelt for the Portland market. Smelt are the most delicate fish that swims, and all regret that the season for them is so short. The run about Rainier is as good as any in the river. Like salmon, the farther up the streams they go the less valuable they become. ...
1867			
6 April 1867	Vancouver, Washington Territory Columbia River	<i>Vancouver Register</i> , p. 3, col. 1	Smelt .—This delicate fish, which has never before been known to come up higher than Lewis River, has made its appearance off this city in large numbers. They can be caught by hand—evening, just after dark is the best time.
6 April 1867	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 2	Smelt .—Holman & Co. of the Union Fish Market, have just received a fine lot of smelt, halibut, etc. They keep on hand the best and freshest fish of the season. Call on them on Washington street near second.
9 April 1867	Portland, OR	<i>Oregonian</i> , p. 3, col. 1	FRESH FISH .—Fresh mountain Trout, Smelt and Salmon from the lower river can be had at Holman & Co's Union Fish Market, Washington street, in quantities to suit purchasers.
1868			
31 March 1868	Portland, OR	<i>Oregonian</i> , p. 3, col. 3	FISH! FISH! At the Franklin Fish Market! 134 First St., Portland. Just received fresh from the fisheries. Smelt by the million! ...
4 April 1868	Portland, OR	<i>Oregonian</i> , p. 3, col. 4	FISH! FISH! At the Franklin Fish Market! 134 First St., Portland. Just received fresh from the fisheries. Smelt by the million! ...
8 April 1868	Portland, OR	<i>Oregonian</i> , p. 4, col. 6	FISH! FISH! At the Franklin Fish Market! 134 First St., Portland. Just received fresh from the fisheries. Smelt by the million! ...

Date	Place	Source	Quote
9 April 1868	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 6	FISH! FISH! At the Franklin Fish Market! 134 First St., Portland. Just received fresh from the fisheries. Smelt by the million
11 April 1868	Vancouver, Washington Territory Columbia River	<i>Oregonian</i> , p. 3, col. 1	Vancouver Items. —The following items are from the Vancouver Register, received last evening: ... Our market was never so well supplied with fish as at the present time; sturgeon and salmon must give way to the more delicate smelt, and though the former is offered at unprecedentedly low prices, few purchasers are found. The smelt were discovered off this place on Monday evening in perfect schools, since which time the whole population of the town have been rigging any manner of contrivances for their capture, than which nothing is easier. It is presumed that the season will last a week yet, and many are preparing to cure enough for their summer's supply. Parties from the country have commenced to arrive to participate in our good fortune.
14 April 1868	Portland, OR	<i>Oregonian</i> , p. 4, col. 6	FISH! FISH! At the Franklin Fish Market! 134 First St., Portland. Just received fresh from the fisheries. Smelt by the million! ...
16 April 1868	Portland, OR	<i>Oregonian</i> , p. 4, col. 6	FISH! FISH! At the Franklin Fish Market! 134 First St., Portland. Just received fresh from the fisheries. Smelt by the million! ...
18 April 1868	Portland, OR	<i>Oregonian</i> , p. 4, col. 6	FISH! FISH! At the Franklin Fish Market! 134 First St., Portland. Just received fresh from the fisheries. Smelt by the million! ...
20 April 1868	Portland, OR	<i>Oregonian</i> , p. 4, col. 6	FISH! FISH! At the Franklin Fish Market! 134 First St., Portland. Just received fresh from the fisheries. Smelt by the million! ...
21 April 1868	Portland, OR	<i>Oregonian</i> , p. 4, col. 6	FISH! FISH! At the Franklin Fish Market! 134 First St., Portland. Just received fresh from the fisheries. Smelt by the million! ...
22 April 1868	Portland, OR	<i>Oregonian</i> , p. 4, col. 6	FISH! FISH! At the Franklin Fish Market! 134 First St., Portland. Just received fresh from the fisheries. Smelt by the million! ...
24 April 1868	Portland, OR	<i>Oregonian</i> , p. 4, col. 6	FISH! FISH! At the Franklin Fish Market! 134 First St., Portland. Just received fresh from the fisheries. Smelt by the million! ...
27 April 1868	Portland, OR	<i>Oregonian</i> , p. 4, col. 6	FISH! FISH! At the Franklin Fish Market! 134 First St., Portland. Just received fresh from the fisheries. Smelt by the million! ...
1869			
15 January 1869	Portland, OR	<i>Morning Oregonian</i> , p. 2, col. 4	New Today. Oak Point Smelt! At the Franklin Fish Market. 134 First Street. Just Received by the Str. Ranger – large supply. Jan 15 1869
21 January 1869	Portland, OR	<i>Morning Oregonian</i> , p. 2, col. 4	Fresh Oak Point Smelt, At the Franklin Fish Market By the Steamer “Okanagan”
1870			
25 January 1870	Portland, OR	<i>Morning Oregonian</i> , p. 2, col. 4	New To-Day. Fresh Smelt. Three pounds for 25 cents. Arrived last night at the “Union Fish Market,” Washington street between First and Second. Hotels and Restaurants supplied cheap. J. Quinn.
11 February 1870	Albany, OR	<i>The States Rights Democrat</i> , , p., col. 1	FINNY. — Mr. Brenner, of the St. Charles Hotel, evidently furnishes his table with all the delicacies of the season, judging from the smelt ho received on the boat from below

Date	Place	Source	Quote
			last Tuesday.
1871			
28 January 1871	Portland, OR	<i>Daily Oregonian</i> , p. 2, col. 3	New To-Day. Fresh Smelt. A fresh lot, arrived last night for sale at Quinn's Union Fish Market, On Waddington street. Hotels and Restaurants supplied at low rates.
1 February 1871	Portland, OR	<i>Daily Oregonian</i> , p. 4, col. 1	Local Brevities. Six tons of smelt arrived from down the river on Monday night, and the market may be said to be full and terms in favor of the buyer.
1872			
20 January 1872	Portland, OR	<i>Daily Oregonian</i> , p. 3, col. 2	Local Brevities. The first smelt of the season appeared in the market last evening. The First Smelt at Quinn's—Quinn, of the Union Market, Washington street, is, as usual, the first on hand with the delicacies of the season. This time he has the first catch of smelt. Call early, if you would make sure of a mess.
16 February 1872	Portland, OR	<i>Daily Oregonian</i> , p. 3, col. 3	SMELT —Quinn, of the Union Fish Market, has sufficient quantity of smelt now to supply all demands. The Prices are so low that everybody can eat 'em. ... Don't go home without a mess of smelt.
24 February 1872	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	... Of course you will find Venison, Smelt and Fish of all kinds at Washington street between First and Second streets—Quinn's Union Fish Market ...
1 March 1872	Kalama, Washington Territory Cowlitz River	<i>Kalama Beacon</i> , p. 1, col. 1	A PISCATORIAL EXPLOIT. —A few days ago, at Camp Enterprise on the Cowlitz, Johnny McGrath, who "runs" things there, performed a feat at smelt-catching that places him in the van of fishers. With a little dip-net of only sixteen inches diameter across the open end, he stood on the river bank and caught by scooping two barrels of fish within half an hour! In the lower Columbia river tributaries this species of herring are now running in schools of myriads, and literally fill the Cowlitz in shoals that occupy the entire space of the stream; and what is singular, although apparently moving forward up the river, there is at present no diminution of their volume.
22 March 1872	Kalama, Washington Territory Cowlitz River	<i>Kalama Beacon</i> , p. 1, col. 1	THE SMELTS. —These piscatory phenomenon seemed to pass the rear of their column up the Cowlitz and tributaries last week. There seems to be no return of any portion of them down stream; and whither they are tending, and where can such myriads find room at the head of the Cowlitz, is something that would not be an inappropriate study for an Agassiz, or some other piscatorial student.
1873			
23 January 1873	Portland, OR	<i>Oregonian</i> , p. 3, col. 3	Columbia river smelt are late coming to market this season. Small quantities of this species of the finny tribe arrive daily from the Sound.
8 February 1873	Kalama, Washington Territory Cowlitz River	<i>Kalama Beacon</i> , p. 1, col. 2	A PISCATORY ADVENT. —The annual return to the Cowlitz river of that delicious little fish called the smelt, commenced a couple of weeks ago, and the river is literally alive with them. With a scoop-net of about fifteen to twenty inches in diameter, it is practicable to stand anywhere on the bank and scoop a barrel full in ten or fifteen minutes. The run will last about a month longer, but toward the latter end of the season they are pronounced inferior and the catch is abandoned. A few days ago, the steamer Rescue transported seven tons of these fish at once to fill orders from Portland.

Date	Place	Source	Quote
6 March 1873	Portland, OR	<i>Oregonian</i> , p. 3, col. 1	LOCAL BREVITIES. ... Smelt and sturgeon still flood the markets. ...
1874			
10 February 1874	Kalama, Washington Territory	<i>Kalama Beacon</i> , p. 1, col. 1	THE SMELT RUN. —That delicious little fish is playing truant this season, so far. According to the period of their annual visits heretofore, they have been due in the Cowlitz for two or three weeks past; but they have not yet put in an appearance, and may fail altogether, as they do sometimes in streams frequented by them.
26 February 1874	Portland, OR	<i>Oregonian</i> , p. 3, col. 1	LOCAL BREVITIES. Smelt are not smelt this season. ...
24 March 1874	Portland, OR	<i>Oregonian</i> , p. 3, col. 3	LOCAL BREVITIES. ... Smelt are smelt everywhere. The supply exceeds the demand.
1875			
8 December 1874	Portland, OR	<i>Daily Oregonian</i> , p. 2, col. 2	First Smelt! The First Lot of Smelt of the Season! At Quinn's, 3 lbs. for 25 Cents.
17 March 1875	Portland, OR	<i>Daily Oregonian</i> , p. 3, col. 3	Smelt—the first of the season —from the Columbia river in large quantities at Malarkey's, Second street, between Stark and Washington. Get a mess.
22 March 1875	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	Fresh Halibut, Smelt and Chinook Salmon to-day at C. A. Malarkey's New York Fish, Game and Poultry Market, Second street between Stark and Washington.
23 March 1875	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	Fresh Halibut, Smelt and Chinook Salmon to-day at C. A. Malarkey's New York Fish, Game and Poultry Market, Second street between Stark and Washington.
1876			
22 February 1876	Portland, OR	<i>Daily Oregonian</i> , p. 2, col. 5	Columbia River Smelt! First of the Season of 1876. At C. A. Malarkey's New York Market, S. E. Cor. Stark and Second streets.
25 February 1876	Portland, OR	<i>Daily Oregonian</i> , p. 3, col. 3	1000 Pounds Fresh Columbia River Smelt, for sale Wholesale and Retail by C. A. Malarkey, S. E. corner Stark and Second streets.
1 March 1876	Portland, OR	<i>Daily Oregonian</i> , p. 2, col. 4	Fresh Columbia River Smelt. I received last night the largest lot that has come to market this season. 3 lbs. for 25 cts. C. A. Malarkey New York Market, S. E. cor. Stark and Second streets.
4 March 1876	Portland, OR	<i>Daily Oregonian</i> , p. 2, col. 3	Caution. Fresh Columbia River Smelt. The public are cautioned against buying Puget Sound Smelt for Columbia River Smelt. Come to headquarters for the latter. Large lot received again last night. C. A. Malarkey, New York Market, S. E. cor. Stark and Second.
1877			
19 February 1877	Portland, OR	<i>Oregonian</i> , p. 2, col. 3	Columbia River Smelt! First of the Season of 1877. Wholesale and Retail, by Chas. A. Malarkey, New York Market, S. E. Cor. Second and Stark Sts., Portland.
19 February 1877	Portland, OR	<i>Oregonian</i> , p. 3, col. 3	COLUMBIA RIVER SMELT. —D. A. Malarkey, southeast corner of Stark and Second streets received Saturday evening, the finest lot of Columbia river smelt of the season of 1877. He will receive a fresh lot today and be prepared to fill all orders wholesale and retail.
20 February 1877	Portland, OR	<i>Oregonian</i> , p. 2, col. 3	Columbia River Smelt! First of the Season of 1877. Wholesale and Retail, by Chas. A. Malarkey, New York Market, S. E. Cor. Second and Stark Sts., Portland.

Date	Place	Source	Quote
21 February 1877	Portland, OR	<i>Oregonian</i> , p. 2, col. 3	Columbia River Smelt! First of the Season of 1877. Wholesale and Retail, by Chas. A. Malarkey, New York Market, S. E. Cor. Second and Stark Sts., Portland.
22 February 1877	Portland, OR	<i>Oregonian</i> , p. 2, col. 3	Columbia River Smelt! First of the Season of 1877. Wholesale and Retail, by Chas. A. Malarkey, New York Market, S. E. Cor. Second and Stark Sts., Portland.
22 February 1877	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	Brief Notes. ... Any amount of smelt in the market. Lent, you know.
23 February 1877	Portland, OR	<i>Oregonian</i> , p. 2, col. 3	Columbia River Smelt! First of the Season of 1877. Wholesale and Retail, by Chas. A. Malarkey, New York Market, S. E. Cor. Second and Stark Sts., Portland.
24 February 1877	Portland, OR	<i>Oregonian</i> , p. 3, col. 1	Mr. Charles A. Malarkey, corner Second & Stark streets, has constantly on hand nice game, Columbia river smelt, chickens and salmon.
1878			
2 February 1878	Portland, OR	<i>Daily Oregonian</i> , p. 2, col. 3	Columbia River Smelt! First of the Season of 1878! Wholesale and Retail At Chas. A. Malarkey's New York Market, S. E. Cor. Stark and Second Sts., Portland HURRA! HURRA! First Columbia River Smelt of the Season. Smelt! SMELT! Smelt! At 5 Cents per Pound, Wholesale and Retail At Dougherty & Browne's Washington Market, Corner Fourth and Washington Streets
4 February 1878	Portland, OR	<i>Daily Oregonian</i> , p. 2, col. 3	Columbia River Smelt! First of the Season of 1878! Wholesale and Retail At Chas. A. Malarkey's New York Market, S. E. Cor. Stark and Second Sts., Portland HURRA! HURRA! First Columbia River Smelt of the Season. Smelt! SMELT! Smelt! At 5 Cents per Pound, Wholesale and Retail At Dougherty & Browne's Washington Market, Corner Fourth and Washington Streets
5 February 1878	Portland, OR	<i>Daily Oregonian</i> , p. 2, col. 4	Columbia River Smelt! First of the Season of 1878! Wholesale and Retail At Chas. A. Malarkey's New York Market, S. E. Cor. Stark and Second Sts., Portland HURRA! HURRA! First Columbia River Smelt of the Season. Smelt! SMELT! Smelt! At 5 Cents per Pound, Wholesale and Retail At Dougherty & Browne's Washington Market, Corner Fourth and Washington Streets
6 February 1878	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	HURRA! HURRA! First Columbia River Smelt of the Season. Smelt! SMELT! Smelt! At 5 Cents per Pound, Wholesale and Retail At Dougherty & Browne's Washington Market, Corner Fourth and Washington Streets.
7 February 1878	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	HURRA! HURRA! First Columbia River Smelt of the Season. Smelt! SMELT! Smelt! At 5 Cents per Pound, Wholesale and Retail At Dougherty & Browne's Washington Market, Corner Fourth and Washington Streets.
8 February 1878	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	HURRA! HURRA! First Columbia River Smelt of the Season. Smelt! SMELT! Smelt! At 5 Cents per Pound, Wholesale and Retail At Dougherty & Browne's Washington Market, Corner Fourth and Washington Streets.
9 February 1878	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	HURRA! HURRA! First Columbia River Smelt of the Season. Smelt! SMELT! Smelt! At 5 Cents per Pound, Wholesale and Retail At Dougherty & Browne's

Date	Place	Source	Quote
			Washington Market, Corner Fourth and Washington Streets.
11 February 1878	Portland, OR	<i>Oregonian</i> , p. 2, col. 6	HURRA! HURRA! First Columbia River Smelt of the Season. Smelt! SMELT! Smelt! At 5 Cents per Pound, Wholesale and Retail At Dougherty & Browne's Washington Market, Corner Fourth and Washington Streets.
14 February 1878	Vancouver, Washington Territory	<i>The Vancouver Independent</i> , p. 5, col. 1	BRIEF MENTION. ... The Indians are supplying the Vancouver market with fresh smelt and sturgeon, which are being caught in great quantities near the mouth of the Cowlitz.
14 February 1878	Vancouver, Washington Territory	<i>The Vancouver Independent</i> , p. 8, col. 1	OREGON. ... At Jackson & Myers' trap, below Rainier, last Saturday, were taken out 66 large sturgeon, ranging in weight from 75 to 175 pounds each. Five barrels of smelt were part of the same catch, and three times that amount could have been taken if they so desired. This is a good omen that salmon will be here in suitable time.
1879			
25 February 1879	Portland, OR	<i>Oregonian</i> , p. 2, col. 3	Columbia River Smelt! CHINOOK SALMON! First of the season 1879. C. A. Malarkey's New York Market, S. E. Cor. Stark and Second Sts., Portland.
25 February 1879	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	BUSINESS NOTICES. ... We note the arrival in town of Columbia river smelt, the favorite fish of the Portland people in general. Also arrived at the same, the first Chinook salmon of the season, 1879. The arrival of a Chinook salmon in market at this early season is we believe, unknown before. Both are to be had at C. A. Malarkey's market, Stark and Second streets. The shipment of smelt this time is light, but a few hundred pounds, but in a few days Mr. Malarkey will have a full supply and be prepared to fill all orders, wholesale and retail.
27 February 1879	Portland, OR	<i>Oregonian</i> , p. 2, col. 3	Smelt, Smelt, Smelt! Columbia River Smelt! A fresh lot just received by C. A. Malarkey, New York Market, S. E. Cor. Stark and Second Sts., Portland.
28 February 1879	Portland, OR	<i>Oregonian</i> , p. 2, col. 3	Smelt, Smelt, Smelt! Columbia River Smelt! A fresh lot just received by C. A. Malarkey, New York Market, S. E. Cor. Stark and Second Sts., Portland.
28 February 1879	Portland, OR	<i>Oregonian</i> , p. 3, col. 4	We note the arrival of a fresh lot of Columbia river Smelt at C. A. Malarkey's New York market, Stark and Second street. Judging by the crowd about his market when they arrived they will soon be all gone. Mr. Malarkey, however, assures us he has enough for all, and will receive them daily while the season lasts, which we are sorry to say is too short.
1 March 1879	Portland, OR	<i>Oregonian</i> , p. 3, col. 3	Smelt, Smelt, Smelt! Columbia River Smelt! A fresh lot just received by C. A. Malarkey, New York Market, S. E. Cor. Stark and Second Sts., Portland.
1 March 1879	Portland, OR	<i>Oregonian</i> , p. 4, col. 3	We note the arrival of a fresh lot of Columbia river Smelt at C. A. Malarkey's New York market, Stark and Second street. Judging by the crowd about his market when they arrived they will soon be all gone. Mr. Malarkey, however, assures us he has enough for all, and will receive them daily while the season lasts, which we are sorry to say is too short.
2 March 1879	Columbia River at Clifton, OR	<i>The Daily Astorian</i> , p. 3, col. 1	Messrs. John L. Gill & Brother are making a success of their smelt fishery near Clifton. Yesterday they sent 1000 lbs to Portland, and 100 lbs to Astoria. All together they have

Date	Place	Source	Quote
			shipped to Portland this season 2,100 lbs. On the 28th, at two hauls of the sein[e] they caught 1000 lbs. We acknowledge receipt of samples.
3 March 1879	Portland, OR	<i>Oregonian</i> , p. 2, col. 3	Smelt, Smelt, Smelt! Columbia River Smelt! A fresh lot just received by C. A. Malarkey, New York Market, S. E. Cor. Stark and Second Sts., Portland.
3 March 1879	Portland, OR	<i>Oregonian</i> , p. 3, col. 3	We note the arrival of a fresh lot of Columbia river Smelt at C. A. Malarkey's New York market, Stark and Second street. Judging by the crowd about his market when they arrived they will soon be all gone. Mr. Malarkey, however, assures us he has enough for all, and will receive them daily while the season lasts, which we are sorry to say is too short.
5 March 1879	Portland, OR	<i>Oregonian</i> , p. 3, col. 3	Smelt, Smelt, Smelt! Columbia River Smelt! STILL THEY COME! I am now prepared to fill all orders, city and country, in quantities of 1 lb to 1 ton, at lowest rates. C. A. Malarkey, New York Market, S. E. Cor. Stark and Second Sts., Portland.
5 March 1879	Portland, OR	<i>Oregonian</i> , p. 4, col. 5	Note C. A. Malarkey's advertisement, in new to day. He now announces that he is prepared to fill orders, both city and country, for Columbia river smelt at lowest rates. We can recommend him to all.
6 March 1879	Vancouver, Washington Territory	<i>The Vancouver Independent</i> , p. 5, col. 1	BRIEF MENTION. ... John Middleton sent up a lot of Smelt from Clifton this week of which we had our share.
13 March 1879	Vancouver, Washington Territory	<i>The Vancouver Independent</i> , p. 5, col. 1	BRIEF MENTION. ... Jack Bean has some smelt Monday that were not smelt—they were sweet. ...
1880			
22 January 1880	Portland, OR	<i>Daily Oregonian</i> , p. 2, col. 3	SMELT, SMELT Columbia River Smelt, First of the season 1880 At C. A. Malarkey's New York Market, Stark street between First and Second
23 January 1880	Portland, OR	<i>Daily Oregonian</i> , p. 2, col. 3	SMELT, SMELT Columbia River Smelt, First of the season 1880 At C. A. Malarkey's New York Market, Stark street between First and Second
24 January 1880	Portland, OR	<i>Oregonian</i> , p. 2, col. 3	COLUMBIA RIVER SMELT! First of the Season. At Failing's Central Market.
24 January 1880	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	SMELT, SMELT! Columbia River Smelt! First of the Season, 1880, at C. A. Malarkey's, New York Market, Stark Street, between First and Second. The trade supplied at lowest rates. Country orders solicited.
26 January 1880	Portland, OR	<i>Oregonian</i> , p. 2, col. 3	COLUMBIA RIVER SMELT! First of the Season. At Failing's Central Market.
26 January 1880	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	SMELT, SMELT! Columbia River Smelt! First of the Season, 1880, at C. A. Malarkey's, New York Market, Stark Street, between First and Second. The trade supplied at lowest rates. Country orders solicited.
27 January 1880	Portland, OR	<i>Oregonian</i> , p. 2, col. 3	SMELT, SMELT! Columbia River Smelt! First of the Season, 1880, at C. A. Malarkey's, New York Market, Stark Street, between First and Second. The trade supplied at lowest rates. Country orders solicited.
28 January 1880	Portland, OR	<i>Oregonian</i> , p. 2, col. 3	SMELT, SMELT! Columbia River Smelt! First of the Season, 1880, at C. A. Malarkey's, New York Market, Stark Street, between First and Second. The trade supplied at lowest rates. Country orders solicited.

Date	Place	Source	Quote
29 January 1880	Portland, OR	<i>Oregonian</i> , p. 2, col. 6	SMELT, SMELT! Columbia River Smelt! First of the Season, 1880, at C. A. Malarkey's, New York Market, Stark Street, between First and Second. The trade supplied at lowest rates. Country orders solicited.
29 January 1880	Vancouver, Washington Territory	<i>The Vancouver Independent</i> , p. 5, col. 1	BRIEF MENTION. ... As smelt have commenced running in the lower Columbia river a month earlier than usual, an early opening of the salmon run is looked for ...
5 February 1880	Portland, OR	<i>Morning Oregonian</i> , p. 1, col. 4	Smelt fishermen are making good wages on the river now. Some make \$40 a night with dip nets. Hapgood cannery, at Waterford has put up 8000 pounds. There is a big run.
12 February 1880	Portland, OR	<i>Daily Oregonian</i> , p. 3, col. 1	Dead Smelt —A gentlemen who came up the river from Astoria yesterday, informs us that millions of smelt are dying from some unknown cause in the Columbia and floating ashore. In the vicinity of Pillar Rock the bank is lined with these little fish for some distance, and hundreds of voracious sea gulls are constantly devouring them.
14 February 1880	Portland, OR	<i>Oregonian</i> , p. 4, col. 2	Produce Receipts. Produce receipts at Portland for the 24 hours ending at noon to-day. ... smelt 21 bxs. [boxes]
21 February 1880	Columbia River	<i>The Douglas Independent</i> , p. 2, col. 3 (Roseburg, OR)	Smelt fishermen are making good wages on the Columbia river now. Some men make forty dollars a night with dip nets. Hapgood's cannery at Waterford, has put up 6,000 pounds. There is a big run.
25 February 1880	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	SMELT. —Statements having appeared from time to time in the newspapers about dead smelt in the Columbia thereby affecting sales in this market. Mr. Malarkey desires to call the attention of his customers and the public generally that he sells none of that kind. His smelt are all caught alive in the Cowlitz river and this we can guarantee. The second run of smelt has now commenced and he is prepared to fill all orders wholesale and retail. They are very fine, best this season. C. A. Malarkey, 31 Stark st. bet. First & Second.
1881			
8 January 1881	Portland, OR	<i>Morning Oregonian</i> , p. 2, col. 3	SMELT, Columbia River Smelt, Season 1881, A fine lot just received by C. A. Malarkey, New York Market, N. E. corner Oak and Second Street, Country orders promptly filled
9 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 1	Fresh smelt, first of the season at Warren A. Eatons.
10 January 1881	Portland, OR	<i>Daily Oregonian</i> , p. 2, col. 4	SMELT, Columbia River Smelt, Season 1881. A fine lot just received by C. A. Malarkey, New York Market, N. E. corner Oak and Second Street, Country orders promptly filled
11 January 1881	Portland, OR	<i>Daily Oregonian</i> , p. 2, col. 3	SMELT, Columbia River Smelt, Season 1881. A fine lot just received by C. A. Malarkey, New York Market, N. E. corner Oak and Second Street, Country orders promptly filled
11 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 1	Fresh smelt, first of the season at Warren & Eatons.
12 January 1881	Portland, OR	<i>Daily Oregonian</i> , p. 2, col. 3	SMELT, Columbia River Smelt, Season 1881. A fine lot just received by C. A. Malarkey, New York Market, N. E. corner Oak and Second Street, Country orders promptly filled

Date	Place	Source	Quote
12 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 1	Fresh smelt, first of the season at Warren & Eatons.
13 January 1881	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	SMELT. Columbia River Smelt, Season 1881. A fine lot just received by C. A. Malarkey, New York Market, N. E. corner Oak and Second Street, Country orders promptly filled.
14 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt, first of the season at Warren & Eatons.
14 January 1881	Portland, OR	<i>Oregonian</i> , p. 1, col. 6	SMELT. Columbia River Smelt, Season 1881. A fine lot just received by C. A. Malarkey, New York Market, N. E. corner Oak and Second Street, Country orders promptly filled.
15 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt, first of the season at Warren & Eatons.
16 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 1	Fresh smelt, first of the season at Warren & Eatons.
18 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt, first of the season at Warren & Eatons.
19 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt, first of the season at Warren & Eatons.
20 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt, first of the season at Warren & Eatons.
21 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt, first of the season at Warren & Eatons.
22 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt, first of the season at Warren & Eatons.
23 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt, first of the season at Warren & Eatons.
25 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt, first of the season at Warren & Eatons.
26 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt at Warren & Eatons.
27 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt at Warren & Eatons.
28 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
29 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt at Warren & Eatons.
30 January 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 1	Fresh smelt at Warren & Eatons.

Date	Place	Source	Quote
1 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt at Warren & Eatons.
2 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt at Warren & Eatons.
3 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt at Warren & Eatons.
4 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt at Warren & Eatons.
5 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 1	Fresh smelt at Warren & Eatons.
6 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 2	Fresh smelt at Warren & Eatons.
8 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 2	Fresh smelt at Warren & Eatons.
9 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
10 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
11 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
12 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
15 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
16 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
17 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
20 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
22 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 1	Fresh smelt at Warren & Eatons.
23 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
24 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 2	Fresh smelt at Warren & Eatons.
25 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.

Date	Place	Source	Quote
26 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
27 February 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt at Warren & Eatons.
1 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt at Warren & Eatons.
2 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 2	Fresh smelt at Warren & Eatons.
3 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt at Warren & Eatons.
4 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt at Warren & Eatons.
5 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	Fresh smelt at Warren & Eatons.
6 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
8 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
9 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
10 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
11 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
12 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
13 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
15 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
16 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
17 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
18 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
19 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.

Date	Place	Source	Quote
20 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
24 March 1881	Vancouver, Washington Territory	<i>The Vancouver Independent</i> , p. 5, col. 2	SMELT. —The run of smelt in the Columbia is more than usually abundant this spring, and they come up past this city in vast quantities. The boys amuse themselves with scoop-nets made of gunny-sacks, with which they capture considerable quantities. Some of the farmers along the river have been catching them with rakes. Two or three nights ago O. C. Hendrickson, opposite the mouth of the Willamette, went out for a bit of diversion and captured six barrels of the little jokers.
25 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
26 March 1881	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Fresh smelt at Warren & Eatons.
31 March 1881	Vancouver, Washington Territory	<i>The Vancouver Independent</i> , p. 5, col. 1	BRIEF MENTION. ... The banks of the Columbia are lined for miles with dead and dying smelt. ... The river has been unusually full of seagulls this week, which have been following up the run of smelt.
7 April 1881	Vancouver, Washington Territory	<i>The Vancouver Independent</i> , p. 5, col. 1	BRIEF MENTION. ... It is said that the Sandy is literally teeming with smelt. ... The smelt ran up Salmon creek to Marble's dam last week, a rather unusual proceeding.
	Columbia River	The Eulachon or Candle-fish of the Northwest Coast (Swan 1881, p. 258)	The eulachon are found in limited numbers at certain seasons in the Columbia River, Shoalwater [Willapa] Bay, Gray's Harbor, and at the mouth of the various small streams of the coast, and also in the waters of Puget Sound, where they are taken in seines and nets with smelt and other varieties of small fish, but they are thin and poor, and not to be compared to the same varieties further north. Even those taken in Fraser's River near the boundary line between Washington Territory and British Columbia are superior to those taken further south, and are sold in the Victoria market, where their excellence is highly prized. The few secured on Puget Sound are sold by the fishermen as smelts. The best kinds are caught further north, and great quantities are salted by the Hudson's Bay Company, at their trading post at Fort Simpson, British Columbia, and either sold in the Victoria market or shipped direct to London in tierces, barrels, and kits. As an article of food and for the grease or fat contained in them, the eulachon are highly prized by the Indians of northern British Columbia and southern Alaska, where they abound; particularly at the Nass River, British Columbia, where they are annually taken in enormous quantities, and where they seem to attain their very finest condition.
1882			
25 February 1882	Portland, OR	<i>Oregonian</i> , p. 2, col. 3	Columbia River Smelt! Columbia River Smelt! At the Eureka Market, N. E. corner Third and Morrison Streets.
25 February 1882	Cowlitz River	<i>The Daily Astorian</i> , p. 3, col. 1	The Cowlitz is full of fine smelt; this fish is now being brought in large quantities to Astoria, where it meets with ready sale.
27 February 1882	Portland, OR	<i>Morning Oregonian</i> , p. 3, col. 1	C. A. Malarkey, Second and Oak, will receive this morning a choice lot of Columbia river smelt.

Date	Place	Source	Quote
28 February 1882	Columbia River, Eagle Cliff	<i>The Daily Astorian</i> , p. 3, col. 1	Smelts are running heavily in the river. They are of fine quality. Mr. Hume says that there are two tons of them lying at the dock at Eagle Cliff.
2 March 1882	Vancouver, Washington Territory	<i>The Vancouver Independent</i> , p. 5, col. 1	BRIEF MENTION. ... Fresh smelt, the first of the season ... have been served by Brewster to his patrons this week.
30 March 1882	North Fork Lewis River	<i>The Vancouver Independent</i> , p. 5, col. 4	North Fork Notes. The smelt took a run up the North fork to within a half mile of Gardner's the first time since '75.
1 April 1882	Columbia River	<i>The Daily Astorian</i> , p. 3, col. 1	The smelt have gone further up the river this season than, any time since 1875.
6 April 1882	Vancouver, Washington Territory	<i>The Vancouver Independent</i> , p. 5, col. 1	BRIEF MENTION. ... The smelt have been running in the Columbia at this point in great numbers this week, and it is no trick at all to catch a cart-load of them.
12 April 1882	Sandy River	<i>The Daily Astorian</i> , p. 3, col. 1	The waters of the Sandy are stiff with smelt, the [Vancouver] Vindicator says.
19 April 1882	Columbia River,	<i>The Daily Astorian</i> , p. 3, col. 1	Smelt are still running in the river, which is very unusual so late in the season.
26 April 1882	Sandy River, Cascades of Columbia River	<i>The Daily Astorian</i> , p. 3, col. 2	Fish Story. The report comes from all sides that the run of smelt in the Columbia river near the Lower Cascades and in the Sandy has been unprecedented in the history of the country. At the Sandy, which is a small stream emptying into the Columbia, the fish have crowded into the river so thick that the farmers for miles around are busily engaged in shoveling them out with pitchforks or pronged sticks and pickling them. A prominent artist went trout-fishing over there and came back astonished. He said he could not find bottom, the fish were so thick. A gentleman down from the Cascades states that the banks are lined with dead fish. The smelt yearly come in from the sea in great shoals to spawn in the river. They swarm up to the Cascades, where they can go no further, and literally crowd each other out of the water. The above is from the Sunday Welcome and illustrates what a newspaper man can do who has an inventive genius. Of course the story is true.
27 April 1882	Vancouver, Washington Territory	<i>The Vancouver Independent</i> , p. 5, col. 1	BRIEF MENTION. ... The smelt are still running in the river at Astoria, but they have not been heard of at this point recently.
1883			
11 February 1883	Portland, OR	<i>Oregonian</i> , p. 3, col. 7	Smelt! Smelt! Columbia River Smelt! These most delicious fish are again being received by C. A. Malarkey daily. Orders from the country will be filled promptly. C. A. Malarkey, Wholesale and Retail Dealer
4 March 1883	Columbia River	<i>The Daily Astorian</i> , p. 3, col. 1	A few smelt are caught, but so far they are a very scarce fish.
6 March 1883	Portland, OR	<i>Morning Oregonian</i> , p. 2, col. 4	NEW TO-DAY, SMELT, First of the Season At Williams & Sons General Market
8 March 1883	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	Smelt! Smelt! Columbia River Smelt! These most delicious fish are now being received by C. A. Malarkey daily. Orders from the country will be filled promptly. C. A. Malarkey, Wholesale and Retail Dealer

Date	Place	Source	Quote
9 March 1883	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	Smelt! Smelt! Columbia River Smelt! These most delicious fish are now being received by C. A. Malarkey daily. Orders from the country will be filled promptly. C. A. Malarkey, Wholesale and Retail Dealer
9 March 1883	Columbia River at Clifton and Oak Point	<i>The Daily Astorian</i> , p. 3, col. 1	Fresh smelt and clams are in the market in abundance. The most of the smelt caught so far come from Clifton, Oak Point and other up river points.
12 March 1883	Portland, OR	<i>Oregonian</i> , p. 2, col. 7	Smelt! Smelt! Columbia River Smelt! These most delicious fish are now being received by C. A. Malarkey daily. Orders from the country will be filled promptly. C. A. Malarkey, Wholesale and Retail Dealer
13 March 1883	Portland, OR	<i>Morning Oregonian</i> , p. 3, col. 7	Smelt! Smelt! Columbia River Smelt! These most delicious fish are now being received by C. A. Malarkey daily. Orders from the country will be filled promptly. C. A. MALARKEY, New York Market, N. E. corner Oak and Second St.
14 March 1883	Portland, OR	<i>Oregonian</i> , p. 2, col. 7	Smelt! Smelt! Columbia River Smelt! These most delicious fish are now being received by C. A. Malarkey daily. Orders from the country will be filled promptly. C. A. Malarkey, Wholesale and Retail Dealer
16 March 1883	St Helens, OR	<i>The Columbian</i> , p. 2, col. 3	Tuesday eve was a grand time for smelting. The St. Helenites smelt the battle from afar, and went out in all kinds of vessels like Jonah to take in the miniature whales. They just scooped them up sans ceremony. ... Alex. Edwards and Obed Blakesley went out in the Great Republic and took an immense lot of smelt, and gave us a bountiful supply ...
22 March 1883	Vancouver, Washington Territory	<i>The Vancouver Independent</i> , p. 5, col. 2	SMELT FISHING. —The run of smelt in the Columbia reached this place last Friday, and since then ten tons of them have been dipped out of the river along the wharves by numerous boys and men with dip-nets made of netting or bags. The sport has been much enjoyed by all concerned.
23 March 1883	Columbia River, Vancouver, WA	<i>The Daily Astorian</i> , p. 3, col. 1	The run of smelt in the Columbia reached this place last Friday, and since then ten tons of them have been dipped out of the river along the wharves by numerous boys and men with dip-nets made of netting or bags. The sport has been much enjoyed by all concerned.— <i>Vancouver Independent</i> .
29 March 1883	Vancouver, Washington Territory Lewis River	<i>The Vancouver Independent</i> , p. 5, col. 1	BRIEF MENTION ... The smelt are running up Lewis river this year more freely than usual.
5 April 1883	Vancouver, Washington Territory North Fork Lewis River	<i>The Vancouver Independent</i> , p. 4, col. 2	For several days the smelt have been running up North fork in unprecedented numbers, and everyone has been smelting. The catch this year bids fair to exceed that of other seasons. There are few people along either fork of the river who have not salted down a goodly quantity.
1884			
15 January 1884	Columbia River	<i>The Daily Astorian</i> , p. 3, col. 1	... Report has it that smelt have begun to run, though it is somewhat early for that forerunner of the toothsome samlet [salmonlet].
20 February 1884		<i>The Daily Astorian</i> , p. 3, col. 1	... probably this warm wind will start the smelt for the Columbia.
23 February 1884	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	Smelt! Smelt! Columbia River Smelt! First of the season of 1884, have now arrived.

Date	Place	Source	Quote
			Send your orders to Chas. A. Malarkey, N. W. corner Fourth and Morrison Streets.
24 February 1884	Portland, OR	<i>Oregonian</i> , p. 7, col. 6	Smelt! Smelt! Columbia River Smelt! First of the season of 1884, have now arrived. Send your orders to Chas. A. Malarkey, N. W. corner Fourth and Morrison Streets.
25 February 1884	Portland, OR	<i>Morning Oregonian</i> , p. 1, col. 8	SMELT. SMELT, Columbia River Smelt! First of the season of 1884 have now arrived. Send your orders to Chas. A. MALARKEY, N. W. corner Fourth and Morrison Streets.
26 February 1884	Portland, OR	<i>Oregonian</i> , p. 2, col. 6	Smelt! Smelt! Columbia River Smelt! First of the season of 1884, have now arrived. Send your orders to Chas. A. Malarkey, N. W. corner Fourth and Morrison Streets.
26 February 1884	Portland, OR	<i>Oregonian</i> , p. 3, col. 3	Smelt. Once more these delicious fish are in the market and Malarkey wants lovers of the article to know that he has them in quantities to suit, at his market, Fourth and Morrison.
27 February 1884	Portland, OR	<i>Oregonian</i> , p. 2, col. 5	Smelt! Smelt! Columbia River Smelt! First of the season of 1884, have now arrived. Send your orders to Chas. A. Malarkey, N. W. corner Fourth and Morrison Streets.
27 February 1884	Columbia River at Oak Point	<i>The Daily Astorian</i> , p. 3, col. 1	Smelt. —These little fish, the forerunners of their more pretentious brethren the salmon, have begun their annual pilgrimage up the Columbia. Every year after a cold snap in the latter part of February and when the west warm wind blows clouds of moisture from the ocean they come from no one knows where and swim steadily along disdaining all efforts to be caught till they get above Skamokawa. From there on they fall an easy prey. They were first caught this season at Eagle Cliff. Yesterday a few were caught at Oak Point, and a day or so more they will show up about Bush's place. The manner of catching them is very simple; just dip them out of the water by the seine full. They are esteemed a luxury, and the first catch always bring good prices in Portland and Astoria markets. The first lot brought to Portland and this city last Monday brought fifteen cents a pound, and if one could dip out a couple of hundred pounds every day right along for three or four months, and find sale for them at that figure he would be able to go on a vacation to Oregon City, or McMinnville. But the fish and the fancy prices paid for them are alike evanescent, and by the time the lordly salmon show their presence they have greatly diminished in value.
28 February 1884	Portland, OR	<i>Oregonian</i> , p. 2, col. 5	Smelt! Smelt! Columbia River Smelt! First of the season of 1884, have now arrived. Send your orders to Chas. A. Malarkey, N. W. corner Fourth and Morrison Streets.
28 February 1884	Vancouver, Washington Territory	<i>The Vancouver Independent</i> , p. 5, col. 1	CITY AND COUNTY. Brief Mention. ... Columbia river smelt from below have made their appearance in the market.
29 February 1884	Portland, OR	<i>Oregonian</i> , p. 2, col. 7	Smelt! Smelt! Columbia River Smelt! First of the season of 1884, have now arrived. Send your orders to Chas. A. Malarkey, N. W. corner Fourth and Morrison Streets.
1 March 1884	Columbia River	<i>The Daily Astorian</i> , p. 3, col. 1	The river is full of smelt.
3 March 1884	Portland, OR	<i>Oregonian</i> , p. 2, col. 6	Smelt! Smelt! Columbia River Smelt! First of the season of 1884, have now arrived. Send your orders to Chas. A. Malarkey, N. W. corner Fourth and Morrison Streets.
4 March 1884	Portland, OR	<i>Morning Oregonian</i> , p.	SMELT SMELT. Columbia River Smelt! The most delicious of all fish are now

Date	Place	Source	Quote
		2, col. 4 and 8	coming to market. Country Customers will find it to their advantage to order from C. A. MALARKEY, Fourth and Morrison Sts.
5 March 1884	Portland, OR	<i>Oregonian</i> , p. 3, col. 8	Smelt! Smelt! Columbia River Smelt! The most delicious of all fish, are now coming to market plentiful and cheap. Country customers will find it to their advantage to order from C. A. Malarkey, Fourth and Morrison Sts.
6 March 1884	Portland, OR	<i>Oregonian</i> , p. 3, col. 6	Smelt! Smelt! Columbia River Smelt! The most delicious of all fish, are now coming to market plentiful and cheap. Country customers will find it to their advantage to order from C. A. Malarkey, Fourth and Morrison Sts.
7 March 1884	Portland, OR	<i>Oregonian</i> , p. 2, col. 5	Smelt! Smelt! Columbia River Smelt! The most delicious of all fish, are now coming to market plentiful and cheap. Country customers will find it to their advantage to order from C. A. Malarkey, Fourth and Morrison Sts.
7 March 1884	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 1	Sturgeon, salmon-trout and smelt are offered for sale at our markets; they are fine ...
8 March 1884	Portland, OR	<i>Oregonian</i> , p. 2, col. 5	Smelt! Smelt! Columbia River Smelt! The most delicious of all fish, are now coming to market plentiful and cheap. Country customers will find it to their advantage to order from C. A. Malarkey, Fourth and Morrison Sts.
10 March 1884	Portland, OR	<i>Oregonian</i> , p. 2, col. 8	Smelt! Smelt! Columbia River Smelt! The most delicious of all fish, are now coming to market plentiful and cheap. Country customers will find it to their advantage to order from C. A. Malarkey, Fourth and Morrison Sts.
2 April 1884	Columbia River	<i>The Daily Astorian</i> , p. 3, col. 1	A few smelt are still in the river, but no one cares for them since the lordly salmon made their appearance.
4 April 1884	St Helens, OR	<i>The Columbian</i> , p. 2, col. 6	The smelt have come at last. Obed Lakesley caught many opposite the mouth of Lewis River on Sunday and Monday nights.
	Columbia River Fraser River Nass River	Goode (1884, p. 547)	THE EULACHON — <i>THALEICHTHYS PACIFICUS</i> (Richardson) Girard. This species, common in the North Pacific, resembles the Capelin, and is usually known by the Indian name “Eulachon,” or “Oulachan,” more commonly pronounced “hoolakins” by the English at Victoria. Those salted and sent south are commonly called “Candle-fish” by the trade. In the Columbia River and elsewhere southward it is known as “Smelt,” being confounded with the other species. It reaches a length of less than a foot. It ranges from Oregon northward to Kamtchatka. It occurs in some abundance in the Columbia River, where little notice is taken of it. In Frazer River and streams to the northward it runs in enormous numbers in spring. The Eulachon run up the rivers and deposit their spawn on gravel beds at no great distance from the mouth of the stream, probably not above thirty miles. Their run is from the last of March to the middle of May, probably varying in different streams. During the run they are beset by all sorts of enemies—halibut, sharks, sea-birds, Indians, porpoises, and all manner of predatory fish, some of which chase them in the ocean only; others pursue them up the rivers. Even the sturgeons and the rays have their stomachs full of them. The Eulachon is greatly valued on account of the oil which permeates its flesh. As a panfish it has no superior. A factory

Date	Place	Source	Quote
			has been established on the Nass River for the manufacture of eulachon oil, which is intended to be used as a substitute for cod-liver oil. It has the drawback of becoming solid and lard-like at ordinary temperatures. ...
1885			
23 January 1885	Columbia River	<i>The Daily Astorian</i> , p. 3, col. 1	Four years ago a genuine Chinook salmon was caught near here on the 10th of this month; this season it was one week later. They are following the smelt in, and in a few weeks any one in crossing the river is liable to be attacked by one of those creatures.
10 February 1885	Columbia River	<i>The Daily Astorian</i> , p. 3, col. 1	The first smelt caught in the Columbia river this season were yanked from their native lair yesterday. They were fine. Next after smelt come salmon.
13 February 1885	Portland, OR	<i>Morning Oregonian</i> , p. 3, col. 1	Columbia River Smelt. These delicious little fish have made their appearance at Astoria, and C. A. Malarkey corner of Fourth and Morrison has made arrangements to receive a full supply during the season. He expects the first lot to-day. Call early and leave your order.
13 February 1885	Portland, OR	<i>Morning Oregonian</i> , p. 3, col. 3	The Little Fish coming —Polish up your frying pan, for Malarkey says he is going to have Columbia river smelt to-day. These little fish have become of considerable importance to fishermen and several boats have been kept on the lookout for their advent for the past two weeks. The advance guard of the immigration came up the river a little way some days since, but smelling the snow in Eastern Oregon, took a wheel back. The ones behind are shoving on the ones before, and countless millions of smelt are crossing in over the bar, anxious to reach the Cowlitz or the Sandy.
13 February 1885	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 1	Sea bass, smelt, steel heads, clams and oysters are in market. ... As the time is here for smelt to run, it may be of interest to know how to keep them. "If you can, take your barrel and salt along when you go after the fish, and salt down immediately and cover the fish well with salt. If you can't take these things with you, as soon as you return rinse the fish in fresh water, to remove the sand and dirt, and salt heavily. Let remain in the brine, which need not be changed. Do not keep the fish too long before salting."
19 February 1885	Astoria, WA	<i>The Vancouver Independent</i> , p. 5, col. 1	The smelt have come into the river at Astoria, and will probably get to Vancouver in three weeks more.
25 February 1885	Portland, OR	<i>Oregonian</i> , p. 3, col. 1	Brief Mention. Considerable anxiety has been expressed about the Columbia river smelt fleet now overdue here and anxiously awaited by all good citizens. It is now stated that the smelt are hovering off the bar waiting for a pilot.
27 February 1885	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	FISH IN SUPPLY. ... The first box of Columbia river smelt, so long looked for, was received by J. W. and V. Cook last evening. It contained about twenty pounds—the result of a night's fishing by five men. There will be plenty in a few days, sure.
13 March 1885	Portland, OR	<i>Daily Oregonian</i> , p. 3, col. 2	NO HOPE FOR SMELTS. —Fishermen generally have about given up hope of a smelt harvest this year. In speaking of the matter yesterday, a pioneer, who resided for many years on the lower Columbia, says that there were no smelt or oolachan, as they were called by Indians, in the Columbia from the time he came here till in 1863, when they appeared in vast numbers about the middle of February, and have been plentiful every

Date	Place	Source	Quote
			season since. In Irving's "Astoria" mention is made of the great quantities of smelt in the Columbia in 1826. Shortly after they forsook the river entirely and did not return till 1863, having been absent nearly forty years. It would be interesting to know why the smelt deserted the river and in what ocean wilderness they wandered all these forty years. If they have gone again to stay forty years most of us may as well say good-bye to them for we'll eat no more Columbia river smelt unless the doctrine of transmogrification is true, in which case if a fellow is changed into a seal or a sturgeon he may have a chance at them once more.
13 March 1885		<i>The Daily Astorian</i> , p. 3, col. 1	The Oregonian regretfully discusses the tardiness of the smelt in appearing. It feelingly alludes to the grief occasioned by their non-appearance and hopes to yet sell them in the market. It further says that if they don't come "it will mean a loss of several thousand dollars to dealers." ...
18 March 1885		<i>The Daily Astorian</i> , p. 3, col. 1	An unusual number of seals are coming into the river this spring. So far very few smelt have reported at headquarters.
22 March 1885		<i>The Daily Astorian</i> , p. 3, col. 1	J. A. Johnson, of Eagle Cliff, writes to C. A. Malarkey to say that he has \$900 worth of new nets in the river every day and five men hard at work, and they cannot make a living. All hopes of taking smelt are not yet abandoned, but are daily growing dimmer. Seals are troublesome, and Mr. Johnson says: "The seals stole four salmon out of my nets to-day and we had a hard fight with a sea lion. It was 15 feet long and was determined to get into the boat after a salmon. We had no gun and fought it off with a hatchet and a long pole."
2 April 1885	Vancouver, WA	<i>The Vancouver Independent</i> , p. 5, col. 1	No smelt have yet appeared in the Columbia river this season, and there will be no regular run, the first failure of this fish since 1862.
17 May 1885	Fraser River	<i>The Daily Astorian</i> , p. 3, col. 1	Oolachans are reported scarce in the Fraser river this spring. They are probably visiting somewhere with the Columbia smelt.
1886			
31 January 1886	Portland, OR	<i>Oregonian</i> , p. 4, col. 5	New To-day. Columbia River Smelt. The Most Delicious of All Fish. Chas A. Malarkey, the dealer in his line, received last evening (the first shipment) 1000 pounds of Columbia River Smelt. For the past thirteen years he has always received the first lot that comes to market, and there was no failure this year. During the coming week he will receive them daily in large quantities, and will be prepared to fill all orders, from one pound to one ton, at the lowest price. In sending orders to Malarkey you make no mistake. He will fill them promptly and guarantee satisfaction.
31 January 1886	Portland, OR	<i>Oregonian</i> , p. 4, col. 6	New To-day. Smelt! Smelt! Columbia River Smelt —the most delicious of all fish. First of the season 1886 is a lot of 1000 pounds, and the only lot that has as yet come to market, received by Chas. A. Malarkey last evening. He is now prepared to fill all orders for from one pound to one ton at lowest price. Do not forget to send orders to Chas. A. Malarkey, and they will be promptly filled.
31 January 1886	Portland, OR	<i>Morning Oregonian</i> , p.	There is a great rivalry just now among the fish dealers. The first smelt are now in the

Date	Place	Source	Quote
		5, col. 1	market. Malarkey went down the river yesterday, met the steamer as she was coming up and secured all the smelt, which were piled up last night triumphantly on his tables.
1 February 1886	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	New To-day. Columbia River Smelt. The Most Delicious of All Fish. Chas A. Malarkey, the dealer in his line, received last evening (the first shipment) 1000 pounds of Columbia River Smelt. For the past thirteen years he has always received the first lot that comes to market, and there was no failure this year. During the coming week he will receive them daily in large quantities, and will be prepared to fill all orders, from one pound to one ton, at the lowest price. In sending orders to Malarkey you make no mistake. He will fill them promptly and guarantee satisfaction.
1 February 1886	Portland, OR	<i>Oregonian</i> , p. 2, col. 5	New To-day. Smelt! Smelt! Columbia River Smelt received daily and for sale in any quantity, from one pound to one ton, by C. A. Malarkey, corner of Fourth and Morrison streets.
2 February 1886	Portland, OR	<i>Oregonian</i> , p. 2, col. 2	Plenty of Fish. —Fish dealers were on hand yesterday when the Telephone came in to look for smelt. There were a few boxes of those little favorites and a huge pile of sturgeon, which follow up and prey upon the smelt. ...
2 February 1886	Portland, OR	<i>Oregonian</i> , p. 2, col. 6	Smelt! Smelt! Columbia River Smelt the most delicious of all fish received daily and for sale in any quantity from one pound to one ton by C. A. Malarkey, corner of Fourth and Morrison streets.
2 February 1886	Portland, OR	<i>Morning Oregonian</i> , p. 3, col. 1	Wm McGuire & Co. corner Third and Morrison streets corralled all of the smelt that came to town yesterday consequently they have the only fresh smelt in the city. They received twenty five large boxes—over 4000 pounds—and are prepared to furnish everybody at reasonable prices. They are prepared to fill all orders from the country at lowest rates and guarantee perfect satisfaction. Send in your orders. Telephone 371.
3 February 1886	Columbia River	<i>The Daily Astorian</i> , p. 3, col. 1	Harry Wood came down from Waterford on the <i>Telephone</i> yesterday, with 500 pounds of fine smelt. He says they were running thick Monday and yesterday. Last year the little fish deserted the Columbia altogether, but they are making up for it this year in double quantity.
4 February 1886	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	New To-day. Fresh Columbia River Smelt. WM. McGuire & Co., Third and Morrison received the only lot of Columbia River Smelt that came up last night and are prepared to furnish every body at reasonable prices. Telephone 871.
4 February 1886	Portland, OR	<i>Oregonian</i> , p. 3, col. 1	Columbia River Smelt. Wm. McGuire & Co., Third and Morrison have made arrangements to receive large supplies of fresh smelt daily, and are prepared to fill all orders from the country at lowest rates. Send in your orders early.
4 February 1886	Portland, OR	<i>The Vancouver Independent</i> , p. 5, col. 1	The smelt are coming into the Columbia river, and are already in the Portland market.
5 February 1886	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	SMELT AND SALMON. Columbia River Smelt and Genuine Chinook Salmon received daily and for sale in any quantity from one pound to one ton by C. A. Malarkey, corner of Fourth and Morrison streets.
5 February 1886	Astoria, OR	<i>The Daily Astorian</i> , p. 3,	Around Town ... Plenty of smelt and sturgeon, and an occasional salmon.

Date	Place	Source	Quote
		col. 3	
6 February 1886	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	SMELT AND SALMON. Columbia River Smelt and Genuine Chinook Salmon received daily and for sale in any quantity from one pound to one ton by C. A. Malarkey, corner of Fourth and Morrison streets.
6 February 1886	Portland, OR	<i>Oregonian</i> , p. 3, col. 1	Columbia River Smelt. Wm. McGuire & Co., Third and Morrison have made arrangements to receive large supplies of fresh smelt daily, and are prepared to fill all orders from the country at lowest rates. Send in your orders early.
6 February 1886	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	Fish Shipments. —The recent trips upriver of the Telephone have been greatly delayed by the shipments of sturgeon and smelt. Every few miles the steamer is hailed to take on one or more sea bass and here and there a box of smelt. There is a surfeit of both smelt and sturgeon.
6 February 1886	Portland, OR	<i>Oregonian</i> , p. 3, col. 3	Columbia River Smelt. Received daily. I am prepared to fill all orders from one pound to one ton, at lowest prices. Chas. A. Malarkey. The leading house of Portland, 48 Morrison St.
7 February 1886	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 6	COLUMBIA RIVER SMELT. Wm McGuire & Co Third and Morrison, have made arrangements to receive large supplies of fresh smelt daily and are prepared to fill all orders from the country at lowest rates. Send in your orders early.
8 February 1886	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	SMELT AND SALMON. Columbia River Smelt and Genuine Chinook Salmon received daily and for sale in any quantity from one pound to one ton by C. A. Malarkey, corner of Fourth and Morrison streets.
8 February 1886	Portland, OR	<i>Oregonian</i> , p. 3, col. 1	Columbia River Smelt. Wm. McGuire & Co., Third and Morrison have made arrangements to receive large supplies of fresh smelt daily, and are prepared to fill all orders from the country at lowest rates. Send in your orders early.
9 February 1886	Portland, OR	<i>Oregonian</i> , p. 3, col. 1	Columbia River Smelt. Wm. McGuire & Co., Third and Morrison have made arrangements to receive large supplies of fresh smelt daily, and are prepared to fill all orders from the country at lowest rates. Send in your orders early.
10 February 1886	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	SMELT AND SALMON. Columbia River Smelt and Genuine Chinook Salmon received daily and for sale in any quantity from one pound to one ton by C. A. Malarkey, corner of Fourth and Morrison streets.
11 February 1886	Portland, OR	<i>Oregonian</i> , p. 4, col. 4	SMELT AND SALMON. Columbia River Smelt and Genuine Chinook Salmon received daily and for sale in any quantity from one pound to one ton by C. A. Malarkey, corner of Fourth and Morrison streets.
12 February 1886	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	SMELT AND SALMON. Columbia River Smelt and Genuine Chinook Salmon received daily and for sale in any quantity from one pound to one ton by C. A. Malarkey, corner of Fourth and Morrison streets. FRESH OYSTERS AND FISH. WM.MCGUIRE & CO. Cor. Third and Morrison ... Have reduced prices on ... Columbia River Smelt ...
14 February 1886	Portland, OR	<i>Oregonian</i> , p. 4, col. 6	SMELT AND SALMON. Columbia River Smelt and Genuine Chinook Salmon

Date	Place	Source	Quote
			received daily and for sale in any quantity from one pound to one ton by C. A. Malarkey, corner of Fourth and Morrison streets.
16 February 1886	Portland, OR	<i>Oregonian</i> , p. 2, col. 3	SMELT AND SALMON. Columbia River Smelt and Genuine Chinook Salmon received daily and for sale in any quantity from one pound to one ton by C. A. Malarkey, corner of Fourth and Morrison streets.
25 February 1886	Portland, OR	<i>Oregonian</i> , p. 4, col. 3	I'M WITH YOU! Don't forget it, I'm going to stay. ... Fresh Columbia River Smelt 5c a pound. ... F. Richards, Fourth and Washington.
4 March 1886	Vancouver, WA	<i>The Vancouver Independent</i> , p. 5, col 1	The smelt run has not yet reached Vancouver this season.
5 March 1886	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	Fish, and Business Instinct. —The luscious Columbia river smelt has gone as suddenly and mysteriously as it came. Their stay was brief but delightful—for those who ate them. We shall look in vain for a second run, and might just as well give 'em up for gone. Sound smelt are plentiful, and they are a much more handsome fish than their Columbia river cousins. But looks is not the principal point in smelt, and for eating there is no comparison. ...
1887			
11 December 1886	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 1	The first Columbia river smelt of the season came up yesterday to George Ginstin, of the Baltimore market, No.290 First.
19 January 1887	Portland, OR	<i>Morning Oregonian</i> , p. 3, col. 2	A Few Good Fish —... Vin Cook says they had a mess of Columbia river smelt down at Clifton the other day, but have not been able to catch any since. It will not be long till these delicious little fish are here.
28 January 1887	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	FISH IN DEMAND. — ... while [another fisherman] proudly exhibited a sample of genuine Columbia river smelt. Vin Cook has a party on the lookout for the arrival of these anxiously awaited little fish, and they yesterday sent him up several pounds. The advance of the main school of smelt may be expected any day now. It was about this time last year that the first shipment came up.
15 February 1887	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	LOCAL AND GENERAL. GAME. —Markets are beginning to look up again. ... Everybody is thinking—it won't be long after the snow is gone till we shall have Columbia river smelt.
15 February 1887	Mouth of Columbia River	<i>The Daily Astorian</i> , p. 3, col. 1	Gulls in the air and seals in the sea are reported plenty off the mouth of the river. They are the forerunners of the smelt, and the smelt are the three or forerunners of the toothsome samlets. 'Tis thought there are some smelt down around Sand Island now, but the cold weather keeps them from coming farther up.
24 February 1887	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	FISHING FOR SMELT. —No doubt many people once in a while give a thought to the Columbia river smelt, which would have been in market before now but for the cool spell, but probably very few have any idea of the number who are keeping a sharp lookout along the Columbia for the advent of these little fish. Although the Columbia from the mouth of the Willamette for a long way up has been frozen for some time and there has been snow all along down the river, not a day has passed for the last three

Date	Place	Source	Quote
			weeks but what seines have been put out and dip nets plied at various points in vain search for the smelt. At Oak Point two men in the employ of a fish dealer here have been going out twice every day for the past three weeks and probing the Columbia with dip nets, but nary a smelt have they caught. As the ice is now going out the fish may be expected any day.
1 March 1887	Portland, OR	<i>Morning Oregonian</i> , p. 3, col. 4	Fish dealers were all on hand when the [Steamer Ship] Telephone arrived yesterday, expecting to see a shipment of Columbia river smelt. They were disappointed, but the little fish will be here soon or not at all.
5 March 1887	Portland, OR	<i>Morning Oregonian</i> , p. 3, col. 3	Brief Mention. The prospect is that we are to have no Columbia river smelt this season.
9 March 1887	Portland, OR	<i>Oregonian</i> , p. 3, col. 3	COMING UP ON THE RISE—People had about given up all idea of seeing any Columbia river smelt this season, but it appears that they have not deserted us but were only lying off the mouth of the river waiting for the water to become decently warm in order to swarm to their spawning place in the Cowlitz and Sandy. Deep sea fishermen at Astoria report that the cod and groupers caught by them of late have been literally filled with smelt and they predict a large run. The late heavy warm rains have put the schools a motion and in a few days it will perhaps be possible to walk across the Sandy on the backs of the smelt. SMELT AT LAST—Late last night McGuire & Co., fish dealers, corner o' Third and Morrison streets, received a telegram from down the river stating that several boxes of Columbia river smelt would arrive on the [steamer ship] Telephone today for them. These will be the first smelt of the season and as the steamer will arrive about 2:30 everybody can have smelt for dinner by leaving orders early today.
9 March 1887	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 1	The first consignment of Columbia river smelt of '87 was received in this city yesterday afternoon, and the little fish were eagerly snapped up at fifteen cents a pound. They were unusually late in arriving this spring, and for a time it was feared that the old boss smelt had put a pocket veto on the annual appropriation for traveling purposes.
10 March 1887	Portland, OR	<i>Oregonian</i> , p. 4, col. 5	NEW TO-DAY. COLUMBIA RIVER SMELT. W.M. MCGUIRE & CO., the leading fish dealers, corner Third and Morrison sts., will receive another large lot of Columbia River Smelt at 3:30 P.M. All who failed to get them yesterday can be supplied to-day, as there will be plenty, and cheaper. Leave your orders or telephone early.
10 March 1887	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 3	THE SMELT HERE. —The first lot of smelt of the season arrived on the [steamer ship] Telephone yesterday, and very fine they were, being much larger and plumper than the first to arrive usually are. A number of them were evidently caught by Indians in the old-fashioned way by sweeping a stick armed with sharp pointed nails through the water and impaling the smelts thereon.
11 March 1887	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	NEW TO-DAY. MALARKEY received the only Columbia River Smelt that came to town last night; not a sample lot, but a shipment of two tons—sufficient to supply all

Date	Place	Source	Quote
			demands at reduced prices. Fourth and Morrison.
11 March 1887	Portland, OR	<i>Morning Oregonian</i> , p. 3, col. 3	And now the smelt come in earnest. C. A. Malarkey came up the river last evening having secured the entire catch of these delicious fish along the Columbia for the day some two tons in all. He is prepared to furnish all both great and small, and as he has the only smelt in the city orders should be left early this forenoon.
12 March 1887	Portland, OR	<i>Oregonian</i> , p. 2, col. 5	SMELT SMELT! SMELT. Columbia River Smelt—The most delicious of all fish. I am now receiving large shipments daily, and am prepared to fill all orders—city or country. C. A. Malarkey, 4 th and Washington.
16 March 1887	Vancouver, WA	<i>The Vancouver Independent</i> , p. 5, col 1	Columbia river smelt are plenty in the markets, brought up from below. None have appeared in the river at this point as yet.
17 March 1887	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 1	Smelt and salmon are now so plenty that they have ceased to be novelties.
31 March 1887	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	[Best available transcription from microfilm]. Item Piscatorial. ... a second run of smelt are being nearly all spawners and much ... to those received of late. ...
1888			
20 January 1888	Portland, OR	<i>Oregonian</i> , p. 3, col. 1	Local Notes. Just as soon as the ice is gone from the Columbia smelt may be expected. Any one in a hurry for smelt may expect the ice to go soon, but it is not generally expected to go out for some time. There has been one smelt caught, and Vin Cook had it. So there were smelt in the river before the freeze, and they are probably lying off and on at the mouth of the Columbia waiting for the water to get warmer.
25 January 1888	Columbia River	<i>The Daily Astorian</i> , p. 3, col. 1	There are a few smelt in the river.
2 February 1888	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	LOCAL AND GENERAL (News). THE FIRST SMELT —Mr. Vin Cook last evening sent around to The Oregonian office a mess of genuine Columbia river smelt. They are the first received here and are remarkably large and fine. Mr. Cook has made the first capture of smelt here for several years past and has had his men out for several days looking for them, and occasionally catching a few. Our citizens may as well begin to get their frying pans in order for the smelt will be here en masse forthwith, if not sooner. ...
4 February 1888	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	LOCAL AND GENERAL (News). COLUMBIA RIVER SMELT. —There was great excitement among fish dealers yesterday when they learned that the first shipment of Columbia river smelt was coming up on the Astoria boat. All were on hand when she arrived and eager to obtain the favorite fish. Wm. McGuire & Co., corner of Third and Morrison streets, secured the entire lot, as they did the first lot last year. There was [sic] eight bushels of them and they are the largest and finest ever seen here.
5 February 1888	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 1	Columbia river smelt at Whitcomb & McGillas's restaurant.
7 February 1888	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	LOCAL AND GENERAL. ABUNDANCE OF FISH. —For several weeks fish of all kinds have been very scarce in the market but now that Columbia river smelt have come, there is plenty of other fish coming ... The smelt have fallen back in the Columbia. A

Date	Place	Source	Quote
			warm rain may bring them up again but it is possible that they may back out, in which case there will be many to mourn their departure. If the school comes up in force the fisherman [sic] will be several thousand dollars better off.
8 February 1888	Portland, OR	<i>Oregonian</i> , p. 3, col. 3	Local Notes. Only three boxes of smelt came up the river yesterday. It looks as if lots of us were bound to go smeltless this season.
8 February 1888	Astoria, WA	<i>The Vancouver Independent</i> , p 5, col. 1	Smelt are being caught in the Columbia above Astoria. It is three years since they came up as far as Vancouver.
9 February 1888	Portland, OR	<i>Oregonian</i> , p. 4, col. 6	NEW TO-DAY. SMELT IN PLENTY. At 10 c per lb. E. Richards, 4th and Washington.
9 February 1888	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	LOCAL AND GENERAL. STURGEON IN DEMAND EAST. —The smelt have entered the Cowlitz river in vast shoals, and several tons were received here yesterday, sending the price down to 10 cents per pound. Great numbers of sturgeon are following up the smelt and preying upon them ...
11 February 1888	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	LOCAL AND GENERAL. GREAT QUANTITIES OF SMELT. —An immense lot of smelt came in on the train from Kalama yesterday. The stock had been exhausted and fish dealers were in waiting and snatched a box or two and raced off with them. The shoals of smelt have ascended the Cowlitz as far as Freeport. An old smelt fisherman says they go up the river some ten or twelve miles and having spawned all die. Some claim that the same thing occurs with salmon, but there is a difference of opinion in regard to this matter. The smelt usually enter the Sandy in vast numbers but go no higher up the Columbia. It is worth while to visit the Cowlitz or Sandy when the smelt run is at its high [sic] just to see what vast schools of them there are.
13 February 1888	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	LOCAL AND GENERAL. PLEASANT, BUT NOT PROFITABLE. —A steamboat man, who tied up in the Cowlitz a night or two since, says the crew of his boat had great sport fishing for smelt. They went out on the river in a small boat and used a dip net. They found no place where they could dip up a net full at a scoop, but had to be content with five or six fish, and sometimes less. They finally rigged up a big lamp from the steamer so that it threw its light on the water near the boat. This enabled every little smelt, as he shot like a silver arrow through the water, to be seen and a desperate effort made for its capture. After working all night they had about 150 pounds of smelt, and their arms were very tired and sore. The fish, when brought up here, could not be sold for enough to buy tobacco for the fishermen, as all the dealers were overstocked. Smelt fishing under such circumstances, if amusing, is not lucrative.
14 February 1888	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 3	Columbia river smelt have made their appearance at last. The Willamette river, judging from the quality of our paternal city water, has smelt all winter. <i>World</i> .
15 February 1888	Portland, OR	<i>Oregonian</i> , p. 3, col. 4	The East Side. Notes. All the fish markets in East Portland have an abundance of smelt on hand.
17 February 1888	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 2	Smelt! Smelt! Smelt ! Any one wishing to get smelt to pickle can get them at R. L. Humphries' for six cents a pound, and four and a half cents by the box. R. L. Humphries.

Date	Place	Source	Quote
18 February 1888	Astoria, OR	<i>The Daily Astorian</i> , p. 2, col. 1	Smelt! Smelt! Smelt ! Any one wishing to get smelt to pickle can get them at R. L. Humphries' for six cents a pound, and four and a half cents by the box. R. L. Humphries.
22 February 1888	Vancouver, WA	<i>The Vancouver Independent</i> , p. 5, col. 1	The smelt in the Columbia have not yet run up as far as this place, and probably will not this season.
24 February 1888	Columbia River	<i>The Daily Astorian</i> , p. 3, col. 1	Smelt are lingering in the lower Columbia this season, and have not yet reached Vancouver.
26 February 1888	Portland, OR	<i>Sunday Oregonian</i> , p. 5, col. 3	Fish and Fishing. ... The smelt season is about over apparently. They have not come above the Cowlitz as yet, and are not likely to visit the Sandy this season. They have gone so far up the Cowlitz now that there is trouble to get them and boxes of them which a few days ago could be bought for 50 cents, have jumped to \$3. ...
28 February 1888	Portland, OR	<i>Oregonian</i> , p. 4, col. 4	Local Notes. A large lot of fine halibut have been received by Wm. McGuire & Co., corner of Third and Morrison streets, who are again the first to receive these favorite fish. They also received last evening a large lot of the new run of Columbia river smelt.
11 March 1888	Portland, OR	<i>Sunday Oregonian</i> , p. 5, col. 2	In and About Portland. Large quantities of smelt still continue to be sent up from the Cowlitz. Nothing has been heard of them reaching the Sandy yet.
26 March 1888	Columbia River	<i>The Vancouver Independent</i> , p. 5, col. 1	Brief mention. The smelt run is over for the season in the Columbia, and they did not come up farther than the Cowlitz in any numbers.
27 March 1888	Cowlitz River	<i>The Daily Astorian</i> , p. 3, col. 2	John R. Stuart, a smelt fisherman from the Cowlitz river, reports that nearly all of last week the river was infested by myriads of sealions. These were accompanied by their young, little fellows, about the size of an average cat, who are so lively that it is impossible to catch them. These have been feeding on the smelts and have devoured an enormous quantity of them. The fishermen, at the beginning of the season, fought the marauding sealions and drove them off, but they returned with reinforcements and discouraged the fishermen by their numbers.
31 March 1888	Portland, OR	<i>Oregonian</i> , p. 2, col. 5	LOCAL AND GENERAL. ALIVE WITH SEALS. —The Cowlitz river for several miles from its mouth is alive with seals which followed up the vast shoals of smelt. There are also large flocks of sea gulls which came along to feast on the same delicious little fish. The seals are now accompanied by their young, tiny little fellows, who are hardly big enough to swallow a smelt. The seals can be seen by hundreds swimming about in search of prey, going down when a boat comes along and bobbing up serenely when it has passed. The smelt have all passed far up the river, away beyond the reach of seals or fishermen, and having completed the object of their pilgrimage, are dying and floating down the stream in myriads. It is quite generally supposed that they all die after spawning, and many imagine the same thing in regard to salmon. This has long been a disputed question, and appears to be no nearer a solution than it ever was. It is not claimed by any one that trout all die after spawning, nor is it remembered that this is claimed of any other fish except salmon and smelt, so it is hardly probable that it is true.
1889			
13 December 1888	Lewis River	<i>Morning Oregonian</i> , p.	The First, Lone Smelt. —Mr. Calper, who has a salmon fishery on Lewis river, a day or

Date	Place	Source	Quote
	Portland, OR	8, col. 1	two since caught a fine large Columbia river smelt, which in some manner became entangled in his net. This is the first smelt of the season, and it comes to hand unusually early, as they generally put in an appearance some time in February. It is also a little strange that the first smelt heard from should be taken in Lewis river, as for the three past seasons the shoals of these fish have not come any farther up than the Cowlitz. It will hardly be worth while for our epicures to make up their mouths for smelt yet awhile. One swallow does not make it summer, nor does one smelt make it spring, and in all probability we shall have a cold snap before we shall see smelt in the market.
21 December 1888	Lewis River	<i>Salem Capital Journal</i> , p. 1, col. 5	The first smelt of the season was taken in a net in Lewis river, Oregon [sic], last week. The fish hardly ever come to the Oregon rivers earlier than February.
27 December 1888	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 2	SMELT FOR CHRISTMAS DINNER. —Last evening a gentleman marched into the reporter's room of The Oregonian office and left a parcel with the compliments of Vin Cook. On opening the package it was found to be a cigar box filled with genuine Columbia river smelt, which glistened in the lamplight like silver. A short time since a notice was published in The Oregonian of a single smelt having been caught by Mr. Calper in his salmon seine in Lewis river. Mr. Cook, who is at Clifton, seeing this, sent out a boat to drift for smelt and enough was caught to make a course for the Christmas dinner for all hands at Clifton and some left to send to The Oregonian. It is hardly probable that any one in this region ever had Columbia river smelt for dinner on Christmas before. The smelt usually arrive in February and what they mean by coming so much earlier than usual this year it is impossible to say. They have some queer ways, as only a few years since they forgot to come up entirely. It may be that they have had some premonition that there would be no winter this time and if so the chances are ten to one that they will find themselves fooled. If the weather should "come off" warm with rain it is not unlikely that there will be smelt in the market very soon.
28 December 1888	Columbia River	<i>The Daily Astorian</i> , p. 3, col. 1	A few smelt are being caught in the river; they are unusually early this year.
5 January 1889	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 1	Chinook salmon and smelt are becoming plentier.
12 January 1889	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	Gathered by Reporters. First Shipment for the Season of Columbia River Smelt Quickly Disposed Of. Nothing Too Rich For Us —The first shipment of Columbia river smelt of this season arrived here yesterday. There were only thirty-five pounds of them, and they were all disposed of by McGuire & Co. before they arrived for 50 cents per pound, that being the price fixed by the fishermen, who have been out drifting for several nights in hopes of making a haul. The price made no difference, and many more could have been sold. Wealthy people at the East think nothing of paying a dollar a pound or more for the first salmon or trout of the season, and our wealthy people are not going to be left on the first Columbia river smelt, no matter what the price is.
18 January 1889	Portland, OR	<i>The Daily Astorian</i> , p. 3,	Columbia river smelt sells for 40 cents a pound in Portland.

Date	Place	Source	Quote
		col. 1	
2 February 1889		<i>The Daily Astorian</i> , p. 3, col. 3	Best Bait For Sturgeon. A sturgeon fisherman from down the river yesterday purchased twenty pounds of smelt here at 25 cents per pound to be used as bait for sturgeon. He says he fished for a week with salmon bait and caught nothing, and then spent a day at the Cowlitz river and caught sixty-six smelt. With these he caught 4,000 pounds of sturgeon, so he thinks he can well afford to pay 25 cents per pound for smelt for bait. With twenty pounds of smelt he should catch a carload of sturgeon. <i>Oregonian</i>
9 February 1889	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 1	Alex. Megler yesterday received on the <i>Bonita</i> a box of genuine Columbia smelt, all wool and a yard wide. Some time ago they were 32 cents a pound; now they are a little cheaper.
12 February 1889	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	The Run of Smelt. —The smelt continue to linger along the lower river. An advance guard has reached the Cowlitz river and a few boxes per day are being received in this market. No large catch has been made at any point as yet, and the price which started at 50 cents per pound remains fixed at 12½ cents. Fishermen are beginning to think that there will be no big run of smelt this season, but a heavy rain may start the schools up stream. With present transportation facilities many tons could be shipped to remunerative markets if they could be procured.
21 February 1889	Portland, OR	<i>Oregonian</i> , p. 4, col. 3	SMELT! SMELT! SMELT! Fresh Columbia River smelt received daily. 5 cents per pound: ... at E. Richards, 104 Washington, bet. Fifth and Sixth.
21 February 1889	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 1	COLUMBIA RIVER SMELT. —Columbia river smelt are coming in plentiful and Malarkey & Co., corner of Fourth and Morrison streets, have enough to supply everybody at cheaper prices than ever before. The run will not last long and if you want a mess of these delicious little fish now is the time to get them. This firm makes a specialty of shipping these fish and orders from the country for any quantity will be promptly filled.
22 February 1889	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 3	Smelt. Smelt. Columbia River Smelt are now growing plentiful and cheap. Parties wishing to procure Smelt for salting down can buy them by the box at a low price. Remember that the run lasts but a short time. Malarkey & Co., Fourth and Morrison sts.
22 February 1889	Portland, OR	<i>Oregonian</i> , p. 6, col. 4	ABOUT STEAM AND SAIL CRAFT. ... The Joseph Kellogg brought five tons of smelt up the river Wednesday night ... The Manzanillo arrived from Clatskanie at 3 A.M. yesterday, with a large cargo of smelt, sturgeon and cedar lumber. Mr. Malmquest, who is dock clerk for the People's Freighting Company, said that he never before knew the market to be so flooded with smelt. A great number of cases of the fish are spoiling on the dock, because the dealers here have refused to handle them.
23 February 1889	Portland, OR	<i>Oregonian</i> , p. 6, col. 7	ALONG THE RIVER FRONT. ... The Joseph Kellogg arrived at her dock yesterday at 8 P. M., with another large cargo of smelt. She brought eighty cases from the Cowlitz river country.
28 February 1889	Portland, OR	<i>Oregonian</i> , p. 8, col. 4	ACTIVITY ALONG THE RIVER. ... The Telephone arrived at the Alder street dock yesterday at 4 P. M. with another large quantity of fish, consisting for the most part of

Date	Place	Source	Quote
			sturgeon and smelt. The smelt, which were flooding the market a few days ago, are already found in less quantities, and the river boats report a remarkable falling off within the last twenty-four hours. These fish travel in large schools and are followed by sturgeon, which feed upon them. The latter fish, as the smelt have gone farther up the river, are now filling the market and constitute the greater part of the cargo of fish which the river steamers are now bringing to this port.
4 March 1889	Cowlitz River	<i>Salem Evening Capital Journal</i> , p. 1, col. 5	The shipment of smelt is very lively just now. Wednesday there were shipped by express from Kelso, 23,572 pounds, and by the steamer Kellogg 12,000 pounds. Yesterday the shipments were still heavier. The price has fallen considerably, and sales are now slow at half a cent a pound. The smelt business is a bonanza for the express companies. <i>Kelso Courier</i> .
Season of 1889	Columbia River	Reed et al. (1889, p. 20)	Smelts. These fish come into the Columbia river in vast numbers in February. Their stay is short, as they are all gone by the end of March. Thousands of pounds of them are sold daily in our markets during their stay, making a cheap and wholesome food.
1890			
18 December 1889	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 7	THE VERY FIRST OF THE SEASON. A Small Lot of Smelt Have Put in an Appearance in the City. A small lot of genuine Columbia river smelt were displayed at C. A. Malarkey & Co.'s market yesterday. They were, it is needless to say, the first of the season, and as the fisherman who sent them up wrote, "they are the earliest smelt that ever went into Portland market." J. B. Johnson captured them near Quinn's Landing, and the twenty-five pounds represent three night's work out in the cold. He has got ahead of Vin Cook this year, and broken the record, for no living man has ever seen Columbia river smelt here so early before. They generally arrive about the 1 st of January, and when they come it is considered that winter is over. Many who saw the smelt yesterday, said "well winter is over," but it is more probable that the smelt have made a mistake. Many things have been mentioned as tending to indicate that we are to have a hard winter, but the arrival of these smelt is the first thing which seems to indicate that winter is over, and we might as well cling to the hope till it is dispelled.
19 December 1889	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 2	Among other unusual indicators are the arrival of smelt and white owls. White owls are very unusual here at any time: smelt are very unusual in the Columbia river at this time of the year. Generally they show up about January 20th, but they have been plenty here all this week. The white owls are pronounced to be a sure sign that we are going to have "a hard winter," though no resident of western Oregon has any evidence of what "a hard winter" is. On the other hand, local weather sharps say that the arrival of the smelt is a certain indication that the winter will be mild. So it goes. We have the smelt, and we have the white owls. Till the present beautiful spring weather is replaced by something less pleasant, we shall take all stock in the smelt, fine weather theory. If it should snow and blow and freeze, which is not at all unlikely, we should lend an ear to the claims of the white owl adherents, meanwhile remembering that we are in the hands of Providence.

Date	Place	Source	Quote
23 December 1889	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 1	Something About Early Smelt. —Mr. James Quinn, formerly a well-known resident of this city, but for years a resident at Quinn's Landing on the lower Columbia, demurs to the statement published in these columns a few days since, to the effect that some Columbia river smelt received here on that day were as the man who caught them claimed the earliest smelt ever seen in the Portland market. Mr. Quinn says he had fresh Columbia river smelt in his market on Washington street, on the 8 th of December, 1869. From this it appears that Mr. Johnson in 1889, was ten days behind Mr. Quinn in 1869, in getting smelt to this market. It is the belief of many fishermen that smelt and Chinook salmon both are in the river all winter, and could be taken if fished for, but the game would hardly be worth the candle.
10 January 1890	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	THE MARKETS. —... The Columbia river smelt and plenty of perch, flounders, etc., from the Sound, will be coming in as soon as the weather gets warmer.
11 January 1890	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 1	The smelt and salmon that, swimming in from the sea made a mild winter the subject of prophesy, are not very plenty these days. The white owls are still in harmony with the landscape.
28 January 1890	Portland, OR	<i>Oregonian</i>, p. 5, col. 2	LIFE IN THE METROPOLIS. ... F. C. Barnes received a large consignment of Columbia river smelt last night.
15 February 1890	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 4	THE COST OF LIVING. The Present Prices of Groceries, Meats and Other Food. Fish --... smelt, 10 cents ...
19 March 1890	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	PLENTY OF FRESH WATER FISH. —There was quite an assortment of fresh water fish displayed at one of the fish markets yesterday. ... the usual ... Columbia river smelt
20 March 1890	Astoria, OR	<i>The Daily Astorian</i> , p. 3, col. 1	Sturgeon has about disappeared from the market, but smelt are plenty.
Season of 1890	Columbia River	Crawford (1890, p. 8)	EULACHON, COMMONLY CALLED COLUMBIA RIVER SMELTS. The catch of this delectable fish has been very small this season, not more than 1,000 pounds being taken, bringing in the local markets ten cents per pound. Most seasons hundreds of tons are caught, but being a fish that does not keep long after being taken from the water does not bring more than one cent per pound. Previously there has been no cold storage warehouse upon the Columbia, but now there are several. At Portland, Oregon, there is a company engaged in shipping fish east, so that in the future, no doubt, there will be tons sent to delight the palates of epicures of the eastern states, in return dropping many dollars into the pockets of our toiling fishermen.
1891			
30 December 1890	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	Local Intelligence. CHINOOK SALMON AND SMELT. —The first Chinook salmon of the season and the first lot of Columbia river smelt were received here yesterday. ... There are fifty pounds of the smelt and brought 50 cents a pound. This is pretty early for smelt and salmon to arrive, but they came to hand about the same time last year, but they did not bring spring with them by a long chalk. They came before it and found themselves in the same fix as the early bird which got up before the worm was out. The

Date	Place	Source	Quote
			sight of these fish will not make anyone think that spring has come, but no one imagines that their arrival is the harbinger of such a spell of weather and flood as followed their arrival last winter.
1 January 1891	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. THE BUSY METROPOLIS. —Have Come in Earnest.—Columbia-river smelt appear to have come in earnest, as a large lot was received here yesterday. It will not do to conclude from this that winter is over before it has begun. It is quite possible that we may have no snow nor ice, but we must certainly have a few frosty days before spring flowers bloom.
2 January 1891	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	Local News in Brief. A GREAT SCHOOL OF SMELT. —The smelt have reached the Cowlitz, not a few stragglers but the great school, and about two tons were received here yesterday. It begins to look as if there was to be no winter or the smelt have made a grand mistake. The chances are that the smelt are too previous [sic]. They are right from the sea and are the largest and fattest seen here for years. Lovers of these delicious fish will improve the shining hour and feast while they may, for if there comes a cold snap and the smelt fall back they will not be so good when they come back again.
5 January 1891	Portland, OR Cowlitz River	<i>Oregonian</i> , p. 5, col. 1	Local Occurrences. HAS SPRING COME? —... The big school of smelt which struck the Cowlitz river a few days ago are making their way up that river to their spawning grounds as rapidly as possible, as if they feared there might come a cold snap and stop navigation.
6 January 1891	Portland, OR	<i>Oregonian</i> , p. 6, col. 2	SMELT! SMELT! SMELT! JUST RECEIVED —A fine lot of Columbia river smelt, selling for 10 cents per pound, at E. Richards, No. 104 Washington St.
10 January 1891	Portland, OR Cowlitz River	<i>Oregonian</i> , p. 6, col. 1	Washingtoniana. Smelt are reported to be quite plentiful in the Cowlitz, at Freeport, says the Advocate. They have not reached Castle Rock as yet. The running of smelt at this time of year indicates an early spring.
16 January 1891	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	The Town's Summary. THE FISH AND GAME MARKETS. —.... Smelt continue to come in by the ton, and the supply exceeds the demand. None of these delicious fish are being shipped to interior points, as the demand is small and the express charges large. "It costs 7 cents per pound to send them to Montana," said a dealer, "and there is nothing in shipping them at that price." ... The run of smelt this season began much earlier than usual, and has kept up without intermission, and there has been plenty of them ever since they started. A rainstorm would probably bring up another run.
31 January 1891	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	Office. Street. Shop. MILLIONS OF SMELT. —Never before within the memory of the oldest inhabitant have the people of this city had such a plentiful and long-continued supply of these delicious little fish, the Columbia-river smelt, as they have enjoyed this "spring." They made their appearance here a month ago today, and have been in the market every day since, and they have been coming in by the ton for some time past. These fish are generally considered the king of panfish, and the quantity of them used here this season has been enormous. With Chinook salmon and Columbia-river smelt, the people of this city may be said to have enjoyed a feast of fat things in the fish line.

Date	Place	Source	Quote
14 February 1891	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	Columbia River Fishermen. ... As the smelt are in the river the sturgeon should be plentiful, and their scarcity at this time is looked upon as proof that they are becoming exhausted.
1892			
14 December 1891	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. GOES DOWN AFTER THEM. —Columbia river smelt continue to come into market in small lots and are eagerly sought after and bought up. A fisherman has found out that there are smelt in the river all winter and that they stay in deep places until it is time for them to ascend to their spawning grounds on the Cowlitz or Sandy. He has procured a very deep seine and is catching the smelt out of these deep places and making money by the speculation. The roe in the smelt coming in is about half developed and the fish are likely to remain in the deep holes for some time. It would be a very nice thing if the market would be supplied with smelt for two or three months instead of for two or three weeks, as usual.
6 January 1892	Salem, OR	<i>Salem Evening Capital Journal</i> , p. 3, col. 5	Columbia river smelt, Davison & White.
7 January 1892	Salem, OR	<i>Salem Evening Capital Journal</i> , p. 3, col. 5	Columbia river smelt, Davison & White.
8 January 1892	Salem, OR	<i>Salem Evening Capital Journal</i> , p. 3, col. 6	Plentiful nice large fresh Columbia river smelt. Davison & White.
9 January 1892	Salem, OR	<i>Salem Evening Capital Journal</i> , p. 3, col. 6	Plentiful nice large fresh Columbia river smelt. Davison & White.
14 January 1892	Salem, OR	<i>Salem Evening Capital Journal</i> , p. 3, col. 7	Columbia river smelt, Davison & White.
15 January 1892	Salem, OR	<i>Salem Evening Capital Journal</i> , p. 3, col. 6	Columbia river smelt, Davison & White.
16 January 1892	Salem, OR	<i>Salem Evening Capital Journal</i> , p. 3, col. 3	Columbia river smelt, Davison & White.
22 January 1892	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 2	The Smelt as a Weather Prophet —The shoals of smelt which have been in the Columbia river for the past month or six weeks have struck into the Cowlitz. Over a ton of these fish were sent up from the Cowlitz Wednesday evening, and it was supposed that they would continue to be plentiful, but the next day only a small lot arrived, and it is feared that the shoals will soon go up the river out of reach, and the smelt season will be over. The fact that the smelt have started up for their spawning grounds is considered by many to indicate that winter is over. It is scarcely probable that there will be ant ice or snow this winter.
22 January 1892	Salem, OR	<i>Salem Evening Capital Journal</i> , p. 3, col. 3	Columbia river smelt—Davison & White's.
6 February 1892	Salem, OR	<i>Salem Evening Capital Journal</i> , p. 2, col. 6	Smelt. —Nearly half a ton of fine fresh Columbia river smelt at Davison White's market, Court street.

Date	Place	Source	Quote
8 February 1892	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. FISHY FACTS. —... Smelt are coming in by the ton. The schools have struck into the Cowlitz, and fishermen are taking them with dip-nets in any quantity, the only limit to the catch being the possibility of getting rid of them. Several tons have been placed in cold storage here, so the market will be supplied for some time. A large lot of these smelt were put in cold storage last season and turned out splendidly. ...
19 February 1892	Salem, OR	<i>Salem Evening Capital Journal</i> , p. 3, col. 5	Columbia river and Puget Sound smelt—Davison &, White's.
20 February 1892	Portland, OR	<i>Oregonian</i> , p. 6, col. 2	THE MARKET BASKET. ... The smelt season is about over. Any quantity of them can be caught, but they are not as good as they were, and not in great demand. There is a large quantity of them in cold storage. ...
5 March 1892	Portland, OR	<i>Oregonian</i> , p. 4, col. 8	News of the Northwest. Washington. The smelt are running as thick as ever, says the Castle Rock Advocate. Thousands of pounds have been caught, a fisherman standing on the bank with a small scoop net being able to dip out in a few minutes more than he can carry away. Many have salted down and smoked a supply of the small but toothsome fish, sufficient to last through the year. The fresh fish are a drug in the market.
21 March 1892	Portland, OR	<i>Oregonian</i> , p. 4, col. 7	News of the Northwest. Washington. Thousands of pounds of smelt have been caught at Castle Rock, a fisherman standing on the bank with a small scoop net being able to dip out in a few minutes more than he can carry away. Many have salted down and smoked a supply of the small but toothsome fish, sufficient to last through the year.
Season of 1892	Columbia River	Crawford, J. (1892)	EULACHON OR COLUMBIA RIVER SMELT. The run of this species of the smelt family has been very large during the past season; that is from about February 1st to the middle of April. In former years no effort has been made to ship them to eastern cities, but this year Wallace Brothers, fish dealers of Kalama, shipped a car load, or 20,000 pounds, to New York city. They informed me that they had no difficulty in disposing of them, and shall in future continue to handle them. These smelt were frozen and shipped in refrigerator cars. The balance of the catch has been disposed of to the local dealers of Portland, Oregon, and the cities of Washington. While it is impossible to give an exact account of every pound of smelt taken, through the courtesy of the different steamboat pursers and agents of the railroad companies that have handled the catch, I am able to make a very close estimate of the amount disposed of. Two hundred and fifty tons is a fair estimate of the catch. The prices received by the fishermen varied from ten cents per pound for the first of the catch to a half cent when the season was at its height; a fair average would be one cent per pound, making the amount received by the fishermen five thousand dollars (\$5,000).
1893			
28 November 1892	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 2	Columbia Smelt. An Unusually Early Catch of the Dainty Little Fish. A lot of Columbia river smelt were received in this city Saturday, and very fine ones they were. This is the earliest time of year that smelt have ever been caught. They were taken by J.

Date	Place	Source	Quote
			B. Johnson, near Eagle Cliff, and the first sales were made at 75 cents per pound, which is the highest price ever paid for the delicious little pan fish. The Columbia river smelt did not put in an appearance formerly, as a general thing, [un]till about the 1 st of February, and if there happened to be a cold winter and ice in the Columbia, they did not materialize until after the ice had gone out, when they arrived in the Cowlitz in immense shoals, and shortly after in the Sandy in like numbers. For several years past fishermen have been using deep nets in the Columbia, searching for smelt, and last year and the year before at Christmas time they caught small lots right along. The first man who got a shipment into market received a high price, as every market man was anxious to have the first lot, which he had no trouble in disposing of at 50 cents per pound. The price would soon drop to 25 cents, then to a bit, and when the shoals of fish got into the Cowlitz they would sell for 5 cents. Soon they would be shipped all over the country, and then there would be many more smelt than could be got rid of at any price. The fact that the smelt were to be found in the river in December led some to imagine that they were there all winter, staying in deep water. If such is the case, Mr. Johnson, who made this early catch and broke the record, has probably found one of their haunts. Some people think that the freshet in the Columbia—if a rise of five feet at Vancouver can be called a freshet—has brought the fish up the river. There is no probability, however, of their going up the Cowlitz to their spawning grounds till the snow is gone out of the mountains at the headwaters of that stream. The Columbia river smelt is what is called farther north the oolihan, or candlefish, and is esteemed as one of the most delicious little fish caught. Salmon and trout have no superiors in their season, but the smelt comes at a season when other fish are scarce, and so is most esteemed. If it is going to come at this season and mix itself up with Sound smelt and all the other fish in the market, its good qualities will have to submit to the test of comparison.
10 December 1892	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	THE RETAIL MARKETS. ... Columbia river smelt is received only in small lots. ...
14 December 1892	Salem, OR	<i>Salem Evening Capital Journal</i> , p. 3, col. 5	First Columbia River Smelt of the Season received today at Davison & White's, 94 Court street.
16 December 1892	Portland, OR Cowlitz River	<i>Oregonian</i> , p. 6, col. 2	COLUMBIA RIVER SMELT. The Columbia river smelt have apparently concluded that there is to be no winter, as they have been ascending the Cowlitz river for several days on their way to their spawning grounds. They have been sent to the market here in large quantities of late, and the price has dropped to a reasonable figure. ...
9 January 1893	Portland, OR Cowlitz River	<i>Morning Oregonian</i> , p. 5, col. 1	Smelt Have Returned —The Columbia river smelt, which arrived earlier this season than ever before so far as known, and were well along on their way up the Cowlitz river to their spawning grounds when the snow storm came on and drove them back, have re-entered the Cowlitz and will for a time be plentiful in the local market. They re-entered the Cowlitz last Friday [6 January], and a man who happened to be loafing along the bank of the river saw them pouring up the stream in a solid column about two feet in width. He hastily secured a dip net, worked with a will for two hours, caught the boat

Date	Place	Source	Quote
			coming to this city and sold his catch for \$25. He was much elated with his success, and expressed his intention of devoting the remainder of his life to fishing.
25 January 1893	Salem, OR	<i>Salem Evening Capital Journal</i> , p. 3, col. 3	Fresh halibut, salmon, sturgeon, catfish, perch, Columbia river smelt, clams, Eastern oysters and fine poultry—At Davison's market, 94 Court street.
3 March 1893	Astoria, OR	<i>The Daily Morning Astorian</i> , p. 3, col. 1	ABOUT THE CITY. Smelts are arriving In the city markets in large quantities most of them coming from the mouth of the Cowlitz river.
3 April 1893	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. A QUEER FISH TRAP. —... The shoals of smelt which have visited the Columbia this season are something wonderful. They appeared in the market here earlier in December than ever known before, and, except for about two weeks while there was snow on the ground, they have been offered for sale ever since. There seems to be no end of them, but they are not nice any more, having been in the fresh water so long.
5 April 1893	Portland, OR Cowlitz River	<i>Oregonian</i> , p. 4, col. 7	News of the Northwest. Washington. The smelt ascended the Cowlitz river fully 60 miles, which added to the distance they came up the Columbia, gave them a good little trip inland of over 100 miles.
7 April 1893	Portland, OR	<i>Oregonian</i> , p. 4. col. 7	News of the Northwest. Washington. The Vancouver Independent says: "The schools of smelt have reached this city, and now everybody can feast on fish if they choose to arm themselves with a scoop net and hie to the water's edge."
13 April 1893	Portland, OR	<i>Oregonian</i> , p. 8, col. 1	East Side Affairs. Miscellaneous Notes. Smelt commenced running up the Sandy river last Saturday, and nearly every man in that vicinity went fishing.
17 April 1893	Portland, OR	<i>Oregonian</i> , p. 6, col. 4	East Side Affairs. Smelt in the Sandy. It is quite an unusual thing for smelt to run in the Sandy, and it has been several years since any entered that river. A few days ago it was discovered that Columbia river smelt were running into the Sandy, and it was not long until nets of all designs were dipping them out. They were so thick that a netful could be hauled out every time. Large parties engaged in the fishing capturing them in great numbers and carrying them away in bags. The rains, however, soon put an end to the harvest, as the water became muddy and few fish were caught afterward. Great crowds continued to arrive only to be disappointed.
1894			
17 November 1893	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. PLENY OF SMELT. —Several small lots of Columbia river smelt have been received here from down the river, and found ready sale at from 60 to 75 cents per pound. This looks as if some people were not troubled by the scarcity of money, and have a liking for Columbia river smelt. For that matter, everybody likes these most delicious of all pan fish, which seem to be coming to market earlier and selling higher every year. They came very early last year, but not so early as this. They used to be caught only in the spring, but now it is found that they are in the river all winter, but can only be caught in certain places with seines, and in cold weather not at all.
18 November 1893	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. DEPENDS UPON THE WEATHER. —About 25 pounds of Columbia river smelt are received in the market daily and sell now at 50 cents per pound.

Date	Place	Source	Quote
			Just when the schools will come to the front so that large quantities can be caught depends upon the weather, but it will probably be some time before they get down to 5 cents per pound.
6 December 1893	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. PLENTY OF SMELT. —The catch of Columbia river smelt is increasing, notwithstanding the high stage of the river. Dealers are receiving from 100 to 250 pounds daily, and it is thought that when the river goes down a bit they will be very plentiful, unless a cold snap should come on. The vast shoals of the delicious little fish which visit the Columbia yearly are something wonderful, and the quantity taken is, in the aggregate, enormous. Of late years they seldom come further up than the Cowlitz, up which they pass in a continuous stream to their spawning grounds.
26 December 1893	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. CHINOOK SALMON COMING. —... The Columbia river smelt are becoming more plentiful in the market, and if the weather keeps warm the shoals will soon be making for the Cowlitz, and smelt will be offered by the ton.
2 January 1894	Portland, OR Cowlitz River	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. GOING UP THE COWLITZ. —Huge shoals of smelt are now making their way up the Cowlitz to their spawning grounds, and great quantities are being taken. Tons are sent to this market, and although dealers here are supplying them to all points along the railroads, they cannot take all sent, and a large number of boxes have been left on the hands of the express company. Old-timers will feel certain, now that the smelt have started up the Cowlitz, that there is no danger of any freeze-up or snow, in fact, that the worst of winter is over, but the smelt, like the white man, “is mighty onsartin,” and one probably knows no more about the future than the other.
3 January 1894	Portland, OR Cowlitz River	<i>Oregonian</i> , p. 4, col. 7	News of the Northwest. Washington. Smelt are being taken from the Cowlitz at Kelso in large quantities.
25 January 1894	Salem, OR	<i>Capital Journal</i> , p. 4, col. 3	FRESH FISH. Rock cod, sound smelt, Columbia river smelt, perch, flounders, cat fish, salmon, trout, herring. For fish of any kind go to Davison’s market, 94 Court street.
29 January 1894	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. SMELTS REAPPEAR. —The movement of the shoals of smelt up the Cowlitz river two weeks ago did not bring the glad spring time as soon as some people prophesied. When the cool wave and the snow arrived the silvery little fish disappeared at once, and no one could tell whether they had gone to the bottom or up or down the river. It was only known that they were gone, and no kind of fishing gear at hand could capture a specimen. Since the warm rains came, the smelt have come in sight again away down the Columbia, where they have been taken in gill nets in large quantities, and the market has been well supplied with them. The fact that they are caught in gill nets is potent from the fact that the gills and in many cases the whole heads are torn off in extricating them. ...
2 February 1894	Salem, OR	<i>Capital Journal</i> , p. 4, col. 3	COLUMBIA RIVER SMELT. At Davison’s Court street market.
21 February 1894	Portland, OR Cowlitz River	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. A RUN OF SMELT. —Again the smelt have come up into the Cowlitz river, and are being caught in large quantities in dip nets, and so come to market

Date	Place	Source	Quote
			in much more presentable condition than when caught in gill nets and have their heads torn off in extracting them. The smelt do not appear to know any more about the weather than human beings, and have been deluded into a belief that spring was here, on account of a few fine days. Now that they have gone into the Cowlitz and the most wintry weather of the season meets them, they will conclude that they have been fooled again.
21 February 1894	Salem, OR	<i>Capital Journal</i> , p. 4, col. 1	Choice Columbia River smelt—4 lbs for 25 cents at Davison's market.
23 February 1894	Salem, OR	<i>Capital Journal</i> , p. 4, col. 1	COLUMBIA RIVER SMELT. 5 lbs. for 25 cts. to be had today at Davison's market, 94 Court St.
24 February 1894	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. TO THE POOR AND NEEDY. —Call at Gumbert's fish market, 164 Third street, near Morrison, this evening, between 7 and 10 o'clock, and get a mess of Columbia river smelt free of charge. Bring your basket.
21 March 1894	Salem, OR	<i>Capital Journal</i> , p. 4, col. 4	Fresh Columbia River Smelt 7 pounds for 25 cents at Davison's market, 94 Court street.
7 April 1894	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. THE SMELT SEASON. —The season for catching smelt is over, but there are still plenty of them in market, a large supply having been placed in cold storage while they were plenty. ...
11 May 1894		The Daily Morning Astorian, p. 3, col. 1	SMELT STOP A STEAMBOAT. It has been said that smelt were so plentiful in Portland, Or., last season that dealers gave them away to get rid of them. Several years ago smelt were so thick in Lewis river that a steam boat had to lay up for three hours. Of course the boat could run through the schools of fish, but the wheel dished them up so fast that the openings for the connecting rod from the cylinder to the crank shaft were filled up and that stopped the boat. The fantail also got full and raised the wheel-house up. As the boat ascended the river, a wake of dead fish was left behind.
Season of 1894	Columbia River	Crawford, J. (1894)	COLUMBIA RIVER SMELT. The run of this excellent table fish was not large as that of the previous year, but there is but a slight difference in the value of the catch. The first of the run found ready sale at fancy prices, as much as fifty cents per pound often being obtained. But as the season advances the price rapidly decreases, and one cent per pound is about the average wholesale price. This species of food fish is not a "good keeper" and will not stand freezing, and the catch has to be disposed of at once. The run seldom extends above the Cowlitz river and from that stream is taken nearly the entire catch. The value of the catch was \$3,000.
1895			
12 November 1894	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. FIRST SMELT OF THE SEASON. —A dozen pounds of Columbia river smelt were sent to this city from some place down the river Saturday, and were quickly bought up by lovers of these fine fish at 50 cents per pound. This is the earliest date at which Columbia river smelt were ever received here. Last year the first came to market in December, and that was earlier than ever known before. It is not supposed that there has been any change in the habits of the smelt. In years gone by no

Date	Place	Source	Quote
			effort was made to find them until they were seen crowding up the Cowlitz, where they go to spawn. Of late fishermen have hunted for them in the Columbia with seines, with the result that every year they are found earlier. Those caught early are nearly all females, with the roe half developed. The fisherman who catches a few pounds of smelt early in the season makes as much as the one who catches a few bushels late in the season, and this accounts for the search made for them so early. It is impossible to say whether they will be caught in any quantity for some time yet, but it is probable that small lots will be caught right along until a cold snap, when they will “fall back,” or go to the bottom until warmer weather. The demand at 50 cents per pound is limited, but it is greatly increased when the price falls to 25 cents, and at 3 pounds for 25 cents everybody eats them. When they get down to 5 cents per pound, they are shipped up country in large lots.
30 December 1894	Cowlitz River	<i>Oregonian</i> , p. 4, col. 7	News of the Northwest. Washington. The toothsome smelt made their appearance in the Cowlitz for a few days last week, and were greatly enjoyed by Kelso’s inhabitants, several hundred pounds being caught. They disappeared soon, and their reappearance is anxiously awaited by the fishermen.
2 January 1895	Cowlitz River	<i>Morning Oregonian</i> , p. 9, col. 1-2	Great Quantities of Smelt. The Columbia-river smelt, the most delicious of panfish, during the past year commenced coming to market in October, more than a month earlier than ever known before. Small quantities have been received almost daily ever since, but within the past week the shoals have entered the Cowlitz river, on their way to their spawning grounds, and they have been taken in large quantities. The change in the weather has been so slight as hardly to check them, although ice or snow might send them back into the deep waters of the Columbia. With the first rains, the immense shoals of these fish will swarm the Cowlitz and tons of them will be coming to market, and they will be shipped to all parts of the country. No method has yet been discovered of preserving the delicate flavor of these fish, which are so fat as to be known to the Indians as the candle fish. Large quantities might be put up yearly if any process could be discovered which would preserve their good qualities.
21 January 1895	Columbia River at Clifton	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. A NEW RUN OF SMELT.—A new run of smelt has entered the Columbia, and on Saturday had arrived at Clifton. Someone made an onslaught on them and sent up a big lot, so that these favorite fish were selling for the first time this season for 5 cents per pound, which is much better than three pounds for 50 cents, and seemed like old times, and caused every one who saw the sign to pack home a mess of smelt. The fish of the new run are as bright as free-silver hallucinations and quite different in appearance from the first run, which have been in the river ever since November, and have lost the fresh-from-the-sea appearance they had at first. Fishermen are hoping that the run will be followed by a shoal of sturgeon ...
27 January 1895	Cowlitz River	<i>Oregonian</i> , p. 4, col. 7	News of the Northwest. Washington. Smelt are running in the Cowlitz in great numbers, and a ton or more is shipped to Portland daily.

Date	Place	Source	Quote
30 January 1895	Astoria, OR	<i>The Daily Morning Astorian</i> , p. 4, col. 3	AROUND TOWN. The fish markets of the city are now piled up with smelt, and they are selling at so low a price that even the poorest cannot afford to go without them.
13 March 1895	Lewis River	<i>Vancouver Independent</i> , as reported in Landerholm (2002, item # 858)	Reported from LaCenter: This run of smelt is a blessing to most of the people through this country. Some are salting down nearly a half a ton --. One day last week the <u>Mascot</u> loaded about thirteen tons between the mouth of the river and Kerns. One night two men and a boy with two nets caught and sacked 23 two-bushel sacks of them and shipped 21 sacks to Portland, receiving about 30 cents a hundred pounds for them.
27 March 1895	Portland, OR	<i>Oregonian</i> , p. 5, col. 3	Smelt in the Sandy. For the past few days smelt have appeared in the Sandy river in immense quantities, and people are gathering them in by the thousands. It has been about four years since there has been a run of smelt in the Sandy, and, from the reports, it seems that the run is now larger than ever before. Wagon-loads are being caught by the farmers and others who happen to hear of the run in the river. Mr. Gowan, of Mount Tabor, was out yesterday, and with a neighbor caught about 10 bushels of fish, loading a small express wagon. Mr. Gowan said it was an easy matter to catch the smelt, they were so thick in the river.
28 March 1895	Sandy River Lewis River	<i>Morning Oregonian</i> , p. 8, col. 3-4	The Big Run of Smelt. The enormous run of smelt in the Sandy river is attracting wide attention. If all the statements of those who have been out there are true, and they seem to be verified by the wagon loads of smelt taken, the run is the biggest that has been seen in the Sandy for the past 15 years. When the O. R. & N. railroad was in course of construction, and there was a large encampment on the river, the water suddenly came alive with the fish, and the railroad employes [sic] feasted on smelt for several days. Great wagon loads were taken. The next run occurred six years ago, it is claimed by those who know, but the run was comparatively small, and was soon over. There are now hundreds of people catching smelt by the tons. A wagon may be filled in half an hour. The wagon is driven into the shallow water, and the fish are scooped into the wagon by means of a small scoopnet. It is stated some of the farmers are catching the fish in wagon loads and distributing them over their farms for fertilizing purposes, where some are smoking them, and many are being packed in salt. The fish move along close to the shore. The females come with the first run, and the males afterward. One can put his hands in the water and feel the fish bumping against them. Mr. Joseph Paquet was down the river several days ago, and saw indications that the fish were going up the river. They were followed by droves of seagulls, watching, apparently, to catch the fish which happen to come near the surface. They were on the way to spawning-ground. The habits of the smelt are rather peculiar. They have usually appeared in the Cowlitz river, and not in the Lewis river, but this year they have entered the Lewis and very few in the Cowlitz. The run went on past the Willamette and entered the turbid and always discolored waters of the Sandy river. W. F. Allen, who was on the Sandy in all the smelt runs for the past 30 years, will go out today, and see how the present run sizes up with what he saw in the long ago.

Date	Place	Source	Quote
29 March 1895	Oregon City, OR	<i>Oregon Courier</i> , p. 3, col. 3	Smelt are being used for fertilizing the soil by farmers along the Sandy river. They are being carted from the river by the wagon load. They scoop them out with shovels.
30 March 1895	Sandy River	<i>Oregonian</i> , p. 8, col. 3	The Smelt Run Continues. The run of smelt in the Sandy river, which commenced last Sunday, has continued unabated all through the week, but is expected to dwindle down today and tomorrow. From all accounts, it is the biggest run of smelt that has taken place for the past 30 years in the Sandy. A gentleman from the Sandy yesterday stated that hundreds of tons are being taken daily by the farmers, who use them for fertilizing purposes on their fields and orchards, and some are feeding them to their hogs. The more provident are salting them down, and will have smelt long after they are gone. There is indignation over the wanton waste of some in simply dipping the fish out and throwing them on the bank for no other purpose than to see them die.
1 April 1895	Sandy River	<i>Morning Oregonian</i> , p. 5, col. 4-5	All Fished for Smelt. Large Number of Portlanders Visit the Sandy to Enjoy the Sport. The banks of the Sandy river for many miles were the scene of great activity all day yesterday, made so by the presence of hundreds of pleasure-seekers, bent upon catching smelt or watching others catch them. A gentleman who has made a careful estimate, from personal observation, states that the catch during the week has fully averaged 100 tons per day. It is thought that this run is the greatest that has occurred for over 30 years, and of the longest duration. The runs do not usually last over five or six days, but the fish were still running very thick yesterday, the eighth day. It is thought the run will now dwindle down, as all fish now going up are males. The females go up to the spawning grounds first, and they are followed by the males. It is inferred that the run is almost over, as the males have already been running since the middle of the week. As far as could be ascertained yesterday no females were caught, all being males, very firm and plump. A few of the fish gave evidence of some hard knocks during their trip up the river. If the gentleman who estimated the catch at 100 tons a day is right the entire catch during the run will foot up a 1000 tons. All yesterday vehicles of every sort, loaded with families, well supplied with boxes and sacks and dip nets, prepared to catch smelt, poured to the banks of the Sandy. The favorite place was at the county bridge. The river has here cut a deep channel through the slightly-wooded uplands, and winds its sinuous ways like a thread of silver to blend with the majestic Columbia, a few miles below. Where the bridge spans the river there is a sort of open space, and to the southeast the river makes a gentle curve, sweeping around a gravel and sandbar of about five acres in extent. A full view of the bridge and surroundings may be had from the county road to the westward, just before it plunges down a winding grade to the bridge. The gravel was covered with fishermen and women, both great and small. With long poles, on which were suspended dip nets made of most anything that will allow the water to run off, they were constantly dipping out the sluggish smelt. Toward the point of the gravel bank, which the water sweeps around swiftly, a dozen or more of wagons had been backed into the stream up to the hub, and these were being filled by means of nets of larger size. It

Date	Place	Source	Quote
			was an interesting sight to see these wagons fill up and others take the place. The men swung the nets with monotonous regularity, and rarely ever failed to bring up from a dozen to half a dozen wriggling fish. The smelt seemed to run around this point in more condensed bunches than below, along the margin of the gravel bank. The experienced fisherman was provided with a sort of metal funnel, well perforated with holes, on the end of a light pole, about eight feet long. But it was comparatively an easy matter to catch in a few minutes all anyone would care to take of them. From a sportsman's point of view the taking of fish in this manner cannot be regarded as very exhilarating exercise, still it is a sort of change. One good thing about it is that no one went home without a fine string, or rather sack of fish. The smelt caught in the Sandy were very plump and firm. At this time of year the river is very clear and cold. Evidence of prodigality and waste was apparent from the piles of half-dried fish near the bridge. And yet, with all the millions which were taken from the river, millions went on to the spawning ground. On their return trip they keep well in the center of the river and move faster than when on the way up. A large number of people went out from the city in carriages and on bicycles merely to see the fishing. It was a day that will not soon be forgotten in the interior of the county, and if there is a family within 10 miles of the Sandy that has not had a feast of fish last week, it has not been because they could not be had in unlimited quantities.
1 April 1895	Sandy River	<i>Capital Journal</i> , p. 1, col. 6	The people out about Troutdale have been catching smelt by the wagon load to use in fertilizing orchards.
4 April 1895	Sandy River	<i>Oregonian</i> , p. 10, col. 5	Miscellaneous Notes. Smelt have continued to run in the Sandy so far this week, and the weather has not prevented tons of fish being taken since Monday. The run in [sic] unprecedented.
5 April 1895	Oregon City, OR	<i>Oregon Courier</i> , p. 2, col. 3	Eagle Creek, April 2. —Several of the farmers went over to the Sandy river the past week and caught whole barrels of smelt.
6 April 1895		<i>Oregonian</i> , p. 5, col. 2	City News in Brief. HOPE FOR THE SMELT. —There has been a revival in the sturgeon fishing business since the last run of smelt came up the Columbia, and entered the Sandy. Numbers of sturgeon followed the schools to prey on them, and many have been caught all the way along the river from Astoria to the cascades. The run of smelt this season has been the largest known for many years, and it may be that the practical extermination of the sturgeon, which has taken place within the past three years, has something to do with it. Thousands of big sturgeon, such as heretofore have abounded in the Columbia, must have consumed hundreds of bushels of smelt in a season. Now that the sturgeon are about cleaned out, the smelt may increase until it will again be possible to walk across the Columbia on their backs dry shod, as in days of old.
7 April 1895	Sandy River	<i>Oregonian</i> , p. 12, col. 4	Tons Dried and Salted. The run of smelt in the Sandy has continued during the past week, although not quite so heavy as the week before. However, a great quantity of the fish were taken. It is estimated that between 1500 and 2000 tons of the fish have been taken from the river during the past two weeks. Probably half of this amount has been

Date	Place	Source	Quote
			dried or salted down for future use. A gentleman who caught 1000 pounds of the fish stated yesterday that he salted down the principal portion of this catch. This was about 10 days ago. He has found that the fish are much better after being in salt for a few days than when fresh. A good many of the farmers have salted down barrels of the fish. Some fixed up a drier on a small scale and dried the fish.
1895	Columbia River Basin	Wilcox 1898, p. 603-604.	This small but excellent food-fish, <i>Thaleichthys pacificus</i> (known locally by the names of Columbia River smelt and candlefish, and by the Indian name of eulachon), enters the Columbia from the Pacific Ocean during the winter in large numbers. The last of November, or early in December, it appears near Clifton, Clatsop County, Oreg., where to a limited extent it is taken in haul seines. The catch in this locality, amounting to 30,000 pounds in 1895, was taken during January and February; the previous year it was made in December. 'The fish slowly move up stream, entering a number of small tributaries of the Columbia River between its mouth and the Cascades, the bulk of the run apparently entering the Cowlitz or Lewis rivers. Small numbers arrive at the mouth of the Cowlitz River about February 1; later they increase, the largest run being in March, ending about the 1st of April or soon after. They do not enter both the Cowlitz and Lewis rivers the same year. During 1895 but few entered the former, a large run going into the latter; in 1896 this was reversed, the main body entering the Cowlitz River. Some parties say these fish formerly entered the Lewis River each year up to a late date, since which they have alternated between the two streams; others report the years only exceptional that the fish have missed the Cowlitz or been plentiful in the Lewis. The Indians have a singular superstition relating to the variable movements of this fish—that if a corpse is carried across either stream about the time of the arrival of the fish, no run can be expected during that season. The two streams are only 18 miles apart at their outlets into the Columbia, and it is seldom that a large run is not found in one of them. On the Cowlitz River the catch for market by the professional fishermen is taken from the mouth for 3 to 8 miles up stream. Ranchers and farmers for a distance of 40 miles take them for home use as food, or for fertilizing the land. On Lewis River the fish pass by the south or east fork, keeping in the main river, known as the north branch of the Lewis River, for some 40 miles. Here, also, large quantities, of which no reliable estimate can be given, are taken by men living near the stream, the catch being used locally for food and on the land. The bulk of the catch on Lewis River is taken between the mouth of the river and Etna., a distance of 20 miles, the largest amount being from near the mouth of the river. These fish are caught both by day and night, dip nets being used. In some cases a fisherman will anchor or fasten his boat to the bank and dip the fish as they pass by in solid masses. Oftener two men go in a boat, one rowing while his partner with his dip net soon fills the boat. At night no torch or light of any kind is used. The catch is soon packed, undressed, in boxes or sacks, though from scarcity of boxes and sacks tons of fish are sometimes shipped in bulk on small steamers, the catch

Date	Place	Source	Quote
			being landed and placed on the market only a few hours after being taken from the water. During 1895 the amount of these Columbia River smelt from this section marketed at Portland was, from Cowlitz River, 20,625 pounds; from Lewis River, 230,500 pounds; from Columbia River, 31,125 pounds. The total amount used locally for food and fertilizing and sent to market is estimated to be from 600,000 to 750,000 pounds a year. During the summer of 1896, it was stated that arrangements would be made for making large shipments of eulachon the following season to the eastern markets. Prices received by the fishermen have a wide range as to the catch and the amount placed on the only market, that of Portland, the first of the catch bringing 5 cents a pound, and later as low as ½ cent a pound.
1896			
16 November 1895	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. THE FIRST CHINOOK SALMON. —... The fishermen will soon be looking for Columbia river smelt, which of late years have been arriving in earlier than they used to. It is a question whether the fish really come in any earlier than they did, or whether the fact of their coming to market earlier than usual is not to be attributed to the fact that they are fished for earlier, as the first salmon or smelt sent in now bring a high price.
4 December 1895	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 3	First Smelt Arrive. But They're Mighty Dear—Wait, and They'll Soon Be Cheaper. Among the various species of fish which form the great harvest of the mighty Columbia, none is more eagerly looked for or more highly appreciated than the smelt, the Columbia river smelt, or "candle-fish," being considered by many people of this section the prince of all pan fish. Ten or a dozen years ago, they did not appear in this market as a general thing till after the cold weather was past, in February or March, or as soon as the main school began crowding up the Cowlitz and other tributaries of the Columbia to their breeding-grounds. Of late years fishermen have taken to fishing for them with seines in the Columbia, and it has been found that they are in the river nearly all winter, and year after year they have been coming earlier and earlier to market, the fishermen who gets in the first lot reaping a rich reward for his trouble. The first lots have sold for 50 cents per pound, and, as they become more plentiful, the price goes down to 25 cents, then to 15 cents, and finally to 5 cents, when they come in by scores of bushels at a time, till finally they are so plentiful that there is no sale for them. Last year the smelt arrived just before Christmas, and the run lasted a long time, the quantity of little fish disposed of here being probably much greater than in any previous year and yielding a handsome return to the fishermen. This was the earliest the smelt ever came to market; but the record has been beaten this season, as a small lot, just a few pounds, were received here yesterday. This is positively the earliest arrival of smelt known, and unless freezing weather comes on and drives them back, or to the bottom, it may be expected that the fish will soon arrive in quantities. They were held at 75 cents per pound, as they were looked upon more as a curiosity than as an article of merchandise. The sturgeon, which, until within the past

Date	Place	Source	Quote
			year or two, thronged the Columbia and devoured enormous quantities of smelt, are now very scarce, and this will probably result in an increase in the shoals of smelt, which, however, have always been immense.
24 December 1895	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. BAD WEATHER FOR FISHING. —... Fishing for Columbia river smelt is even more precarious, as 15 or 20 pounds is a good night's catch, and the price has gone down so that the little fish now retail here for 20 cents per pound.
29 December 1895	Portland, OR	<i>Oregonian</i> , p. 3, col. 4-5	Value of Fish. VANCOUVER, Wash., Dec. 28.—The sixth annual report of the State Fish Commissioner James Crawford to Governor McGraw ... The run of smelt in the Columbia this season, the report states, was "the largest known in 20 years, the number in the river being so enormous that they could be bailed out with a common water bucket, and the number taken was only limited by the demand." The value of the season's catch of smelt in the Columbia is \$9,682.
31 December 1895	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. HEAVY SMELT RUN. —Columbia river smelt, which have been coming to market in shipments of a few pounds each day for a week or two, have apparently at last decided to make a regular run, as quite a large shipment was received here yesterday, and they were selling at 15 cents per pound. Unless the weather should turn cold and drive them back, it is probable that they will soon be plentiful, and the price get down still lower.
9 January 1896	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. THE WINTER NOT OVER YET. —From the fact that large quantities of Columbia river smelt are now being received here, and the main run seems to be on, and that numbers of Chinook salmon are coming in weather prophets are prone to prophesy that winter is over. ...
24 January 1896	Portland, OR	<i>Oregonian</i> , p. 3, col. 4	City News in Brief. The run of smelt in the Cowlitz is very light, only a few hundred pounds being shipped to Portland each day.
25 January 1896	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. SMELTS NOW AT THEIR BEST. —... The Columbia river smelt paid no attention to the little snow storm, but have steadily worked their way up the river, and those now coming to market have been caught in dip nets and look much nicer than those caught in seines, which have the marks of the mesh on them and their gills or heads torn off in extricating them from the seine. The smelt are at their best now, and as soon as the snow is out of the mountains at the head of the Cowlitz will be pressing on up to their spawning grounds.
26 January 1896	Portland, OR	<i>Oregonian</i> , p. 3, col. 5	Washington Notes. A small run of smelt has made its appearance in the Cowlitz and the fishermen are looking forward to the time when a netful of the fish can be secured at one dip.
31 January 1896	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. NO FISHING IN THE COLUMBIA. —... Even now, in the Cowlitz and other branches of the Columbia, tons of smelt are being caught ...
8 February 1896	Portland, OR	<i>Oregonian</i> , p. 8, col. 7	Good, if You Like 'Em. The run of smelt has at last started up the Cowlitz, and that river is alive with millions of the pretty little fish, which look like silver arrows as they dart through the water. They are caught by the thousands and are now being sent to this

Date	Place	Source	Quote
			market in boxes holding a bushel, and the only limit to the quantity sent is the probable amount that can be sold. Retailers are selling them for 5 cents per pound, which is about as low as they ever get, or need to be. The fact that these fish have started for their spawning grounds, away up the Cowlitz, is considered a sure sign that winter is over.
11 February 1896	Salem, OR	<i>Capital Journal</i> , p. 4, col. 2	Smelt, Smelt, Smelt. At Doty's market. Prices low, and if you can't afford to buy, he will present you a mess. Call early.
8 March 1896	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	Washington Notes. The steamer Kellogg left Kelso Friday with 386 sacks of potatoes, 54 bales of hops and 2500 pounds of smelt in her cargo.
27 March 1896	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. BANKS LINED WITH DEAD SMELT. —Word has reached Portland that the banks of the Cowlitz river are lined with dead smelt from the immense shoals which have for some time been pushing their way up this stream to their spawning grounds on its upper waters. A gentleman who recently came down the Cowlitz states that a great number of eagles is to be seen along the banks, feasting on the dead smelt, sometimes a dozen or more of these birds being seen in a flock. He had no idea there were so many eagles in the whole state as he saw along this river on his trip down, and the scene recalled to his mind the saying: "Where the prey is, there will be the eagles gathered together," or words to that effect. It is not known whether all the smelt which go up the river die after spawning, as some claim the salmon do, but the number which goes up is immense, and the dead fish are to be seen almost in continuous line along the shores for miles, and are not only devoured by eagles, but by other birds of prey, bears, minks and other wild animals, and, where there are settlers who keep hogs, these animals devour large numbers. If an account could be kept of the tons and tons of smelt caught and sent to various markets, the total would astonish many.
Season of 1896	Columbia River	Crawford, J. (1896)	SMELT. 677,350 pounds of smelt have been disposed of, which, at two cents per pound, netted the fishermen \$13,547. As fully one-half of all the fish taken from the Columbia river and its tributaries are caught by residents of our state, in the following recapitulation I have credited Washington fishermen with one-half of the total amount received.
1897			
23 November 1896	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. A LONE SMELT APPEARS. —A lone specimen of that favorite fish, the Columbia river smelt, was on exhibition at a fish market in this city Saturday, and the unusually early appearance of the fish caused considerable surprise. It used to be that the first smelt came to market in February or March, but, since fishermen, lured by the high price paid for the first lots, have taken to drifting in the Columbia for them with deep nets, instead of waiting for them to begin ascending the tributaries, they have begun to come to market in December, but none have ever been seen here before in November. The specimen above mentioned, it was ascertained, came from the Sound in a box of salt-water smelt. The little fellow had evidently gone astray, and was caught a long way from home.

Date	Place	Source	Quote
22 December 1896	Puget Sound	<i>Portland Evening Telegram</i> , p. 4, col. 5	THEY VISIT THE SOUND. Columbia River Smelt Found in Elliot Bay—Unusual Occurrence. George Glustin, despite his long experience with the fish of this coast, is puzzled over a question as to fish migration that has lately been presented to him. For the past two weeks, in the boxes of smelt he has received from Puget sound, there have been found all the way from two to five Columbia river smelt in each box, apparently in perfect condition and health when caught. Curious to learn if it were possible that the smelt, after leaving the Columbia river, made out to sea, and thence up the Straits of Fuca to winter in the Northern inland channels, Mr. Glustin wrote to his agents in Seattle. They reply that the Columbia river smelt are taken only in the seines set at the head of Elliot bay, and from the small number caught, it would appear that in some manner, probably through an attack on the smelt as they were off Cape Flattery by a whale or some other large fish, some small portion of the run has been diverted into the straits and continuing on, have pushed into Elliot bay. Such an occurrence, however, has never before been known.
23 December 1896	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. ONLY MILLIONAIRES CAN BUY THEM. —A small lot of Columbia river smelt, some 15 pounds, the first of the season, arrived here yesterday from Clifton. They were held at 50 cents per pound, and were not only silvery in appearance, but must have also tasted of that metal. It is probable that the market will be well supplied with these favorite fish in a short time, if the weather does not turn cold. Now that the sturgeon, which lived on them, are practically exterminated, the shoals of smelt visiting the Columbia should rapidly increase.
25 December 1896	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. SMELT WILL SOON COME DOWN. —Columbia river smelt are evidently in the river in considerable force. A shipment of some 40 pounds was received here yesterday, and the price dropped at once from 50 to 25 cents. A few more shipments will bring the price down to a bit a pound, and then common ordinary people will begin to buy. There is no fish for which there is greater demand in its season than the Columbia river smelt, or “candlefish,” as it is called in British Columbia. The shoals which visit the Columbia yearly on the way to their spawning grounds, on the headwaters of the Cowlitz and Sandy, are past computation. Millions do not begin to express their numbers. They are totally different from the salt-water smelt caught in the Sound, being much fatter and in every way superior.
29 December 1896	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 4	The Story of Smelt. How it is mentioned by an Early Visitor to Oregon. A gentleman of this city, who has a copy of “Franchève’s Narrative,” which is the diary of Gilbert Francheve [Franchère], of Montreal, who was a clerk in the trading company of John Jacob Astor, and who visited the Columbia in 1811, is of the opinion that Francheve [Franchère] makes the first mention of the Columbia river smelt. He says: “February brings a small fish about the size of a sardine. It has an exquisite flavor, and is taken in immense quantities by means of a scoop-net, which the Indians, seated in canoes, plunge into the schools, but the season is short, not even lasting two weeks.” The season for

Date	Place	Source	Quote
			smelt has grown much longer within the past few years, since fishermen have made it a business of going out hunting for the advance guards of the schools. Some years since, they were seldom seen in market until February, when the great schools began pushing their way up the Cowlitz and Sandy to their spawning grounds, and in a short time the run was over, or the fish had become soft and not fit for food. Last year the first smelt caught in the Columbia in driftnets came to market in December, and the season lasted nearly three months, the fish being good all the time till after they were well on their way to the spawning grounds. It is probable that mention has been made of the vast schools of smelt entering the Columbia before Francheve [Franchère] wrote his diary, as the smelt were always here, and the earliest residents along the river have described how the Indians caught them by means of a long rod, through which nails had been driven, forming a sort of comb, or rake, which they moved swiftly through the schools of smelt, bringing up many impaled upon these nails. Smelt fishing now brings in considerable money to the fishermen, owing to the greater length of the season. Late in the season the price gets very low, but then the only limit to the catch is the amount that can be disposed of. Many are salted by farmers along the river, and some are smoked, but the fish is best in a fresh state, and for the pan has no superior on the coast.
2 January 1897	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. WHEN SMELTS DESERTED THE COLUMBIA. —It is seldom that fish desert a river they have long resorted to, and after a long time come back again. Mr. Fred Strong, who was born at Cathlamet and lived there a number of years, says that during that time, and for several years after his parents removed to this city, no smelt were seen in the Columbia or its tributaries. Mr. Burney, an old Hudson Bay Company man, at one time chief factor for the company, lived near his father's place in Cathlamet, and used to tell about a little fish which formerly visited the Columbia in great schools. The smelt, it appears, deserted the Columbia about 1846, for some unknown reason, and did not come back for 20 years. If the salmon should take such a freak, it would be no joke.
7 January 1897	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. FIRST CHINOOK SALMON OF THE SEASON. — ... Columbia river smelt are coming in quite freely, and the price is down to 10 cents per pound.
22 January 1897	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. SMELTS RECEIVED BY THE BUSHEL. —A newcomer, while buying some Columbia-river smelt, yesterday, asked the dealer if these fish were caught at any time in large numbers. "Well, I should say so," replied the dealer; "numbers cannot be used to express the amount. The smelt in the height of the season are shipped in by the bushel. Last year I had a smelt fight with another dealer. Each wanted to control the market. I secured 50 bushels one day, and he got 64 bushels." "Well, how did the fight come out?" "Oh, I sold mine, and he had his left on his hands, and that sickened him of the smelt business."
25 January 1897	Salem, OR	<i>Capital Journal</i> , p. 1,	Fresh Columbia river smelt at Steiner's market.

Date	Place	Source	Quote
		col. 5	
26 January 1897	Salem, OR	<i>Capital Journal</i> , p. 4, col. 1	Fresh Columbia river smelt at Steiner's market.
8 February 1897	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. STURGEON IN THE MARKET. — ... There is plenty of smelt, but, unless they are from a new school, they are not so fine as when they first appeared. Many of them have already spawned, and are ready to return to the ocean.
13 February 1897	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. RUN OF CHINOOK SALMON. —... Columbia river smelt are plentiful ...
23 February 1897	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. FIRST SHAD IN THE MARKET. —... The season for smelt is about over, as far as this city is concerned, but large quantities of them are shipped all over the country, from Montana to the Southern states, and they are accounted a delicious little fish wherever they go.
25 February 1897	Portland, OR Cowlitz River	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. MAGNITUDE OF SMELT FISHERY. —Some idea of the magnitude which the smelt fishery is assuming may be formed from the fact that the Kellogg line of boats, which plies to the Cowlitz river, has brought to this city since February 1 25,000 boxes of these fish, each box containing on an average 50 pounds. The boxes are sent down by dealers here, and are repacked here in neat boxes, and sent all over the Northwest, and away beyond the Rockies. The fish are caught in dip nets, and an idea of the vast shoals which are making their way to their spawning-grounds on the upper waters of the Cowlitz may be formed from the fact that two men with dip nets often load a boat with smelt in two hours. The first of the month the shipments were small—15 to 20 boxes—but they soon increased to 100 boxes and some days amounted to between 400 and 500. The fish are getting along up the river now, the main school having reached Castle Rock, and many of them have already spawned. The quality of the fish is not so good as when they first appeared, but it would be hard to find any better pan fish now than the Columbia river smelt.
2 March 1897	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. SMELTS KNOWN AS CANDLEFISH. —People who came to Oregon at an early period knew the Columbia river smelt by the name of “candle fish,” and were told that when these fish were dried they would burn like a candle. There are probably few who have tried this, and those who have not will be astonished to find that the statement is practically true. Several persons saw it tried yesterday in a market where there was a lot of dried smelt. A match was touched to the tail of one and it blazed up, making more light than the tallow dip of our grandfathers' age. It had to be inverted once in a while to keep the flame from going out, but if a wick had been run through the fish this would not have been necessary, and this is only a fair requirement, for the best wax or sperm candle ever made would not burn properly without a wick. If nature had intended the smelt to be used for candles they should doubtless have been furnished with a wick in the place of a backbone. However, any one who wishes to try the experiment can easily thread a wick through the smelt with a bodkin, or a larding needle. They will

Date	Place	Source	Quote
			find the smell slightly appetizing and the light bright and clear. The Indians in old times used these candle fish to study by when they were preparing for college, which was much better than lying on the hearth and studying by the light of blazing pine knots, as some famous men have done.
4 March 1897	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. SMELT AT A DISCOUNT. —Columbia river smelt registered the lowest rate yesterday yet reached during the season. When they first appeared in the market, about three weeks ago, they sold readily at 25 cents a pound. The first received were the best quality, most of them being males, and all very fat. Later the prices ranged as low as 1 and 2 cents. Yesterday the Kellogg brought up a quantity, that were said to be excellent for this part of the season, and most of the lot were disposed of at 25 cents a box containing 50 pounds. This would make the fish bring one-half a cent per pound. No one could ask for cheaper fish than that. The fish are said to be in very good condition yet, and it is not certain whether it is another run, or the return of some not able to withstand the current.
9 March 1897	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. A CHEAP OREGON LIGHT. —A political economist, who has been investigating the illuminating properties of the candle fish, when furnished with a proper wick, finds them fully up to the tallow dip he used to study his lessons by when a boy, and suggests, that, as a matter of economy, they be used for lighting the city, in the outskirts at least. These fish are very cheap now—about four bits a bushel—and a stock to last a year could be laid in for a small amount. He suggests that several be placed in one lamp, the tails turned up, like a fish-tail gas burner, and claims that in this way the lights might be made ornamental, as well as useful.
1898			
6 December 1897	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. SMELTS' FIRST APPEARANCE. —Several small lots of Columbia-river smelt, ranging from a dozen or two up to four or five pounds; have been received by fish dealers during the past few days. Everyone looks forward with pleasure to the arrival of these fish in quantities, but the first few which come in have such a strong taste of sterling silver that it interferes with the pleasure of eating them. Trout and salmon have few equals in the estimation of Oregonians, but as a pan fish, the delicious Columbia-river smelt has no equal, and will long retain its position at the head of the list. It is yet very early for smelt to come to market, but should there come no freezing up to drive them back, or to the bottom out of reach, they will keep on coming in in gradually increasing numbers.
20 December 1897	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. TOO COLD FOR THEM. —For the past two weeks small lots of Columbia river smelt have been coming to market, but never more than a few pounds at a time. Saturday 30 pounds arrived from near Clifton, and were sold at 50 cents per pound. The supply was about equal to the demand at that price, but there was a prospect of a larger supply and a lower price. As the weather has turned colder, the smelt will probably “go back” or go to the bottom, or somewhere where the fishermen cannot find

Date	Place	Source	Quote
			them, and stay there till the gentle rains come again.
24 December 1897	Portland, OR	<i>Oregonian</i> , p. 8, col. 6	GOOD THINGS TO EAT. ... In the line of fish everything desirable is to be had, a splendid Chinook salmon, clean run from the ocean, easily occupying the first place, and Columbia river smelt the second.
29 December 1897	Portland, OR	<i>Oregonian</i> , p. 5, col. 3	City News in Brief. PRICE REDUCED ONE HALF. —Columbia river smelt are coming to market in larger lots than at any previous time since the first shipment was received, and the price has gone down to 25 cents per pound. This is much preferable to 50 cents, and if the soft weather continues, the price will soon be low enough to place these favorite fish within reach of everybody. ...
2 January 1898	Astoria, OR	<i>The Daily Morning Astorian</i> , p. 4, col. 5	Smelt have already made their appearance in the river although it will be two or three weeks before they come in any quantity. They bring a Klondike price in the markets now, but after awhile they will be within the reach of all. Very few so far have appeared in any of the markets in town and a great many could not be disposed of at the ruling price of 75 cents per pound. ...
3 January 1898	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. GAME IN THE MARKETS. —...to be found in the markets now. ... a fine supply of salt water fish and an occasional Chinook salmon, and a limited supply of Columbia river smelt, for a variety in diet ...
8 January 1898	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. SMELT IN QUANTITIES. —The smelt which have been shilly-shallying along up the Columbia, have at last entered the Cowlitz, and can now be caught with dip nets. Instead of the dozen or two pounds which have been coming to market daily of late, yesterday 700 pounds arrived, and the price went down to three pounds for 25 cents. This will enable everybody to feast on smelt, and unless[s] a cold snap comes on to drive them back, the price will soon be 5 cents per pound.
15 January 1898	Astoria, OR	<i>The Daily Morning Astorian</i> , p. 1, col. 7	Small consignments of smelt are received daily by the local fish markets from up river points and are sold at 12½ cents a pound. The run is later this season than usual, although the weather is favorable for an early run of smelt.
22 January 1898	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. SMELT ARE SHY. —Fishermen at the Cowlitz complain of a scarcity of smelt, and could only get 16 boxes to send to market yesterday. The first school that came into the river is about all gone, some toward the spawning beds up the river, but the greater number to the market here, that bourne from which no smelt ever returns. The fishermen say they can scoop all night and not get more than one or two smelt at a time. The advance guard of a new school has entered the river, but they are very shy, and after a dipnet has been introduced to them a few times they all run away. What the fishermen want is a big school, so that they can catch a bucketful every dip of the net. Now they get \$1 a box, and they would then get no more than 25 cents, but would have the fun of catching them.
27 January 1898	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. EVIDENCE OF FLEETING CHARACTER. —The fact that the snow storm has not caused the Columbia river smelt to disappear, and that Chinook salmon are getting more numerous, is proof positive that the snow is not to last, and that

Date	Place	Source	Quote
			the rain will soon be coming down again.
15 February 1898	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. CHINOOK SALMON PLENTIFUL. —... The smelt are beginning to show signs of having been in the river a long time and if the weather continues springlike there will probably be a run of salmon in earlier than usual.
29 February 1898	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. PROFITABLE SEASON FOR SMELT. —Fishermen and fish dealers have had a profitable trade in Columbia river smelt this season. They came in early in December and the run has continued almost without interruption up to the present time. The quantity taken has been just enough to enable the fishermen to obtain a paying price right along, but now they are coming in in large quantities and, although the price has gone down, the quality, owing to cold weather and cold water, is as good as ever, and large sales are made. After a while, when the water gets warm, the fish will lose flavor and become soft, but by this time, the immense shoals will be far up the Cowlitz on their way to their spawning grounds and the season will be over, as salmon and shad will be plentiful.
20 March 1898	Cowlitz River	<i>Oregonian</i> , p. 6, col. 2	Washington Notes. There is a big run of smelt in the Cowlitz at present, and the fishermen are happy. Thousands of sea gulls line the river, picking up the fish when they appear near the surface.
31 March 1898	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. SMELT HAVE DISAPPEARED. —Several Indians who have been fishing for smelt in the Cowlitz came up to Portland yesterday and reported that the season is over. They say that the smelt all disappeared Tuesday night, and that although 20 boats were looking for them they could not be found. Dealers here who have been handling 25 to 40 boxes of smelt per day yesterday received only 4 or 5 boxes. The fishermen say they were fishing about eight miles up the Cowlitz. When the smelt were plentiful, everybody was out catching them—farmers, merchants, mechanics, etc., with the women and children, and one could scoop as many as he could lift. Sometimes 100 boats would be out and lots of people dipping from the shore. Smelt then sold for 20 cents a box or bushel. Yesterday, men on steamboats were offering \$1 a box. The supply of smelt for tomorrow's market is likely to be very small, and will probably be the last. The fishermen say the smelt frequently disappear all of a sudden, and no one knows where they go to. The fishermen have had four months' good fishing, and the number of tons caught is very large, so they can afford to turn their attention to salmon now.
1899			
9 December 1898	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. "NEW" POTATOES AND SMELT. —... What now is needed is for Columbia river smelt to put in an appearance. They arrived in market about this time last year, and they would probably be here now, but for the unusually cool weather. ...
10 December 1898	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. FIRST SMELT ARRIVE. —The first Columbia-river smelt of the season arrived here late Thursday evening. The shipment comprised over 20 pounds, which is much more than the first shipments for several years past. The little fish were selling yesterday at 60 to 75 cents per pound, which is 10 cents per pound more than the

Date	Place	Source	Quote
			first lot has ever before been sold for. If the frost should change to rain it is probable that smelt will soon be quite plentiful in the market. ...
15 December 1898	Astoria, OR	<i>The Daily Morning Astorian</i> , p. 4, col. 3	Although the first runs of the famous Columbia river smelt are past due, not a single fish has so far been seen in the river. Last season quantities of them were on sale at Astoria markets as early as the last week in November and continuous runs were caught until the end of the season. Old fishermen are unable to account for their scarcity this year.
29 December 1898	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. SMELT SHOWING THEMSELVES. —A small lot of Columbia-river smelt came to market yesterday, the first received since a lot came in just before the cold snap. If the weather keeps “soft” more will probably arrive soon, but if it turns cold [sic; cold] the smelt will go back and wait for it to get warm again.
4 January 1899	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. SMELT IN THE COLUMBIA. —The largest shipment of Columbia river smelt of the season, some 50 pounds, arrived here yesterday. The school is as far up as Cathlamet, and unless a cold snap comes on will keep on up the river, and they will soon be plentiful. There are but few who do not like Columbia-river smelt, but there are many who cannot afford to pay 50 cents a pound for them.
5 January 1899	Astoria, OR	<i>The Daily Morning Astorian</i> , p. 4, col. 3	The first Columbia river smelt to be sold in Astoria were served for dinner at the Palace yesterday. The fish were taken near Cathlamet, and sold in Portland at retail for 75 cents a pound. Mr. Whipple purchased about 10 pounds, paying 50 cents a pound. Only 50 pounds have thus far been taken.
7 January 1899	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. MORE SMELT. —Smelt continue to arrive, and batches of 200 pounds or more are now received daily. The snow so far does not appear to have turned them back, from which persons, who believe in signs and portents, infer that there is to be no freeze-up, and that the weather will turn off soft very soon. This all depends on which way the wind blows, and it is doubtful whether the smelt know anything more about that than ordinary people.
12 January 1899	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. SMELT GO BACK. —No Columbia river smelt have come to market for several days, the melting snow having made the water too cold for their feet and caused them to return to the deep sea. A fine large fresh-run Chinook salmon was on exhibition at a market yesterday. Salmon and smelt will be plentiful after a few days of warm weather.
16 January 1899	Portland, OR	<i>Oregonian</i> , p. 32, col. 6	HARVEST OF THE RIVER. Begins With the Present Run of Smelt. With the advent of the smelt, the most delicious of all pan fish, begins the gathering of the harvest of the Columbia river, the most bountiful and varied afforded by any stream on earth, beyond question. The return of warm weather insures the beginning in earnest of the smelt fishing season, and in a short time these fish will be shipped to all parts of the country. The fishermen realize many thousands of dollars yearly from the catch of smelt, but no statistics are ever kept, as the smelt are all disposed of fresh. The sturgeon follow and fatten on the schools of smelt, but the sturgeon fishery has been hurt by overfishing for the Eastern market, and it will take a few years, under the proposed law protecting

Date	Place	Source	Quote
			sturgeon, to replenish the Columbia with these fish. ...
18 January 1899	Astoria, OR	<i>The Daily Morning Astorian</i> , p. 4, col. 3	The first Columbia river smelt of the season were offered for sale in one of the markets yesterday. They were taken at Cathlamet, and the consignment did not exceed over 50 pounds. A few pounds were sold at 25 cents a pound. They are a month late in coming into the river this season, but small quantities have been taken the past week or 10 days and the catches are increasing. The markets in Portland always control the price of the first run of smelt and they are never shipped to this city until the price begins to fall there. They will soon be sold, however, at a price within the reach of the average Astorian.
19 January 1899	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. PLENTY OF SHELTER. —The warm weather has started the Columbia river smelt on their journey to their spawning grounds, and they have already begun to swarm up the Cowlitz in vast schools. About 1000 pounds of these fish were received by dealers here yesterday, the first large shipment of the season, and the price declined to 10 cents per pound. There will be plenty of smelt coming in from now on til the end of the season, and the prices will soon be lower, and everybody can feast on smelt. The smelt used to run up into the Sandy, but have seldom come down the Cowlitz of late years.
25 January 1899	Astoria, OR	<i>Oregon City Press</i> , p. 4, col. 4	First Columbia River Smelt. The first Columbia river smelt of the season were offered for sale in an Astoria market on the 18th. They were taken at Cathlamet, and the consignment did not exceed over 50 pounds.
30 January 1899	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. ABUNDANCE OF SHELTER. —The continued mild weather has caused the smelt to put their best feet forward in their march to the spawning grounds, and fishermen are making hay while the sun shines, and are sending these delicate little fish to the market by the ton and the price has gone down to the minimum, 5 cents per pound. The sturgeon, what there is left of them, are following up the schools of smelt, and devouring them by the thousand, and the gulls and crows find fine picking along the river banks. Smelt are being shipped to all parts of the Northwest, and everybody is eating them, and is glad of it.
27 February 1899	Portland, OR Cowlitz River	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. MILLIONS OF SHELTER. —The smelt which entered the Cowlitz river about three weeks ago are still pressing ahead up to their spawning grounds on the upper waters of that river in vast shoals. Andrew Lewis, who is engaged in catching smelt for market, says the run of these fish in the Cowlitz this year is larger than has been known before in many years. The roe smelt are now coming into the river, and the immigration will probably continue from three weeks to a month longer. The number caught is immense, as every one who can buy, beg, borrow or steal a boat is fishing for smelt, and in one day as many as 2000 boxes of about a bushel each have been shipped from the Cowlitz. The smelt are caught with dip nets, and often when one gets in the thick of a shoal, he brings up his net full. The smelt are shipped to Portland and Puget sound, and thence distributed all over the Northwest. Several shipments were sent to San

Date	Place	Source	Quote
			Francisco lately, but although they have no fish there to equal them, orders were wired to send no more, as charges could not be made on them, and one fellow even sent his dispatch C. O. D., after taking the fish, on which freight had been paid, for nothing. They have a fish combine down there.
30 March 1899	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. LAST OF THE SMELT. —What was probably the last shipment of Columbia river smelt for the season was sold out yesterday in Portland fish stands at 2.5 cents a pound, and the citizen who desires to carry home four pounds of fresh fish for 10 cents will have to wait for the shad season to open, which will be in May. The shad, like the smelt, is caught in the fresh water streams, and is very numerous when he exists at all. At the height of the season shad retail at 5 cents each, and, as they average 2.5 pounds apiece, they may be regarded as the poor man's fish, as well as the smelt. The shad season lasts about two months. The smelt shipment of yesterday was caught well up toward the head of the Cowlitz, where the distance is too great for further profitable shipments to this city. Fishermen think the smelt should now be given a chance to spawn, anyway.
31 March 1899	Oregon City, OR	<i>Oregon City Courier-Herald</i> , p. 2, col. 4	Fresh smelts, ten pounds in the morning.
1900			
5 December 1899	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. NOW FOR SMELT. —Columbia river smelt are likely to make their appearance in the market in small numbers before long. They came early in December last year, and lasted till late in the spring. ...
11 December 1899	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. FIRST RIVER SMELT. —A small lot of Columbia river smelt, the first of the season, some 10 or 15 pounds in all, was received here Saturday. They sold at 50 cents per pound, which is about the usual price for the first lots arriving, and which, although a high price, does not pay for the trouble and expense of catching them. A few fishermen, who make a specialty of catching smelt, keep drifting for them at this season, and when they find a school and catch a big lot and get a good price for them, they make up for the time lost in prospecting. A fish dealer, looking at the first lot arriving, said he was almost sorry to see them. When he was asked why, he said: "Well, when the smelt come, people will hardly eat any other kind of fish, and when they get cheap, people eat so many of them that they care for no other fish when the smelt are gone. Late in the season the smelt become so plentiful that they are a drug on the market, and they accumulate by the ton and are pretty much of a nuisance." All the same, the Columbia river smelt is one of the most delicious pan fish which comes to this market, and their advent in quantities which renders the price reasonable is hailed with delight by everybody.
12 December 1899	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. SMELT MORE PLENTIFUL. —Several lots of 20 to 30 pounds of Columbia river smelt arrived in market yesterday, and the price dropped by degrees from 50 cents to 30 cents per pound. The prospect is that smelt will continue to arrive in

Date	Place	Source	Quote
			gradually increasing quantities until a cold snap comes and drives them back, or to the bottom; or wherever they disappear to when a cold snap comes. There is not likely to be any large amount caught—enough to bring the price to the minimum—until winter is past and gone, and the great schools swarm into the Cowlitz in their mad rush for their spawning-grounds on the upper waters of that stream.
22 December 1899	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	City News in Brief. FOR CHRISTMAS DINNERS. —... Columbia river smelt continue to come in, and now sell at two pounds for 25 cents. ...
23 December 1899	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 2	Fresh Columbia river smelt: the first of the season, are now on sale at the “PAT” market.
28 December 1899	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 1	Fresh Columbia river smelt: the first of the season, are now on sale at the “PAT” market.
29 December 1899	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	City News in Brief. SMELT COMING IN. —Columbia river smelt continue to come to market, but not in quantities large enough to reduce the price below two pounds for 25 cents. Some now received show no marks of the gillnet, so it is evident that they are being caught somewhere by dipping. They have not yet entered the Cowlitz river, and the dipping is probably done in some shallow eddy in the Columbia. Should there come a cold snap, the smelt will disappear till warm weather comes again. The few sturgeon now being caught are crammed with smelt, to the end of their suction pipes.
2 January 1900	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 1	Fresh Columbia river smelt: the first of the season, are now on sale at the “PAT” market.
3 January 1900	Portland, OR Cowlitz River	<i>Oregonian</i> , p. 5, col. 1	Smelt 5 Cents a Pound. —The main school of smelt struck into the Cowlitz Saturday and at Kelso about a dozen tons were caught on Sunday. Every man and boy in that region was dipping smelt, and the gulls were as busy as anybody. New Year’s day a number of Indians and others came up to Portland with boxes of smelt to sell, and these delicious fish are now selling at 5 cents per pound. This is unusually early for the smelt to start up the Cowlitz for their spawning grounds, and old-timers predict from this that there is to be no freeze-up this winter. The smelt is such a delicate fish that it does not stand shipment to any distance, or a large business could be done in shipping them. Some have been preserved in cold storage through the summer, but the experiment was not profitable, and it is doubtful if any large quantity of them is put in cold storage this season. When smelt are 50 cents or 25 cents per pound only a few of them can be caught, but when they can be caught by the ton they bring the fishermen next to nothing.
4 January 1900	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 1	Fresh Columbia river smelt: the first of the season, are now on sale at the “PAT” market.
5 January 1900	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 1	Fresh Columbia river smelt: the first of the season, are now on sale at the “PAT” market.
25 January 1900	Cowlitz River	<i>Capital Journal</i> , p. 2, col. 5	Another large school of smelt has entered the Cowlitz river and the price has fallen to 5 cents a pound.
26 February 1900	Portland, OR	<i>Oregonian</i> , p. 7, col. 2	New Run of Smelt. —A new run of smelt has lately entered the Cowlitz, the market is

Date	Place	Source	Quote
	Cowlitz River		again flooded with these favorite fish, and they are selling at 5 cents per pound. This is probably the last run of the season. The fish are in fine condition and fresh from the sea. They are much firmer, fatter and better flavored than they will be after a week or two in fresh water. As smelt have been in the market almost continuously since early in December, there is not such a lively demand for them as at first, still, the amount disposed of is very large. The fact that no trout can be marketed causes more demand for smelt.
3 March 1900	Portland, OR	<i>Oregonian</i> , p. 12, col. 2	FOR THE MARKET-BASKET. ... Fish— ... smelt, 5 cents [per pound]; ...
6 March 1900	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 1	Smelt 3 c pound; ... New Market, 460 Duane Street, near Tenth.
8 March 1900	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 1	Smelt 3 c pound; ... New Market, 460 Duane Street, near Tenth.
9 March 1900	Oregon City, OR	<i>Oregon City Enterprise</i> , p. 2, col. 3	Joe Schwartz brought a box of smelt from Barlow last Thursday which he disposed of in short order. ...
10 March 1900	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 1	Smelt 3 c pound; ... New Market, 460 Duane Street, near Tenth.
11 March 1900	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 1	Smelt 3 c pound; ... New Market, 460 Duane Street, near Tenth.
13 March 1900	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 1	Smelt 3 c pound; ... New Market, 460 Duane Street, near Tenth.
14 March 1900	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 1	Smelt 3 c pound; ... New Market, 460 Duane Street, near Tenth.
16 March 1900	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 1	Smelt 3 c pound; ... New Market, 460 Duane Street, near Tenth.
28 March 1900	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 1	Smelt 3 c pound; ... New Market, 460 Duane Street, near Tenth.
29 March 1900	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 1	Smelt 3 c pound; ... New Market, 460 Duane Street, near Tenth.
30 March 1900	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 1	Smelt 3 c pound; ... New Market, 460 Duane Street, near Tenth.
3 April 1900	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 1	Smelt 3 c pound; ... New Market, 460 Duane Street, near Tenth.
4 April 1900	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 1	Smelt 3 c pound; ... New Market, 460 Duane Street, near Tenth.
1901			
3 December 1900	Portland, OR	<i>Oregonian</i> , p. 5, col. 1	[Best available transcription from microfilm]. NEWS IN BRIEF. ... For The First Smelt.—Old ... passing fish markets now keep their eyes open for the appearance of the first Columbia River smelt of the ... The advent of these delicious ... may be looked for

Date	Place	Source	Quote
			any day now, ... when the main schools will ... and the smelt become plentiful ... depends upon the weather. ...the fish begin to arrive about ... and, owing to the mild Winter ... markets were constantly supplied ... till quite late in the Spring. At ... sold for 50 cents per pound, but ... last of the season a bushel box ... could be purchased for that ... While the smelt are in season ... many more of them, and a much ... of them used than of any ... of fish. Tons and Tons of them ... to all parts of the North ... to points a considerable distance ... Formerly the schools of smelt ... into the Sandy, but of late ... are seldom caught above the ... the Cowlitz. The upper reaches ... are their great spawning ... and at the height of the season ... up the stream in such vast ... that it is often said, as of ... early days, "one can walk ... river on them." It is scarcely ... find any one who does not ... and great quantities of them ... during the season. People ... to tire of them as they do ... other fish.
7 December 1900	Portland, OR	<i>Oregonian</i> , p. 7, col. 1	[Best available transcription from microfilm]. First Smelt. —The Columbia River smelt mentioned a day or two ago as probably near at hand has arrived. ... seven pounds of these delicious little fish arrived Wednesday and about 20 pounds yesterday. They were readily disposed of at 75 cents a pound and the fishermen who sent them in were paid the full amount for them, to encourage them to further efforts. The fish were caught away down the Columbia in the vicinity of Pillar Rock, and the money received for them was dearly earned, as the fishermen have been out seining for them for several nights. It was fortunate that that there was [sic] not enough of them to supply everybody, for not everybody can ... to pay 75 cents a pound for smelt. ...
22 December 1900	Portland, OR	<i>Oregonian</i> , p. 10, col. 4	Christmas Markets. ... Fish—Columbia River smelt, 35 cents per pound: ...
26 December 1900	Portland, OR Cowlitz River	<i>Oregonian</i> , p. 7, col. 2	Why Smelt Are Late. —The Columbia has risen considerably since the late heavy rains commenced, and this has checked the run of steelhead salmon and smelt. The latter commenced coming to market very early this month, and under ordinary circumstances should have been plentiful by this time. One dealer here says that on the first day of this year he received over 100 boxes of Columbia River smelt from the Cowlitz River. Although the run commenced this season about the same time as last, the whole number of smelt received so far this season would hardly make a bushel. If the weather continues mild and the storm ceases, the rivers will soon run down, and then the smelt and steelhead salmon should make a fresh start, and in a short time smelt will be plentiful. They are anxiously awaited, and cannot come too soon.
1 January 1901	Portland, OR	<i>Oregonian</i> , p. 32, col. 1	At Reasonable Price. —Though Columbia River smelt have been in the market almost a month, yesterday was the first time that any quantity arrived, and the price got down to 12½ cents per pound. If the weather gets warm the smelt will soon enter the Cowlitz and can be caught with dipnets, but as long as it remains frosty, the smelt will remain in deep water, where they must be caught in a gillnet, and caught in this manner they will not be less than 12½ cents per pound. A year ago today smelt were a drug in the market, and a single dealer here received over 100 bushels.

Date	Place	Source	Quote
12 January 1901	Portland, OR	<i>Oregonian</i> , p. 9, col. 2	RAZOR CLAMS AND FRESH COLUMBIA River smelt, in large supply. ... Vince's Market, 4 th and Alder.
18 January 1901	Portland, OR	<i>Oregonian</i> , p. 7, col. 2	Too Muddy For Smelt. —... The late flood in the rivers has put a stop to catching smelt and steelhead salmon for the present, the water being so muddy and the current so strong. ... Some men went out seining for smelt, but caught only 80 or about eight pounds, in several hours' work. If the weather does not turn cold as soon as the flood on the rivers subsides, there ought to be plenty of smelt, and occasional Chinook salmon, to say nothing of steelheads and sturgeon now and then following up the smelt.
24 January 1901	Portland, OR	<i>Oregonian</i> , p. 12, col. 3	Spring close at Hand. ... Balmy Days Not Far Away When Columbia River Smelt Sell at Five Cents a Pound. ... Another thing which looked very springlike was a great display of Columbia River smelt on a long table on the sidewalk, being sold as fast as they could be weighed at 5 cents per pound. When smelt get down to 5 cents per pound, Spring is not far away. ...
25 January 1901	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	Unusual Run of Smelt. ASTORIA, Jan. 24.—There is an unusually large amount of smelt in the river at the present time, especially around Eagle Cliff. The fishermen there are selling them for ½ cent per pound, or even less.
25 January 1901	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col. 3	Smelt is unusually plentiful just now, especially in the vicinity of Eagle Cliff, where a boat can be filled in a very short time. They can be bought for little or nothing of the fishermen there
1 February 1901	Portland, OR	<i>Oregonian</i> , p. 7, col. 1	[Best available transcription from microfilm]. Smelt Have Advanced. —Columbia River smelt, which have been plentiful at 5 cents a pound in Portland lately, went up to 8 [?] cents yesterday, and the cold ... article began to make its appearance ... The cold weather is blamed for the suspension of the smelt industry, and there is no telling whether the fish will ... their appearance in any number ... this season. The Cowlitz has been their favorite visiting place heretofore ... but late have appeared in that ... to speak of. The smelt ... more than any other ... of human food, as it commands ... cents a pound when it first appears ... and falls to 2 cents as it becomes more plentiful. In plenteous periods the ... are scooped up in dipnets in the ... places on the Cowlitz, but none ... been captured that way yet this season.
23 February 1901	Portland, OR	<i>Oregonian</i> , p. 9, col. 2	UNEXAMPLED QUALITY. LOW PRICES. Every Delicacy, Better Than Ever. ... Columbia smelt ... The Best At The Lowest Price. Vince's Market, Fourth and Alder.
25 February 1901	Portland, OR Cowlitz River	<i>Oregonian</i> , p. 5, col. 1	[Best available transcription from microfilm]. ... SMELT IN THE COWLITZ. —An old ... fisherman from the Cowlitz River is spending a few days in the city, hoping to be summoned home by news that the smelt have entered that river. He ... that although smelt have been ... in the Columbia since early in December [?] they have not yet started up ... Cowlitz to their spawning grounds, ... the gill netters are having ... their own way. He is of opinion ... gill nets which are being used ... are breaking up the schools ... the smelt from getting up ... a result the price of smelt ... at 10 cents per pound most ... Within the last few days ... have been catching a good ... with dip nets across the Co- ...

Date	Place	Source	Quote
			but opposite the mouth of the ... schools are expected to ... any day. The delay ... of the smelt has been a ... the fishers on the Cowlitz, ... ton, by the carload. Tons. Considerably ... smelt were sent to ... reports was published ... to the effect that the smelt ... the Sandy River, but the Cowlitz ... was not true. Smelt used ... the Sandy, but have not done ... years. The Cowlitz is the only ... of the Columbia which they fro- ... why no one knows. When ... enter that river they are at- ... and large catches are ... many tons are caught, for ... is no market, and the fish ... If this goes on it will soon ... to take steps for the pro- ... of the smelt, or this favorite ... little pan fish will be ex- .
27 March 1901	Portland, OR	<i>Oregonian</i> , p. 7, col. 1	[Best available transcription from microfilm]. CITY NEWS IN BRIEF. ... From Smelt to Veal.—Since the catch of smelt in the Cowlitz began to fall off ... steamboats coming from that section ... bringing partial cargoes of butchered ... and citizens will doubtless be glad to change a diet of smelt for one of veal. ... the boats from the Cowlitz have been bringing up as many as 500 boxes of smelt per day, which would seem to be enough to furnish the whole state with ... producing food. Now the arrivals ... only about 100 boxes per day, ... they are the last run from the tail end of the school. ...
1902			
2 December 1901	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	Smelt Season Near at Hand. —The arrival of Columbia River smelt in the market may be looked for any time now, unless there is to be a cold Winter, in which case the smelt know what is coming and will stay in the ocean till a more propitious time. They did not use to arrive so early, but of late years have put in their appearance as early sometimes as December 4, and on one occasion smelt were had for breakfast here on Thanksgiving day. It is generally some time after the first ones arrive before the main school shows up. During this time the fishermen, who catch any, obtain a high price for them. A few pounds then are worth as much as the same number of bushels when the season is at its height.
6 December 1901	Portland, OR	<i>Oregonian</i> , p. 7, col. 2	First Royal Chinook Salmon. —The first royal Chinook salmon of the season was displayed in front of a Fourth-street market yesterday. ... A person who was admiring it said it was strange that the smelt and salmon arrived in the river so much earlier of late years than they used to years ago. Another remarked that probably these fish used to come into the rivers just as early years ago as they do now, but they were not seen, as no one used to fish for them in the Winter. Now the energetic fisherman who catches smelt or salmon early gets a price for them which repays him for his trouble. ...
12 December 1901	Portland, OR	<i>Oregonian</i> , p.7, col. 1	[Best available transcription from microfilm]. SMELT SCHOOL LOCATED. —There was a sharp decline in the price of Columbia river smelt yesterday from 20 cents to ... cents per pound. One smelt fisherman, tired of waiting for the school to enter the Cowlitz, decided to try dipping for them in the mighty Columbia. He ... the head of the school about five ... below the mouth of the Cowlitz. ... the fish found out what he was after .. and scooped in 800 pounds of them. Their arrival in the market here brought down the price. If the weather keeps ... smelt will be in the Cowlitz in ... days, and then

Date	Place	Source	Quote
			there will be smelt ... and they will be shipped all over the country.
19 December 1901	Astoria, OR	<i>The Morning Astorian</i> , p. 3, col 3	Columbia river smelt are still plentiful and the market is easy. There is a good demand, also, for this fish.
1 January 1902	Portland, OR	<i>Oregonian</i> , p. 56, col. 2	CITY NEWS IN BRIEF. Two Fine Chinooks.—... Columbia River smelt of the finest kind continue to arrive in considerable quantities; so caterers have their choice of two of the finest fish in the country for “first course.”
5 February 1902	Portland, OR	<i>Oregonian</i> , p. 7, col. 2	Salmon Again in Market. — ... The change in the weather has enabled the fishermen to get to work again, and yesterday a number of fine salmon came in which sold readily at 25 cents per pound, while those who preferred smelt could get them for one-fifth of the money.
14 March 1902	Portland, OR	<i>Oregonian</i> , p. 7, col. 2	Plenty of Fish. —A few stragglers from the run of smelt in the Columbia River are yet to be found in the markets, but they are shriveled and unappetizing, and do not sell readily. ...
24 March 1902	Portland, OR Lewis River	<i>Oregonian</i> , p. 5, col. 2	Smelt Run Still Heavy. —There are people who imagine that the salmon and smelt and sturgeon of the Columbia River are to be exterminated, and that before long. If they are not, it will not be because there are not greedy people who would hog them all at one swoop if they could—such people as are now unlawfully buying and putting in cold storage salmon which they know are being unlawfully caught. True, the sturgeon were practically exterminated, and even now large ones are as rare as honest fishermen, but in the case of the salmon and smelt the theory of extermination does not hold good. Last year there were as many or more salmon than ever before, and this year the same is true of the smelt. Years ago smelt did not make their appearance here in the market till about the middle of March, as no one fished for them but Indians, and they only fished with dipnets after the fish were running up the small rivers and could be caught from the banks. Now white men are out with seines, prospecting for the first school of smelt, as the first bring 50 cents and even 75 cents per pound. The result is that smelt were in the market last Thanksgiving day, and were quite plentiful early in December. Since that time, nearly four months, smelt have been coming to market steadily by the ton, and immense quantities—no one can say how many tons—have been sold here or shipped to all parts of the Northwest at cheap rates. For a number of years the smelt, which used to be plentiful in the Sandy River, have not come further up than the Cowlitz, but lately a new school has come into the Columbia, and these have passed the Cowlitz, and are now running up Lewis River. The farmers are catching them in great numbers. The probability is that they will go on up to the Sandy, and give residents along that stream a chance to enjoy the sport of smelt fishing. This fishing is carried on chiefly at night, and when the smelt are plentiful affords fine sport to the fishermen.
25 March 1902	Portland, OR	<i>Oregonian</i> , p. 7, col. 2	Early Fisher Gets the Trout —A number of fishermen ...went over Sunday to... fish on the Columbia above Vancouver ... The fishermen report seeing a wonderful spectacle in the form of thousands of seagulls, which were following an immense school of smelt,

Date	Place	Source	Quote
			which was slowly making its way up to the Sandy. For about three miles from Government Island down the Columbia, which is broad and not very deep there, was crowded with smelt, which could be seen in thousands along the side of the river, and many dead ones were lodged along the bank. The vast swarm of gulls was feeding on them, and had no difficulty in catching all they could swallow. Occasionally a thousand or more of the gulls, which had been resting on the water, would rise in a swarm to resume feeding, and, as they would wheel their snowy breasts, looked like a cloud lighted by the sun. The gulls have been following the smelt for many miles, and will follow them into the Sandy, where, as the stream is narrow, it will not be safe for the gulls to go.
26 March 1902	Portland, OR Sandy River	<i>Oregonian</i> , p. 12, col. 3	Smelt in Sandy. Smelt are running in the Sandy River by the millions, and everybody is living on fish. Tons of them are caught every day and the surplus is being salted down for future use. All that is needed to catch them is a dipnet with a short pole for a handle, and the banks of the stream are lined with people who come great distances to enjoy the sport. All sorts of contrivances are being used for nets, among them being potato sacks, mosquito netting and bird cages. The fish are being hauled away by the wagon load, every farmer and tie-hauler in the county taking home a large supply every time he goes to Troutdale.
30 March 1902	Portland, OR	<i>Oregonian</i> , p. 1	GREAT RUN OF SMELT IN THE SANDY. FISHING SCENE AT THE RIVER BANKS. During the last few days the Sandy River has contained the greatest run of smelt that has been seen there in seven years. On Thursday morning people came in large numbers from Fairview, Troutdale and Portland, in carriages, lumber wagons and vehicles of every description, and bringing fishing tackle of various original kinds, from the bird-cage on a stick, with which one woman scooped up the smelt, to the regulation fish net. A stranger passing the lower Troutdale bridge would have wondered if there were not a campmeeting in progress, for all around the locality were hitched the teams and wagons of the people, who had brought their lunches, prepared to spend the day in the enjoyment of the unusual sport. There seemed to be no limit to the number, or rather, the amount, of fish any one could catch, for the fish were there to be dipped up as long as the fishers had anything to carry them in. Those who had buggies had all they could stow away, and the farmers who came in big wagons had all the way from two to 10 gunny sacks full. There were tons of fish taken during the day, great quantities of which will be thriftily pickled, salted and smoked, and a Troutdale butcher ruefully remarked that he "guessed his business would be likely to suffer for quite a while." This last run of fish has been exceptionally large, but it is stated that there have been seasons when no nets were necessary, and the farmers drove down to the river, backed the wagons into the water and scooped up the fish with ordinary shovels.
1903			
30 December 1902	Salem, OR	<i>Daily Journal</i> , p. 8, col.	Columbia River Smelt. Are plentiful at Fitts & Doty's market, at 130 Court street.

Date	Place	Source	Quote
		5	Phone, Main 1921.
31 December 1902	Salem, OR	<i>Daily Journal</i> , p. 3, col. 5	Columbia River Smelt. Are plentiful at Fitts & Doty's market, at 130 Court street. Phone, Main 1921.
30 January 1903	Portland, OR	<i>Oregonian</i> , p. 7, col. 1	... Fish Were Bigger. ... Smelt are plentiful, but now that they are dipped by the ton, they are smaller than those caught in gillnets. ...
9 March 1903	Portland, OR	<i>Oregonian</i> , p. 7, col. 5	SMELT ARE PLENTIFUL. Vast Schools of This Little Fish are Still Running up the Rivers. If the value of the product of the smelt fishery of the Columbia could be figured up, the amount would be surprising. These delicious little pan-fish came in earlier than usual this year, a little before December 1, and they are still coming in by the ton. The first lot sold for 75 cents per pound, and now they are selling at three pounds for 10 cents. The quantity brought to this market from the Cowlitz and Lewis Rivers, where the bulk of them are caught, has not been estimated, but as from 20 to 100 boxes of about a bushel each have been brought up by steamers nearly every day in the week, it must be very large. Vast quantities of these smelt are sold here, and they are shipped to all parts of the country, as soon as the price is at a reasonable figure. The schools which come in from the ocean are simply immense. They used to go as far as the Sandy River, and occasionally to the Cascades, but of late years the great run has gone up the Cowlitz and Lewis Rivers. The fish move in dense columns, and when the run is at its height boats can be loaded in a short time simply with dip nets. The schools are followed by thousands of seagulls, who fatten on them, while they are preyed on from below by sturgeon and other fish. Millions of them reach the spawning beds up the Cowlitz, and many of them come floating back dead after spawning. As there are no laws to protect the little smelt, the probability is that they will some day be exterminated, as the sturgeon in the Columbia River were practically, and as the salmon would soon be but for the hatcheries established in several places. When this day comes they will be sadly missed.
13 March 1903	Portland, OR	<i>Oregonian</i> , p. 7, col. 2	Smelt More Expensive. —"Give me three pounds of those smelt," said a citizen to the clerk in a fish market yesterday. The fish were weighed and wrapped up, and the customer threw down a 10-cent piece. "That is not enough," said the clerk. "You had them marked three pounds for 10 cents yesterday," said the buyer. "Smelt has riz," replied the clerk. "They now cost 5 cents per pound. They have gone right up into the air," he continued. "What is the cause of this unusual rise so late in the season?" "Well, it is in sympathy with the rise in the Cowlitz, which is on a rampage and overflowing the country. This has washed all the smelt back into the Columbia, and it is hard work to catch them." The customer looked around at a stack of frozen salmon, piled like cordwood on the sidewalk, and promptly decided that he didn't want any salmon, so threw down the additional 5 cents and marched off with his smelt. "Fish is fish these days," remarked the clerk, "and people must pay for them, but they are not so dear as turkey at 25 cents per pound."
18 April 1903	Portland, OR	<i>Oregonian</i> , p. 11, col. 3-	Fish Plentiful in Market. ... Smelt are still in the market, but they are the last. A little

Date	Place	Source	Quote
		4	run struck into the Cowlitz a day or two ago and a lot of them were sent up. They are very slim. A colored boy who runs on one of the river steamers was trying to sell a box of them last night, but said the dealers would not handle them any more. He paid the fisherman 10 cents for a bushel box full, and was out and injured that amount. He said that the fisherman would be wanting him to take a lot more today for nothing, but he would not take them. With salmon and shad plentiful, it is time smelt went out. They have been running since about December 1, when the first sold for 75 cents a pound, and now they are down to 10 cents a bushel, and it is time to quit.
23 April 1903	Sandy River	<i>Daily Journal</i> , p. 1, col. 5	The run of Smelt in the Sandy is increasing. Troutdale citizens and people from the surrounding country are dipping the little fish out with all sorts of devices.
30 April 1903	Sandy River	<i>Clackamas County Record</i> , p. 1, col. 1 and 3	During the recent run of smelt in the Sandy many of the farmers took advantage of the opportunity to go fishing and it was not in vain as they returned with all the way from three to ten sacks of the little fish. ... Everybody is fishing for smelt. The neighbors all went down to the Sandy river and caught [sic] wagon loads.
5 May 1903	Portland, OR	<i>Oregonian</i> , p. 5, col. 3	“June” Fish Running. Smelt-Eating Salmon Bothering the Lower River Cannery. Astoria, Or., May 4.—(Special.)— ... The theory always advanced by the Government experts and generally believed by the public that salmon do not eat after entering fresh water has been effectually exploded by observations recently made. This season there is an unusually heavy run of smelt in the Columbia and in the stomachs of many of the salmon caught are found quantities of these little fish. Another thing that has been ascertained this season is the fact that salmon which have been eating smelt will keep but a short time after being taken from the water, supposedly on account of the acid in the smelt causing the flesh to decay. The assertion is made that several persons who were salting and pickling salmon during the closed season have lost quite an amount of money by putting up that class of fish without first properly treating them to remove the acid.
1904			
25 November 1903	Portland, OR	<i>Oregonian</i> , p. 9 col. 2	[Best available transcription from microfilm]. SMELT SEASON APPROACHES. —If only the Columbia River smelt knew how anxiously ... arrival in the river is awaited they ... in. Everybody longs for Columbia River smelt at this time of year, for there is nothing to equal them, as pan fish. They are due to arrive at any moment ... on several occasions of late they have shown up, in time for the Thanksgiving breakfast. Away down the ... fishermen are waiting and waiting for them, and the deep pools ... collect are tested daily to see ... come in. Fish dealers here are waiting to hear from the fishermen ... are waiting for the first ... of smelt on the markets. A ... for a popular club has orders ... with all dealers for the first arrival ... and for any number up to ten ... will pay \$1 a pound. There will be ... to wait for the second ship- ... when they learn this, for after a ... can buy a bushel of these smelt ... a dollar, and they are about as ... as the first ones.
28 November 1903	Portland, OR	<i>Oregonian</i> , p. 9, col. 2	First Smelt of the Season. —The first Columbia River smelt of the season arrived in the

Date	Place	Source	Quote
			markets yesterday morning. Mr. Sargent secured the first share of them for the Arlington Club at \$1 per pound, and the remainder were disposed of at 75 cents per pound. Last year the first lot arrived in time to be served for breakfast on Thanksgiving morning. They are caught earlier now than they used to be, as, on account of the high price the first shipments bring, fishermen watch for them, and get the first that enter the river. After a while they will be pushing along up the Cowlitz in a steady column along each bank, and will be caught with scoop nets by the boatload, and will be shipped by the ton all over the Northwest.
9 December 1903	Portland, OR	<i>Oregonian</i> , p. 9, col. 2	First Chinook Salmon of Season. — ... Columbia River Smelt are still scarce, and retail at 45 cents a pound, as the fishermen with silken nets catch only a few pounds after being out in the cold all the long night and so demand a high price for them. The fish will be more plentiful and cheaper when the weather gets a little warmer.
16 December 1903	Portland, OR	<i>Oregonian</i> , p. 9, col. 1	[Best available transcription from microfilm]. ... RUN OF SMELT. —Owing to the ... Columbia River smelt continue ... in market in small lots of 10 to ... Despite the costly silken seines ... several fishermen at Brookfield ... to ensnare them. The ... fisherman Chris Henry, of Pillar ... net, and is not fishing ... or to make money. But ... as the proper time of the tide ... of linen seine in the right ... catches all the smelt he wants. ... to present to his friends, ... them all the more because of ... price in the market here. When ... salmon comes on by and by in ... Mr. Henry will get out a ... from a mile to two miles ... will fish for profit, and make ... to fifteen tons. That's what ... fishing.
25 December 1903	Portland, OR	<i>Oregonian</i> , p. 7, col. 2	CITY NEWS IN BRIEF. Portland's Christmas Feast.—Chinook salmon and Columbia River smelt, which would be delicacies in any market in the world, will be found on many tables in this city today at breakfast or dinner. ...
29 December 1903	Portland, OR	<i>Oregonian</i> , p. 7, col. 1	School of Smelt Arrives. —The school of Columbia River smelt is moving up the river, and becoming more compact and now several bushels a day are coming to this market instead of 15 or 20 pounds. The price has dropped, and was yesterday "three pounds for 25 cents," while a week ago they sold at 35 cents a pound. As soon as more warm rains come to raise the small tributaries of the Columbia, the smelt will commence running up them, the largest branch of the school usually taking the Cowlitz. They will then come to market by the ton and will sell at 5 cents a pound.
1 January 1904	Oregon City, OR	<i>Oregon City Courier</i> , p. 7, col. 4 and 5	SMELTS ARE CHEAPER. The receipts of Columbia river smelt are showing somewhat of an improvement and quotations have taken another drop. ... Columbia river smelt, 8c ...
8 January 1904	Portland, OR	<i>Oregonian</i> , p. 5, col. 2	Smelt Run Has Ceased. ASTORIA, Or., Jan. 7.—(Special.)—The run of smelt that appeared in the river near Cathlamet about a week ago has entirely disappeared and practically none are coming in at the present time. This is very unusual as heretofore when the run has once commenced it has continued until the end of the season.
9 January 1904	Portland, OR	<i>Oregonian</i> , p. 9, col. 3	Why Smelt Are Scarce. —The proprietor of a fashionable café called on a wholesale fish dealer yesterday and wanted to know why there had been no Columbia River smelt

Date	Place	Source	Quote
			in the market of late, while they were quite plentiful a week or two ago. "It is because there is no water in the rivers," said the dealer. "The Columbia is very low, and the water very clear, because there have been no freshets in its tributaries of late. The water in the rivers flowing into the Columbia is very low and clear, an unusual condition of things at this time of the year, and very unfavorable for smelt fishing, as it drives the smelt back to the sea. "There has been no rain for nearly a month, you know," he added in explanation. "I know no such thing," retorted the café-keeper, "but I do know that if you think there has been no rain for a month you are a dodgasted prevaricator," and he rushed out, raising his umbrella as he ran, for rain was falling in torrents. There will be plenty of smelt when it rains more.
13 January 1904	Portland, OR	<i>Oregonian</i> , p. 6, col. 3-4	Small Run of Smelt. ASTORIA, Or., Jan. 12.—(Special.)—Another run of smelt has entered the Columbia River, but it is not large and is accompanied with a small run of steelheads. The usual runs of each of these fish are unusually late this year.
18 January 1904	Portland, OR	<i>Oregonian</i> , p. 7, col. 3	Columbia River Smelt for the East. —The late rains have brought freshets in most of the minor streams in this region, and started the Columbia River smelt running again. The head of an immense school has entered the Cowlitz, but owing to the height of the water and the swiftness of the current it is impracticable to fish for them there. The life of a smelt appears to as full of ups and downs as that of a man, for it is only a week or two since the Cowlitz was so low and so clear that the smelt could not ascend it, without scraping their bellies, figuratively at least, on the sandy bottom, while now there is no bottom to be found. The immense schools of smelt now pushing their way up the Columbia will soon be coming to market by the ton, and there is a prospect of a market for all that can be caught. The people of the East have learned their excellence, and are anxious to buy tons of them as soon as they can be caught and will have them shipped frozen. This will be a blessing to dealers, as, when the rush is on and smelt are very plentiful and very cheap, the public practically lives on them for a time, and the meat and poultry market is demoralized, and the fish men can make nothing on handling tons of smelt at low prices. It is easily seen, therefore, that a large Eastern demand for Columbia River smelt is just what is needed here. People of the East have eaten trainloads of Columbia River salmon, and about exterminated Columbia River sturgeon, and now they are going in for the smelt. When they get the immense schools of these reduced perhaps they may wish to try a tussle with the carp of the Columbia. No one will object and they can take all the carp and welcome.
30 January 1904	Portland, OR	<i>Oregonian</i> , p. 5	Columbia River Smelt, lb 2c
1 February 1904	Portland, OR	<i>Oregonian</i> , p. 5	Columbia River Smelt, lb 2c
February 1904		<i>Pacific Fisherman</i> , 2(2): 4.	Columbia River. Astoria, Jan. 27. ... That deep water fish always return to their natural spawning grounds has given them more intelligence than deserved, and this is now recognized by the U. S. Fish Commission in some of its recent reports. The run of smelt in the Columbia this year gives an illustration of this. Grey's [sic] river and Crooked

Date	Place	Source	Quote
			Creek, both nearly opposite Astoria, have not before the present month been known as smelt streams and the place where the large catches of smelt has been on the Cowlitz river, many miles up the Columbia. Now both of these streams are filled with a myriad of smelt and all the sea gulls for miles around are in attendance, while on the Cowlitz there is a fair run but the sea gulls are in few numbers, which tells the tale in itself—but why? No one knows.
1905			
26 November 1904	Oregon City, OR	<i>Oregon Daily Journal</i> , p. 13, col. 2	First Columbia Smelts Are In. The first Columbia river smelts to be caught this season came in yesterday afternoon from the Cowlitz and were sold to a Fourth street market at 50c a pound. At retail they were quoted at 75c. In about another month the run of smelt will be on in full blast and prices will go to the bottom. Two years ago fresh smelt were being sold at retail as low as 1c a pound. ...
27 November 1904	Portland, OR Cowlitz River	<i>Oregon Journal</i> , p. 11, col. 7	SMELT NOW DELICACY; SOON A FERTILIZER. Columbia river smelt are in the market at 75 cents a pound. The first shipment arrived yesterday from the Cowlitz river and were immediately sold to a retailer at 50 cents a pound. He in turn found plenty of orders for the fish at 75 cents. This is somewhat early for smelt, the run generally beginning after the first of December. Within a few weeks after that the receipts become so large that hawkers established everywhere throughout the city sell the fish for as low as 1 cents a pound. Along the Cowlitz they become so plentiful that farmers drive their teams into the river and shovel the fish into their wagon. On the farms they are used as fertilizers.
27 November 1904	Portland, OR	<i>Oregon Journal</i> , p. 23, col. 2	First Columbia River Smelt Are In. The first Columbia river smelt of the season are now in the market. They were sold to a local retailer at 50c a pound, who in turn sold them at 75c a pound.
2 December 1904	Portland, OR	<i>Oregon Journal</i> , p. 4, col. 8	The Market Basket. ... Columbia river smelt came into the markets during the week. The first small shipment came from the Cowlitz river and was sold at a Fourth street market at 75 cents a pound. Since then the receipts have shown a small increase, but beyond one or possibly two markets the price is still too high and supplies too short to admit of them being sold in the general markets. The Columbia river smelt, as it is familiarly known to the people of this section, is quite a different fish from that [are] commonly called smelt. The fish seem to make their headquarters in the vicinity of the Columbia river and its tributaries, and very few of them are caught elsewhere. ... In a week or two, if the present weather conditions do not change too much, the run of smelt will begin in earnest and prices will melt as snow before the rays of the sun. Last year the run of smelt was not as large as usual and the price did not go below 10 cents a pound. Two years ago the catch was so great that smelt were sold at wholesale in this market at 25 cents for a 50 to 75-pound box. At that time they were sold on the streets by the smelt men for exactly one cent a pound. There are other grades of smelt in this market all the time, but they are not Columbia river's. They are sometimes called silver smelt, and are

Date	Place	Source	Quote
			caught mostly along Puget sound. Today they are sold at 10 cents a pound, while Columbia river fish is going at 40 cents a pound.
8 December 1904	Oregon City, OR	<i>Oregon Daily Journal</i> , p. 12, col. 2	The large run of smelt is practically over.
9 December 1904	Oregon City, OR	<i>Oregon Daily Journal</i> , p. 4, col. 6	The supplies of Columbia river smelt were somewhat larger this week, and large run of smelt is practically over.. The run at the close of the week was small.
10 December 1904	Portland, OR	<i>Oregon Journal</i> , Sect. 2, p. 13, col. 2	Columbia Smelt Are Cheaper. There is slight improvement in the run of Columbia river smelt, and today's receipts were larger. The wholesale fish houses now have supplies which they are selling at 12½c a pound. The demand is quite good.
12 December 1904	Oregon City, OR	<i>Oregon Daily Journal</i> , p. 13, col. 1	Price of Smelt Is Lower. There were some receipts of smelt from the Cowlitz this morning, and prices went down 2½c a pound, to 10c. ...
13 December 1904	Portland, OR	<i>Oregon Journal</i> , p. 11, col. 2 and 3	Run of Smelt is Very Small. The run of smelt in the Cowlitz is now very small, but what few fish are coming are being sold at former prices. ... Columbia river smelt, 10c per lb
19 December 1904	Portland, OR	<i>Oregon Journal</i> , p. 11, col. 1	Salmon and Smelt Receipts Small. ... Only a few boxes of smelt are now arriving from the Cowlitz, just few enough to keep the price at 10c per pound.
23 December 1904	Portland, OR	<i>Oregon Journal</i> , p. 4, col. 8	The Market Basket ... The season for Columbia river smelt is now in full swing, and prices during the week showed a sharp decline on account of the much heavier receipts. If the present movement keeps up smelt will be cheap enough to use as a fertilizer in the garden during the next week or so.
24 December 1904	Astoria, OR	<i>The Morning Astorian</i> , p. 7, col. 2	Fresh meats and Fish. ... Columbia river smelt, 8c
29 December 1904	Portland, OR	<i>Oregon Journal</i> , p. 11, col. 2 and 3	Receipts of Columbia smelt continue small with prices the same. ... Columbia river smelt, 6c per lb
30 December 1904	Astoria, OR	<i>The Morning Astorian</i> , p. 7, col. 1	Fresh fish, particularly smelt are in demand with a small supply. Last night's storm put a quietus on the hopes of fish eaters for the next few days. ... Fresh meats and Fish. ... Columbia river smelt, 8c
4 January 1905	Astoria, OR	<i>The Morning Astorian</i> , p. 7, col. 1	Smelt are scarce ... Fresh meats and Fish. ... Columbia river smelt, 8c
6 January 1905	Astoria, OR	<i>The Morning Astorian</i> , p. 7, col. 1	Fresh smelt are in better supply, and the price today is 4c.
9 January 1905	Portland, OR	<i>Oregon Journal</i> , p. 13, col. 2	Columbia Smelt Go Lower. There was a cut of ½c a pound in the price of Columbia river smelt today, the price being 2½c. Receipts are again showing an increase.
11 January 1905	Astoria, OR	<i>The Morning Astorian</i> , p. 7, col. 1	Fish are scarce, and there are no smelt at all.
14 January 1905	Portland, OR	<i>Oregon Journal</i> , p. 13, col. 3	Columbia river smelt, 3c per lb
19 January 1905	Portland, OR	<i>Oregon Journal</i> , p. 11,	Price of Smelt Higher With Smaller Run ... Price of Smelt Takes a Rise. Receipts of

Date	Place	Source	Quote
		col. 1	Columbia river smelt are very small today and the price showed a sharp advance to 5c a pound.
2 February 1905	Astoria, OR	<i>The Morning Astorian</i> , p. 7, col. 1	SMELT PLENTIFUL. Little Fish Being Scooped Up By the Ton. Portland, Feb 1.-- As a result of the unexpected flocking of smelt to the Cowlitz river the little fish have made their appearance in the market in great profusion. They are retailing at 5 cents a pound, but will undoubtedly go much lower that this if the supply keeps up, as it is today. The fishermen are scooping them up in nets by the ton, but the consumption of these fish is also very great and the market had no difficulty in getting rid of their supply today. The fish have been in deep water, and their condition is reported as being very good.
4 February 1905	Astoria, OR	<i>The Morning Astorian</i> , p. 7, col. 1	Columbia river smelt, 3c
7 February 1905	Portland, OR	<i>Oregonian</i> , p. 12, col. 4	Steamer Iralda Disabled. ... The Kellogg brought nearly 300 boxes of smelt from the Cowlitz River. The shipments of these fish have become so large that the price has fallen to 25 cents per box.
9 February 1905	Cowlitz River	<i>Oregon Journal</i> , p. 3, col. 5	MILLION AND A HALF FISH, WEEK'S CATCH. Remarkable Run of Smelt Makes Glad the Farmers Along the Cowlitz. ONE HUNDRED AND FIFTY TONS SENT TO MARKET. Basket That Would Have Taken One Fisherman Fourteen Years to Fill. C. R. Gatchet, the fish dealer, reports that 150 tons of smelt were taken from the Cowlitz river between February 1 and 7. All were caught between Kelso and the mouth of the river. Mr. Gatchet kept a close account of the output. Allowing five smelt to the pound, the catch represents 1,500,000 fish. At the market price of five cents a pound they are worth \$15,000. Ten tons of smelt will fill a freight car, and therefore it would require 15 cars to transport the week's catch. ... During the past week the Iralda has been bringing big shipments of the product to Portland, and others take them to Astoria every day. Hundreds of boxes are sent to the sound over the Northern Pacific. It is said that the demand for smelt this year is greater than ever before, principally because of the small output of salmon during the past season. From Portland and the sound they are shipped in cold storage to all the important cities and towns in the inland empire. Heretofore the market has been practically confined to the coast towns. With a growing demand for the fish, a man who is an expert handling a dip net commands good wages on the Cowlitz.
10 February 1905	Portland, OR	<i>Oregon Journal</i> , p. 4, col. 8	The Market Basket. ... The supplies of Columbia river smelt have fallen off again on account of the low water in the Cowlitz and Columbia rivers, and prices are going upward. Smelt, Columbia river, 7½c pound ...
10 February 1905	Cowlitz River	<i>Capital Journal</i> , p. 5, col. 2	Over 300 tons of smelt were taken from the Cowlitz river during the first week of this month.
13 February 1905	Cowlitz River	<i>The Plaindealer</i> , p. 3, col 2 (Roseburg, OR)	Local and Personal. Over 300 tons of smelt were taken from the Cowlitz river during the first of this month.
1 March 1905	Astoria, OR	<i>The Morning Astorian</i> , p. 7, col. 1	Fish Dealers Have Given Up the Idea of a Good Run of Smelt This Spring ... Fish dealers complain of the lack of Columbia river smelt there being none in the market and

Date	Place	Source	Quote
			the opinion prevails that they have returned to the ocean and there will be very few this spring.
1 March 1905	Portland, OR	<i>Oregon Journal</i> , p. 10, col. 3	Columbia river smelt, 6c per lb
5 March 1905	Astoria, OR	<i>The Morning Astorian</i> , p. 7, col. 1	BIG RUN OF SMLT. Smelt Beginning to Come in the Cowlitz. ... Reports from Kalama is to the effect that smelt are again plentiful in the Cowlitz and the indications are that there will be an abundance of fresh fish for Lent.
5 March 1905	Portland, OR	<i>Oregon Journal</i> , Sect. 2, p. 23, col. 2 and 3	There was also an increase in the run of smelt in the Cowlitz this week and prices were cut somewhat. ... Columbia river smelt, 4c per lb
7 March 1905	Astoria, OR	<i>The Morning Astorian</i> , p. 7, col. 2	Columbia river smelt, 5c
14 March 1905	Portland, OR	<i>Oregon Journal</i> , p. 10, col. 2	Smelt Run Has Quit Altogether. Today the fish markets are bare of Columbia river smelt. The run has suddenly dropped out of sight. This season has been a remarkable one in the smelt market, there being three distinct heavy runs of the fish, but every one of them stopped as if they had been cut off with a sharp knife. Usually the run of smelt shows a gradual decrease from the heavy shipments until the catch stops altogether.
28 March 1905	Portland, OR	<i>Oregon Journal</i> , p. 10, col. 2	Columbia river smelt, 5c per lb
24 March 1905		<i>Oregon Journal</i> , p. 1, col. 6	DIMINUTIVE FISH PRIDE OF KELSO. Fish Dipped From Cowlitz River With Pitchfork to Feed the Hungry. Fame comes to cities in varied forms. ... The fact that you can dip smelt from the Cowlitz river with a pitchfork, drive a wagon into the stream and load the bed in a short time or annually ship to the hungry world 400 tons of this diminutive fish is a matter of pride at Kelso, for this community takes first honors in the smelt industry. Kelso, in Cowlitz county, Washington, with 1,200 population, is the center of the smelt industry. No other point visited by the myriad schools of fish can rival it. The season lasts several months, that just closed having commenced November 19, and ended March 15. During this period Kelso records show that 400 tons of smelt were sent from there to the world. This tonnage represents 14,000 boxes of smelt, each box weighing 50 pounds. Catching smelt on the Cowlitz is an interesting process. The fleet of small boats stand out in the stream, one man to each craft, armed with dipnet having a 15-foot handle. The ring at the end of the pole has a spread of 18 inches, while the net behind it is of sufficient capacity to carry many pounds of fish. The schools of fish, which surge up the river, are soon located, when the fishermen commence dipping down stream. Each stroke is richly rewarded, for after a school is located, there are few water hauls. Lee Galloway, one of the best fishermen of the stream, has last season's record, catching 96 boxes in one night, each box weighing 50 pounds. This record means that with one of those poles he lifted from the stream 4,800 pounds of fish, or about two and a half tons. Kelso keeps a record of the work done by its various fishermen. Following is the season's catch for some of the best: Charles R. Gatchet, 2500 boxes; Peck Bros.,

Date	Place	Source	Quote
			3,000; E. Coles, 1,400; E. Bodine, 1,500; M. Hann, 1,000; Joe Zack, 250; Lee Galloway, 1,000; Andrew Lewis, 400; Henry Clutchie, 200; Ingerson & Brewer, 500; W. P. Ingerson, 150; Frank Wannassy, 300; Hays Bros., 1,400; John Galloway, 200; S. Salmon, 300.
March 1905	Cowlitz River	<i>Pacific Fisherman</i> 3(3): 19	Big Catch of Smelt. C. R. Gatchet, a Portland fish dealer, reports that 150 tons of smelt were taken from the Cowlitz river between February 1 and 7. All were caught between Kelso and the mouth of the river. Mr. Gatchet kept a close account of the output. Allowing five smelt to the pound, the catch represents 1,500,000 fish. At the market price of five cents a pound they are worth \$15,000.
April 1905	Cowlitz River	<i>Pacific Fisherman</i> 3(4): 11.	Kelso Smelt Industry. Kelso, in Cowlitz county, Washington, with 1,200 population, is the center of the smelt industry. No other point visited by the myriad schools of fish can rival it. The season lasts several months, that just closed having commenced November 19, and ended March 15. During this period Kelso records show that 400 tons of smelt were sent from there to the world. This tonnage represents 16,000 boxes of smelt, each box weighing 50 pounds. The fact that you can dip smelt from the Cowlitz river with a pitch fork, drive a wagon into the stream and load the bed in a short time, or annually ship to the hungry world 400 tons of this diminutive fish is a matter of pride at Kelso, for this community takes first honors in the smelt industry. Catching smelt on the Cowlitz is an interesting process. The fleet of small boats stand out in the stream, one man to each craft, armed with dipnet having a 15-foot handle. The ring at the end of the pole has a spread of 18 inches, while the net behind it is of sufficient capacity to carry many pounds of fish. The schools of fish, which surge up the river, are soon located, when the fishermen commence dipping down stream. Each stroke is richly rewarded, for, after a school is located, there are few water hauls. Lee Galloway, one of the best fishermen of the stream, has last season's record, catching 96 boxes in one night, each box weighing 50 pounds. This record means that with one of these poles he lifted from the stream 4,800 pounds of fish, or about two and a half tons. Charles R. Gatchet
1906			
22 December 1905	Portland, OR	<i>Oregon Journal</i> , Sect. 2, p. 22, col. 3	Columbia river smelt, 75cents [per lb.]
3 January 1906	Portland, OR	<i>Oregon Journal</i> , p. 13, col. 1	Columbia River Smelt Cheaper. The first big run of Columbia river smelt this season came in yesterday and last night the first heavy arrivals of this fish were shown in the local markets. Reports from the Columbia and Cowlitz say that the fish are appearing from every direction and some record-breaking runs are expected within the next few day[s]. Today, Columbia river smelt are quoted in the local markets at 10c per pound, but some dealers are even shading this figure.
5 January 1906	Astoria, OR	<i>The Morning Astorian</i> , p. 4, col. 3	Steelheads and smelt are beginning to run heavily in the river above Tongue Point, at least it is so reported by the masters of vessels plying there daily.
7 January 1906	Portland, OR	<i>Oregon Journal</i> , Sect. 2,	Smelt Fails and Then Advances. The first of the week there was somewhat of a heavy

Date	Place	Source	Quote
		p. 27, col. 1	movement of smelt—the run in the Cowlitz beginning. This continued for perhaps 56 hours and prices dropped down to 3 cents a pound. Later the run stopped almost altogether and the price went back to 10 cents, and there were but few fish to obtain at that figure.
9 January 1906	Portland, OR	<i>Oregon Journal</i> , Sect. 2, p. 11, col. 1	Columbia river smelt have about disappeared from the markets and prices are nominal. The dealers are unable to understand the tactics of the fish this season. Generally at this time the price is very low.
19 January 1906	Portland, OR	<i>Oregon Journal</i> , p. 12, col. 2-3	The Market Basket. ... Just where all the smelt go is a mystery that fishermen of the Columbia river district have been trying to solve for many years. Once a year the fish appear in great numbers off the Cowlitz river. Here they stay until late in the spring, when they disappear. That the Columbia river smelt comes in from the ocean all seem to agree, but why they chose the Columbia of all the streams along the coast no one knows. In a few scattered instances local wholesale fish dealers have received one or two smelt of the Columbia river variety in shipments of the Puget sound sort. The Puget sound smelt is of bright silver color. The fish are caught in large numbers at most seasons of the year at various places on the coast. The Columbia river smelt is three times as large and has a much different taste. The fresh water which the Chinook salmon and the Columbia river smelt inhabit at certain times of the year seems to be the cause of the differences in taste. Another peculiar fact about the Columbia river smelt is that while traveling up the river it passes numbers of streams of fair size, but avoids all but the Cowlitz. What the special attraction is in that stream none is able to say. At the present time there is a great scarcity of these fish in market and at retail they sell at 20 cents a pound.
26 January 1906	Portland, OR	<i>Oregon Journal</i> , p. 15, col. 1	There are larger supplies of Columbia river smelt today and the price has dropped 1c to 7c a pound.
30 January 1906	Portland, OR Cowlitz River	<i>Oregon Journal</i> , p. 9, col. 1	Heavy Run of Smelt. A very heavy run of smelt is shown in the Cowlitz river and today's arrivals from there were very heavy and caused the price to drop 2c to 4c a pound.
3 February 1906	Astoria, OR	<i>The Morning Astorian</i> , p. 7, col. 1	Smelt Are Plentiful. Columbia River smelt are arriving freely and prices are down to a point that admits of little further reduction. The fish are scooped up into dip-nets by the boatload on the Cowlitz River, and are sent in 100-pound boxes by steamer daily.
7 February 1906	Portland, OR	<i>Oregon Journal</i> , p. 9, col. 2	Columbia river smelt, 2c per lb
19 February 1906	Portland, OR	<i>Oregon Journal</i> , p. 9, col. 2	Columbia river smelt, 2c per lb
28 February 1906	Portland, OR	<i>Oregon Journal</i> , p. 15, col. 2	Columbia river smelt, 3c per lb
28 February 1906	Astoria, OR	<i>The Morning Astorian</i> , p. 7, col. 3	Columbia river smelt, 3c
1 March 1906	Portland, OR	<i>Oregon Journal</i> , p. 13,	Columbia river smelt, 3c per lb

Date	Place	Source	Quote
		col. 2	
2 March 1906	Houlton, OR	<i>The Columbia Register</i> , p. 5, col. 5	Over a quarter of a million pounds of Cowlitz River smelt have been shipped from Dean Blanchard's dock since the first day of February, the average being about 200 fifty-pound boxes per day.
3 March 1906	Portland, OR	<i>Oregon Journal</i> , p. 14, col. 2	Columbia river smelt, 3c per lb
5 March 1906	Portland, OR	<i>Oregon Journal</i> , p. 9, col. 2	Columbia river smelt, 3c per lb
8 March 1906	Portland, OR	<i>Oregon Journal</i> , p. 13, col. 2	Columbia river smelt, 3c per lb
9 March 1906	Portland, OR	<i>Oregon Journal</i> , p. 14, col. 3	The Market Basket. ... Of smelt the public's taste has become so tired that there is but little demand, even at the low prices asked.
10 March 1906	Portland, OR	<i>Oregon Journal</i> , p. 14, col. 2	Columbia river smelt, 3c per lb
13 March 1906	Portland, OR	<i>Oregon Journal</i> , p. 13, col. 2	Columbia river smelt, 3c per lb
16 March 1906	Portland, OR	<i>Oregon Journal</i> , p. 14, col. 3	The Market Basket. ... Even the smelt seems to have taken its departure, for this week the price at retail has moved up to 10 cents a pound, while a week ago they were over plentiful at 5 cents. Colder weather probably the only cause.
23 March 1906	Portland, OR	<i>Oregon Journal</i> , p. 15, col. 2	Columbia river smelt, 3c per lb
28 March 1906	Portland, OR	<i>Oregon Journal</i> , p. 12, col. 2	Columbia river smelt, 3c per lb
1 April 1906	Portland, OR	<i>Oregon Journal</i> , Sect. 2, p. 26, col. 5	Six Hundred Tons of Smelt. (Special Dispatch to The Journal.) Rainier, Or., March 31.—The smelt fishing along the Cowlitz river was unusually good this year. More than 600 tons of smelt are reported to have been shipped from that place this season.
2 April 1906	Portland, OR	<i>Oregon Journal</i> , p. 9, col. 2	Columbia river smelt, 3c per lb
5 April 1906	Portland, OR	<i>Oregon Journal</i> , p. 13, col. 2	Columbia river smelt, 3c per lb
10 April 1906	Portland, OR	<i>Oregon Journal</i> , p. 11, col. 2	Columbia river smelt, 3c per lb
17 April 1906	Portland, OR	<i>Oregon Journal</i> , p. 11, col. 2	Columbia river smelt, 3c per lb
April 1906	Cowlitz River	<i>Pacific Fisherman</i> 4(4): 16	Smelt Cease Running —The run of smelt on the Cowlitz river has ceased after a very successful season. The season's catch was the largest ever taken from the Cowlitz river. Over 700 tons were shipped, the amount being double that handled last year.
1907			

Date	Place	Source	Quote
12 December 1906	Portland, OR	<i>Oregon Journal</i> , p. 10, col. 4	COLUMBIA RIVER SMELT ARE IN MARKET. The first Columbia river smelt of the season have made their appearance in the Portland market. A few pounds were sold yesterday at 75 cents a pound but today a slight increase in supplies caused the price to drop to 50 cents a pound. In times when the smelt season is in full swing these fish have been sold in Portland at a fraction more than 2 cents a pound. At one time 25 pounds of smelt could be obtained for 25 cents. When the run is in full swing the farmers along the Cowlitz drive down to the river and shovel the fish into their wagons, so great are the supplies.
28 December 1906	Portland, OR	<i>Oregon Journal</i> , p. 10, col. 3	COLUMBIA RIVER SMELT 3 Lbs. for 25c
28 December 1906	Cowlitz River	<i>Oregon Journal</i> , p. 12, col. 1	Columbia Smelt Run Begins. The run of smelt in the Columbia river has begun. Yesterday the receipts began to pour in from the Cowlitz and prices dropped from 15c to 5c a pound. Up to that time practically all the Columbia smelt received in the market was from the gillnetters of the lower river, but the present arrivals are sent in from dipmen. Fish men attribute the present run to the high waters of the past month and say that it is rather early for the regular heavy run to begin.
29 December 1906	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	SMELT ARE HERE. Made First Appearance in River Yesterday. A BIG RUN IS EXPECTED. From Now on Until March the Cowlitz River Will be Swarming With Smelt, which Means a Lively Time For the Fishermen. On last Thursday morning the advance guard of the great yearly smelt run put in an appearance here, and was immediately taken advantage of by the smelt fishers who have been on the lookout for them. The first day's shipment amounted to seventy-five boxes, and, as is usual, brought a very high price in the city markets. The present shippers of smelt here and at Catlin are M. Hann, K Bodine, Lee Galloway, Frank Waannassy, Wm. Mabie, Chas. Kenmitz and Dick Cannon. We learn that the first shipments sold at an average of 10 cents per pound in the cities, and that a number of boxes will be sent as far east as St. Paul this week. While at present only about seventy-five boxes per day are caught, the shipments will average 200 boxes per day as soon as the river fills with the big run. This is becoming a very important industry on the Cowlitz river and furnishes employment for a great many men, the yearly run continuing from the latter part of December to the first part of March. It is a very novel and interesting sight to look down the river at the fleets of skiffs anchored in midstream, each containing a man armed with a long-handled dip net, scooping up the glistening little fish dumping them in a flapping, squirming mess in the bottom of their boats, from which they are taken and packed in boxes and labeled preparatory to shipment.
30 December 1906	Portland, OR	<i>Oregon Journal</i> , Sect. 2, p. 31, col. 3	The only line that did not show a scarcity was Columbia river smelt. The smelt run started about the middle of the week and prices went down as low as 3c a pound.
31 December 1906	Portland, OR	<i>Oregonian</i> , p. 6, col. 4	Let joy be unconfined. Smelt are running in the Cowlitz.
3 January 1907	Cowlitz River	<i>Oregon Journal</i> , p. 10,	Run of Smelt Comes to an End. The run of smelt in the Cowlitz river has come to an

Date	Place	Source	Quote
		col. 1	end. Receipts in this market during the past 24 hours were nominal, and the price shown a sudden advance of 5c a pound, and is now quoted at 8c.
6 January 1907	Portland, OR	<i>Oregon Journal</i> , Sect. 2, p. 27, col. 2	Columbia river smelt, 8c per lb
11 January 1907	Portland, OR	<i>Oregon Journal</i> , p. 8, col. 1-2	The Market Basket. ... A few days ago there was every promise of a heavy run of Columbia river smelt, but the run disappeared about as quick as it appeared. This resulted in the price going to 15 cents a pound in the retail markets.
12 January 1907	Portland, OR	<i>Oregon Journal</i> , p. 12, col. 3	Columbia river smelt continue very scarce and the price is firm at 12½ c a pound.
15 January 1907	Portland, OR	<i>Oregon Journal</i> , p. 14, col. 2	Columbia river smelt, 10c per lb.
21 January 1907	Portland, OR	<i>Oregon Journal</i> , p. 11, col. 2	Columbia river smelt, 12.5c per lb.
29 January 1907	Portland, OR	<i>Oregonian</i> , p. 3, col. 4	Smelt are Running Again. KELSO, Wash., Jan. 28.—(Special.)—Smelt are running again and fishermen are busy. Three hundred boxes were shipped by the Northern Express in the last 48 hours and 100 boxes were received by the steamer Northwest, bound for Portland.
30 January 1907	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Are Running Good. The smelt are fairly thick in the Cowlitz river now and a small army of fishermen are busy scooping them in. The shipments are not as heavy as they will be a little later on, still they figure up something over 150 boxes a day. We are told that no trouble is experienced in selling the catch, and that, were it double, a ready market could be found, owing a great deal to the quality of fish caught in the river. This industry is a good advertisement for Kelso and Catlin, as it brings this section into notice in the east as far as Cincinnati, for it is seldom that a person buys fish without being prompted to ask where they came from, and that is just what we want, for the more the beautiful name of “Kelso” or “Cowlitz” is spoken, the more will the advantages of this town and outlying country be discussed; and who is there who could sit down to a meal of delicious Cowlitz river smelt without wishing at least one little wish that they were where they could just go out and catch all they wanted to with an ordinary bird cage?
31 January 1907	Portland, OR	<i>Oregon Journal</i> , p. 10, col. 1	The run of Columbia river smelt shows a heavy decrease during the past few days, and the result is that the wholesale price has advanced to 4c a pound.
1 February 1907	Portland, OR Cowlitz River	<i>Oregon Journal</i> , p. 12, col. 5	The run of Columbia river smelt has disappeared again from the Cowlitz, and the local trade is out of supplies.
2 February 1907	Cowlitz River	<i>Oregon Journal</i> , p. 14, col. 3	FISHERMEN OF KELSO SCOOPING UP SMELT. Kelso, Wash., Feb. 2.—The second run of smelt in the Cowlitz river is on now and large numbers of fishermen are scooping them up with their dip nets in large quantities. The shipments at present average over 150 boxes a day, which will be considerably larger a little later. There is ready market for all the smelt that can be caught here. In fact, double the amount could easily be disposed of. Cowlitz river smelt command top prices in the market and Kelso

Date	Place	Source	Quote
			and Catlin are becoming famous wherever smelt are eaten.
6 February 1907	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 3-4	37,350 POUND IN ONE MONTH. January's Express Showing at Kelso Depot of Smelt Shipments. There are places, hundreds of them, which are noted for the production of some stable or marketable article, and of all the thus noted towns in Western Washington, Kelso has the distinction of being the best known on account of the smelt industry. The little fish which tickle the palates of thousands of people each winter are the mainstay of the fishing people of this vicinity and not only pit thousands of dollars in their pockets each year, but they add a great deal to the prosperity of Kelso and vicinity. The smelt are a peculiar fish. Hatched in the headwaters of the Cowlitz or Sandy they return to the open sea in the spring. Returning in the fall and winter they unfailingly enter the Cowlitz, seeking the old spawning grounds beyond the reach of fishermen's nets. They travel in schools, or rather strings, the first run arriving at or near Kelso about the Holidays. The run of fish is most uncertain. Sometimes they last until the middle of March and sometimes they stop short in January. So far this season there have been upwards of 3000 boxes shipped from Kelso, a total of 37,350 pounds going by express in the month of January alone. Carload shipments have been made in years when smelt were plentiful and cheap but lately the demand has kept up so steadily that the fish are shipped almost as fast as they can be taken from the water. Smelt have always been so plentiful that they have never needed protection by law other than licensing fishermen and there has never been any thought or fear of their extinction entertained by anyone who knew their habits. Thus we have an industry which might be called perpetual as there is no doubt of its continuance for many years to come.
9 February 1907	Portland, OR	<i>Oregon Journal</i> , p. 12, col. 3	Columbia river smelt, 6c per lb.
18 February 1907	Portland, OR	<i>Oregon Journal</i> , p. 11, col. 2	Columbia river smelt, 3c per lb.
20 February 1907	Portland, OR	<i>Oregon Journal</i> , p. 14, col. 5	Columbia river smelt, 3c per lb.
22 February 1907	Portland, OR	<i>Oregon Journal</i> , p. 13, col. 2	Columbia river smelt, 3c per lb.
23 February 1907	Cowlitz River	<i>Oregon Journal</i> , p. 17, col. 3	SMELT WERE NEVER SO ABUNDANT IN COWLITZ. Kelso, Wash., Feb. 23.—John Galloway and Ed Gallahan caught 52 boxes of smelt in the Cowlitz river a little above Kelso in less than one hour. The fish were running so thick that they had to tie knots in the ends of their nets to keep them from filling so full that they could not lift them into the boat. Galloway has fished smelt for years, and says he has seen the smelt pretty thick but this is the heaviest catch he has ever made in the same length of time.
26 February 1907	Portland, OR	<i>Oregon Journal</i> , p. 14, col. 4	Columbia river smelt, 3c per lb.
28 February 1907	Astoria, OR	<i>The Morning Astorian</i> ,	PORTLAND MARKETS. ... Smelt are still cheap, and in the language of a fish dealer,

Date	Place	Source	Quote
		p. 7, col. 3	"everybody is about sick of smelt."
1 March 1907	Portland, OR	<i>Oregon Journal</i> , p. 13, col. 2	Columbia river smelt, 3c per lb.
4 March 1907	Portland, OR	<i>Oregon Journal</i> , p. 14, col. 3	Columbia river smelt, 3c per lb.
7 March 1907	Portland, OR	<i>Oregon Journal</i> , p. 14, col. 3	Columbia river smelt, 3c per lb.
15 March 1907	Columbia River at Vancouver	<i>Oregon Journal</i> , p. 10, col. 3	SMELT IN COLUMBIA RIVER AT VANCOUVER. (Special Dispatch to The Journal.) Vancouver, Wash., March 15. — For the first time in six or seven years and the second time in 16 years smelt are running in the Columbia river at this city. They were first noticed yesterday forenoon, and by night a dozen or more local residents were out catching them in great quantities. As a general thing smelt get no farther up the river than Kalama. When they do come farther up they are generally of an inferior quality, but those caught here yesterday and today are excellent. Seagulls by hundreds are making prey of the smelt on the south shore of the river near the jetty just east of the Vancouver ferry landing. They get in behind the jetty and flounder around in the shallow water, only to be thrown out on the sand and devoured by the seagulls.
19 March 1907	Portland, OR	<i>Oregon Journal</i> , p. 14, col. 3	Columbia river smelt, 3c per lb.
21 March 1907	Portland, OR	<i>Oregon Journal</i> , p. 15, col. 2	Columbia river smelt, 5c per lb.
25 March 1907	Portland, OR	<i>Oregon Journal</i> , p. 11, col. 2	Columbia river smelt, 5c per lb.
29 March 1907	Portland, OR	<i>Oregon Journal</i> , p. 14, col. 2	Columbia river smelt, 5c per lb.
1 April 1906	Portland, OR	<i>Oregon Journal</i> , p. 13, col. 2	Columbia river smelt, 5c per lb.
2 April 1907	Portland, OR	<i>Oregon Journal</i> , p. 12, col. 2	Columbia river smelt, 5c per lb.
8 April 1907	Portland, OR	<i>Oregon Journal</i> , p. 12, col. 2	Columbia river smelt, 5c per lb.
11 April 1907	Portland, OR	<i>Oregon Journal</i> , p. 15, col. 2	Columbia river smelt, 5c per lb.
17 April 1907	Portland, OR	<i>Oregon Journal</i> , p. 15, col. 2	Columbia river smelt, 5c per lb.
19 April 1907		<i>Oregon Journal</i> , p. 12, col. 4	The new law enacted at the recent session of the [Oregon] legislature will stop most of the peddling of shad and smelt by hawkers. The new law compels all dealers in fish to take out a license. According to a member of the legislature from this county the law was

Date	Place	Source	Quote
			secured by deceit and will likely be repealed at the next session of the legislature because it was not intended to put a charge on the selling of smelt and shad because these fish are not protected.
22 April 1907	Portland, OR	<i>Oregon Journal</i> , p. 12, col. 3	Columbia river smelt, 5c per lb.
26 April 1907	Cowlitz River	<i>Oregon Journal</i> , p. 12, col. 2	LATEST RUN OF SMELT EVER IN THE COWLITZ. (Special Dispatch to The Journal.) Kelso, Wash., April 26. —Kelso fishermen have been making the most of the run of smelt, which appeared in the Cowlitz river. This is the latest run that has ever been known in the history of the Cowlitz smelt fisheries and has been a short one, as these dainty denizens of the deep disappeared yesterday.
26 April 1907	Portland, OR	<i>Oregon Journal</i> , p. 14, col. 1	The run of smelt seems to have played out about as fast as it appeared, for no fresh supplies have been received during the past 48 hours.
26 April 1907	Portland, OR	<i>Oregon Journal</i> , p. 14, col. 2	Columbia river smelt, 6c per lb.
27 April 1907	Portland, OR	<i>Oregon Journal</i> , p. 13, col. 2	Columbia river smelt, 6c per lb.
April 1907	Cowlitz River	<i>Pacific Fisherman</i> 5(4): 8	Kelso's Important Smelt Fishing Industry by G. E. Kellogg. There are places, hundreds of them, which are noted for the production of some staple or marketable article, and of all the thus noted towns in Western Washington, Kelso has the distinction of being the best known on account of the smelt industry. The little fish which tickles the palates of thousands of people each winter are the mainstay of the fishing people of this vicinity and not only put thousands of dollars in their pockets each year, but they add a great deal to the prosperity of Kelso and vicinity. The smelt are a peculiar fish. Hatched in the headwaters of the Cowlitz or Sandy they return to the open sea in the spring. Returning in the fall and winter they unfailingly enter the Cowlitz, seeking the old spawning grounds beyond the reach of fishermen's nets. They travel in schools, or rather strings, the first run arriving at or near Kelso about the Holidays. The run of fish is most uncertain. Sometimes they last until the middle of March and sometimes they stop short in January. So far this season there have been upwards of 3,000 boxes shipped from Kelso, a total of 37,350 pounds, going by express in the month of January alone. Carload shipments have been made in years when smelt were plentiful and cheap, but lately the demand has kept up so steadily that the fish are shipped almost as fast as they can be taken from the water. Smelt have always been so plentiful that they never needed protection by law other than licensing fishermen, and there has never been any thought or fear of their extinction entertained by anyone who knew their habits. Thus we have an industry which might be called perpetual, as there is no doubt of its continuance for many years to come. We are enabled to produce the accompanying engravings showing smelt fishing scenes in the vicinity of Kelso by the courtesy of the Kelso Journal.
April 1907	Columbia River	<i>Pacific Fisherman</i> 5(4):	Smelt in the Upper Columbia River —For the first time in many years smelt are

Date	Place	Source	Quote
		21.	running up the Columbia river above Kalama. Large schools have been passing Vancouver, Wash., and fishermen have reaped a rich harvest. The few smelt which have hitherto gone further up the river have been of poor quality, but these have been of the best. Just what turned the smelt aside from their favorite haunts up past Kelso has not yet been determined.
9 May 1907		<i>Oregon Journal</i> , p. 12, col. 2	Columbia river smelt, 6c per lb.
15 May 1907		<i>Oregon Journal</i> , p. 13, col. 2	Columbia river smelt, 6c per lb.
21 May 1907		<i>Oregon Journal</i> , p. 12, col. 2	Columbia river smelt, 6c per lb.
1908			
30 November 1907	Portland, OR	<i>Oregonian</i> , p. 12, col. 1	Good Things in Portland Markets. By Lilian Tingle. ... the first Columbia River smelt came in on Wednesday. These are selling at 75 cents a pound, while the salt water smelt cost only 10 cents. ...
7 December 1907	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	GOOD THINGS IN PORTLAND MARKETS BY LILIAN TINGLE. Columbia River smelt cost 50 cents [per pound]
14 December 1907	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	GOOD THINGS IN PORTLAND MARKETS BY LILIAN TINGLE. Columbia River smelt ... are 20 to 25 cents per pound
21 December 1907	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 2	GOOD THINGS IN PORTLAND MARKETS BY LILIAN TINGLE. ... Columbia River smelt are now about 20 cents a pound ...
28 December 1907	Portland, OR	<i>Morning Oregonian</i> , p. 11, col. 1-2	GOOD THINGS IN PORTLAND MARKETS BY LILIAN TINGLE. ... I saw very nice-looking baby salmon at 20 and 25 cents a pound, and Columbia River smelt at similar prices.
4 January 1908	Portland, OR	<i>Morning Oregonian</i> , p. 11, col. 1	GOOD THINGS IN PORTLAND MARKETS BY LILIAN TINGLE. Columbia River smelt, which have been rather high in price, are down now to 8 or 10 cents per pound, or three pounds for 25 cents, so that even the most economically minded housekeeper may indulge in them. ...
9 January 1908	Astoria, OR	<i>The Morning Astorian</i> , p. 7, col. 3	PORTLAND MARKETS. ... Portland, Jan. 8---Smelt, which were plentiful and cheap a few days ago are in very light supply today, and the price quoted is 5 cents a pound.
11 January 1908	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 2	GOOD THINGS IN PORTLAND MARKETS BY LILIAN TINGLE. ... I saw no smelt in any place I visited. ...
16 January 1908	Salem, OR	<i>Daily Capital Journal</i> , p. 8, col. 3	The Columbia River Smelt — Season is now on. Try those big Fat juicy smelt at Farrington Van Patten's.
18 January 1908	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 1	GOOD THINGS IN PORTLAND MARKETS BY LILIAN TINGLE. Columbia River smelt, so difficult to obtain last Friday, are plentiful enough now, and cost only 5 cents a pound. ...
18 January 1908	Portland, OR	<i>Oregonian</i> , p. 5, advert	Harry Wood Market Co. ... Do You Like Columbia River Smelt? We are going to give

Date	Place	Source	Quote
			you 3 lbs. free tomorrow with every 50c purchase of fresh meat bought from us.
24 January 1908	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 3	Good Run of Salmon. ASTORIA, Or., Jan. 23.—(Special.)—... Large quantities of smelt are entering the Cowlitz, and yesterday 500 boxes were delivered at Rainier, for which 1 cent a pound was paid.
24 January 1908	Astoria, OR	<i>The Morning Astorian</i> , p. 5, col. 2	Good Fishing--- ... Smelt are running in the Cowlitz, many are being caught and the fishermen are paid 1 cent per pound for them. Over 500 boxes of these fish were on the wharf at Rainier, on Wednesday night [22 January] awaiting shipment.
25 January 1908	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	GOOD THINGS IN PORTLAND MARKETS BY LILIAN TINGLE. ... Smelt, which had been very plentiful and cheap during the week, was scarcer yesterday, costing from 5 to 10 cents a pound, instead of four pounds for 10 cents. ...
1 February 1908	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	GOOD THINGS IN PORTLAND MARKETS BY LILIAN TINGLE. ... smelt are more expensive, having gone up to 12½ and 15 cents a pound. ...
8 February 1908	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 1	GOOD THINGS IN PORTLAND MARKETS BY LILIAN TINGLE. ... Smelt is 15 and 12½ cents [per pound] ...
11 February 1908	Astoria, OR	<i>The Morning Astorian</i> , p. 7, col. 3	PORTLAND MARKETS ... There are a few smelt in the market, but the regular February run of the fish has not yet begun. Smelt now sell at 7 cents a pound, but later in the month the supply will be much larger than now and prices will go down.
22 February 1908	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 3	GOOD THINGS IN PORTLAND MARKETS BY LILIAN TINGLE. ... Smelt were lower in price again—three pounds for 25 cents ...
29 February 1908	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 1	GOOD THINGS IN PORTLAND MARKETS BY LILIAN TINGLE. I saw even more varieties of fish in the market than there were last week. Columbia River smelt were 12½ cents a pound, and scarce at that, when I inquired about it, but more may be in today.
6 March 1908	Portland, OR	<i>Morning Oregonian</i> , p. 18, col. 7	Smith's Daily Round-Up. Edited by Frank L. Smith Meat Company. ... FISH ... Columbia River Smelt 10c [per lb] ...
7 March 1908	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	GOOD THINGS IN PORTLAND MARKETS BY LILIAN TINGLE. Columbia River smelt was selling at two pounds for 25 cents
14 March 1908	Portland, OR Lewis River	<i>Morning Oregonian</i> , p. 12, col. 1	HARRY WOOD MARKET CO. ... FISH. Fish is in good demand. We handle no frozen stock in this market. We sell it while fresh ... Fresh Lewis River smelt 6 lbs. 25c. The smelt are going back to sea. Perhaps this will be your last chance to buy this little fish.
14 March 1908	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 2	Columbia River Smelt 5c lb ... Columbia Fish Co., Third and Ankeny...
31 March 1908	Astoria, OR	<i>The Morning Astorian</i> , p. 7, col. 1	Smelt have disappeared from the market.
18 April 1908	Portland, OR	<i>Morning Oregonian</i> , p. 11, col. 1	GOOD THINGS IN PORTLAND MARKETS BY LILIAN TINGLE. ... There was no smelt to be seen yesterday, but a good supply of other kinds of fish ...
1909			

Date	Place	Source	Quote
28 November 1908	Portland, OR	<i>Morning Oregonian</i> , p. 11, col. 2	GOOD THINGS IN PORTLAND MARKETS BY LILIAN TINGLE. ... In the fish market the first Columbia River smelt of the season are offered at 75 cents a pound; ...
5 December 1908	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 4	GOOD THINGS IN PORTLAND MARKETS BY LILIAN TINGLE. ... Fish seemed not quite so plentiful nor so varied as usual, and in some cases the price tended to be slightly higher. The available kinds are: Columbia River smelt, 50 to 75 cents ...
14 December 1908	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 5	LIFE IN THE OREGON COUNTRY. This Editor Has 37½ Cents. Cathlamet (Wash.) Sun. Paul Nicoud caught the first smelt of the season at this point last Friday, one-half dozen, but they are worth 75 cents per pound. One-half pound for us, please.
18 December 1908	Portland, OR	<i>Morning Oregonian</i> , p. 11, col. 2	CITY NEWS IN BRIEF. ... Columbia River Smelt. —Plentiful at Mace's Market, 151 Fourth Street.
19 December 1908	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 2	WHAT THE MARKETS OFFER BY LILIAN TINGLE. Columbia River smelt are more plentiful and are to be had at a reasonable price
24 December 1908	Portland, OR	<i>Morning Oregonian</i> , p. 15, col. 2	WHAT THE MARKETS OFFER BY LILIAN TINGLE. The cold weather has kept the price of Columbia River smelt up to 30 and 35 cents a pound.
5 January 1909	Portland, OR	<i>Oregonian</i> , p. 16, advert	FRANK L. SMITH MEAT CO. ... Columbia River Smelt.....10c
9 January 1909	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 2	GOOD THINGS IN MARKETS. Columbia River smelt was about 10 cents a pound yesterday; but the supply is of course affected by the weather.
16 January 1909	Portland, OR	<i>Oregonian</i> , p. 8, col. 7	Good Things in Portland Markets by Lilian Tingle ... Fresh smelt has been selling at 20 cents a pound, but all I saw yesterday was cold-storage smelt at about three pounds for 25 cents. ...
23 January 1909	Portland, OR	<i>Oregonian</i> , p. 10, col. 4	Good Things in Portland Markets by Lilian Tingle ... Columbia River smelt are practically unobtainable, though salt-water smelt are plentiful at 30 cents a pound. ...
27 January 1909	Astoria, OR	<i>The Morning Astorian</i> , p. 5, col. 3	Plenty of smelts everyday at Braden-Adams Meat Market.
30 January 1909	Portland, OR	<i>Oregonian</i> , p. 12, col. 6-7	Good Things in Portland Markets by Lilian Tingle ... Columbia River smelt are again to be had, the price yesterday was 12½ cents a pound. ...
2 February 1909	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 2	THE RUN IS ON. —Fresh Columbia river smelt, 5 cents a pound. Maces Market, 151 Fourth street.
3 February 1909	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	Run of Smelt Arrives. The first real run of the far-famed Cowlitz river smelt arrived in the river last Sunday [31 January] night, and at this writing they are still being caught in large quantities. Hundreds of boxes of the toothsome fish have been shipped by express from this place, while tons of them have gone by steamer to Portland for the retail trade. The price of the fish were at first high, but they have gradually lowered until the fishermen are now receiving only 25 cents a box of fifty pounds. The smelt are being shipped to all points as far east as the Missouri river valley. There is good market for them, in fact, it is doubtful if the demand will decrease unless the supply becomes far greater than it is at present.
4 February 1909	Portland, OR	<i>Oregonian</i> , p. 9, col. 4	COLUMBIA RIVER SMELT 5c a Pound Per 50-lb. Box \$1.50, Country orders filled

Date	Place	Source	Quote
			promptly on receipt of above amount, Columbia Fish Co., Third and Ankeny.
4 February 1909	Rainier, OR	<i>The Rainier Review</i> , p. 2, col. 3	Local News ... Smelt have again made their appearance in the river and are being taken in large quantities. The run promises to be exceptionally good this season.
5 February 1909	Portland, OR	<i>Oregonian</i> , p. 18, advert	FRANK L. SMITH MEAT CO. ... Columbia River Smelt, Three Pounds for 10c at Smith's ...
10 February 1909	Portland, OR	<i>Oregonian</i> , p. 18, advert	FRANK L. SMITH MEAT CO. ... Columbia River Smelt 5c
13 February 1909	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 4	GOOD THINGS IN MARKETS. Columbia River smelt was selling at 4 and 5 cents a pound earlier in the week, but cost 7 to 10 cents when I inquired; and no man would risk a statement as to whether it was likely to be down again today or up higher.
20 February 1909	Portland, OR	<i>Oregonian</i> , p. 12, col. 6	Good Things in Portland Markets by Lilian Tingle ... Smelt is still to the fore at about 5 cents a pound. ...
24 February 1909	Portland, OR	<i>Oregonian</i> , p. 16, advert	FRANK L. SMITH MEAT CO. ... FISH ... Columbia River Smelt 5c
28 February 1909	Cowlitz River Columbia River	<i>Oregonian</i> , p. 7, col. 7	Catching Tons of Smelt. ASTORIA, Or., Feb. 27.—(Special.)—What is expected to be practically the last run of smelt for the season has reached the Cowlitz River, and the fish are being caught by the ton. This morning two boatloads arrived in Astoria, and as the price was low, they were quickly picked up by dealers and individuals.
2 March 1909	Portland, OR	<i>Oregonian</i> , p. 16, advert	FRANK L. SMITH MEAT CO. ... Columbia River Smelt, 3 lbs. 10c or 8 lbs. 25c, at Smith's
6 March 1909	Portland, OR	<i>Oregonian</i> , p. 10, col. 1	Good Things In Portland Markets by Lilian Tingle ... There is a good variety of fish, but little Columbia River smelt was to be seen yesterday. ...
16 March 1909	Portland, OR	<i>Oregonian</i> , p. 18, advert	FRANK L. SMITH MEAT CO. ... COLUMBIA RIVER SMELT, 6 POUNDS FOR 25 CENTS, AT SMITH'S
17 March 1909	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	New Run of Smelt Arrives. A new run of the toothsome Columbia river smelt arrived in the Cowlitz Sunday [14 March] night and the fishermen have been kept busy since that time dipping and shipping the fish. The new run is not of the best quality, but they find a ready market at this time of the year, because of the Lenten season. Old fishermen believe this is not the last of the fish. They state that there will be more from time to time during the month. They have been known to continue in the river until April, and it possible that this will be the case this year.
20 March 1909	Portland, OR	<i>Oregonian</i> , p. 16, advert	FRANK L. SMITH MEAT CO. ... SPECIALS Columbia River Smelt 5c, 6 lbs. 25c ...
1910			
15 December 1909	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	FIRST SMELT APPEAR. Otis Hayes Makes First Shipment of Cowlitz Delicacy. The first of the annual run of the Columbia river smelt arrived in the Cowlitz river last Sunday [12 December] night, and although there were only a few, there were enough for a shipment of over 20 pounds at 50 cents a pound. They were caught by Otis U. Hayes of the west side. Mr. Hayes states that he has caught the first smelt each season for three years. On Friday of last week he caught 14 stragglers, and the first good haul was made Sunday night and Monday. The first smelt always brings a fancy price. From here they

Date	Place	Source	Quote
			are shipped to Portland, where for the first few weeks they are one of the most expensive delicacies. As the catch increases, the prices drop until at the height of the season only 25 to 50 cents for a box of 50 pounds is received by the fishermen. The weather just now is ideal for a continuance of the present, or first run of fish and local fishermen are active in preparation for a good season, although the most profitable runs of fish are not expected for some weeks. ... The smelt fishing industry is one of Kelso's most important sources of trade. Practically all of the fish are caught in this immediate vicinity and shipped from here. The total catch each year reaches into thousands of tons, the money value of which is large, and most of the profits flow into the various channels of trade in this place.
18 December 1909	Portland, OR	<i>Oregonian</i> , p. 12 col. 3-4	GOOD THINGS IN PORTLAND MARKETS by Lilian Tingle ... Columbia river smelt 50 to 60 cents a pound at present.
24 December 1909	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 2	GOOD THINGS IN MARKETS. The fish market is exceedingly well supplied with the sea dainties for which Portland is famous ... Columbia River smelt, 40 to 50 cents [per pound]
23 January 1910	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	SMELT IN THE RIVER. Light Run Makes Appearance—Prices are High. Thursday [20 January] night the fishermen of Kelso and vicinity who have been searching during the past few weeks for smelt, the delicacy for which the Cowlitz is famous, were rewarded with a light catch, something over 60 boxes. Aside from the small catch of about 20 pounds made during December by O. U. Hayes, this is the first run of smelt this winter. Last night the catch was very light, only a few boxes being caught. During yesterday hardly any fish were caught. The fish are bringing top-notch prices, some of the fishermen receiving as high as 15 cents per pound. Most of the catch to date, however, has been sold at from four to five dollars for a box of 50 pounds. Experienced fishermen do not think this is much of a run of fish. They are expecting a heavy run during the next few weeks.
January 1910	Columbia River	<i>Pacific Fisherman</i> 8(1): 19	Columbia River. Smelt have arrived in the river for the first time this winter and are being caught in the vicinity of Kathlamet. They are a luxury on the breakfast table as the fishermen are wholesaling them at 25 cents per pound, but at the same time their flesh is so firm and high flavored that they are well worth the price for an epicure.
5 February 1910	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	SMELT RUN IS BETTER. Fishermen Report More Fish Yesterday Afternoon and Night. Beginning yesterday, the run of smelt in the Cowlitz river assumed proportions worth speaking about. For several days the fish have been very scattered, and but few have been caught, but yesterday a much larger catch was reported. The total was about 400 boxes. Prices have dropped considerably as a result of the increase in quantity. Fish that were selling for \$4 and \$5 per box a few days ago are now worth only \$1. There are probably about 40 fishermen dipping smelt at this time. The array of fishing boats of varying size, color and description is interesting, and the task of boxing the hundreds of fish as they are brought to the docks is a sight worth seeing. The industry is one of the largest of this section during the winter months. Fishermen come from all parts of the

Date	Place	Source	Quote
			Columbia river district to take advantage of it, as the profits are heavy when the catch is good. The present run of fish is the first, but not the largest. The greatest quantity will not arrive for several weeks, when thousands of tons will be caught and shipped from Kelso, the greatest shipping place for this kind of fish in the world.
9 February 1910	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Smelt Shipments Large. The run of smelt in the Cowlitz continues large, although the price of fish remains stationary at from 50 cents to \$1.50 a box. Some fishermen are receiving top prices for their shipments and others are selling cheap. Those who have permanent markets are faring better than those who have been unable to secure them. There is no way of estimating the number of boxes of fish shipped to date unless it be by stating the number of boxes sold to the fishermen by the Western Manufacturing company, which has made most of the boxes this year. C. E. Williams, secretary of the company, stated yesterday that his firm had made nearly 20,000 boxes since the season opened, selling at present between 900 and 2,000 boxes every day. Thousands of pounds of fish are being consumed here in Kelso, and the surrounding country takes a large number, but most of them go to Portland and other coast points where the quality of smelt is more appreciated. The season is only fairly started now, and if the run keeps up it is safe to estimate that there will be shipped from here fully 100,000 boxes, or 2,500 tons of smelt. Guess that means a few fish
12 February 1910	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 2	GOOD THINGS IN PORTLAND MARKETS By Lillian Tingle. Columbia River smelt may be considered the most interesting feature of the market this week, of interest alike to epicure and economist. At 5 cents a pound, or six pounds for a quarter, this dainty fish is within the reach of every one. Many thrifty housekeepers take advantage of the season of plenty, and buying smelt by the box at about 3 cents a pound. Proceed to secure inexpensive future breakfast or luncheon dishes by salting, smoking, pickling or canning this "violet of the waters."
13 February 1910	Portland, OR	<i>Sunday Oregonian</i> , p. 9, col. 4-5	SMELT CANNERY OFFERED. KELSO OWNERS SEEK SOMEONE TO OPERATE PLANT. Heavy Catches Are Accompanied by No Diminution of Supply—Cowlitz Yields Well. Owners of an idle canning plant in Kelso are seeking someone who will engage in the packing of Columbia River smelt in that city. F. L. Stewart, a banker of Kelso, who is in Portland, expresses the conviction that the opportunities are good for using the plant for smelt canning in Winter and fruit and vegetable canning in the Spring and Summer. The cannery was started as a co-operative venture, but has been idle about two years. Although the smelt, now so generously in the Portland markets, bear the name "Columbia River," the great preponderance of them is taken in the vicinity of Kelso from the Cowlitz River. Kelso this season has shipped out approximately 15,000 boxes. Each box contains 50 pounds and the fish average eight to the pound. The catch, so far, therefore represents approximately 6,000,000 fish. In spite of the heavy catches there is apparently no diminution in the yearly runs of fish and at the height of the season they get down to a low figure. At the beginning of the present

Date	Place	Source	Quote
			season fishermen got \$3 a box for the first run, but the price, as the run increased, dropped rapidly until now the fishermen realize about 25 cents a box. Last year the price went as low as 15 cents. The largest catch reported this season was 45 boxes, taken between 7 and 11 A.M., by two men in one boat. Some of the residents of Kelso smoke the fish as they would herring and find that smoked smelt are a delicacy. The cannery plan, however, would be to put them up in form similar to sardines.
16 February 1910	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	Smelt Runs Still Heavy. The run of smelt in the Cowlitz continues exceedingly heavy, hundreds of tons being caught and shipped from here every day during the past week. At no time has the good quality of the catch depreciated, and prices have held up remarkably well. The fish are now selling at from 50 cents to \$1.00 per box to outside markets, and every train and boat going out of here is heavily loaded with them. Even the fast passenger trains are stopped for shipments of smelt, some of them waiting here ten and fifteen minutes. The Northern Pacific and Oregon & Washington trains are dividing the business about equally.
17 February 1910	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 4	COWLITZ FULL OF SMELT. Big Run May Presage Prosperous Salmon Season Later On. ASTORIA, Or., Feb. 16.—The largest run of smelt for years in the Cowlitz River is now in progress. The river has never been known to contain so many smelt in the memory of the oldest fisherman. This may bode good for the coming fishing season in the Columbia, as it is said that a good run of smelt has always been followed by a good run of salmon.
27 February 1910	Portland, OR	<i>Sunday Oregonian</i> , Sect. 5, p. 8	SMELT FISHING ON THE COWLITZ. How an Army of Men Catch the Biggest Run Known in the Last Twenty Years. By R. G. Callvert. A hobo the other day wandered along the fringe of river bank that lies between the floating docks and the railroad track at Kelso, picking up discarded smelt for an easy meal. “Here, drop those rotten fish and come down and get some fresh ones” shouted a fisherman from a float where smelt were being packed into boxes for shipment. Discarded fish may look good to a tramp in most countries, but in Kelso during the smelt run only a stranger with a most aggravated antipathy to exertion need go without the freshest product of the Cowlitz River. Had the tramp known it and been inclined toward the effort, an old can tied at the end of a stick plunged into the water from a nearby log boom would have brought him up in one sweep all the smelt he could eat in a day. Or by lying on the log boom he could have pulled out enough fish with his bare hands for a square meal. There is not much romance connected with the taking of the smelt that are so plentiful in the markets of Portland and the Northwest during four or five months of each Winter. There is no battling with waves and storms such as are encountered by the hardy herring fishermen of the Atlantic. For the sportsman, smelt fishing would be just about as exciting as clam digging and the amount of skill required about the same. Smelt fishing furnishes tales, however, that are novelties among fish stories in that while almost unbelievable they are nevertheless true. During the smelt runs fish are so plentiful that

Date	Place	Source	Quote
			even the voracious sea gull becomes almost sated. When the gulls are at all hungry the fishermen sometimes find amusement tossing smelt into the air, which the birds catch before they reach the water. A sea gull, on the wing, will seize a fish perhaps by the tail and reverse it with a toss in the air and gulp it head first in the twinkling of an eye. So plentifully do the smelt run that frequently children bail them out of the water with tin cans securing half fish and half water. When the water is shallow enough the smelt can be taken with the bare hands for the skin of the fish is not slimy when in the water. While the Cowlitz River is the only known spawning ground for smelt where the fish may be taken year by year, they have been known to run up the Lewis River and also up the Sandy. At the time the smelt ran up the Lewis River, 14 years ago, there was only a small run of male smelt in the Cowlitz and the fishermen transferred their operations to the Lewis. When smelt run in numbers up the River it is apparently independently of the Cowlitz run and it is said to occur in the Sandy about once in eight years. It is truthfully related that at the time of the last run up the Sandy a party of Portland young men went out with dip nets on a fishing expedition. One man lost his dip net, but luckily found an old, rusty, discarded bird cage. This he attached to the end of a pole and successfully kept pace with his more fortunate companions. The is the only record in fishing annals of successful fishing with a bird cage although if the novelty of the experiment invites one it can undoubtedly be successfully duplicated in the Cowlitz River any day between now and April 1. During the last big smelt run in the Sandy farmers drove their wagons to stream, filled them with dip nets and used the fish for fertilizing fruit trees. An unusually large quantity of pork with a fishy taste sold in the markets some months afterwards revealed the fact that some of the farmers had utilized the fish surplus in feeding their hogs. This season the Cowlitz River is the spawning ground of the greatest run of smelt ever known by fishermen who have been engaged in the business for 20 years. It is now estimated that by the close of the season the river will have yielded 300,000 boxes of smelt, each box weighing 50 pounds. This will represent an output of 10,000,000 pounds or 5000 tons and a smelt average about eight fish to the pound it means the marketing of 80,000,000 fish. [Actually 15 million pounds and 120 million fish]. The smelt has peculiarities of his own, as pronounced as those of the salmon. What is known commercially as the "Columbia River smelt" is caught in paying quantities regularly year by year only in Cowlitz River, which is a tributary of the Columbia River rising in the State of Washington. The main fishing grounds of the river extend over an area during the season of not more than eight or 10 miles as a rule. Like those of the salmon the smelt runs come in from the sea through the mouth of the Columbia River. In the earliest catches, when smelt bring from \$3.50 to \$3 per box, the fish are taken in limited numbers in the Columbia. In the Columbia some fish are caught in the early season by gill netters, but when the season is well along the gill netter cannot compete with the regular smelt fisherman, for the former has to pick the fish out one by one from the meshes of his net.

Date	Place	Source	Quote
			The latter uses a dip-net attached to a long pole, and after locating a school of fish simply bail them out of the river and into his boat, sometimes getting as many fish as he can lift out of the water. The smelt lie in schools close to the bottom of the river, and are therefore found at varying depths. The fishermen prospects for the schools with the reverse end of his pole, and if the end of the pole is plunged into an accumulated number of fish the wriggles of the small bodies that results is communicated to the hands of the fisherman. Most of the fishing is done at night, for the light of day seems to scatter the fish, yet even in daylight hours the fishermen are able to pursue their occupation with good results. Before Kelso accumulated a variety of industries along its waterfront, one of the best fishing points was opposite the Northern Pacific depot, from where one can toss a stone into the water. The driving of piles, however, seems to have driven the fish farther up the stream, and this season they have been found most plentifully about one and one-half miles above the town. Between the small floating docks and the fishing grounds boats are continually plying, going up stream empty and returning laden with fish. Fully 500 boats are utilized in the industry and of these about 75 are power boats. As a rule there are two men to each boat and the crafts are filled in almost an incredibly short space of time. Last Tuesday night J. A. Sprague, one of the principal shippers of Kelso, and one companion, loaded his launch to its capacity in 45 minutes. This represents a catch of 45 boxes, or one 50-pound box a minute. Last year a catch of 125 boxes for two men held the record for a night's fishing. This year there have been frequent occasions when two men brought in 200 boxes to represent a day's work. To the ordinary fisherman who has no regular market to supply, a catch of 200 boxes of smelt in the height of the season is worth about \$50. On the Cowlitz River; however, there are a number of men who ship direct to retail markets, maintain boats of their own and buy from other fishermen. Portland wholesalers have buyers at Kelso and probably the greater portion of the retail trade is supplied through Portland. At Kelso, however, smelt have been shipped direct as far East as Wisconsin. The output of the river, say the fishermen, could be greatly increased if the market demands were sufficient to justify more men engaging in the industry. Kelso has no facilities for shipping fish in cold storage. A cold storage plant is one of the enterprises the town wants, for it is believed that the market can be broadened and a demand created in the Far Eastern states. Canning in the form of sardines is also suggested, and in Kelso there is a cannery that was utilized as a co-operative plant by fruit and vegetable-growers until last year, that will be turned over to any experienced man who will engage in the business. Kelso has a group of enterprising citizens who have done much to build up the town to its present population of 2800. Practically the same group of business men established the electric light plant and city water works, built a \$15,000 opera-house erected a drawbridge across the Cowlitz River, which they afterwards sold to the county, established a newspaper office, invested in the co-operative cannery mentioned and have aided and encouraged

Date	Place	Source	Quote
			several other enterprises. They are now seeking to put the smelt fishing on a basis where it will pay better returns to the fishermen and increase the number of men engaged in the industry. This effort is apparently justified, for though the output of smelt is slowly growing year by year, the increasing inroads upon the schools of fish do not seem to diminish their number. Cowlitz River fishermen are now advocating the licensing of persons engaged in commercial smelt fishing. Frequently, during the season, schoolboys will go out, load up a few boats with fish and become easy marks for the buyers. The result is a demoralizing market, the boys being content with enough money to buy candy or a few toys. Often too, groups of Greeks or Italians will come up the Cowlitz in boats, remain at the fishing grounds for a few days and sell their catches for whatever they can get, again upsetting the prices paid the regular fishermen. The men who are regularly engaged in the industry want the protection of a reasonable license, which, they believe, will cut out the itinerant fisherman. It is a saying among fishermen that a big run of smelt presages a big run of salmon. If this is true, the salmon fisheries of the Columbia should have a prosperous season this year, for the smelt run is unprecedented in volume.
6 March 1910	Portland, OR	<i>Sunday Oregonian</i> , p. 10, col. 3	ORDER PUTS STOP TO SALE OF SMELT. Fish Warden's Ruling Leaves Markets With Large Supply on Hand. SHIPMENTS ARE REFUSED. Law Forbids Transportation of Varieties of Fish That at This Time of Year Migrate From Salt Water to Fresh Streams. An order issued yesterday by Fish Warden McAllister put a sudden stop to the sale of smelt in the markets of this city. By the ruling of the Fish Warden, it is unlawful to transport or market the varieties of fish that at this time are migrating from salt water to spawning grounds in fresh water. These include not only smelt, but salmon, salmon trout, shad and sturgeon. The Transportation companies at once issued instructions to their agents not to accept shipments of these fish and the wholesale and retail dealers ceased to sell them. As far the other varieties of fish were concerned the order did not make a great deal of difference with the dealers, as the supplies were not large, but with smelt it was different. The smelt season is now on in full blast and most of the retail markets were well stocked with them. The market that was hardest hit was that of Frank L. Smith, on Alder street. Smith found himself with 80 boxes of smelt on his hands when the order of the Fish Warden reached him. He did not want to see the fine fish spoil, so he adopted the next best plan and began giving them away. Every customer in his store was invited to help himself and big signs notified passers by that Columbia River smelt could be had for the asking. In this way he disposed of his smelt.
9 March 1910	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 4, col. 3	Smelt Record Broken. What is claimed to have been the largest amount of smelt ever dipped from the waters of the Cowlitz at one lift was made yesterday morning, when Bert Hayes, of the west side, pulled into his boat 575 fish, about 70 pounds, or a box and two fifths. Bert was fishing near Rocky Point, three miles above Kelso, when he made the big haul which would scare a native of the middle western states almost to death.

Date	Place	Source	Quote
			Fishermen here seem to be of the opinion that this is pretty near the record. Bert says it was all he could do to pull the struggling mass of smelt into the boat.
30 March 1910	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 2, col. 3	Smelt Run Still Good. The run of smelt in the Cowlitz continues good, and fishermen are now predicting that the fish will remain until the middle of May. One fisherman reports a catch yesterday which is hardly believeable [sic], in the face of the enormous catches during the present season. He left the float here, towed a boat a mile above town, dipped 23 boxes of fish and returned in less than an hour. It is stated that there are female smelt in the river which are not nearly ready to spawn, and this is given as sufficient proof of the statement that the season will continue for several weeks. The markets are in very poor shape, the demand having dropped far below that of the first few weeks of the season.
March 1910	Cowlitz River	<i>Pacific Fisherman</i> 8(3): 14.	Columbia River. The largest run of smelt for years in the Cowlitz River is now in progress. The river has never been known to contain so many smelt in the memory of the oldest fishermen. This may bode good for the coming fishing season in the Columbia, as I is said that a good run of smelt has always been followed by a good run of salmon. The increased run found the trade unprepared to handle it successfully and this accounts for the breaking of values to 10c and even lower. ... Although the smelt, now so generously in the Portland markets, bear the name "Columbia River," the great preponderance of them is taken in the vicinity of Kelso from the Cowlitz River. Kelso this season has shipped out approximately 15,000 boxes. Each box contains 50 pounds and the fish average eight to the pound. The catch, so far, therefore represents approximately 6,000,000 fish.
June 1910		<i>Pacific Fisherman</i> , 8(6): 15.	SMELT INDUSTRY IS EXPANDING. Smoked smelt promise to be one of the leading industries of the Cowlitz River within the next few years. For years there has been an annual glut of Columbia smelt in the Northwestern market. At times the catch of fish has been so great that many tons were dumped as garbage every day because supplies were so much greater than demand. Notwithstanding the fact the Columbia River smelt is practically the finest fish that enters the market, they are so rich that consumers soon tire of them in their natural state and prices during the past season went as low as ¼c a pound in the wholesale market. This price scarcely pays the freight charge. So plentiful have smelt been at times that the Cowlitz River, which seems to be their natural destination during the spring, is filled from shore to shore with fish. During these periods farmers and others go down to the banks of the river, and, with big scoop shovels, pile the fish into the beds of their wagons, from which they are dumped into the fields to serve as fertilizer. Now, however, it has been found that proper smoking makes the Columbia River smelt one of the best edibles. The fish have sold in Portland recently at 15c a pound, retail, for the smoked article, while the fresh fish have been a glut on the market at four pounds for the same amount. Smoked smelt find favor with consumers wherever tried. While the industry is still in its infancy and the methods of smoking rather crude, a

Date	Place	Source	Quote
			considerable amount of the catch is today finding a sale by this process. ... Pickling is another method whereby the dumping of smelt is diminished. It is stated that this method preserves the fish so that whenever fresh fish is wanted the stock is taken out of the brine and after being soaked in water overnight is ready for cooking. Experiments are being made in some quarters in the canning of Columbia River smelt. While no great strides have thus far been made in this direction, experimenters believe that in time there may be just as great a demand for canned smelt as for canned salmon. Of the two fish the smelt is richest. Were the smelt a smaller fish, it would be quite possible to put them up in much the same style as sardines; in fact, California is putting up just as large fish. The smelt which enters the Columbia, Cowlitz and Lewis Rivers is peculiar to these streams. While a few of them stray into the Sandy and other tributaries of the Columbia, the fish generally flock to the Cowlitz and there the greatest runs are shown. These fish are supposed to come into the river from the ocean for spawning each season, but where the smelt goes or comes from previous to and after its Columbia River entrance remains a mystery.
1911			
8 December 1910	Portland, OR	<i>Morning Oregonian</i> , p. 21, col. 6	SMELT IN THE RIVER. GOOD HAULS LOOKED FOR IN ABOUT TEN DAYS. ASTORIA, Or., Dec. 7. ... Two days ago a few smelt were seen at the mouth of Grays river, showing that they are beginning to come in, and good hauls of this class of fish may be looked for in about ten days or two weeks.
31 December 1910	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	Ledger Boosts Smelt Industry. The Tacoma Ledger of Wednesday devoted over a column to a writeup of Kelso, and especially the smelt industry, which is each year the wonder and curiosity of the entire Northwest. The Ledger man has it that over 200,000,000 little fish will be dipped from the Cowlitz during the coming season. ...
4 January 1911		<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Smelt are Coming. The lumber market may be "rotten," the crops may be a total failure, and almost everything else may go wrong, but Kelso will still have the yearly run of smelt in the Cowlitz river, a product which no other place in the world can claim, corner or steal away from us. The smelt are on their way into the Cowlitz now and in another day or two the boys with the dip nets on the long poles will be at work, and the big sea gulls will be circling around for their continuous meal. The smelt is a famous fish in these parts, being considered a rare delicacy, and Kelso's income from the industry is a considerable one.
5 January 1911	Portland, OR	<i>Morning Oregonian</i> , p. 21, col. 1	Run of Smelt is Small. ASTORIA, Or., Jan 4.—(Special)—Quite a few smelt have been caught during the last few days in the vicinity of Clifton, but none has been taken as yet in the Grays River. It is said the water in that stream is too low and a freshet must come before the smelt will be attracted that way.
7 January 1911	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 4	GOOD THINGS IN MARKETS. Columbia River smelt, though less costly than on its first appearance, sold yesterday at 25 cents a pound, but will probably soon reach the lower prices we are accustomed to.

Date	Place	Source	Quote
7 January 1911	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	THE FIRST SMELT ARRIVE. Cowlitz River Delicacy 20 Cents Per Pound. The first of the yearly run of Columbia river smelt arrived in the river this week, the first catches being reported by Fisher Bros. Only about 40 pounds were dipped Thursday [5 January] night and about 100 last night. The fish are on the market here at 20 cents per pound retail, which is about as high as they have ever been sold in Kelso. The main portion of the first run is not expected for several days, as the school is yet in the Columbia river. Those which have been caught already were only a few stragglers dipped near the grove north of Monticello. George Fisher has the distinction of having found the first smelt of the season.
21 January 1911	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 4	GOOD THINGS IN MARKETS BY LILIAN TINGLE. ... Columbia River smelt remain very scarce and sell at 30 to 35 cents a pound. ...
28 January 1911	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 2	GOOD THINGS IN MARKETS BY LILIAN TINGLE. In spite of the fact that Columbia River smelt remains scarcer than usual at this season ... the fish markets are better supplied, both as to quality and variety, than they have been for some time past. ... Columbia River smelt ... cost about 10 cents a pound. ...
January 1911		<i>Pacific Fisherman</i> 9 (1): 15.	Quite a few smelt have been caught during the past few days in the vicinity of Clifton, but none have been taken as yet in Gray's river. It is supposed the water in that stream is too low and a freshet must come before the smelt will be attracted that way.
4 February 1911	Portland, OR	<i>Morning Oregonian</i> , p. 15, col. 2	GOOD THINGS IN MARKETS. ... Columbia River smelt are coming in larger quantities, and the price was down to 10 cents a pound yesterday, with expectations of a further drop during the coming week. ...
11 February 1911	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 4	GOOD THINGS IN MARKETS. The day of very cheap Columbia River smelt is not yet, though any market man will tell you it may be expected at any time now. Smelt were selling yesterday at 10 to 12½ cents a pound, and were quite scarce at that, though earlier in the week they were to be had at three pounds for 25 cents.
18 February 1911	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 3	GOOD THINGS IN THE MARKET. The smelt are here! The run is sufficiently strong to reduce the price to 5 cents a pound, and at every dealer's the fish are on hand in boxfuls.
21 February 1911	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 1	CITY NEWS IN BRIEF. ... Columbia River Smelt 5 cents a pound at every market of the Frank L. Smith Meat Company.
22 February 1911	Portland, OR	<i>Morning Oregonian</i> , p. 18, col. 2	Marine Notes. First of the season's catch of smelt in the Cowlitz River, amounting to 35 tons was brought to Portland on the steamer Lurline. Another consignment was transported by the steamer Joseph Kellogg.
22 February 1911	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	SMELT SHIPMENTS LARGE. Over 3,000 Boxes of Fish Leave Kelso in Two Days. There is positively no excuse for being hungry now, since the delicious, dainty little fish called the smelt have come into the Cowlitz. The tramp [sic] tramp, with the raggedest [sic] rags, can eat like a king at this season of the year in Kelso, for the long-awaited run has at last arrived, and fish by the boat loads are being boxed for shipment here. The smelt first made their appearance in the Cowlitz early Monday morning [20

Date	Place	Source	Quote
			February], and the fleet which set out to capture them would have frightened terribly the fishermen of a few years ago. Some one said there were 53 boats by actual count, but there is no proof of the statement. The only thing that is certain is that the largest number of fresh fish ever seen at any place on the Columbia river at one time was unloaded here Monday. At one time there were 13 boats boxing fish at the four depot floats Monday. One man caught 30 boxes in about 40 minutes. Another filled his boat in less than an hour. A box of 50 pounds in two dips, which was still another experience, tells the story in a few words of the quantity. Of the quality, it may be said that no finer smelt were ever seen. The catch to date has been of the male fish, all hard and strong. Unfortunately, the lateness of the run and the fact that the gillnetters have been supplying the Portland market for several weeks, have played havoc with the prices and the dippers are not being paid as well as in former seasons. There is every reason to believe that the smelt will remain in the Cowlitz for several weeks. It is said that the school in the Columbia is still large and following rapidly up stream. Between 3,000 and 4,000 boxes have been shipped by train and boat already.
23 February 1911	Portland, OR	<i>Morning Oregonian</i> , p. 17, col. 5	Smelt Are Cheap Now. The flush smelt season has now arrived and prices are about as low as they will go. Heavy receipts from the Cowlitz carried prices down sharply yesterday. From 5 cents, the quotation of Tuesday, the market dropped to 1½ and 2 cents. The demand was heavy.
25 February 1911	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 2	GOOD THINGS IN MARKETS BY LILIAN TINGLE. The heavy run of Columbia River smelt has come in earnest this week. The delicious little fish are selling at three pounds for a dime, 10 pounds for a quarter, or one dollar a box, and there is enough for every one.
25 February 1911	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	MARKET IS DEMORALIZED. Fishermen Ship Tons of Smelt Without Orders. Notwithstanding the fact that the past few days have seen a phenomenal run of smelt in the Cowlitz river, and despite the efforts of some of the fishermen and shippers to maintain living prices, there is less profit in the smelt industry this season than there has ever been before. Prices are at the lowest point, and there is no demand for a large portion of the catch. It is stated that several boatloads, aggregating hundreds of pounds of the finest fish, have been dumped into the river as food for the gulls. The present condition is the result of nothing more than the poor business method of those of the fishing fleet who have shipped without orders, or those who have deliberately under-bid competitive shippers. There is no organization among the fishermen, and the market afforded them in the cities between Northern California and British Columbia, and east as far as Idaho and Montana, will not dispose of the enormous catch. There is no outlet for the fish, and there is no means of curtailing the catch, therefore the situation is distressful, and, in one sense, disgraceful. A local fisherman, in discussing the matter yesterday, stated that a large fish company in Seattle had instructed him before the opening of the season to ship 50 boxes a day during the season at a price of 60 cents per

Date	Place	Source	Quote
			box, f. o. b., Kelso. This order was to stand for some time, but yesterday he received notice not to ship again, until ordered to do so. Referring to the shippers here, the letter from the Seattle fish house said, "They have consigned smelt to every man, woman and child in this community and the market is loaded." It is an unfortunate state of affairs, and one which can only be remedied by the fishermen themselves. There is some talk now of organizations, but certainly this can not be effected under present conditions. The simple truth is that fish, once caught, must be sold, while the fish in the river will spawn and reproduce themselves for other seasons. The fishermen will do well to catch only what they can sell, and if organizations will do any good, organize to stay with a minimum price and to make an effort to enlarge the market.
26 February 1911	Portland, OR	<i>Morning Oregonian</i> , p. 15, col. 1	... Some retailers say the heavy consumption of smelt is interfering with the sale of other food products.
2 March 1911	Portland, OR	<i>Morning Oregonian</i> , p. 18, col. 3	Kellogg Brings More Smelt. Credit is claimed by the Kellogg Transportation Company for having handled the record load of smelt from the Cowlitz River this season, there having been delivered from the dock yesterday the last of 1200 cases brought by the steamer Joseph Kellogg. The run of smelt is reported to be as heavy as when shipments began more than a week ago.
4 March 1911	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 2	CLOSED SEASON OBSERVED. No Run of Fish Expected So Long as Cold Snap Continues. ASTORIA, Or., March 3.—(Special.)—Deputy Fish Wardens Angus Gor and Frank Sweet, arrived today in the fisheries launch Patrol, having made the trip down the river from Portland. They report that there is absolutely no fishing on the river and the close season is being strictly observed. ... The officers report coming through an immense run of smelt that extended from Rainier to Mount Coffin and the water was almost alive with the little fish.
8 March 1911	Portland, OR	<i>Morning Oregonian</i> , p. 11, col. 2	CITY NEWS IN BRIEF. ... Five Pounds of Smelt for 10c.—The cheapest food ever! Frank L. Smith has cut the price of Columbia River smelt to smithereens. Today at Smith's big market—two entrances—226 Alder and 145 First street you can buy five pounds of smelt for a dime. Be sure you get in the right place.
11 March 1911	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 5-6	GOOD THINGS IN MARKETS. ... The fish department remains the most interesting section of the market at present, both as regards the variety of offerings and the lowness of their cost. Fine fresh smelt were sold yesterday as low as 2 cents a pound, in small quantities. ...
15 March 1911	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 2	CITY NEWS IN BRIEF. ... Five Pounds of Smelt for 10c.—You get them for this price at Frank L. Smith's big market, 226-228 Alder street and 145 First street. ...
25 March 1911	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 5	GOOD THINGS IN MARKETS. The popularity of smelt continues unabated, but the supply seems now to be on the wane, and they can no longer be had as cheaply as last week. Still, 5 cents a pound cannot be considered extravagantly high. ...
March 1911		<i>Pacific Fisherman</i> , 9(3): 15	One of the greatest runs of smelts in the history of the Columbia River occurred late in February. The high cost of living programme was knocked into a cocked hat through the

Date	Place	Source	Quote
			tremendous run of these dainty salmonids, whose favorite spawning grounds are in the waters of the Cowlitz and Sandy Rivers. Smelt by the ton were sent to the Portland and Seattle markets. It is estimated by wholesalers that 4,000,000 of the little fish have been marketed in Portland alone. Ten pounds for 25 cents was the retail price and hundreds of poor families were living on smelt who do not have them ordinarily once a season. The markets were forced to hire extra clerks to wait on the smelt buyers.
1 April 1911	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Smelt Season About Ended. The past few days have seen the gradual lessening of the catch of smelt in the Cowlitz and it is thought that very soon the fish will have entirely disappeared. Fortunately the price has been better since the catch diminished, and the fishermen who remained on the job have done very well. The demand now exceeds the supply. It is estimated that fully 25,000 50-pound boxes of fish were shipped from this place during the season. The S. J. Beck mill at Lexington manufactured 15,000 boxes, while between 7,000 and 10,000 boxes were bought in Portland. This means that 1,250,000 pounds, or 8,750,000 fish were caught in this river during the past few week[s]. Unfortunately, the revenue from the catch has been the smallest in several years.
22 April 1911	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 4	GOOD THINGS IN MARKETS BY LILIAN TINGLE. ... fresh herring and Columbia River smelt, 8 cents a pound. ...
April 1911		<i>Pacific Fisherman</i> 9 (4): 18.	The past few days of April saw the gradual lessening of the catch of smelt in the Cowlitz and it was then thought that very soon the fish would have entirely disappeared. Fortunately the price has been better since the catch diminished, and the fishermen who remained on the job have done very well. The demand now exceeds the supply. It is estimated that fully 25,000 50-pound boxes of fish were shipped from Kelso during the season. This means that 1,250,000 pounds, or 8,750,000 fish were caught in the Cowlitz River during the few weeks the run was on. Unfortunately, the revenue from the catch has been the smallest in several years.
1912			
2 December 1911	Portland, OR	<i>Morning Oregonian</i> , p. 11, col. 2	First Columbia River smelt of the season at Mace's Market.
9 December 1911	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	FIRST FEW SMELT ARRIVE. Portland Market Pays 25 Cents per Pound for Cowlitz Delicacy. The first of the season's run of the famous Columbia or Cowlitz river smelt arrived in the Cowlitz last Tuesday night [5 December], 140 pounds having been caught by George and Al Fisher in their gill net. The fish are very few and far between and no work with dip nets can be done, but the quality is excellent, the first fish having brought 25 cents per pound on the Portland market. Since Tuesday, a few have been caught each night, but as the main run is still several miles from here no great catch is expected for a few weeks. This is the earliest "first catch" in several years. Last year the fish came into the river on the 21st day of December.
12 December 1911	Portland, OR	<i>Morning Oregonian</i> , p.	Good cheer is in sight, for the smelt have begun running.

Date	Place	Source	Quote
		10, col. 4	
13 December 1911	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	Smelt 25 Cents per Dozen. A very few of the famous Cowlitz river smelt are being caught each night this week, and the price they are bringing is the largest in the history of the industry. The little fish are selling for 25 cents per dozen, or more than two cents apiece. Some of the boys would like to get a mid-season boatload to sell at this figure, but they are unable to use their dip nets at this time. The gill net of the Fisher Brothers is the only gear operating.
28 December 1911	Portland, OR	<i>Morning Oregonian</i> , p. 16, col. 1	BIG SMELT RUN EXPECTED. Fish Being Shipped in Small Lots Will Increase Next Month. Steamboat operators are looking forward to another big run of smelt from the Cowlitz River this season, though at the dock of the Kellogg Transportation Company, which has a steamer plying direct to points on the stream, it is said, the receipts of smelt for a week have been but three boxes. Last year the steamer Lurline, which was usually intercepted while on the way up stream from Astoria and the fish loaded from barges, often discharged as high as 1400 cases here and with those brought by the Joseph Kellogg, a day's receipts would climb over 2000 cases. The run is expected to begin early in January and when once under way there will be a daily congestion of docks, as the shipments are billed to dozens of persons and firms, and clerks have their hands full segregating them for delivery.
24 January 1912	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 2, col. 2	Small Run of Smelt Here. Sunday and Sunday night [21 January] brought a small run of the famous Columbia river smelt into the Cowlitz, and the fishermen were out in force to get their share of the fish. Fully sixty boats were dipping at once Monday, but the catch was light, and affected the market only a little. The price remains at about \$3.00 per box to the fishermen.
27 January 1912	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 3	GOOD THINGS IN MARKETS. Columbia River smelt is not really plentiful, but is to be had at 6 to 8 cents a pound.
28 January 1912	Cowlitz River	<i>Morning Oregonian</i> , p. 18, col. 2	Marine Notes. Smelt are running heavily in the Cowlitz River and steamers from Lower Columbia points are bringing heavy shipments daily.
31 January 1912	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	Smelt Run Continues. The run of smelt in the Cowlitz continues, and although a good many fish are being caught, the catch is divided so that no great profits are resulting to the fishermen. The price paid to dippers has not yet touched a mark as low as last year, but it is expected to drop soon, as many of the best markets have been gobbled by those who make a business of cutting prices. Fish have been dipped during the past few days at different points in the river, there being no steady run and good dipping reported. For a short time the boats were dipping directly in front of the depot here, while at other times better success has been found down stream a short distance.
1 February 1912	Portland, OR	<i>Morning Oregonian</i> , p. 11, col. 3	Crowds Throng the Up-Town Market. ... 3 pounds Columbia River smelt, 10c ...
6 February 1912	Portland, OR	<i>Morning Oregonian</i> , p. 17, col. 1	LOCAL EGG MARKET VERY FIRM. Active Home and Shipping Demand—Poultry is Steady. ... The cheapness of smelt is interfering in large measure with the

Date	Place	Source	Quote
			movement in chickens. ...
7 February 1912	Portland, OR Lewis River	<i>Morning Oregonian</i> , p. 14, col. 2	SMELT USED AS FISH FOOD. Salmon Fry at Clatskanie River Hatchery in Good Condition. ASTORIA, Or., Feb. 6—(Special.)—A shipment of 79 boxes of Columbia River smelt arrived from Lewis River last evening and were placed in cold storage, where they will be kept until needed as food for the salmon fry at the Clatskanie River hatchery. ...
7 February 1912	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 2, col. 4	Big Shipment of Smelt. Monday [5 February] saw the biggest shipment of smelt of the season, a total of 26,000 pounds or 13 tons having left the local dock. Counted at 8 fish to the pound, this means a total of 208,000 fish—some catch for less than 24 hours fishing.
8 February 1912	Cowlitz River	<i>Morning Oregonian</i> , p. 7, col. 2	Run of Smelt Is Heavy. VANCOUVER, Wash., Feb. 7.—(Special.)—The run of smelt in the Cowlitz River this year seems to be larger than in many years past. Yesterday more than 100 gasoline and other fishing boats were taking smelt and the average catch for the 24 hours was 3000 pounds, or a ton and a half, so that approximately 150 tons of the table delicacy were taken in one day.
10 February 1912	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 4	GOOD THINGS IN MARKETS BY LILIAN TINGLE. Columbia River smelt are still the leading feature in the fish markets, and are selling at about 8 cents a pound.
14 February 1912	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Smelt Run is Good. The present run of smelt in the Cowlitz river is generally considered by the fishermen to be the “big” run of the year. Fish are being caught at several different places in the river, the school being strung all along for four or five miles. Shipments from Kelso during the past few days have been heavy, nearly every one of the 20 passenger trains taking a share of the traffic. Besides these, large quantities are going to Portland and other Columbia river points by boat, while some are going into cold storage to be used by the summer market. The prices are said to be holding up excellently, there being little inclination on the part of either fishermen or shippers to beat down the price to the low marks reached in some seasons of the past.
17 February 1912	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 3-4	Good Things in Markets By Lilian Tingle. ... Columbia River smelt are, of course, leading in cheapness and popularity, and sell at about 3 cents a pound. ...
10 March 1912	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 6-7	Good Things in Portland Markets By Lilian Tingle. ... Smelt is still plentiful in the fish market and sells at 2½ to 3 cents a pound. ...
23 March 1912	Portland, OR	<i>Morning Oregonian</i> , p. 14, col. 1-2	Good Things in Markets. The fish market is always well supplied at this season. ... Columbia River smelt, 2 to 2½ cents a pound ...
30 March 1912	Sandy River	<i>Morning Oregonian</i> , p. 1, col. 6	SANDY OVERRUN BY SMELT. Run First in Eight Years and Will Last Probably Several Days. TROUTDALE, Or., March 29.—(Special.)—A great run of smelt is now going up the Sandy River, the first big run for about eight years. The little fish are to be seen in a solid column coming from the Columbia, the phenomenon attracting the attention of hundreds, who are hauling the smelt away by the wagon-load. Farmers are coming in by the score every day from every direction and from long distances to get a supply of the succulent fish for pickling and smoking. The run probably will last for

Date	Place	Source	Quote
			several days yet and then the season for smelt will close until next Winter.
30 March 1912	Cowlitz River Sandy River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Smelt Run is Ended. The smelt fishing industry in the Cowlitz river for the present season came to an end the first of the week and the fishermen of this place have put their gear away until another time. The sea gulls are still here, picking up the last of the laggard fishes, but they are all that remain of the recent host of busy fishermen. Reports have it that a large school of smelt are now entering the Sandy river, east of Portland, Oregon, for the first time in four years. The smelt are said to be hardly worth marketing when they are caught in that stream.
31 March 1912	Sandy River	<i>Morning Oregonian</i> , p. 8, col. 6	Shoals of smelt that fairly smother the Sandy River out of its bed are merely another manifestation of nature's prodigality in Oregon.
2 April 1912	Sandy River	<i>Morning Oregonian</i> , p. 7, col. 3	SMELT RUN NOW ON. Millions of Small Fish Enter the Sandy River. SUNDAY CROWDS ACTIVE. Troutdale, Or., April 1.—(Special)—This thriving little city should have been named Smeltdale, as there isn't a trout anywhere near it. But the dainty little smelt is just now the attraction that has made the town the Mecca of thousands who are all returning home laden down with all the fish they care to take away with them. The great run of smelt from the Columbia River began on Thursday [28 March] last and was at its greatest yesterday. An ideal day and the prospect of unlimited catches, together with the exciting sport of taking them, brought people from every direction. The banks were lined with teams from all over the county and automobiles from the city, and the entire day was spent in a vain effort to deplete the Sandy River of its finny denizens. Millions Will Die. Thousands were caught but millions got away, only to swim against the strong current for a few days longer and then float back dead, dying or exhausted, when the greatest run known will all be over. Nine years ago there was a similar run of smelt in the Sandy. This is the only river, excepting the Cowlitz that is ever entered by them from the Columbia. No one can ever predict when they are coming. It is only when the water is seen to be fairly alive with them that the word goes out and for a few days all other business is suspended while the people from far and near lay in a big supply. Bird Cages Used as Nets. Yesterday's sport was exciting enough. It was attended with many involuntary baths and much mirth. The fishing appliances consisted of nets tied to long poles and every scoop into the water brought up fish. In place of the regulation net there were to be seen improvised scoops made of wire gauze, coal-oil cans and even bird cages. A motion picture outfit made films and every sort of a water craft did a rushing business all day long. The great run will cease as suddenly as it began.
3 April 1912	Sandy River	<i>Morning Oregonian</i> , p. 10, col. 4	The Sandy has had its run of smelt and the appetite is satiated.
5 April 1912	Sandy River	<i>Morning Enterprise</i> , p. 7, col. 6	When word was received here last week that smelt were running in the Sandy river, near Troutdale, nearly every man and some women, rigged up an outfit and started for the river, returning with wagon loads of fish.
7 April 1912	Portland, OR	<i>Morning Oregonian</i> , p.	Good Things in Markets. ... Smelt is no longer available, except in the frozen or cured

Date	Place	Source	Quote
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1913			
23 November 1912	Portland, OR	<i>Morning Oregonian</i> , p. 16, col. 4	SMELT ARE RUNNING EARLY. Fish Caught Close to Ocean Bring Fancy Prices. ASTORIA, Or., Nov. 22—(Special)—Smelt are entering the river earlier this year than ever before. Last night one man who was fishing for herring in the lower river not far from Sand Island caught a pound and a half of smelt in his net, and as a result he is going out with a regular smelt net. Columbia River smelt are considered the most toothsome fish found on the Coast, and when caught close to the ocean are exceptionally fine, those taken early in the season often selling as high as a dollar a pound.
27 November 1912	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	A Few Smelt in the River. Fishermen of Kelso and vicinity are anticipating an early run of smelt this year because of the presence of a few fish in the stream during the past few days. Bink Mable caught two of the advance guard last Friday, and Fred Morgan caught 200 Monday night [25 November]. Reports from Astoria are that salmon fishermen have discovered a few smelt in their nets during the past few days, and this gives reason for the belief that an early run will come into the Cowlitz soon. The first smelt are usually expected about the holidays, therefore a run within the next week or two would be considered extremely early. At any rate, the fishermen are preparing for the appearance of the famous Cowlitz river delicacy and a successful season is anticipated.
11 December 1912	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	A Few Smelt Being Caught. The vanguard of the winter run of Cowlitz River Smelt is now coming in and a few fish are being caught and shipped from here to the Portland market. Gillnetters on the Columbia have been catching smelt for some time, but not until the past few days have the fishermen of the Cowlitz succeeded in dipping quantities of the fish. “Bink” Mable, manager of the Columbia River Smelt Company here, shipped one fifty-pound box Monday [9 December] and two boxes yesterday [10 December]. Smelt are selling for 20 cents per pound in the Portland retail markets at present.
15 December 1912	Portland, OR	<i>Sunday Oregonian</i> , p. 14, col. 4	GOOD THINGS IN MARKETS. Columbia River smelt is the “newest thing” in the fish market and is available, in small quantities only, at 25 cents a pound.
22 December 1912	Portland, OR	<i>Oregonian</i> , p. 6, col. 3	Good Things in Market by Lilian Tingle. ... Columbia River smelt are available in limited quantity at about 20 cents a pound. ...
5 January 1913	Portland, OR	<i>Oregonian</i> , p. 8, col. 5	TABLE ECONOMY TO FOLLOW FEASTING TIME. With Passing of Christmastide Housekeepers Expect to Begin Lenten Celebration in Advance of Church Season—Markets Have Variety. ... Columbia River smelt are beginning to come in. At present they cost 20 cents a pound and are something of a luxury; soon, however, they will be within the reach of everyone. ...
19 January 1913	Cowlitz River	<i>Oregonian</i> , p. 1, col. 2	FIRST SMELT RUN IS OVER. Kelso Fishermen Unable to Explain Phenomenon. KELSO, Wash., Jan. 13.—(Special.)—The run of smelt which started out so auspiciously last week stopped suddenly Wednesday night and since then the fishermen have been catching practically none of the fish. Thursday and Friday the fish were quoted at \$2 a box of 50 pounds and none to be had. The fishermen are looking forward to the

Date	Place	Source	Quote
			big run which should be due in about a week when the supply will be unlimited. Old fishermen are unable to explain the two runs, but each year the fish come in the river for a short run, disappear for about a week, and then come in again, the last run continuing for about two weeks.
19 January 1913	Portland, OR	<i>Oregonian</i> , p. 9, col. 6-7	Good Things in Market. ... Fish, in spite of the early arrival of smelt, is inclined to be limited in supply. Smelt were higher yesterday than earlier in the week and were selling at 7½ to 10 cents a pound. ...
2 February 1913	Portland, OR	<i>Sunday Oregonian</i> , p. 16, col. 5	GOOD THINGS IN MARKETS. Columbia River smelt again is in the market, in generous supply, and can now be had at six pounds for 25 cents.
5 February 1913	Cowlitz River	<i>Oregonian</i> , p. 18, col. 2	Marine Notes. Captain Whitcomb, of the steamer Joseph Kellogg, reports that the run of smelt in the Cowlitz River took a spurt Monday night and shipments yesterday were heavier.
9 February 1913	Cowlitz River	<i>Sunday Oregonian</i> , Sect. 2, p. 2, col. 7	"One Million, Two Hundred Thousand Columbia River Smelt Caught in One Day at Cowlitz," penned the headliner in an afternoon newspaper. If you don't believe it, count 'em.
9 February 1913	Portland, OR	<i>Sunday Oregonian</i> , Sect. 4, p. 9, col. 2	Good Things in Market. Columbia River smelt is the first favorite in the fish market at present. At 2 to 2½ cents a pound smelt ought to be quite a factor in reducing the high cost of living. Fifty-pound boxes sell at \$1, and the housekeeper with storage room may well find that a good investment can be made by salting, canning, pickling or smoking a few smelt for future use. Useful salads and chafing dish concoctions can be made from the preserved smelt, while the fresh smelt is good, not only fried, but baked, broiled, spiced and "chowdered" as well. While smelt dominate the market ...
11 February 1913	Cowlitz River	<i>The Coos Bay Times</i> , p. 3, col. 5	CATCH MANY SMELT. Big Run of Fish in the Columbia River Now. The Portland Telegram says: "Think of catching 1,200,000 fish in one day. That was the catch of Columbia River smelt at Cowlitz Sunday. The only reason that more smelt were caught Sunday than yesterday was because more people are out after them. "The smelt run is now on in earnest, and the market is glutted with this most delicious fish. Smelt can be had three pounds for a dime, and some places even give more. On the Cowlitz, if you don't want the fun of catching the smelt you can buy 50 pounds for 25 cents, or even 15 cents, or a plug of tobacco or a good cigar, or any other trifle. "Since the smelt began running the high water mark was reached Sunday when 60 tons were caught and boxed for shipment. The express company was swamped and motorboats and steam launches were pressed into commission to transport the fish to Portland. Ranchers, villagers, storekeepers, boys, women and girls locked along the Cowlitz Sunday and armed with dip nets filled boats to the sinking point."
16 February 1913	Portland, OR	<i>Sunday Oregonian</i> , Sect. 1, p. 16, col. 3	Good Things in Market. Smelt is still among the cheapest of foods in the market at 2½ to 5 cents a pound; and still there are people who grumble because smelt does not come ready cleaned at that. Other fish besides smelt are quite plentiful ...
23 February 1913	Portland, OR	<i>Sunday Oregonian</i> , p.	Good Things in Market. ... smelt at 2½ cents a pound is still the "leader." ...

Date	Place	Source	Quote
		11, col. 5	
9 March 1913	Portland, OR	<i>Oregonian</i> , Sect. 2, p. 18, col. 3	Good Things in Market. ... Smelt is no longer the “leading article” in the fish market, though still available at about 2½ cents a pound. ...
16 March 1913	Portland, OR	<i>Oregonian</i> , Sect. 2, p. 20, col. 2	Good Things in Market. ... In the fish market all tastes can be satisfied at reasonable prices, ranging from black bass at 40 cents to Columbia River smelt at 2½ cents a pound.
24 March 1913	Portland, OR	<i>Oregonian</i> , p. 4, col. 5	Good Things in Market. ... In the fish market the list is about the same as that of last week. Smelt and salmon are scarcer, though still available. The smelt season practically is over and the closed season is still on for salmon. ...
30 March 1913	Cowlitz River	<i>Sunday Oregonian</i> , p. 7, col. 4	COLUMBIA RIVER SMELT SENT. Kelso Provides 20,000 pounds of Fish for Flood Sufferers. KELSO, Wash., March 29.—Twenty thousand pounds of fresh Columbia River smelt were shipped to the flooded district in Ohio by fishermen of this town today. It is estimated the shipment will provide 70,000 rations.
30 March 1913	Portland, OR	<i>Sunday Oregonian</i> , Sect. 3, p. 7, col. 5	Good Things in Market. ... In the fish market, salmon is up and halibut is down; smelt is going out, and shad is arriving, and clams are there all the time. The list includes ... smelt 2½ cents a pound. ...
6 April 1913	Portland, OR	<i>Oregonian</i> , Sect. 1, p. 13, col. 3-4	Good Things in Market. In the fish market ... Black bass is, as usual, the most expensive fish, at 40 cents a pound, and smelt, the cheapest, at 4 pounds for 10 cents. ...
11 April 1913	Portland, OR	<i>Oregonian</i> , p. 11, col. 2	CITY NEWS IN BRIEF. St. Francis Market ... smelt is 10c for 5 pounds. ...
12 April 1913	Cowlitz River	<i>Oregonian</i> , p. 6, col. 2	FISH HONOR DEMOCRATS. After 16 Year’s Wait Smelt Come Up Cowlitz to Toledo. CHEHALIS, Wash., April 11.—(Special.)—For the first time in 16 years the smelt are said to have made their run up the Cowlitz River as far as Toledo. Whether or not this is due to the fact that the fish have learned the fact that Toledo is at the head of navigation on the Cowlitz, or the run is in honor of the fact that after a 16-year wait the Democrats are again in charge of the National Government, is a problem that is being figured on by residents of the Cowlitz Valley, who have been scooping out great quantities of the appetizing fish that have made Kelso famous. Old-line Democrats are inclined to argue that the latter is the correct solution of the question.
13 April 1913	Sandy River	<i>Oregonian</i> , Sect. 1, p. 9, col. 1	SANDY ALIVE WITH SMELT. Spring Run Opens and Troutdale Folk Keep Busy. The Spring run of smelt started yesterday in the Sandy River, and the water at Troutdale was alive with the fish. They were making their way up to the Upper Sandy River. The run promises to equal that of former years, when farmers and people from Portland caught smelt by the wagonload. They were even used to fertilize the land near the river, being hauled away from the river by the wagonload. The run of smelt was not due for several years and their appearance is a surprise to those who have watched the runs in Sandy River. According to reports yesterday, the run was on the increase and the volume may reach its climax today. People of Troutdale and the neighborhood began catching the smelt as soon as it was learned that a run had been started. Smelt have appeared at intervals in the Sandy and always in great quantities, so they may be shoveled out with pitchforks.

Date	Place	Source	Quote
13 April 1913	Portland, OR	<i>Oregonian</i> , Sect. 3, p. 9, col. 4-5	Good Things in Market. ... Columbia River smelt is disappearing, but still to be had at 2½ cents a pound. ...
14 April 1913	Sandy River	<i>Oregonian</i> , p. 16, col. 2	SMELT FISHING FINE. Little Silver Fish Are Scooped Up in Buckets. ANGLERS GO IN AUTOS. It is Estimated That 2,500,000 Smelt Are Taken Out of Sandy Saturday—Not Expected in River for Six Years. If good old Izaak Walton in the spirit could have visited the Sandy River yesterday, near Troutdale, he would have felt he was a back number, indeed. Fishing? Well, rather. Rod and line? Well, rather not. Rod and line, flies, bait and all the shibboleth of the craft were distinctly out of date. This was fishing a la smelt. It was fishing that you went to via automobile; fishing in which a bucket took the place of a rod; fishing that the fish seemed just to leap to be caught; fish that you scooped instead of played for. And if you did not have even a bucket or a scoop, or yet a sack tied onto a stick, you purchased the “finny beauties.” Purchased, too, is hardly the word. The cost? Take all you want for 15 cents a bucket, or, if you wanted fish by the wholesale, say 25 cents a sack. There must have been millions of the tiny, sparkling, darting things in the water. Anyway, a statistician who figured that 100 fish went to the bucket estimated that over 2,500,000 smelt had been carried away from the banks of the Sandy. Fishers Come In Auto Trucks. All the inhabitants of Sandy gathered by the river bank and fished—or scooped. Automobile trucks loaded with would-be scoopers came from Portland. Between 200 and 300 automobiles were parked around Sandy bridge and in the town of Troutdale and 50 or 60 rigs added to the general Fourth of July appearance. As one drove out along the Base Line road one saw literally scores of machines fishing, no, scooping, bent. Professional fishermen from boats operated with a fine mesh seine on the end of a pole, something like a shrimping outfit. They swung the net against the stream of fish, battling the stiff current of the Sandy on the way to spawn, and in a moment it was all they could do to strain and lift their catch of squirming, sparkling smelt. Run Should Be at Height Today. In the morning the run was epic; by afternoon it had slowed off. The “oldest fisherman” declared that the smelt were unaccustomed to automobiles and were being frightened away. But then, everyone knows the reputation of the “oldest fisherman” for veracity. Still greater excitement is promised for today, when the run of smelt should be at its height. Old-time smelt scoopers declared that the world was being turned upside down. The last run of smelt was last year on the Sandy and, according to fishy stories, should not appear again for seven years, or until 1919. The Troutdale correspondent sent a brief item to The <i>Oregonian</i> , hence the hundreds of Portlanders who gathered to share in the scoops, or the spoils of smelt. Smelt are a popular breakfast item in Portland today, and, judging by the wagonloads of the tiny fish that were being hauled away to Portland, they are due to be sold in the markets cheap.
16 April 1913	Sandy River	<i>Oregonian</i> , p. 3, col. 2	Troutdale Sees More Smelt. TROUTDALE, Or., April 15.—(Special.)—Smelt started running again today in the Sandy River.

Date	Place	Source	Quote
22 April 1913	Columbia River	<i>The Coquille Herald</i> , p. 1, col. 7	Smelt are running in the Columbia river up to the Cascades, for the first time in four years.
April 1913	Cowlitz River	<i>Pacific Fisherman</i> 11(4):	DONATE CARLOAD OF SMELT TO SUFFERERS. The citizens of Kelso, Wash., donated a carload of Columbia river or Cowlitz river smelt, 20,000 pounds in all, to the Ohio flood sufferers. The Kelso fishermen donated 400 boxes of fish, the business men paid for the boxes and labor and an express company and the railroad furnished the transportation free.
1914			
29 November 1913	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	GOOD THINGS IN PORTLAND MARKETS. The first Columbia River smelt of the season is on the market this week at \$1 a pound ...
5 December 1913	Portland, OR	<i>Morning Oregonian</i> , p. 14, col. 4	COLUMBIA SMELT ON SALE. Weather Makes Fish Scarce and Retail Price is 25 Cents a Pound. Columbia River smelt have appeared in the market. The run, so far, has been a small one, and as long as the present kind of weather continues, the fish will not be plentiful, but warm rains and higher water in the river will bring them in abundance. The big run, which is due later, will be in the Cowlitz River. Smelt are retailing in the markets at 25 cents a pound.
5 December 1913		<i>Morning Oregonian</i> , p. 20, col. 2	Good Things in Portland Markets. ... The leading feature of the fish market is the startling rapidity with which the price of smelt has fallen. Only last week the first of this delicate little fish to appear in the Columbia River was selling at a dollar a pound, and the dealers could only obtain a few pounds at a time. Today smelt is quoted at 10 cents a pound, with the chances of going much lower before another week. ...
12 December 1913		<i>Morning Oregonian</i> , p. 22, col. 3-4	Good Things in Markets. ... This week ... Columbia River smelt [are selling for] 15 to 25 cents [a pound] ...
19 December 1913	Portland, OR	<i>Morning Oregonian</i> , p. 14, col. 2-3	Good Things in Markets. ... In the fish market ... Columbia River smelt 40 cents a pound ...
26 December 1913	Portland, OR	<i>Morning Oregonian</i> , p. 17, col. 1-2	Good Things in the Market. ... In the fish market ... Columbia River smelt and California crayfish are each 35 cents [a pound] ...
4 January 1914	Portland, OR	<i>Morning Oregonian</i> , p. 13, col. 6	Good Things in the Market. ... Sturgeon is 20 cents a pound, and so also is Columbia River smelt ...
14 January 1914	Portland, OR	<i>Morning Oregonian</i> , p. 14, col. 2	Marine Notes. First of the smelt caught this season in the Cowlitz River arrived yesterday on the steamer Joseph Kellogg, the shipment consisting of 60 boxes. Owing to high water in that stream the catch is regarded as light.
14 January 1914	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	Smelt Arrive in the Cowlitz. Although the quantity is not so great as some people imagine, the Columbia river smelt are at last being caught with dip-nets in the Cowlitz river. Fairly good fishing began last Sunday afternoon and evening [11 January], and a score or more of boats have been busy since that time. Prices are holding up fairly well thus far.
15 January 1914	Cowlitz River	<i>Oregonian</i> , p. 5, col. 6	Smelt Running in the Cowlitz. KELSO, Wash., Jan. 14.—(Special.)—The coming of smelt into the Cowlitz River in sufficient numbers has brought on the activity of

Date	Place	Source	Quote
			fishermen. If the run is a good one the extended markets for this variety of fish, together with the newly constructed plant for drying, or evaporating them, will furnish employment to many men for several weeks. The evaporating plant which started this week will handle several tons a day. Last year more than 100 carloads were shipped by boat and train, and it is expected that the shipments will exceed that this season.
14 January 1914	Columbia River	<i>Olympia Daily Recorder</i> , p. 2, col. 7	RUN OF SMELT LARGEST EVER IN THE COLUMBIA. PORTLAND, Ore., Jan. 14.—The greatest run of smelt ever in the Columbia river is now being harvested. Fresh offerings of Columbia river smelt were quoted at 5 cents a pound today by the wholesale fish trade and there were indications that even this low price would be cut. The market is glutted. Such heavy catches by gillnetters of the lower Columbia river were never before seen in this market. As a rule the gillnetters catch only limited supplies before the fish enter the Cowlitz, when they are caught in abundance with dip nets.
16 January 1914	Cowlitz River	<i>Oregonian</i> , p. 12, col. 2	Good Things in Markets. ... The run of Columbia River smelt began on Wednesday and the fish are now selling at 5 cents a pound. They are in the Cowlitz and may be expected in the Sandy in a week or two. ...
17 January 1914	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 3, col. 5	First Car of Smelt Leaves. Forecasting a wider field and a more substantial business, the first iced car load of Columbia river smelt left Kelso at noon today for Kansas City, Mo. ... Today's car contained 400 boxes, or 20,000 pounds of fish ... Altogether, the smelt business is in the seventh heaven of expectation and ecstacy [sic] just now, and will continue so unless it is found the carlot shipments cannot be profitably made.
18 January 1914	Portland, OR	<i>Sunday Oregonian</i> , p. 6, col. 6	Columbia River smelt are so plentiful as to confound the price jugglers.
21 January 1914		<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	MORE EXPRESS SHIPMENTS. Big Carriers Make Effort to Sell Kelso Smelt. As a result of efforts being put forth by the three express companies operating through Kelso, the shipments of Columbia river smelt from this point during the present season are already showing a great increase. Although the season has been on less than two weeks, daily shipment records are regularly being broken, and the future promises the largest smelt business in the history of the industry. Instead of dumping the greatest portion of the catch upon the Portland and Puget Sound markets, the shippers this year, because of the assistance of the express companies, are sending hundreds of boxes to distant points. ... Results are showing rapidly, hence for the first time in the history of the industry there is a rapidly growing market instead of a dead one at the height of the run. ... the carriers are doing a great service to Kelso—one which may mean the doubling of the importance of the smelt industry.
23 January 1914	Portland, OR	<i>Oregonian</i> , p. 12, col. 2	Good Things in Markets. ... But, like a wave that has swept up and over the tables of every fish dealer in the city, the run of Columbia River smelt has inundated the market. Those in position to know declare it to be the biggest "run" in the last dozen years. At 3 cents a pound, or three pounds for 10 cents, smelt are on almost every bill of fare in town.

Date	Place	Source	Quote
24 January 1914	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 6	Fishing Slackens Considerably. The heavy rains this week, which caused a rapid rise in the waters of the Cowlitz, temporarily put a stop to smelt fishing in the Cowlitz Thursday night [22 January]. For several hours the fishermen failed to locate the finny tribe, but yesterday noon the fishing was resumed again. The catch this week has been very light compared to that of last week, especially during the past two days. Today the dippers are at work near Rocky Point, but are having only average success.
25 January 1914	Portland, OR	<i>Oregonian</i> , p. 7, col. 4	SMELT FED TO ANIMALS. Zoo Inmates at Washington Park Feast on Little Fish. Animals at the zoo in Washington Park were hosts yesterday at a banquet tendered them in the zoo pens by Front street merchants. The affair was the result of an oversupply of smelt in the wholesale houses. When it became certain about noon that there would be more fish than could be used over Sunday, the merchants called Park Superintendent Mische at the City Hall and announced that they wanted to treat the zoo animals. The city gathered up the fish and the animals partook of the merchant's hospitality with relish.
28 January 1914	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Smelt Are Still Scarce. With the supply and demand running about even, the smelt business on the Cowlitz river waterfront of Kelso has been in fairly good shape this week. Despite the stormy weather, the dippers have been at work most of the time, with only average success. Prices have come back to normal again, and many of the shippers hope that the next big run will hold back for a time. Express shipments are averaging about 350,000 [sic] pounds a day, most of the fish going to distant points. Orders from the Rocky Mountain states are increasing, according to the statements of A. J. McDonald, of the Northern Express Company.
31 January 1914	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 6	Another Car of Smelt. The season's second refrigerator car load of smelt left Kelso today for the Middle West, via the O. W. R. & N. and Union Pacific. Despite the fact that the smelt business in the middle west is still in the experimental stage, bright hopes are held out for it as soon as the various communities become educated to the advantages of this Cowlitz River delicacy. All that is lacking at present is a steady, consistent demand, in order to make the Middle West the best market for smelt.
5 February 1914	Portland, OR	<i>Morning Oregonian</i> , p. 16, col. 6	Marine Notes. It was estimated that the deliveries of smelt from the Cowlitz River and Lower Columbia district yesterday were between 1200 and 1500 boxes. The launch Frolic brought 425 cases from the Cowlitz.
7 February 1914	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 6	Another Carload of Smelt. The third carload of smelt to leave Kelso for the Middle West went out of here today on the noon train, having been shipped by the Columbia River Smelt Company to C. E. Putnam, who is now in the Middle West. This makes a total of 60,000 pounds of fish that have gone out of here in carload lots since the opening of the season.
14 February 1914	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	Fourth Carload of Smelt. Giving evidence of continued success on the markets of the Middle West, the fourth carload of Columbia River Smelt left Kelso yesterday for that section of the country. C. E. Putnam, who is working at the other end of the line on the

Date	Place	Source	Quote
			sale of the finny delicacy, has thus far reported fair success, and hopes to work up a big market for smelt as soon as the people of the central states learn of their advantage as a food fish.
23 February 1914		<i>Oregonian</i> , p. 4, col. 6-7	Smelt Industry Growing. KELSO, Wash., Feb. 22.—(Special.)—Owing to the growing market for smelt, the Columbia River Smelt Company of Kelso has purchased 205 feet of Cowlitz River waterfront. The frontage lies above the Putnam dock and the price paid was \$4000. The smelt company, which is composed of leading local fishermen, will soon incorporate. It is planned to build up a big fish business at Kelso, and development for the Eastern demand for smelt is most encouraging to the men behind the project.
27 February 1914	Portland, OR	<i>Morning Oregonian</i> , p. 14, col. 3-4	GOOD THINGS IN MARKETS. Columbia River smelt is still at flood tide and is expected to be abundant [in the fish market] until possibly the middle of March.
February 1914	Columbia River Cowlitz River	<i>Pacific Fisherman</i> 12(2): 20	HEAVY RUN OF SHELTS IN COLUMBIA RIVER VALLEY. An unusually heavy run of smelts appeared in the Columbia river in January and large catches are now being made in that river and its numerous tributaries, more particularly in the Cowlitz river, where the annual run of this delicious species forms the basis of a considerable commercial industry. This year, in addition to being shipped fresh on ice, large numbers are being dried at the Kelso plant of the Northwestern DeAquating Company, thus making it possible to almost indefinitely extend the market for Cowlitz smelts.
11 March 1914	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Plenty of Smelt, Yet. Epicureans who delight in the delicacy of Columbia or Cowlitz River Smelt should not labor under the impression that the winter run is ended, just because the fish have not been mentioned in the public prints for several days. As a matter of fact, there are still plenty of fish in the Cowlitz, and shipments are going forward every day. The demand, however, has slacked off considerably, and it is not expected to be increased greatly during the remainder of the season. The glutting of the more important markets is held responsible for this condition, the price having been forced too low. Fishermen of Kelso are of the opinion that there will be plenty of fish for the next week or two, and perhaps the run will continue until the end of the Lenten season.
30 March 1914	Sandy River	<i>Oregonian</i> , p. 2, col. 2	Smelt Feast, by Thousands of Sea Gulls, Is On. One Catches Fish in Midair After Prey Is Dropped by Fellow-Birds Near Vancouver. VANCOUVER, Wash., March 29.—(Special.)—Thousands of seagulls have been flying here for several days, feeding on smelt, millions of which are on the run to the Sandy River, a few miles above this point. The gulls are in the habit of dropping so thick on a small island that the sand cannot be seen. Several of these small islands are covered for hours with the birds, while hundreds more navigate the air surrounding. One gull today was seen to dip down on the water, seize a smelt and fly away with it in its bill. When the bird had reached a height of about 200 feet it lost the fish and another gull, flying a little lower, caught the smelt in midair. The smelt, in going to the Sandy, pass over a shallow place in the Columbia River at the east end of Hayden Island and here the seagulls gather, swoop down and

Date	Place	Source	Quote
			seize their prey.
31 March 1914	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 6	SMELT ARE DESTROYED. PROSECUTIONS MAY FOLLOW USE OF FISH AS FERTILIZER. Mr. Finley Says Law Against Wanton Waste of Food Will Be Enforced Against Sandy River People. The smelt running in the Sandy River are attracting many people to that locality. Inasmuch as the fish are extremely plentiful, it is no trouble at all to catch them in nets or makeshift scoops. The fact that the fish are so abundant has led many persons to catch them without limit. "The State Board of Fish and Game Commissioners desire to give public notice that the law passed as the last session of the Legislature concerning the wanton waste of fish will be strictly enforced" said William L. Finley. "The Columbia River smelt is one of our most valuable commercial fish. The fact that it comes in great numbers into Cowlitz, the Sandy and certain other streams at about this time of the year, leads some people to believe that the supply is inexhaustible. "These fish come in from the sea and go into the rivers to spawn. We have to depend upon our future supply from the natural spawning of these fish. At the present time many people living in the vicinity of Troutdale are catching far greater numbers of these fish than they have any use for; in fact, they are loaded into gunny sacks and into wagons and not used in any way except as a fertilizer. "It is an economic waste and an outrage that such a fine pan fish as the smelt should be wantonly destroyed and wasted. There is nothing governing the amount of these fish that can be caught or the method of catching them, yet there is a strict law against the wanton waste of food of this kind. If it is not observed, complaints will be sworn out and arrests will follow."
3 April 1914	Sandy River	<i>Oregon City Enterprise</i> , p. 8, col. 4	SMELT RUN DRAWS CROWDS TO LOWER SANDY RIVER. TROUTDALE, Ore., Mar. 26.—The smelt run in the lower Sandy river which started Tuesday [31 March] is continuing unabated and is expected to continue until Sunday. Troutdale was the Mecca Tuesday and yesterday for scores of people from Gresham and vicinity who netted over 100 sacks of smelt. Sacks, wooden boxes, cardboard boxes and even pockets were used to carry the fish away.
Spring 1914	Sandy River	OCC (1914, p. 90)	THE COLUMBIA RIVER SMELT. Each year the Columbia River smelt come in from the ocean in great schools and enter certain streams to spawn. It is a curious fact that they pass by many streams and enter the Cowlitz and Sandy Rivers. Why these particular streams in preference to others, no one really knows. But they come here in such numbers that thoughtless people are led to think the supply is inexhaustible. During the spring of 1914 there was a large run of smelt in the Sandy River. The fish were so abundant it was no trouble to catch them in nets or makeshift scoops of any kind. There is no law governing the amount of these fish that can be caught or the method of catching them. The fact that the fish were so abundant led many people in the vicinity of Troutdale to catch them without limit. They loaded the fish into gunnysacks and hauled them off in wagons to be used as fertilizer. This is criminal waste of valuable food product. The Columbia River smelt is the best pan fish we have. It is worth far more than

Date	Place	Source	Quote
			some of the other species for which the market price is higher. It is a remarkable fact that our markets are filled with such a splendid fish at three cents per pound. Nature is abundantly kind; but how criminally wasteful we are of her supply! A generation ago we fattened our hogs on wild pigeons, and today we are using Columbia River smelt to fertilize our gardens and orchards.
1915			
21 November 1914	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 4, col. 3	FIRST SMELT ARRIVE IN COWLITZ RIVER. The first smelt of the 1914-1915 season were caught Thursday night [19 November] by Fred Morgan and William Manning in their gillnets, when they secured about 150 pounds of the tiny fish for which the Cowlitz river and Kelso are so justly famous. It is very seldom that the first catch totals up nearly so large and this is very early in the season for the run to start up the stream. The lucky fishermen received a price of about 25 cents a pound for their catch so they are congratulating themselves upon their good fortune. For the next few weeks the run will doubtless keep dribbling into the Cowlitz but the real run usually comes only three or four weeks behind the first stragglers, so Kelso's fishermen are hastening the work of getting their lines and equipment into shape for the coming of the smelt. Dip net fishing will not be profitable until more fish arrive.
22 November 1914	Cowlitz River	<i>Pacific Fisherman</i> , 12(12): 17 (December 1914)	SMELT SEASON OPENS. The first smelt of the 1914-15 season worked their way into the Cowlitz during the week beginning Nov. 22, and Fred Morgan and William Manning were the lucky fishermen to land the first good catch. With gill nets they landed 150 pounds of the little fish for which the Cowlitz river is famous, receiving about 25 cents a pound for their catch. It is seldom that the first of the run comes up so early, but from now on the fish will continue to struggle into the stream until about a month from now the real run will begin.
12 December 1914		<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	SMELT FISHERMEN TO PAY A STATE LICENSE. ...The smelt run is looked for in the near future and it would be well for all fishermen who contemplate operating this season, to get a license at once ... In certain respects a net license will work for the benefit of local fishermen, as it will keep out many of the fishermen from other sections who come into the river, fishing only a day or two, and by selling their fish below the market price, glut the markets of the northwest.
2 January 1915	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 4	Kelso Prepares for Smelt Run. KELSO, Wash., Jan. 1—(Special)—The Columbia River Smelt Company is erecting a new dock near the depot at Kelso to facilitate the work of handling and shipping the smelt catch during the approaching season. It is now almost time for the arrival of the fish and old fishermen expect the run to start as soon as the river rises. The fish never start their run until the river is muddied by rains. Plans are being made to open an Eastern market on a more extensive scale than last year when shipments in refrigerator cars were made for the first time.
9 January 1915	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 6-7	GOOD THINGS IN MARKETS. In the fish market: Variety is considerable this week still and the ripple on the surface is caused by a run of smelt up the Columbia River.

Date	Place	Source	Quote
			They are in the Cowlitz strong and here in Portland are selling at two pounds for 25 cents, with every prospect of rapid descent in price.
9 January 1915	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 2, col. 3	Smelt Dipping Begins. Last night [8 January] for the first time this season the smelt were being dipped from the Cowlitz river. Previously the fish were being caught in gill nets, but last night a heavier run was coming up the river and dipping commenced. This may be the advance guard of the big run and it may not, as often a light run comes in first and there is a short interval before the great rush of fish appear.
13 January 1915	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 4, col. 3	Smelt Trick Fishermen. The smelt played the fishermen a nasty and a scurvy trick Sunday night. The night before the smelt came up the river in great numbers and apparently the big run was on. Consequently much rejoicing among the fishermen. Sunday night everyone went down the river with visions of heavy and profitable hauls of the toothsome little fish, but lo and behold, there were no smelt in the river, and at present they are still playing hide and seek with the fishermen off the mouth of the river. To use a military term, the preliminary advance was merely a reconnaissance in force, and the real charge has not been started yet.
20 January 1915	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 4, col. 2	Smelt Still Hold Off. The smelt have not come up the Cowlitz river and have been lying off the mouth of the stream for some time. The salmon fishermen down the Columbia in the vicinity of Cathlamet are catching some in their nets, and some fish are being dipped off the mouth of the river, but the big run has not yet appeared. Most of the local fishermen have long ago prepared for their coming and are now anxiously waiting for a chance to get busy.
3 February 1915	Kalama River	<i>The Twice a Week Kelsonian</i> , p. 2, col. 2	Smelt Forego Favorite Haunts. After loitering about in the Columbia river off the mouth of the Cowlitz and down the river for almost a month, the smelt dealt the Cowlitz the cruelest blow of all the first of the week, when instead of coming up the river according to schedule they proceeded further up the Columbia and entered the Kalama river. The first smelt of the run were dipped off the mouth of the Kalama Monday night [1 February] and last night the fishermen made some big hauls up the Kalama river. Most of the fish were brought here for shipment and the landings and depot platform look familiarly like old times piled high with boxes of smelt ready for shipment. Thousands of boxes have been caught and shipped during the past twenty-four hours at good prices, but it will probably not be long until prices will drop considerably below their level of the day. What led the fish to their wanderings astray into unfamiliar waters has not yet been figured out by the waterfront experts? Most of them have been too busy to do any figuring. ... the fishermen ... are forced to navigate the narrow and shallow waters of the Kalama. Last night when they first made the trip up the unfamiliar stream in the darkness there was much ramming into trees, brush and sand bars. After loading several of the boats had to wait the high tide in order to get out into the Columbia. This is the first time in many years that the first run has failed to enter the Cowlitz, and most fishermen expect that before long the fish will show up in the local river, and that the disadvantages of

Date	Place	Source	Quote
			fishing in the Kalama river can be avoided.
5 February 1915	Kalama River	<i>Cowlitz County News</i> , p. 3, col. 5	The Kalama River smelt are fine.
6 February 1915	Kalama River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Fishing on Kalama Perilous. Smelt fishermen are experiencing much difficulty in getting up and down the Kalama river to the fishing grounds, and there have been a number of narrow escapes from smashing up boats in collisions with other boats or snags. One boat last night had its wheel broken in a mix-up with a snag and several have been badly battered in collisions. Not many fish were caught during the past two nights as the main run of smelt was above the railway bridge where the water is so shallow that the boats cannot follow them. Fishermen are hoping that the next run of fish, which should soon appear in the river, will strike into the Cowlitz and permit them to stop the difficult and dangerous fishing on the Kalama.
15 February 1915	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 6-7	Cowlitz Has No Smelt. VANCOUVER, Wash., Feb. 14—(Special)—That some person desiring to keep the smelt from running up the Cowlitz River at Kelso dumped several barrels of lime in the mouth of the river, just as the smelt were beginning to run, is a story told at Kelso. It is known that for two or three days the smelt passed the Cowlitz River and went into the Kalama River, the first time since 1847. There is not a great deal of current at the mouth of the river where it is said the lime was dumped into the river. Many persons say, however, that it was just a whim of the smelt themselves to select the Kalama River. It is reported that another big run of smelt has started in at the mouth of the Columbia River.
17 February 1915	Kalama River Lewis River	<i>The Twice a Week Kelsonian</i> , p. 2, col. 3	Smelt Still Play Hide-and Seek. The word “elusive” fits the smelt exactly this season. What has led to their exceedingly strange behavior is a matter of much dispute and disagreement among smelt experts. If there was some fisherman in our midst to emulate the old British cod fishermen who could think like a cod, therefore, always returned with a full boat, when the others had no success, all the difficulty of keeping track of the smelt would be removed. Whatever the reason, or unreason, for their action, the fish bob up this year for a short time in one place and then promptly make their disappearance to some other section. Their latest feat was to again enter the Kalama river Sunday night [14 February], and after staying in that stream that night and Monday to withdraw again into the Columbia. Big hauls were made by fishermen Monday and yesterday. Now they are being caught in the Kalama river in smaller numbers and they are also reported as entering the Lewis river. Since their previous appearance in the Kalama river they have been in the Columbia off the mouth of the Cowlitz and are reported to have started up this river several times, but to have turned back for some unaccountable reason. It is claimed that sacks of chloride of lime have been immersed in the Cowlitz river just above the mouth of the stream and that it is this lime in solution in the water that is keeping the smelt out of the stream. The theory is that this action was taken by Oregon fishermen because they cannot fish in the Cowlitz, but can gillnet the fish in the

Date	Place	Source	Quote
			Columbia. Other people ascribe the non-appearance of the fish to the greatly increased use of gillnets during the present season.
19 February 1915	Kalama River	<i>Cowlitz County News</i> , p. 3, col. 3	That was a big run of smelt Monday morning, in the Kalama river. Tom Elswick drove down, backed his wagon out into the Kalama river and dipped up a wagon box full of smelt. All the boats were filled. About 500 boxes were sold to the Doty Fish Company during the day Monday [15 February 1915].
20 February 1915	Lewis River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Heavy Smelt Run in Lewis River. That the heavy run of smelt have passed up the Cowlitz river for this season seems certain from the enormous numbers of the tiny fish which have poured up the Lewis river during the past few days. Not satisfied with the Kalama river, which they first entered, the main run of the fish went into the Lewis river, and at the present time that stream looks like the Cowlitz at this season in other years. Smelt everywhere in the waters, filling it from bank to bank, and all the way from the mouth far above Woodland. Kelso fishermen have followed the fish to their new haunts and many of them are shipping from Woodland. The Columbia River Smelt Company, the largest individual shippers of smelt, are delivering the fish from the Lewis river to their dock here, where they have splendid facilities for shipping. Most of the Smelt Company fishermen have their homes here and find it just as profitable to bring their catch to this point as to ship it from Woodland.
26 February 1915	St. Helens, OR	<i>St. Helens Mist</i> , p. 1, col. 3	Smelt have been so plentiful in St. Helens the past week or two that the market is overstocked and the fishermen are having trouble in disposing of their catches. During the past few days 50 pound boxes have been offered for fifteen cents and many people have purchased a supply for salting and smoking.
February 1915	Kalama River	<i>Pacific Fisherman</i> 13(2): 29.	SMELT IN THE KALAMA RIVER. Early in February smelt entered the Kalama river in large numbers and the fishermen reaped a harvest for a time. It is a rare thing for the smelt to enter this river in any numbers. In the Cowlitz river, where the smelt usually run in immense numbers, but few have been seen this season. Considerable catches have been made in the Columbia river proper.
8 March 1915	Portland, OR	<i>Morning Oregonian</i> , p. 11, col. 1	New run fresh Columbia River smelt. 75c for 50-lb box. Order shipped promptly. Sanitary Fish Co., First and Washington—Adv.
9 March 1915	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 4-5	SMELT IN LEWIS ON WANE. Gulls Prey on Third Run That Is Wakened by Swift Current. VANCOUVER, Wash., March 8.—(Special)—The third run of smelt in the Lewis River at Woodland is beginning to wane and the price has dropped. The smelt, which are said not to eat after they leave salt water, are dying by thousands, and may be seen floating down stream. Many are weak and cannot swim against the current. Seagulls by the thousands hover over the Columbia River and follow the smelt from the time the smelt enter the mouth of the Columbia River. They refuse to eat the dead smelt. So thick are the smelt in the Lewis River that they are dipped out in bunches from 50 to 75 pounds. One man made a dip yesterday that weighed 68 pounds.
13 March 1915	Lewis River	<i>The Twice a Week</i>	Smelt Fishing Still Good. The fishermen are securing heavy catches of smelt in the

Date	Place	Source	Quote
		<i>Kelsonian</i> , p. 1, col. 4	Lewis river, but the market has become so low that many of the men are stopping for the season. The Steamer Argosy, which has been carrying smelt from the Lewis river to Portland, has discontinued service and the fish for Portland are being taken by the boats on the regular runs. Most of the local fishermen are still in the game, as they have their regular markets, where they secure a better price. A number of the local men came up from Woodland last night to remain at home over Sunday.
27 March 1915	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 6	Smelt Make Friendly Call. Most unostensibly after their long wanderings the smelt came into the Cowlitz river some time last week. So quiet was their arrival that fishermen did not discover their presence until they had been in the river for several days. Their coming, however, was too late to be of any avail to local fishermen for the season has practically run its course and there is little market for the fish. These smelt are a new run and are said to be first class fish.
	Cowlitz River	Radcliffe (1918, p. 64-65)	Cowlitz County... In 1915, 1,609,500 pounds of eulachon, or candlefish tabulated as smelt, valued at \$6,500, were taken from one of the small tributaries of the Cowlitz River. These fish are taken in the vicinity of Kelso during January, February, and March. Such large quantities are secured within so short a period of time that it is difficult to dispose of them at a profitable price, the latter ranging from \$5 at the beginning to as low as 10 cents per box, holding 50 pounds, at the height of the season.
1916			
15 December 1915	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	Smelt Now on the Market. Smelt are coming into the Cowlitz river in increasing numbers as shown by the growing catches of the toothsome little fish that the gillnetters are making. Gillnetting for smelt at this season of the year is very profitable as the fish bring 20 cents a pound. A little later on the fishermen consider themselves fortunate to net that much per box. A few boxes of smelt are shipped out almost daily. Fishermen expect the smelt to come into the Cowlitz according to schedule this year instead of tricking everyone by a rambling around such as they indulged in last season.
29 December 1915		<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	Smelt Becoming Plentiful. Since the drop of the river following the rise of last week smelt have been very plentiful in the stream and gill-netting of them has been going on merrily. Many boxes of the fish are being caught daily in this manner and the fishermen are getting good prices for their fish. The fishermen lower down the Columbia get the big prices of the early season, cutting local fishermen out of some of their best profit of the year. Gill netting for smelt is becoming more prevalent every year, and many fishermen are afraid that the further increase in the number of gill nets will cause serious injury to the dipping business.
31 December 1915	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 4	Smelt Are Becoming Plentiful. KELSO, Wash., Dec. 20.—(Special)—Columbia River smelt are being taken in increasing numbers in the mouth of the Cowlitz and along the Columbia by the gillnetters, and fishermen are expecting a large enough supply of the fish so as to permit of dipnet fishing at almost any time. Many boxes of smelt are leaving the Kelso depot daily, and the fishermen are securing good prices for their catches.

Date	Place	Source	Quote
31 December 1915	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 3-4	GOOD THINGS IN THE MARKET. The fish market is enlivened by the intelligence that a considerable run of Columbia River smelt appeared in the Cowlitz on Wednesday, and consequently the price has dropped to 15 cents a pound.
28 January 1916	Portland, OR	<i>Morning Oregonian</i> , p. 11, col. 1-2	Good Things in the Market. The influx of Columbia River smelt has been completely checked by the cold, but frozen stock sells at 12½ cents a pound.
18 February 1916,	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 3	Good Things in the Market. The smelt are here! The run is sufficiently strong to reduce the price to 5 cents a pound, and at every dealer's the fish are on hand in boxfuls. ...
7 March 1916	Portland, OR	<i>Morning Oregonian</i> , p. 16, col. 6	Marine Notes. Smelt shipments delivered here yesterday aboard the launch Beaver, which came from the Cowlitz River, numbered 212 boxes.
22 March 1916	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Smelt Are Scarcer. The rising water in the Cowlitz the past few days has scattered the smelt, and as a result fish are not being caught as freely as during the previous three weeks, and the shipments of smelt by boat and express have fallen off badly. This has been one of the poorest smelt seasons in years as the tiny fish stayed in the Columbia during the lucrative part of the fishing season, and the Columbia river gillnetters made the big money with their fish.
1917			
13 December 1916	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 6	A Few Smelt in the Cowlitz. A few smelt have straggled into the Cowlitz the past few days and fishermen believe the early arrival of these stragglers indicates that the run of smelt will come into the river earlier this year than has been the case for several seasons, when the tiny fish have come into the stream some time after January. Fishermen generally are getting ready for the run, and are hopeful that it will arrive shortly after the first of the year so that a full season can be enjoyed during the winter months. When the run arrives in the late winter and early spring the season is so short that no profit can be realized by the fishermen.
20 December 1916	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	First Smelt Are Shipped. The first shipment of Columbia River smelt was sent through the local express office Saturday [16 December] afternoon. These smelt were caught by several gillnetters off the Cowlitz, and were shipped by the Columbia River Smelt Co. A few smelt are being caught by the gillnetters along the Columbia, and high prices are received by the fishermen for the small number they can pick up.
22 January 1917	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 4	Good Things in the Market. ... Columbia River smelt at 25 and 30 cents a pound. ...
7 February 1917	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	Few Smelt Being Caught. The small winter run of smelt which arrived in the river several weeks ago have been nearly all caught and the fishermen have been getting few fish the past few nights except when some man is lucky enough to strike a small pocket of fish in some locality. It may be several weeks or longer before another run of fish comes into the river, as there have been practically no smelt caught on the lower Columbia this season, and the gill netters in the neighborhood of Clifton usually make good hauls of smelt when the heavy run is coming up the Columbia. The cannery of the Seaside Packing Co. smoked and packed a few smelt experimentally, and those who

Date	Place	Source	Quote
			were privileged the sample the canned fish declare that they are the finest thing yet in that line. The cannery will not operate until the main run of fish comes into the river.
8 February 1917	Columbia River	<i>Rainier Review</i> , p. 1, col. 4	FEW SMELT BEING CAUGHT. The small winter run of smelt which arrived in the river several weeks ago have been nearly all caught and the fishermen have been getting few fish the past few nights, except when some man is lucky enough to strike a small pocket of fish in some locality. It may be several weeks or longer before another run of fish comes into the river, as there have been practically no smelt caught on the lower Columbia this season, and the gill netters in the neighborhood of Clifton usually make good hauls of smelt when the heavy run is coming up the Columbia. The cannery of the Seaside Packing Co. smoked and packed a few smelt experimentally, and those who were privileged to sample the canned fish declare that they are the finest thing yet in that line. The cannery will not operate until the main run of fish comes into the river— <i>Kelsonian</i> .
9 February 1917	Portland, OR	<i>Morning Oregonian</i> , p.12, col. 4	Good Things in the Market. ... Columbia River smelt can be had at 10 and 12 cents, and silver smelt at 10 cents a pound. ...
10 February 1917	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	No Smelt Are Caught. The run of smelt has disappeared almost entirely from the Cowlitz so far as fishermen can discover, no fish having been taken the past few nights, and the arrival of a second run of smelt is anxiously awaited. No fish are being caught on the lower Columbia, and this is regarded by the fishermen as a bad indication, although runs of fish sometimes slip by the gillnetters, as was the case with those which have been in the stream the last few weeks.
16 February 1917	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 3-4	Good Things in the Market. ... The fish market is getting more interesting. Columbia River smelt are coming in somewhat better now. They may be had at three pounds for 25 cents. ...
21 February 1917	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	RUN OF SMELT ARRIVES IN COWLITZ RIVER. Fishermen Have Been Busy Past Few Days. Cannery Experimenting With Packing Process. A good sized run of smelt arrived in the Cowlitz Sunday night [18 February], and the fishermen have been busy dipping the toothsome little fish ever since. This is the run which passed Clifton and Mayger in the Columbia river the first of last week, and that they came straight into the Cowlitz instead of loitering about in the Columbia as has been their habit for the past two years has occasioned rejoicing among local fishermen. More dippers than usual have been operating this year, and the catches have been good, although nothing exceptional, because the fish are not bunched. Shipment by boat and express have been about normal for the beginning of the season. The cannery of the Seaside Packing Co. ... is now doing some experimental work with smelt, and if the run continues at its present proportions will be very busy from now on handling the fish. Fishing has been disagreeable and arduous work during the bitter cold weather since Sunday night. Today the run has slacked off considerably and the fishermen have has more difficulty in locating the fish, which have not been bunched as well this year as is often the case. The Columbia River

Date	Place	Source	Quote
			Smelt Co. loaded two refrigerator cars with smelt yesterday afternoon and last night for eastern shipment. The first of these cars was dispatched last night and the other went out this afternoon. Eastern shipment was attempted several years ago, but did not prove profitable. It is hoped that with a better organization such shipments can be profitably made this year, and [if] they are successful the available market for smelt will be greatly enlarged.
24 February 1917	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 2, col. 1	Smelt Are Scarcer. Very few of the fishermen braved the bitter cold wind and weather last evening, and today the fish have been hard to get, so that the catch for the past 24 hours was very light, and none of the buyers have been able to fill their orders. Yesterday's shipments were the heaviest of the season. The Columbia River Smelt Co. and the Seaside Packing Co. loaded a carload apiece and about the same quantity went out by express and boat as during the first days of the week. The demand for smelt this year is heavier than has ever been known before, and although the catch has been about normal the shippers have been unable to fully provide their markets. The unusually heavy demand is ascribed to the high prices for nearly all other food stuffs.
26 February 1917	Tacoma, WA	<i>Morning Oregonian</i> , p. 5, col. 1	SMELT SALE STIRS WOMEN. Columbia River Product Sent East for Half of Price in Tacoma. TACOMA, Wash., Feb. 25.—(Special.)—Tacoma fish buyers are wroth over the action of J. Maddock, manager of the Glacier Fish Company, who shipped 20,000 pounds of Columbia River smelt to New York last night. The fish were sold at a cost price of 4 cents a pound and the express charge to the Atlantic Coast will make the total cost 6 cents a pound. Smelt on the Tacoma market today retailed for 12½ cents. They have remained at that figure in spite of the sudden flooding of the market by a heavy run. Mr. Maddock made the offer of a carload of smelt to Mayor John P. Mitchel, of New York, and it was accepted. What Tacoma householders cannot understand is how they are forced to pay double the price exacted for the same food in New York.
3 March 1917	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 4-5	Good Things in the Market. ... Columbia River smelt of excellent quality are now in the market at the low price of four pounds for 15 cents. ...
3 March 1917		<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	COWLITZ SMELT MAKE HIT IN NEW YORK CITY. First Carload Shipment Distributed There Yesterday. Shipments Continue. Several thousand New York families regaled themselves yesterday on Columbia River smelt shipped from this place last week by the Columbia River Smelt Co. This carload was purchased by the mayor's food supply committee to assist in meeting the food crisis there and were placed on sale in the markets of New York City yesterday at a price of 6 cents a pound, and for the first time the inhabitants of the country's metropolis had an opportunity to tickle their palates with the toothsome Columbia and Cowlitz river product. With Atlantic coast fish selling at prices of 18 cents and better a wide spread market may be developed for smelt in the eastern cities. Since the arrival of the smelt in the Cowlitz a number of refrigerator cars have been loaded for eastern shipment, most of them by the Columbia River Smelt Co.

Date	Place	Source	Quote
			This concern loaded a car with 750 boxes of smelt yesterday and today a carload of 800 boxes is being dispatched. Fisher Brothers loaded a car for eastern shipment Thursday. These fish arrive in Chicago or New York when iced and shipped in refrigerator cars practically as fresh as the day they are caught. They are rushed across the continent by express. The demand for smelt continues as brisk as last week, and shipments are the heaviest that have ever been recorded here. Ordinarily the markets are glutted the last day or so of the week, but this year shipments are as heavy these days as the first of the week. Including carload, boat and express shipments, better than 2,000 boxes of smelt a day have been shipped from here since the heavy run commenced the first of last week. The low water in the Cowlitz has seriously interfered with the shipment of fish by boat to Portland, and the Seaside Packing Co. is shipping to the Portland markets in carload lots. The smelt are bunching better than they did last week, and as a result so much work is not required to get a load of fish. The run has advanced up the river to a point above Lexington, but as the tide water dead line does not apply this species the dippers can ply their trade no matter how far the fish may proceed up the stream.
13 March 1917	New York, NY	<i>Morning Oregonian</i> , p. 8, col. 3	SMELT LIKED IN NEW YORK. Five Carloads from Cowlitz Aid in Feeding Poor. KELSO, Wash., March 12.—(Special.)—Several carloads of Columbia River smelt, caught in the Cowlitz, near Kelso, and shipped from this place, have arrived in New York City the past few days for the use of the Mayor's food committee in meeting the food supply question. Reports from New York after the arrival of the first carload of smelt last week were to the effect that they arrived as fresh as the day they were caught in the Cowlitz and that the purchasers enjoyed their first acquaintance with the toothsome smelt. Four more carloads arrived in New York Thursday. Fishermen of the Cowlitz plan to donate a carload this week.
17 March 1917	Portland, OR	<i>Morning Oregonian</i> , p. 13, col. 5	Good Things in the Market. ... The annual run of smelt is still leading in the fish market. It is believed, however, that the visitation is this week at its height, the price having come down to 5 cents a pound, three pounds, 10 cents; 75 cents a box. ...
31 March 1917	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Smelt Season Nearing Close. Smelt are much scarcer in the waters of the Cowlitz and the fishermen are having considerable difficulty in securing good catches of the delectable fish. Shipments have been showing a gradual falling off during the past week or so, and the near approach of Easter and the close of Lent presages the end of the smelt shipping season. Two carloads of smelt, aggregating 1,500 boxes, were loaded this week by the Seaside Packing Co. and these will probably be the last of the carload shipments for this year. The fish that are being caught are of fine quality. Owing to the eastern shipments of smelt and the heavier demand this season was the best in many years, and following, as it did, two lean years in this business, it was very much appreciated by the fishermen.
2 April 1917	Portland, OR	<i>Morning Oregonian</i> , p. 7, col. 1-2	Good Things in the Market. ... Columbia River smelt is still 5 cents a pound, but showing signs of scarcity. ...

Date	Place	Source	Quote
8 April 1917	Portland, OR	<i>Morning Oregonian</i> , p. 7, col. 3-4	Good Things in the Market. ... Columbia River smelt, three pounds, 10 cents, eight pounds, 25 cents. ...
14 April 1917	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 4	Good Things in the Market. ... Columbia River smelt is still plenty [sic]. The stream comes mostly from the Cowlitz, though some have been in the Sandy. They retail at 5 cents a pound; three and four pounds, 10 cents; eight pounds for a quarter; \$1 a box. ...
21 April 1917	Portland, OR	<i>Morning Oregonian</i> , p. 7, col. 2	Good Things in the Market. ... Columbia River smelt is still 5 cents a pound, but showing signs of scarcity. ...
27 April 1917	Sandy River	<i>Oregon City Enterprise</i> , p. 3, col. 7	FISH RUN IS ON NOW. 2500 Pounds of Smelt Caught in Less Than One Hour in Sandy. Eat smelt and keep down your meat bill. ... The greatest run of smelt that has been known in the Sandy river for many years started last night. How long it will continue no one knows. It may be three days or three weeks, but while the fish are running they are coming in myriads, just at a time when they are is an ardent demand for cheap food. Two men at Troutdale took 2500 pounds of fish from the Sandy last night in less than an hour. These men, John Crawford and George Larson, after scooping out their ton and a quarter of fish, shipped the smelt to Portland.
4 May 1917	Kelso, WA	<i>St. Helens Mist</i> , p. 6, col. 6	SMELT CATCH, 3125 TONS. Kelso Hopes to Find Good Market in East Next Season. The last shipments of smelt were made from Kelso last week. Figures compiled by local statisticians show that approximately 125,000 boxes of 50 pounds each were dispatched. This is equivalent to 3125 tons, or more than 300 carloads. About 20 carloads were shipped to eastern markets this year, and the fishermen hope to develop an immense market in the east in future years.
1918			
10 January 1918	Columbia River at Eagle Cliff	<i>Rainier Review</i> , p. 1, col. 1	SMELT RUN IN COLUMBIA. Smelt are running in small schools in the Columbia River past this point, but not in large enough quantities to entice the fishermen to get them. The big run will follow in about a month, so fishermen say, smelt now are being caught near Eagle Cliff. The big run always goes into the Cowlitz River at Kelso, for six years continuously, and on the seventh goes into the Lewis River. It has been three seasons now since they went into the Lewis River.
16 January 1918	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Small Run of Smelt in River. A run of smelt was located in the Cowlitz river Saturday [12 January] and since then dip net fishermen have been busy with varied success. To date the run is light and the fish are hard to get and a day or night's work nets but a few boxes of smelt. Often a single dip will bring up only one or two fish. The river is high and has been rising for the past two days, and the great depth of water makes dipping very difficult and slow work. None of the local fishermen are doing any gill netting.
17 January 1918	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 4	Run of Smelt Light in Cowlitz. KELSO, Wash., Jan. 16.—(Special.)—A light run of Columbia River smelt has appeared in the Cowlitz River and the fishermen have been working hard for the past two nights. No gill netting is allowed in the Cowlitz, so the fishermen must catch all their fish with dip nets, making the work slow when the fish are scattered. The catch has been light thus far, but [a] heavier run is reported in the

Date	Place	Source	Quote
			Columbia and should reach the Cowlitz in a few weeks. The fish are of fine quality.
2 February 1918	Portland, OR	<i>Morning Oregonian</i> , p. 7, col. 2	Good Things in the Market. ... The unfavorable weather of the past few days has continued the slow-up in the run of smelt and restricted the variety of small fish in market. ... Columbia River smelt can be found at 7 cents, but mostly retail at 12½ cents a pound. ...
15 February 1918	Cowlitz River	<i>Morning Oregonian</i> , p. 15, col. 3	SMELT COMBINE TO KEEP UP PRICE. Fishermen Along Cowlitz River Prepare to Reap Big Harvest When Spring Run Starts. CITY MARKET BARRED OUT. Rate of One Cent a Pound Minimum Agreed to, No Matter How Great the Catch, and Three Buyers to Control the Market. And now behold! Our old friend, the smelt, the famed Columbia River smelt, that we counted on as our last great ally in the struggle against the high cost of living, has deserted—gone into the hands of a price-fixing combine. It is not the old combine we have heard so much about in recent years in connection with fish dealing and canning along the Columbia and elsewhere, but it is a new combination made up of the fishermen and concurred in either willingly or unwillingly by buyers who have agreed to pay the price. The combination has made its headquarters at Kelso, Wash., which is the center and controlling and distributing place for the smelt caught in vast quantities in the Cowlitz River, and not caught in large quantities elsewhere. The Cowlitz is the dip-net smelt stream of the country, furnishing each year the tons upon tons of smelt that find their way into the world markets. Fishermen Sign Agreement. One hundred and thirty-six or eight fishermen working out of Kelso, Kalama and neighboring places on the Cowlitz got together some time ago and signed an agreement not to sell their catches for less than a cent a pound or 50 cents a box of 50 pounds. The agreement is hard and fast and is slated for entire smelt season, which usually lasts all the way from six weeks to two months. Fish buyers and others have been let in on the agreement and the whole affair is cut, dried and awaiting only the commencement of the season, which may be any time within the next day or two. Three buying concerns have headquarters on the Kelso waterfront and will handle the fish. These three are the Seaside Packing Company, the Columbia River Smelt Company and a branch established by the Northwest Fish Company, of Portland, with Coe A. McKenna, of Portland, in charge in Portland and Bert Hays, of Vancouver, Wash., in charge at Kelso. This is this concern's first appearance in the smelt game. One Cent a Pound Minimum. The fishermen have signed up to hold out for a minimum of 1 cent a pound during the whole season regardless of the quantities of fish caught. The buying concerns on the other hand have fixed the minimum price at 85 cents a box of 50 pounds to wholesalers f. o. b. Kelso and \$1 a box to retailers f. o. b. the same place. They claim their minimum is the lowest minimum possible as long as the fishermen hold out. The price to fishermen will be an advance of 100 per cent over the minimum price received during the smelt season a year ago. The price then got down to 25 cents a box or ¼ cent a pound. As the season has started on the present small scale—the big run not having

Date	Place	Source	Quote
			started yet—the fishermen receive 6 cents a pound for all they can catch. This price has prevailed for the last couple of days. The fish was on the Portland retail market yesterday at 10 cents a pound. The 4 cents hooked on between the buying point and the consumer's point is not considered excessive, inasmuch as there is added to the cost between those points such expenses as about 10 cents box for freight and 17 cents for packing and handling. Six-Cent Price Cannot Last. When the big run starts, however, it is likely the bottom will be knocked out of the prices and the fishermen will get their 1 cent in place of 6 cents. This will be 100 per cent above last year's low-water mark. Therefore, such bargains as smelt at retail in Portland several pounds for 10 cents will not be visible this season unless something happens to the combination. The fishermen expect to stick to their agreement and the buyers probably will have to. To those people who make a practice of pickling or "putting up" large quantities of smelt each season, this information perhaps is not pleasing. The city's fish market apparently offers no solution to the problem, for in the eyes of the smelt combine what applies to retail stores in Portland applies to the city's market. The minimum price as long as fishermen get a cent a pound will be between \$1.60 and \$1.80 a hundred pounds, to which will be added freight costs, etc. City Market Barred Out. City Commissioner Kelleher, who has charge of the city's fish market, has been firmly informed that his market would be shut out of the smelt field. He got this information from three different persons. Accordingly, he sent down yesterday to dig into affairs and found that he can get smelt, but only after middlemen's profits, etc., have been annexed. Fishermen interviewed at Kelso were not reticent at all in telling of the combination arranged. It was discovered without any great amount of research that the fishermen are satisfied to fish for all three buyers located on the water front and are not seeking any new outlets for their supply. Accordingly the only way the city market can get any smelt will be to send in its own boats and fishermen or purchase the supply with middlemen's commissions, etc., hooked on. Wholesale Dealers Protected. Buyers freely said their price arrangements were such as to protect the wholesalers in Portland. They have arranged not to sell to retailers for less than \$1 a box of 50 pounds. Wholesalers will get theirs for a minimum of 85 cents a box. None of the buyers at Kelso have been soliciting any Portland retail trade and, in fact, want none. They are, however, out for big Eastern shipments. None of the buyers have any arrangements with Portland retailers. In fact, they say they want none, for they do not want to monkey with daily shipments of a few hundred pounds. It is in the Eastern carload shipments that the buyers will make their cleanup, judging from a view of the situation at Kelso. Columbia River smelt has been extensively advertised in the East and many carloads will be shipped this season—more carloads by far than ever before. With the fish costing the buyers or wholesalers a little better than a cent a pound ready for shipment, the opportunities are seen. What the prices will be is a matter of conjecture. They started out in St. Paul a few days ago at 18 cents a pound—the smelt that was made

Date	Place	Source	Quote
			ready for shipment at Kelso for a little better than 6 cents a pound. They have sold in parts of the East as high as 30 cents a pound, according to buyers. Considering the profits supposed, at least, to be in the Eastern carload lot business, the fishermen may be justified in holding out for 1 cent a pound. But it goes hard with Portland smelt fanciers. The fishermen give as their justification for their 100 per cent increase, the fact that the cost of their dip nets, their gasoline, their engine supplies, boots and all other things entering into their business has jumped skyward.
17 February 1918	Cowlitz River, WA	<i>Morning Oregonian</i> , p. 16, col. 1	SMELT FISHERS SAY CENT RIGHT PRICE. Cost of Equipment Declared to Have Doubled and Living Wage is Necessary. WORK IS COLD AND HARD. Long Season of Waiting for Delayed Run Followed Often by Brief Period of Heavy Catch When Fish Often Cannot Be Sold. Fishermen on the Cowlitz River declare their recently organized programme of holding out for a minimum of 1 cent a pound for smelt during the season which is expected to commence any day now, is entirely justified. They say that their costs of doing business have increased 100 per cent and they are merely asking for a living wage for their fishing. W. C. Ballhorn, Harry Hann and C. W. Cleland, a committee representing the fishermen on the Cowlitz have prepared the following statement: "Does a minimum price of 1 cent a pound for Columbia River smelt to the fishermen, who do the work, seem exorbitant? The undersigned are smelt fishermen and in setting a price of 1 cent a pound as a minimum for the 1918 season, we and other fishermen are asking but a living wage. Equipment Cost Doubled. "With our nets, gasoline, boxes, boats and all other equipment costing us more than double pre-war prices, we cannot afford to fish for smelt for a mere pittance of 25 cents a box, and find ourselves financial losers at the end of the season. Many of us have been here a month awaiting a delayed run, and this is frequently the case. During this time we have been at heavy expense, and we have had absolutely no income. Then, too, the fishermen must pay a smelt sur-tax of 3 cents a hundred weight. If we must pay double former prices for everything we use in our fishing, we must have a better price than last year or quite [quit?]. We cannot be expected to operate at mere existence wages. If in former years the fishermen had made such big money, as many people seem to imagine, we might be accused of holding up the consumer, but such is not the case, as anyone familiar with the smelt industry knows. Work Cold and Disagreeable. Smelt fishing is not the easy work that some people think. It isn't a matter of getting them out of the river with a scoop shovel. Most of the time it means working all night in cold, disagreeable weather and, as a usual thing, the catches run from 10 to 25 boxes to the boat, with two men in a boat. Experienced fishermen agree this is about the season's average. Of course, there are occasional big runs of fish, when large catches can be made but then it is impossible to sell the fish, which means idleness for many boats. Certain days of the week nobody wants any fish, Saturday particularly, which, again, means enforced idleness for the fisherman. Therefore, it can be seen that dipping for smelt in the Cowlitz River at a cent

Date	Place	Source	Quote
			a pound will not make any of the fishermen wealthy. All we seek is a living price. Buyers Say Claim Just. Instead of three buying concerns located at Kelso, as has been represented, there are 13 or more dealers buying smelt, and three men and companies recognize the merits of the fishermen's claims and every one of them agree that less than 1 cent a pound to the fishermen will not insure him a living profit under present living and operating conditions. As to the profits of the smelt dealers, it is only fair to them to state that boxes at 17 cents, mailing and handling costs, leave them very little margin, if they sell fish to the wholesalers at 85 cents a box after paying the fishermen 50 cents. In conclusion we wish to say that the Cowlitz River fishermen have no desire to charge the consumers in Portland or elsewhere an exorbitant price, but we do think we are entitled to a living wage for our work.
17 February 1918	Portland, OR	<i>Morning Oregonian</i> , p. 16, col. 1	CITY TO GET CHEAP SMELT. Commissioner Kellaheer Making Arrangements to Keep Down Price. The city's fish market may be able to beat other markets out in price of smelt when the run begins, if City Commissioner Kellaheer clinches negotiations now under way. He has a good prospect of getting smelt at a point near the Cowlitz River for 60 cents for a box of 50 pounds. Wholesalers, according to the figure to be demanded by the smelt buyers on the Cowlitz, are scheduled to pay 85 cents a box. In this event the city's fish market will be able to sell smelt at retail at a price below the cost to wholesalers. In getting the low price the plan calls for the city to act as buyer, middleman, wholesaler and retailer. The fish will be bought direct from the fishermen, who will receive probably the 1 cent a pound they are demanding this year.
23 February 1918	Kalama River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 6	Smelt Go Up Kalama River. After several weeks of inaction for the smelt fishermen, information of a run of fish in the Kalama river Thursday [21 February] sent the fleet of boats hurrying there. The run in the Kalama is not heavy and the difficulties of getting in and out of the stream and of fishing are enormous, but fair catches have been made. The failure of the smelt to come into the Cowlitz is ascribed by many fishermen to the bad bar at the mouth of the stream, which leaves very shallow water at low tide. Unless conditions change for the better in this respect, fishermen say the run may not come into the Cowlitz this season.
27 February 1918	Kalama River	<i>The Twice a Week Kelsonian</i> , p. 2, col. 3	Smelt Fishing Continues Bad. Fishing conditions are so bad in the Kalama river, and the run of fish is so light and scattering that catches have been small. Few fish were in the Kalama river last night and none of the boats made good catches, although a large number of boats were out. The smelt act as though they will abandon the Kalama river and where the wily little fish will go after that remains to be seen. Many of the fishermen anticipate a run in the Lewis river. Shipments have been small compared with former years. Carload shipments have been made to the east by the Columbia River Smelt Co., loaded at the Doty Fish Co. plant at Kalama, and by Bert Hayes, who is agent for the Northwest Fish Products Co.
28 February 1918	Kalama River	<i>Rainier Review</i> , p. 1,	SMELT GO UP KALAMA RIVER. After several weeks of inaction for the smelt

Date	Place	Source	Quote
		col. 6	fishermen, information of a run of fish in the Kalama river Thursday sent the fleet of boats hurrying there. The run in the Kalama is not heavy and the difficulties of getting in and out of the stream and for fishing are enormous, but fair catches have been made. The failure of the smelt to come into the Cowlitz is ascribed by many fishermen to the bad bar at the mouth of the stream, which leaves very shallow water at low tide. Unless conditions change for the better in this respect, fishermen say the run may not come into the Cowlitz this season.
2 March 1918	Kalama River	<i>The Twice a Week Kelsonian</i> , p. 2, col. 2	Salmon Season Closed. ... Meanwhile the local fishermen are occupying their time chasing the elusive smelt who still show a dislike to entering the Cowlitz river. Catches on the Kalama river have been light the past few days.
3 March 1918	Portland, OR	<i>Morning Oregonian</i> , p. 1, col. 2	Good Things in the Market. The United States Bureau of Fisheries has recommended that hereafter Columbia River smelt be designated "eulachon." This musical word is, it seems, the original Indian name for the dainty little fish. So all that is left for us to do is gracefully to acquiesce and practice up. Eulachon is considerably more abundant this week and has consequently fallen to 5 cents a pound. ...
6 March 1918	Lewis River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Smelt In Lewis River. The smelt are continuing their wanderings, and appeared in the Lewis river Sunday night [3 March], and that stream is said to be full of fish. For the past few nights the smelt have come into the Cowlitz as far as the Crescent mill on the tide, but would not stay in their favorite haunts. As soon as word arrived of the appearance of smelt in the Lewis river, the fishermen headed that way, and the population of the Lewis river metropolis must have about doubled in the past few days. More than 100 boats which had been making headquarters in the Cowlitz, are now fishing on the Lewis river, and most of the fish will be shipped from Woodland. The Columbia River Smelt Co. will continue to bring their fish to Kelso for express shipments, but other buyers will ship directly from Woodland. Large quantities of boxes and box material have gone to Woodland from here in the past few days.
8 March 1918	Lewis River	<i>St. Helens Mist</i> , p. 1, col. 5	TONS OF SMELTS ARE BEING CAUGHT. Run Enters Lewis River and Fishermen Make Big Catches. Fishermen who have been on the river for years say there is no telling what a smelt will do, and their performance this year bears out the statement. Apparently the smelt didn't care for either the Cowlitz or Kalama rivers and have come on up the Columbia to the Lewis river, and they are there by the millions. For the past few days, every morning there are a number of boats at the Sheldon and C. R. P. A. docks with tons of these smelt. The prices at first were 75 cents per box or \$25 per ton, but Wednesday the price dropped to 50 cents per box or \$20 per ton. It is estimated that not less than 25 tons have been shipped from St. Helens during this week in addition to the many hundred pounds used locally and distributed throughout the nearby country. Many of the fish shipped from here to Portland are reshipped in refrigerator cars to eastern and nearby western points. If the run continues for several days more the fishermen will make a tidy sum for their efforts in dipping the little fish from the river.

Date	Place	Source	Quote
9 March 1918	Lewis River	<i>Morning Oregonian</i> , p. 14, col. 3	Marine Notes. ... On an inspection trip to Lewis River yesterday, where the dredge Monticello is engaged in channel work at the mouth of the stream, Colonel Zinn, Engineer Corps, U. S. A., enjoyed a luncheon at which the famed Columbia River smelt played an important part. The dredge crew caught a large bucket of smelt in three dips of a net Thursday night so plentiful are the fish there. It is said the early run in the Cowlitz River failed to be realized this season, the smelt first entering Klama [sic] River and are now in the Lewis.
16 March 1918	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 6-7	City Fish & Poultry Market. FRESH COLUMBIA RIVER SMELT. 8 lbs. for 25c. 50-lb. box for \$1.00.
31 March 1918	Sandy River	<i>Morning Oregonian</i> , p. 21, col. 2	SMELT RUN NOW ON. Portlanders Today Are Heading For Troutdale. ENOUGH FOR ALL ASSURED. Sandy River Alive With Finest of Fish Known to Local Epicures. Dipnets of All Kinds Are in Service Today. Like a ribbon of silver thrown from the Columbia, the long anticipated run of smelt has entered the swift reaches of the Sandy River. Today will witness a veritable exodus from Portland and neighboring towns, when all the family will hasten to Troutdale with an amazing variety of home-made dipnets. The fine little fish entered the river yesterday morning [30 March], heralded by a scattering advance guard, on its way to the spawning beds far up the Sandy. Residents of Troutdale have scanned the waters of the Sandy every day for weeks past. Within an hour the news of the smelt run reached Portland. Yesterday afternoon the run increased in volume, becoming fairly heavy. Today it should be on in full tide, say those who profess to know the ways of the singular and mysterious little ocean wanderers. Enough For All Assured. However many are the motoring parties that visit the river to dip smelt, or rush thither on the electric line of the Portland Railway, Light & Power Company, there will be more than fish enough for all—for the smelt run is a tremendous affair, reckoned not in millions, but in billions and better. By recent action of the Game and Fish Commission, and by official proclamation of Governor Withycombe, the dipnet license fee of \$1 will be waived in all cases where the fishermen are taking smelt for their own use and not [f]or market. Market fishermen must pay the license fee, which they are uniformly glad to do, as smelt dipping brings high wages in return, though the fish sell at absurdly low prices. Sheriff Hurlburt expects that fully 5000 automobiles will visit the Sandy at Troutdale today. He has dispatched three Deputy Sheriffs to aid in keeping traffic clear on the Columbia River Highway, just above the lower bridge, and will send several more deputies to the same point this morning. When the run started last year, on April 20, the first Sunday following saw several thousand cars and other vehicles parked along the highway. Finer Fish Never Seen. Learned ichthyologists will have it that the silver ribbon is not a convention of smelt, but of eulachon—a cousin of the real smelt, and in every way its superior. Fried, baked, smoked or kippered, or salted for future use, whatever be the name, it is certain that no finer fish ever flirted a fin than the one we know as the Columbia River smelt.

Date	Place	Source	Quote
			There was a run on in that distant day when Captain Gray sailed into the Columbia to bear away with him many true and marvelous stories of the prodigality with which the Oregon country had been dowered [showered?]. In the log of that voyage the good captain set down the fact that he had found a new fish in the new river, a fish that compensated for its diminutive proportions by a richness of flavor, a savor so elysian that he named it the finest of his culinary acquisitions. It was the smelt, the ever-so-far-removed grandparent of the same run that is glittering in the Sandy this morning.
March 1918	Kalama River Lewis River	<i>Pacific Fisherman</i> 16(3): 51.	EULACHON RUN LATE. Great preparations were made this year for handling large shipments of eulachon from the Columbia river, as the fish has become well established in several Eastern markets and interest has been greatly stimulated by the Bureau of Fisheries exploitation work. The run, however, has so far been very disappointing. Up to the first of March the usual run in the Cowlitz river has not appeared, and a fair run that started in the Kalama river was of short duration. During the second week of March the eulachon appeared in large numbers in the Lewis River, and large catches have been made, with the fish in unusually good condition. The handling of the catch is somewhat more difficult than if the fish had run in the usual direction, but a heavy shipping movement to the East has been started, and it is expected that the shipments in that direction will reach important figures before the run is over. There was a fairly large movement last year, and the fish were well liked wherever they appeared, a large quantity having been placed on the New York market at a time of acute food shortage.
3 April 1918	Sandy River	<i>Morning Oregonian</i> , p. 6, col. 1	SANDY RIVER STILL BLACK WITH SMELT. Commercial Fishermen Fill Their Boats With Toothsome Little Fish in Few Hours. RUN LARGEST IN YEARS. Jolly Fishermen Range Along Banks of River and Carry Away Tons of Finny Tribe Without Diminishing Supply. Sandy Smelt Run Heavy. Who has not seen the smelt ran of the Sandy, when the little fish turn from the Columbia to seek their spawning riffles in the glacial waters of its tributary, has a great deal to learn about smelt—which are fish of fine personal attributes—and more about human nature. Never a jollier assembly of fishermen went to the river than those who have ranged themselves along the banks of the Sandy the past few days. With nets of mosquito screen, of bird cages, of rat-traps, flour sacks and what-not, they have swept the river at its edge for a toll that is reckoned in many tons. And they have touched but the outer fringe of that flood of fish that traveled up the current. For the Sandy was black with smelt. From the bridge, as one looked down at the sand-bars, the river bottom curved and swayed with the files of finny pilgrims, in numbers past all computing. As the dipnets plunged into the current the tick-tick-tick of the smelt against the netting was continuous until the fisherman swooped his net from the water, bearing from a dozen to a hundred or more. Commercial fishermen filled boats with the smelt in a few hours' dipping. A salmon launch crept in from the Columbia, her gunwales high above the current. A few hours later she passed down stream, laden almost to the water's edge. From the banks the

Date	Place	Source	Quote
			licensed fishermen cried their wares to the passing motorists, who lined the bridge as spectators. "Fresh smelt!" whooped one. "Two bits a box!" "Smelt still kicking!" announced another. The holiday spirit was predominant in the crowd that netted along miles of river bank. They loaned one another nets and planks that reached conveniently, if hazardously, over the current. They laughed and made friends and explained just how smelt should be canned or salted for future use, and how many they caught last year, and all about it. Now and again they fished one another from the chill blue water of the river with more merriment. Run Largest In Several Years. Beneath the bridge at Troutdale is a sandbar, nestled about its sponson, one of the big concrete pillars. Until the season of low water it cannot be reached from either shore. The smelt ran thick and dark across this bar and turned in a solid bank of moving fish to skirt the pillar. Someone rigged a block and tackle from the bridge rail, and a dozen boys came down, hand over hand, to fish at the base of the pillar. Old-timers of Troutdale say that this season's run has been the largest of several seasons. The fish are of fine quality, and of more than ordinary size. At the river bank they were almost wholly without sale, for anyone with any kind of net could dip several hundred pounds in an hour. The length of the run is problematical, but it is thought that it has passed its height and that it will be over within a day or so. Ordinarily the smelt run in the Sandy lasts from four days to a full week.
3 April 1918	Portland, OR	<i>Morning Oregonian</i> , p. 11, col. 2	CITY NEWS IN BRIEF. ... Smelt Sell 4 Pounds For 10 Cents. —The run of smelt in the Sandy River has knocked another notch out of the smelt price in the retail market. The city's fish market yesterday knocked the price down from three pounds for 10 cents to four pounds for 10 cents. Arrangements have been made for a large supply of the fish from the Sandy River, where they are being dipped up in vast quantities.
4 April 1918	Sandy River	<i>Oregon City Courier</i> , p. 2, col. 7	The smelt run in the Sandy river drew some of our citizens into the fray last Sunday. Of course they came home loaded to the guards because there were so doggoned many people there the poor smelt could not dodge all of the nets. If he missed one guy the next one had his sack ready so the entrance was almost unavoidable. It sounds like a real fish story to hear those talk that were there ... Mr. and Mrs. Walter Douglass motored to Troutdale after some smelt and got 4 gunny sacks full on Saturday. ... John Schram and Curtis Kandle motored to Sandy after smelt Monday morning, and they returned in the evening with 5 boxes of nice large fish.
11 April 1918	Sandy River	<i>Oregon City Courier</i> , p. 6, col. 1	Gresham—A great run of smelt was seen in the Sandy river on Friday evening and hundreds of people took advantage of the opportunity to get a big supply. So great was the crowd on Sunday that several deputy sheriffs were engaged in traffic work, owing to the number of automobiles. So great was the congestion that machines were parked along the streets of Troutdale and the county roads for half a mile. Many thousands pounds of the delicious little fish were caught. Dipnets of every variety were used, ranging from the most approved patterns to bird cages and coaloil cans with holes punched in them. The fish could be scooped up by the dozens, and no one thought of going away with less than

Date	Place	Source	Quote
			a sack full.
1919			
21 December 1918	Portland, OR	<i>Morning Oregonian</i> , p. 18, col. 7	COLUMBIA RIVER SMELT. 15c per lb. Single frozen, properly packed to arrive in good condition in 5-pound to 15-pound lots, within 150 miles of Portland. Write for quotations on larger quantities. NORTHWEST FISH PRODUCTS CO., 205 Yamhill St., Portland, Or. Phone Main 4760.
28 December 1918	Cowlitz River	<i>The Twice a Week Kelsonian</i> , Sat, p. 1, col. 6	Few Smelt in River. Fishermen have dipped a few boxes of smelt in the Cowlitz river the past two nights, and small shipments of the first run fish are going out to Northwest markets. There is usually a ligh[t] winter run of smelt and the school of fish in the river now will probably be dipped out soon. Fishermen and the shipping companies are all ready to handle the fish whenever they arrive in quantities. As usual the first run is bringing a fancy price to the fishermen. There have been few gillnet smelt caught on the lower Columbia thus far this winter.
5 February 1919	Portland, OR	<i>Morning Oregonian</i> , p. 13, col. 6	RUN OF SMELT BEGINS. Farmers Join Fishermen in Cowlitz River Catches. The annual run of smelt in the Cowlitz River has started, according to reports received in Portland yesterday. Farmers and people living in the vicinity of the river have joined with the smelt fishermen in catching the fish, which are said to be running in large schools. As a result of the commencement of the run, prices of Columbia River smelt dropped to 4 and 5 cents per pound in Portland. It will be several months before the smelt can be expected in the Sandy River, although the fish do not ply through this stream every year. However, for the past two years Portland people have made large smelt catches in the Sandy.
7 February 1919	St. Helens, OR	<i>St. Helens Mist</i> , p. 8, col. 3	The run of smelt in the river is increasing and fishermen are making good catches. So far, the little specimens of the finny tribe have not reached the Lewis river, but it is reported that across from Rainier, they are entering the Cowlitz. The price for smelt, in the local market, has dropped to 8 cents per pound, and it is expected that before the coming week the price will be around 5 cents per pound.
13 February 1919	Oregon City, OR	<i>Oregon City Courier</i> , p. 3, col. 2	Several boxes of smelt have been sold here to our farmers at 5 cents per pound the past week.
17 February 1919	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 6	DISAPPEARANCE OF SMELT FEARED. Pioneer Cowlitz Fishermen Deplores Lack of Protective Laws. KALAMA, Wash., Feb. 13.—(To the Editor.)—I have been fishing smelt since 1879 and for over 25 years after that date never saw the Cowlitz river without a big run of smelt. Some winters they would come as early as January and sometimes as late as March. Then they would come so thick that a fish boat could be loaded with a small dipnet in a few hours. For the last eight years I have noticed the large runs have disappeared; for three years, or three winters, the most smelt have been caught in the Kalama, Lewis and Sandy rivers, and it looks like the smelt were done for in the Cowlitz forever. This winter we got a surprise. A big run of smelt entered the Cowlitz after the markets had been well supplied from the smelt caught by gillnets in the lower

Date	Place	Source	Quote
			Columbia. As soon as the smelt entered the Cowlitz several hundred launches loaded up. My boy caught a ton and one-half in five or six hours and expected to make a stake out of it. He went over to Rainier, but the smelt buyers were blocked, and also in Kelso. At least 150 fish boat-loads at two tons each have been dumped overboard inside of three days and a big troller loaded and bound for a lower river port with seven tons of smelt got foul of a bootlegger just after being loaded and bound out of the Cowlitz, and struck the sandbar in the mouth of the Cowlitz. He kept driving ahead and drove her high and dry. The river falling about his launch, he was compelled to jettison his cargo overboard, as nobody wanted his smelt for nothing. The whole thing is a disgrace. Every fisherman and cannery man knows that the smelt is the natural food for the Chinook salmon. The young salmon, after leaving the spawning ground and hatcheries, feed on the young smelt, and the large salmon fatten on the grown smelt. This run of smelt, most likely the last big run ever to come into the Cowlitz, will be followed up by launches to the very spawning grounds. My boy was offered a contract by one of our big smelt merchants at \$8 per boatload of 2½ tons, a trifle over ⅛ of a cent per pound. There is no law against dumping a few hundred tons of these fine fish overboard, but we should have a law to protect the smelt, as well as the salmon. Our lawmakers in Salem and Olympia are not all to blame, but the fish law agitators in both houses, who fight all kinds of battles between themselves on how to protect the salmon, let the salmon starve and don't think of feeding this royal fish. I am sure that in less than 15 years from now smelt will be as scarce as the elk in the mountains. These plentiful launches with the big scoopnets will soon finish the smelt business. I am able to see it. It is my trade and business. The smelt-buying merchants about Kelso and Kalama consist of about a dozen, and get discharged sailors and soldiers to dip the smelt at from \$3 to \$5 a ton. They get fat on the destruction of the smelt. Whatever can be dumped fresh on the market at 75 cents to \$1 a box goes. Several hundred tons may go into cold storage and be retailed later from 10 to 12½ cents per pound. It would be wise and easy to draft a law that would be of benefit to the salmon, the fishermen and the children. Charles Wood
19 February 1919	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 6	Smelt Fishing is Filmed. Yesterday morning T. G. Randolph, representing the International Film Service, and A. Singelow of Gaumont service were Kelso visitors and took some motion pictures of the smelt fishing industry. These films will be shown in the regular educational news service of these concerns and will be shown in all parts of the nation and in other countries. They secured some splendid pictures and greatly enjoyed their visit to the smelt fishing grounds.
22 February 1919	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Oregon Fisherman Fined. Charles Oberg of Clatskanie, Ore. was arrested Thursday [20 February] by Fisheries Inspectors H. W. Whitford and A. J. Giles for fishing for smelt in the Cowlitz river contrary to law, which does not permit an Oregon fisherman to fish in Washington waters. ...
8 March 1919	Cowlitz River	<i>The Twice a Week</i>	Oregon Fisherman Fined. F. D. Paul and W. O Thompson, fishermen of Portland, were

Date	Place	Source	Quote
		<i>Kelsonian</i> , p. 1, col. 4	arrested Wednesday [5 March] by Fisheries Inspector A. J. Giles for fishing for smelt without licenses. ...
1 April 1919	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 5	Those Who Come and Go. Run of smelt in the Sandy river attracted scores of guests from the hotels yesterday. To the easterners and people from California the sight was wonderful. "About everyone in the hotels has gone out to the Sandy river," said Clerk J. J. O'Brien, at the Hotel Portland. "Those who went yesterday came back so excited and talked so much about the fish that they caused others to go out today. One easterner declared there was more fish than water in the river."
4 April 1919	Sandy River	<i>St John's Review</i> , p. 1, col. 6	Smelt Running Big. Smelt! Smelt! Smelt! Tons of glistening smelt dipped wriggling from the Sandy river! Smelt for the market, smelt for supper, smelt to salt away for the household larder, jolting with knockout blows the high cost of living. Saturday [29 March] the smelt begun [sic] to run in the Sandy. Funny how rapidly the news spread. By 4 o'clock Sunday morning, whole families with dipnets, buckets, any old thing to dip'em up with, were arriving at the Sandy river bridge, just the other side of Troutdale (which ought henceforth to be called Smeltdale.) These early comers were just the vanguard of a multitude who came to the Sandy Sunday for smelt. From every point and rock on both sides of the river above and below the bridge, they dipped in their nets and hauled out the smelt. They came in automobiles, on motorcycles, in trucks and behind Old Dobbin in the family buggy. The interurban from Montavilla to Troutdale had to run extra cars to accommodate the rush. Some even walked. Six deputy sheriffs and traffic officers were kept in a sweat all day handling the swarm of automobiles. From Troutdale down to the bridge and beyond it, a full half mile, cars were parked on both sides of the highway, and in every open parking space they were three, four, even half a dozen deep. And every moment more cars arriving to add to the jam. The miles of highway between Portland and Troutdale during the whole of Sunday was covered with two streams of automobile traffic—one going to the Sandy, the other returning. From the fronts backs or most of the cars on going out projected the handles business ends of dipnets. Packed on the hoods and running boards of the cars returning wore gunnybags, flour sacks boxes, buckets, barrels and baskets full of smelt. It made no difference what kind of a dipnet was used. It was all the same to the smelt. Some fishermen had nice "store" dipnets. But those with flour sacks held open by a wire grommet and fastened any old kind of a stick dipped them out just fast. There were about as many varieties of dipping them out as there were dipnets, too. Most of the fishers stood on the shore and reached out into the current where the looming schools were swimming. Bolder spirits waded right into the stream and scooped them up. And some, like the fishermen of Galilee, did their fishing from boats. The boats, however, were moored to the shore for the current was too swift for paddling. But they all got smelt. Bucketfuls, bagfuls, wagon loads of them. And for every smelt who yielded up his life in a dipnet, hundreds of others pressed upstream mass formation for the spawning grounds. The annual smelt run in the Sandy usually

Date	Place	Source	Quote
19 May 1919	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 2-3	continues from one to two weeks. It ends almost as abruptly as it begins,—<i>Oregonian</i>. Oolachan. The craze for return to aboriginal nomenclature in the west has reached the limit. A prominent Canadian Pacific railroad man now wants to rob Columbia River smelt—our smelt—of its well-known name and give it back to the Indians. An outsider can consider with fair equanimity the still burning issue over the name of the one real mountain that can be seen from both Seattle and Tacoma, or view with amused tolerance the proposal to change the name of Mount Baker back to the original Mount Shuswap—or is it something less melodious? But the assault upon the name of our smelt is certainly inconsiderate, and is going a bit too far. The proposal comes in a letter to a Seattle paper which was acquainted only with the Puget sound smelt, had confused the two varieties and had made contemptuous remarks about the Columbia River product. The Puget sound smelt is a measly little fish, dry and tasteless, which never gets out of brackish water. Its favorite spawning place is some flat beach in a land-locked harbor into which rivers of considerable volume flow. Denizens of Bellingham bay used to pull Puget sound smelt out of the water with garden rakes along a beach which enjoys the delightful original name of Squalicum. Or they would sit at the end of one of the long wharves that sprawl over the tide flats and “jig” for them. The jigger is a triangular iron with numerous hooks attached. It is lowered into the water and pulled up suddenly, thus snagging the unwary smelt. The process is fully as exciting as clam digging. Since the inhabitants of the sound country learned of the superior flavor of Columbia River smelt the sport of local smelt fishing is said to have declined a great deal. The Columbia River smelt is about four times as large as the Puget sound variety. Its flesh is very delicate and well flavored. It has been argued that it is misnamed because much of the commercial smelt fishing is conducted in the Cowlitz river. But the smelt to reach the Cowlitz journey sixty miles up the Columbia. Many do not head into that stream, but continue on to the Sandy, about fifty miles beyond. The only reason they are not taken in quantities from the Columbia is that the schools are hard to locate in the great breadth of that river. Yet along the Columbia above Vancouver farmers and their children during the runs obtain enough for home consumption by waiting until the wash of a passing steamer throws the fish within reach of dip nets operated from the bank. Smelt fishing on the Cowlitz is unromantic and purely commercial. But when the schools turn into the Sandy then all Portland turns out to celebrate. Where the Columbia river highway spans the stream the Sandy tumbles through a picturesque gorge. The endless stream of fish struggling up the torrent is compressed within narrow confines and one may stand upon the bank and dip and dip until he has enough. On Sundays pa, ma, and the children hie out in the flivver or the limousine until automobiles by the thousand line the highway. If anybody has neglected to bring along a dip net or a bird cage or a sieve, there is a barker at hand who for a small fee will yield his place and his net for a short time, or he will sell all one wants from his accumulated stock for a ridiculously small price. Smelt fortnight

Date	Place	Source	Quote
			is thus a Portland and a Columbia river institution. It is unknown in the same form elsewhere. Whatever question there may be as to the name rests in the existence of the same fish in vast numbers in the Fraser river. There the Indians used to dry smelt in quantities for lighting purposes, for when dried they will burn like a candle. They are quite generally known as “candle fish” in British Columbia. The Indian name, by the way, is “Oolachan.” What it means is not disclosed by available authority. But it sounds like an Indian licking his lips.
21 May 1919		<i>Morning Oregonian</i> , p. 10, col. 7	PROPER NAME FOR OUR SMELT. Correspondent Prefers “Eulachon,” With Columbia River Prefix. PORTLAND, May 20.—(To the Editor.)—I refer to the editorial in the <i>Oregonian</i> headed “Oolachan” in which you state that a prominent Canadian Pacific railroad man wants to rob Columbia River smelt—our smelt—of its well-known name and give it back to the Indians. The writer believes that your article is somewhat misleading and lacking in information. I believe that you will find about the early part of 1917 Doctor David Starr Jordan of Stanford university took up this matter of name with the U. S. bureau of fisheries, calling their attention to the fact the so-called “Columbia river smelt” are not smelt but eulachon—spelled and pronounced by Canadian Indians “oolichan.” The eulachon, or Columbia river smelt as we call them, are far superior to the Sound smelt or the California smelt; and it was for the purpose of distinguishing them from the inferior species that it was suggested to the bureau to establish the correct name. The bureau of fisheries has used the name eulachon in bulletins and advertising matter for about two years. And from our local viewpoint; while we are glad to see the “Columbia river” brand on any article of merit, the word “smelt” has been a serious handicap in marketing this delectable fish beyond local territory, where the word “smelt” confuses same with inferior species. Why not call them Columbia river eulachons? A SUBSCRIBER. -- If the correspondent means to imply that “eulachon” has a scientific basis he is mistaken. The scientific name of the Columbia river smelt is <i>thaleichthys Pacificus</i> [sic]. If he desires encyclopedic authority he will find this first designated in such works as the candle fish. “Eulachon” also spelled “oolachan,” “oolichan” and “oolakan,” is the native name in British Columbia and Alaska for the candle fish, according to the Century dictionary. One undesirability of “eulachon” as a name for the Columbia river smelt is its local application to the Pacific coal fish, variously known as the Pollack, skilfish and beshow. It may not be generally known in Portland that in British Columbia oil is extracted from the fish we know as Columbia river smelt and has commercial recognition as eulachon or eulachon oil, a substitute for cod liver oil.
1920			
3 January 1920	Portland, OR	<i>Morning Oregonian</i> , p. 1, col. 2	SMELT ON MARKET HERE. First Shipments of Cowlitz River Run Are Received. Portland markets yesterday were selling the first of the new run of Columbia

Date	Place	Source	Quote
			river smelt, the fish having been shipped from Cowlitz river, where the run is said to be quite heavy. The fish are what is known as the “widow” run, being the forerunners of the main run, which starts generally in February. About 20 boxes of the fish were received yesterday from the Cowlitz by the Portland Fish company, which reports that they will continue to receive consignments daily until the run ceases. Heavy catches generally reduce the “widow” run within a short time, it is stated, and smelt are off the market until the main run starts. The wholesale price for the smelt yesterday was 13 cents a pound, and the retail price at most of the markets was 20 cents. When the main run begins the fish are caught in such quantities that the price generally drops much lower.
5 February 1920	Rainier, OR	<i>Rainer Review</i> , p. 5, col. 4	Fresh Fish. The famous Columbia River Smelt are now running. .. J. J. BRAIM’S MARKET. Fish Market.
12 February 1920	Rainier, OR	<i>Rainer Review</i> , p. 5, col. 4	Fresh Fish. The famous Columbia River Smelt are now running. .. J. J. BRAIM’S MARKET. Fish Market.
19 February 1920	Rainier, OR	<i>Rainer Review</i> , p. 5, col. 4	Fresh Fish. The famous Columbia River Smelt are now running. .. J. J. BRAIM’S MARKET. Fish Market.
20 February 1920	St. Helens, OR	<i>St. Helens Mist</i> , p. 1, col. 5	The big run of smelt in the Cowlitz river has been responsible to some extent in lowering the h. c. of l [high cost of living]. Tom Roy has been and is the smelt king of St. Helens. On a single day he received and disposed of 150 fifty pound boxes of the fish. The prices ranged from 4c per pound to 8 pounds for 25c.
26 February 1920	Rainier, OR	<i>Rainer Review</i> , p. 5, col. 4	Fresh Fish. The famous Columbia River Smelt are now running. .. J. J. BRAIM’S MARKET. Fish Market.
4 March 1920	Rainier, OR	<i>Rainer Review</i> , p. 5, col. 4	Fresh Fish. The famous Columbia River Smelt are now running. .. J. J. BRAIM’S MARKET. Fish Market.
11 March 1920	Rainier, OR	<i>Rainer Review</i> , p. 5, col. 4	Fresh Fish. The famous Columbia River Smelt are now running. .. J. J. BRAIM’S MARKET. Fish Market.
18 March 1920	Rainier, OR	<i>Rainer Review</i> , p. 5, col. 4	Fresh Fish. The famous Columbia River Smelt are now running. .. J. J. BRAIM’S MARKET. Fish Market.
20 March 1920	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 6	Big Smelt Caught. A run of fresh smelt has arrived in the Cowlitz river and yesterday [19 March] and last night the boats made good catches of the fine fish. W. A. Mable, manager of the Columbia River Smelt Co., had a lot of mammoth smelt which he picked from several boxes of the new run [of] smelt. The king smelt of the bunch was more than 12 inches in length and the others were ten inches or better in length.
25 March 1920	Rainier, OR	<i>Rainer Review</i> , p. 5, col. 4	Fresh Fish. The famous Columbia River Smelt are now running. .. J. J. BRAIM’S MARKET. Fish Market.
27 April 1920	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 6	Those Who Come and Go. When A. N. Ward gets back to the Hot Stove club at Malden, Mass., [he] will have a fish story to tell that his fellow townsmen will probably not believe and will stamp it as a traveler’s tale. When Mr. Ward recounts that he saw a river so filled with fish that the stream was virtually one solid mass of fish for miles, and contained millions of smelt, the Maldenites will sniff with suspicion. When he says that

Date	Place	Source	Quote
			in five minutes he, or anyone, could gather enough fish from the Sandy river with his coat, or auto robe, or any old thing, to fill a car to overflowing, they'll be certain that he is drawing the long bow. And yet, those were the things which Mr. Ward saw when he toured the Columbia river highway yesterday. He saw the great smelt run and saw miles upon miles of parked cars, while their drivers were filling gunny sacks, cans, buckets, tubs, boxes and any container they could secure, with smelt. At home Mr. Ward is an undertaker, and with his wife he is at the Multnomah, returning from the profiteer belt of California.
28 April 1920	Portland, OR	<i>Morning Oregonian</i> , p. 15, col. 4-5	SMELT RUN BIGGEST EVER. Prow of Boat Turns Up Hundreds All Night Long. "My observation is that this is the biggest smelt run that has ever come up the Columbia river," was the statement made yesterday by State Game Warden Carl D. Shoemaker after he spent Monday night on the river in a motorboat. "We found early this morning that the seagulls are following the smelt all the way from Vancouver bridge to the mouth of Sandy and that a solid wave of smelt is coming upstream between these points, or a distance of about ten miles. The prow of our boat turned up hundreds of them all night long." Mr. Shoemaker says there are no indications of the run slackening and that tons of fish are being shipped to Oregon and Washington points and many are going into local cold-storage plants. It is found that female smelt predominate over males in the present run, indicative of another heavy one next year.
30 April 1920	Sandy River	<i>St. Helens Mist</i> , p. 10, col. 3	Everybody from grandma down to the toddling youngster is scooping up smelt in the Sandy river near Portland this week. The heaviest run of smelt within the memory of the oldest inhabitants is now on and the fish are going into tributary streams of the Columbia in great numbers. St. Helens folk are not reaping any noticeable benefit from the smelt run, as the nearest stream frequented by the smelt family is the Lewis river on the Washington side of the river.
3 May 1920	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 2	SMELT RUN NEARS END. SCHOOL IN SANDY KEEPS OVER SPAWNING BEDS. WITHIN NEXT FEW DAYS DIP-NETTERS WILL BE HARD PUT TO GET A MEAL FROM WATERS. The record run of smelt, so far as the Sandy river is concerned, is all but over. Within the next few days the gulls and the dip-netters will be hard put to find a meal in the deeps and shallows that aforetime held smelt by the billion. But few fish were obtained yesterday and the disappointments were in keeping—for not more than 50 fishermen were congregated at the Troutdale bridge at any one time during the day. Most of the dip-netters, however, managed to get a sack or so, by watching for the stray fringes of the now depleted and rapidly vanishing school. The main body of the run held well to the center of the stream, over the spawning beds, and only the commercial fishermen, with improvised piers and rowboats, were able to reach the profitable coigns of vantage. The Sandy river smelt run, more than a month overdue by comparison with previous seasons, began ten days ago and within half a week had attained unheard of proportions. Launches in the Columbia river outside, near the mouth

Date	Place	Source	Quote
			of the Sandy, ploughed through pools of smelt so dence [sic] that the curving wave at the bow was a cascade of shining fish. The smelt even drove far past the Sandy and as far up the river as Bonneville.
5 May 1920	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 2	LIKE THE SANDS OF THE SEA. Take all the hyperbolic similes expressive of vastitude of numbers, stir them well together, segregate the triple-extracted essence and confine it in a humdinger of extravagant comparison, and one will but have paid tribute to the fringes of the Columbia river smelt run. Naught save deity could give it census, for the count would worst mortal mathematics as that science is ordinarily employed. These observations are by way of preface to the statement that a Portland resident has been arrested on the count of wasting food fish, because he sought to fertilize his fruit trees with passé smelt. There are those who will charge the game department with mulish conformance to law, asserting that the statute invoked was never intended to deal with billions upon billions of silver “hooligans,” swimming up the Columbia just as they did on the morning Captain Gray’s visit, ever and ever so long ago. To chirk up a cherry tree or two with half a peck from that seemingly inexhaustible measure, the sea, would to many commend itself not only as a trifling tithe on nature’s largess but as a most sensible procedure. When the grandfathers of the present were the boys of yesterday, back in Ohio, and Michigan, and Minnesota, and Wisconsin, and New York, along the entire Atlantic coast and well into the middle-west, the flight of passenger pigeons was an annual event comparable to the smelt run of the Columbia. On sunny days, with the spring mornings all golden and green, when those epochal pilgrimages were on the wing, it is recorded that the face of the sky was darkened as by a heavy cloud—a living veil of plumage that swept on and on, and endured till dusk. And thus for many days. They narrate, those same grandsires, that one might feed a bullet to the muzzle-loading squirrel rifle and fire at random upward, through the hurtling avalanche of pigeons. Not one but several birds would fall to that hazard, it is recounted. Yet the passenger pigeon is gone, and wealth would reward the man who could prove the existence of a single flock, a single bird. The species is with the great auk and the dodo, and while it may have perished in some stormy passage between the northern and southern continents, there is abundant evidence against the market hunter and the game assassin. Natural history is replete with tragedies in which man plays the role of villain. Ethically and economically—and merely, for an additional reason, because all waste is wicked—the game department is fortified in its enforcement of the law with respect to the smelt run.
7 May 1920	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 7	HABITS OF SMELT LITTLE KNOWN. Study Made of Fish Which Authorities Know Under Several Names. PORTLAND, May 6.—(To the Editor.)—Please publish the follow [sic] information, and any other interesting facts, about the smelt. How long until they hatch, and how long do they stay in fresh water after hatching? How long before they come back to spawn? Do all that come up the river die, and what becomes of them when dead? What is their correct name? Are there such fish other places than the

Date	Place	Source	Quote
			Columbia river? A SUBSCRIBER. The scientific name of the Columbia river smelt is <i>Thaleichthys Pacificus</i> [sic]. It is described in encyclopedias and dictionaries under “candlefish.” The Indians called it “oolachan,” sometimes spelled “eulachon,” which has been corrupted by whites into “hooligan.” It is common in Alaskan and British Columbia streams, as well as in the Columbia. R. E. Clanton, master fish warden, is authority for the statement that the longevity and habits of the Columbia river smelt have never been made the subject of exhaustive study, and that this season is the first in which trained observation has been directed. The present attempt includes a study of the reproductive organs of the female smelt, to discover whether nature has provided for a second spawning. It is not known at present whether smelt return to the ocean or perish in the rivers—as does the salmon after visiting the spawning beds. If the billions of smelt in an ordinary run were to die in fresh water, it is contended, the evidence of such demise would be prevalent, even to the point of pollution, of so mighty a stream as the Columbia. On the other hand, the return of the smelt run to salt water, if it does return, never has been observed. Fish commission officials, including Master Warden Clanton and Secretary Carl Shoemaker, of the fish commission, expect to make tests this week toward solving the riddle. The journey of the smelt fry to the ocean is another phase of the life cycle that is darkness. None has seen, so far as the records show, the migration of the infant fish from the birthplace river to salt water. Their numbers must be uncouneted myriads, and even if the fry were even an inch in length the passage of the infant smelt would be plainly discernible. It is conjectured that the fry run to sea when extremely small. But all this is guess work. An attempt is now launched to learn more of the actual life history of the Columbia river smelt. Specimens now held at Bonneville hatchery will be kept under observation to determine whether they are subject to demise after spawning, while an attempt will also be made, with nets, to discover whether any portion of the recent heavy run has retraced its course to the Pacific.
May 1920	Sandy River	<i>Pacific Fisherman</i> 18(5): 48.	OREGON SMELT RUNNING. The annual run of smelt in the Sandy River, an Oregon tributary of the Columbia, started April 24.
1921			
19 January 1921	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 2, col. 2	Smelt Are Here. Smelt were discovered to be merrily swimming up the Cowlitz river in considerable numbers yesterday [18 January] for the first this year, and good catches were made in the vicinity of the McLane mill. How the little fish managed to worm their way that far up stream before discovery is not known. Gill netters down the Columbia have been catching smelt for several weeks and some have been gillnetted in the Cowlitz. It is not known whether this is the main run, or the early winter run, but good catches are being made today.
20 January 1921	Portland, OR	<i>Morning Oregonian</i> , p.	Smelt Enter Cowlitz River. KELSO, Wash., Jan. 19.—(Special)—For the first time this

Date	Place	Source	Quote
		4, col. 2	season smelt were dipped in the Cowlitz river today. A few smelt had been gillnetted in the Cowlitz earlier this winter before the freshet, and for the last two weeks the Columbia River gill netters have been getting smelt on the lower Columbia. It is thought that the present run is what is known as the early winter run and that the main run of the little fish will not be here for several weeks more.
21 January 1921	St. Helens, OR	<i>St. Helens Mist</i> , p. 1, col. 6	There is a big run of smelt in the Cowlitz river and the markets here are receiving all of the fish they can handle. Friday the ruling price was six pounds for 25 cents.
21 January 1921	Portland, OR	<i>St John's Review</i> , p. 3, col. 6	SAVE CAR FARE by Buying your Fish at the LITTLE FISH MARKET 118 Philadelphia Street ... Columbia River Smelt, 2 lbs..... 15c ...
28 January 1921	Oregon City, OR	<i>Oregon City Enterprise</i> , p. 3, col. 1	SMELT POPULAR FOOD. CANBY, Jan. 27.— ... Mr. Wilson brought up 300 pounds and easily disposed of them. The price was reduced during the afternoon, when six pounds were sold for 25 cents.
4 February 1921	Cowlitz River (Rainier, OR)	<i>Rainier Review</i> , p. 1, col. 6	Smelt Run Is Light. Considerable interest has been taken in Rainier in the smelt run into the Cowlitz river, reported a few weeks ago. This run has slackened during the past week to such an extent that few of the fish have been caught or shipped. Fishermen who have been after the little fish say they think this run was a part of the winter run, which comes up in advance of the main run. The big yearly run of smelt is said to be due almost any day.
11 February 1921	Cowlitz River	<i>Rainier Review</i> , p. 3, col. 3	New Run of Smelt in Cowlitz. KELSO, Wash., Feb. 5—A new run of smelt of unusually fine quality has come into the Cowlitz river during the past few days and are now being caught by the fishermen. The run is rather small and the fish are hard to get, so that the boats can only get a few boxes a night. The main run has not yet come into the Cowlitz river, but its arrival is expected sometime during the month of February— <i>Oregonian</i> .
12 February 1921	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 6	Cowlitz River Has Freshet. Heavy rains Wednesday and Thursday and very warm weather, which melted the snow in the Cascades, brought the Cowlitz river to the freshet stage Thursday [10 February] and yesterday. The high water interfered with smelt fishing and made the dipping of fish laborious and disagreeable work. The previous winter freshets had cleared the Cowlitz of logs.
18 February 1921	Portland, OR	<i>Morning Oregonian</i> , p. 11, col. 1	Lewis River Rises. WOODLAND, Wash., Feb. 17.—(Special.)—Warm winds and melting snow in the mountains have caused a decided rise in the Lewis river. The water has already reached within a foot of the high-water record. Muddy water is driving the run of smelt out of the river into the Columbia.
18 February 1921	Cowlitz River	<i>Rainier Review</i> , p. 2, col. 7	Cowlitz River Has Freshet. Unusually warm weather combined with heavy rainfall, raised the Cowlitz river to a fresher stage Saturday. The high water and swift current made smelt fishing difficult and scattered the schools of fish, but some smelt were being caught. ...
19 February 1921	Portland, OR	<i>Morning Oregonian</i> , p. 13, col. 1-2	MANY FRUITS IN SEASON. Columbia river smelt retailed at two pounds for 15 cents yesterday.

Date	Place	Source	Quote
11 March 1921	Cowlitz River	<i>Rainier Review</i> , p. 4, col. 4	Smelt Go Far Up Cowlitz. KELSO, Wash.,—The smelt run continues good in the Cowlitz river and many smelt are being shipped by boat and express. The run has gone unusually far up the Cowlitz river this year, and many fishermen have been going almost as far as Castle Rock to dip. This year's run has been of unusually good quality.— <i>Oregonian</i> .
17 March 1921	Cowlitz River	<i>Cowlitz County Advocate</i> , p. 1, col. 3	Great Run of Smelt. The Cowlitz River has been jam full of smelt for the past two or three weeks. One does not need to be versed in piscatology to secure an unlimited quantity of these small fish. Men, women and children scoop them up and bring in boxes full at one trip. There are quite a number of expert smelt dryers, who have smoked and packed the smelt in an attractive manner. Still the supply is not equal to the demand for some reason; those who are used to the annual smelt run take little note of what might be a fruitful industry. Strangers to this section are surprised and interested in this ... which are old stories to the residents.
19 March 1921	Portland, OR	<i>Morning Oregonian</i> , p. 13, col. 2	FISH FOR LENT PLENTY. Prices will cover all the stages between 5 cents a pound for Columbia river smelt to 50 cents a pound for lobster shipped from the Atlantic seaboard.
26 March 1921	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 2, col. 4	Smelt Season Nearing End. A good run of smelt continues in the Cowlitz river but with the coming of Easter and the end of the Lenten season the demand for fish is falling off. The smelt now in the river are of first class quality, being just as good as any that have been caught, and shipments will continue for several weeks more.
1922			
24 December 1921	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 6	First Smelt Dipped. The first smelt to be dipped in quantity from the Cowlitz river this year were taken Wednesday [21 December] night when Ed. Manning and Jud Murray's boats took nearly one hundred boxes of the toothsome fish. This is a small early winter run of smelt, and the catch was unusually large for the first dippings, and netted the fishermen a handsome profit for their night's work. The work of dipping fish from the river in weather of the kind that has prevailed for the past ten days is anything but a pleasant task and requires exposure to the 'enth degree. A number of other fishermen succeeded in dipping a small number of boxes.
24 December 1921	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	Smelt Put in Appearance. Columbia river smelt have appeared for the holiday season in large quantities. They are being dipped up with nets are selling retail here at 15 cents a pound, in comparison with 25 cents a pound, which was the price until yesterday.
28 December 1921	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 6	Smelt Run Falls Off. The early winter run of smelt has dwindled to a point where but few smelt are being caught, and the work isn't profitable for the fishermen. This run always is small, and it will probably be a month or more before the main run reaches the Cowlitz river, judging by past performances of the little fish.
14 January 1922	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 2-3	DID THE SMLT NEGLECT THEIR TRYST? If nature forgot us for a single season, in all her bounties, we should be like so many children squalling in the dark. Quite helpless, very hungry and probably petulant. Occasionally the good dame does

Date	Place	Source	Quote
			forget, neglecting some customary gift, and men puzzle themselves to discover the reason. They do not always find an answer. Why was it, as was recorded twenty-five years ago, that there had been noted long periods during which the smelt run deserted the Columbia river? For twenty years, so these observers asserted, the pleasing little eulachon was—to put it tritely—conspicuous by his absence. The drying racks of the Indians were not laden, and the residents along the great river and its tributaries scanned the streams vainly for the return of their favorite fish, who was wont to be as punctual as April. There is no record of the year in which the run reappeared, nor is there more than the testimony of a few individuals, as preserved in news reports, to substantiate the disappearance. Undoubtedly it was the ancient and continuous custom of the smelt to frequent the Columbia as spawning time. Captain Robert Gray, whose good ship lent its name to the river, found them plentiful in 1792, and did not neglect to pay his compliments. It is to be regretted that the record of their truancy is not more specific, better verified, for instances in which anadromous fish fail to keep their natural appointments are more than rare. Regarded across a third of a century, the claim is doubtful, and one cannot but incline to an opinion that the smelt were punctual, but unobserved. It might have been that the run, lengthy as it is, passed the specific points of observation at periods of high and murky water, to spawn far up-stream. The weakness of this theory, which is otherwise entirely tenable, is that such conditions would scarcely be repeated annually over a long period of years. An instance that proves how easy it is to overlook the presence of the run is that of the appearance of the smelt in the Sandy river last spring. Unusually high water prevailed at the time the run was expected, and all observers were confident that the hordes of smelt had not entered the stream. Later they revised their opinion, for schools of infant smelt were noticed in early summer, and it became apparent that the fish had arrived and fulfilled their destiny without a single person glimpsing the millions of adult fish in the muddy current. Yet, as has been said, it is a bit far-fetched to fancy that such conditions could be indefinitely repeated. The habits of anadromous fish are definite and precise. They return from the sea at well-established seasons to the waters of their own birth to deposit their eggs. In this impulse the smelt are one with the salmon, whose cousins they are, and the confirmed belief is that such runs do not fail until the run itself is obliterated. With salmon this has repeatedly been proved. It is logical to assume that the multitudinous smelt conform to the same law, and that those early observers confused loose report and limited observation with fact until they had for themselves established a tradition. This may not be true, but if it is not true one of ocean's mysteries remains unsolved, and it is to be regretted that the record is so imperfectly preserved.
28 January 1922	Cowlitz River	<i>The Twice a Week Kelsonian</i> , , p. 1, col. 4	No Signs of Smelt. Smelt fishermen and others interested in that industry are anxiously awaiting a message, wireless or otherwise, from the annual smelt run, which is about due to reach the Cowlitz river. The contrary little fish have even failed to take advantage of

Date	Place	Source	Quote
			Will Hays' postal service to drop Kelso a postal card advising the approximate date of their arrival. Usually the run arrives about February 1st, but as no smelt have been taken by gill netters of the lower Columbia the fishermen are worrying for fear the smelt will be late in arriving this year.
4 February 1922	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 6	Smelt Are in the Cowlitz. A light run of smelt arrived in the Cowlitz yesterday [3 February] and 50 or 60 boxes were dipped in the vicinity of Freeport last night. The fish are very much scattered and not many are in the river as yet. Considerable quantities of smelt have been caught by the Columbia river gillnetters on the lower river during the past two or three days, and a heavier run is expected in the Cowlitz at any time, and fishermen are in readiness for them.
6 February 1922	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 2	Smelt Run in Cowlitz Small. KELSO, Wash., Feb. 5.—(Special.)—A small run of Columbia river smelt is in the Cowlitz river and the fishermen are making small catches of the little fish, which are a great table delicacy throughout the northwest. Boats can get but three or four boxes a night. It may be several weeks before a heavier run arrives, say those familiar with smelt fishing operations, as few fish have been caught by the Columbia river gill netters.
10 February 1922	Cowlitz River	<i>Rainier Review</i> , p. 1, col. 6	Smelt Running In the Cowlitz. A light run of smelt arrived in the Cowlitz Friday and 50 or 60 boxes were dipped in the vicinity of Freeport last night. The fish are very much scattered and not many are in the river as yet. Considerable quantities of smelt have been caught by the Columbia River gill-netters on the lower river during the past two or three days, and a heavier run is expected in the Cowlitz at any time, and fishermen are in readiness for them.— <i>Kelsonian</i> .
11 February 1922	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	A large supply of Columbia river smelt is available at 15 cents a pound, and in some places at two pounds for 25 cents.
18 February 1922	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 3	Smelt Again In Cowlitz. What appeared to be the main run of smelt came into the Cowlitz river yesterday [17 February] afternoon and some good catches of fish were made. Later, however, the catch fell off, but fishermen think the main run is here.
21 February 1922	Portland, OR	<i>Morning Oregonian</i> , p. 7, col. 6	Smelt Run Again Enters Cowlitz. KELSO, Wash., Feb. 20.—(Special)—What is thought to be the main run of Columbia river smelt entered the Cowlitz river last night and large catches of smelt were made by the fishermen. Later, however, the run decreased, and there is some doubt whether or not this is the main run. The fish have been late in coming up the river this year, although there have been small runs in the Cowlitz several times during the winter.
24 February 1922	Cowlitz River	<i>Rainier Review</i> , p. 5, col. 3	Smelt Again In Cowlitz. What is thought to be the main run of Columbia river smelt entered the Cowlitz river Sunday night and large catches of smelt were made by fishermen. Later, however, the run decreased, and there is some doubt whether or not this is the main run. The fish have been late in coming up the river this year, although there have been small runs in the Cowlitz several times during the winter.
25 February 1922	Portland, OR	<i>Morning Oregonian</i> , p.	COLUMBIA SMELT PRICE IS REDUCED. Fresh Seafood Sells Three Pounds for

Date	Place	Source	Quote
		12, col. 1	25 Cents. LARGE SUPPLY ON HAND. Smelt Prices Cut. The price of a popular seafood that is recognized in Portland as a real delicacy was cut almost in two when dealers reduced prices of Columbia river smelt. These tasty, silvery fish are now available at three pounds for 25 cents. The price a week ago was 15 cents a pound. Dealers report a good supply on hand to supply a brisk popular demand. The smelt are fresh from the Columbia river.
4 March 1922	Portland, OR	<i>Morning Oregonian</i> , p. 15, col. 1	Smelt Also Take Fall. Another popular product that has dropped in price is Columbia river smelt. These tasty little fish may be had at two pounds for 15 cents or four pounds for a quarter. In some stores the price is three pounds for 15 cents. These prices are the lowest of the season so far and caused a heavy demand.
11 March 1922	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 6	Smelt Run Is at Height [sic]. The main run of smelt in the Cowlitz river is at its height [sic] for the past few days and has now moved up the river, and the fishermen are dipping just above Kelso. The fish are exceptionally good, being very firm. Large shipments continue by rail to all the states as far east as the Mississippi river. The steamer Greyhound and launch Ronnie are taking loads of fish to Portland daily, these shipments feeding a market in Portland, Oregon, Utah and California points. No carload shipments to eastern centers have been made this year. At present indications the smelt shipments bid fair to continue for several weeks.
17 March 1922	Cowlitz River	<i>Rainier Review</i> , p. 2, col. 3	Smelt Run is at Height. The main run of smelt in the Cowlitz river is at its height for the past few days and has now moved up the river and the fishermen are dipping just above Kelso. The fish are exceptionally good, being very firm. Large shipments continue by rail to all states as far east as the Mississippi river. The steamer Greyhound and launch Bonnie are taking loads of fish to Portland daily, these shipments finding a market in Portland, Utah and California points. No carload shipments to eastern centers have been made this year. At present indications the smelt shipments bid fair to continue for several weeks.— <i>Kelsonian</i> .
12 April 1922	Sandy River	<i>Morning Oregonian</i> , p. 13, col. 3	SMELT REPORTED RUNNING IN SANDY. Fish Keeping to Middle of Stream, It Is Said. LICENSES NOT NEEDED. Nets, sieves, baskets and dippers of various kinds will be at a premium for a few days, and many thousand gallons will be consumed along the Columbia river highway route between Portland and the Sandy River, for the smelt are running again. A silvery phalanx 15 feet wide and six inches deep is flowing upstream in the Sandy for the first time in two years, the dainty little fish completely ignoring the stream last year. By the millions, the tiny smelt are seeking the headwaters, a phenomenon which will attract thousands to the river banks and flood Portland homes with the toothsome little delicacy for many days. For the true fisherman there is no sport in catching smelt during a run, for it requires no more effort than the dipping of a net into the water and removing it filled to the brim with flopping, silver fish, but the run has a great attraction for the fireside fisherman who desires great results from a minimum of effort. Length of Run Uncertain. How long will the run last? This is a question which

Date	Place	Source	Quote
			cannot be answered with any degree of certainty. Runs have been known to last from two days to 24 days. A good deal depends on the weather. Should conditions moderate and a heavy, warm rain develop, high water in the Sandy will prove too great an obstacle for the small fish to negotiate. They have traveled a long distance by the time they arrive in the Sandy and are tired. On the other hand, should the weather continue cool, with little rain, a long run can be anticipated. Indications are that there still will be a considerable run next Sunday to accommodate the holiday flow of autoists. Though the smelt have been known to ignore the Sandy for as high as eight consecutive years, of late the runs have been quite constant, the failure of the fish to appear last year being quite out of the ordinary. A late spring usually presages a heavy smelt run, according to Lou Karlow, deputy county clerk, whose home is on the banks of the river and whose wife telephoned to Portland the first news of the run yesterday morning [11 April]. Run Appears Big. The run looks like a big one, similar to that of two years ago, according to Carl Shoemaker, master fish warden, although he said yesterday the fish were keeping to the middle of the stream. However, he expected the run would reach such proportions, probably by today, that the merest tyro fisherman can stand on the bank of the stream and dip up all he wants. No fishing license will be required, said Mr. Shoemaker, for persons who desire only to take smelt for their own use. Those who operate commercially, however, and sell their catch, must provide themselves with a dipnet or dragnet license. No waste will be tolerated, said Mr. Shoemaker.
13 April 1922	Sandy River	<i>Morning Oregonian</i> , p. 8, col. 2	SMELT THICK IN SANDY. AUTOISTS CONGEST HIGHWAY IN RUSH FOR FISH. Calls for Assistance Cause Sheriff to Dispatch Entire Motorcycle Squad to District. Smelt scouts up the Sandy river evidently reported favorably concerning that stream as a spawning ground, for millions of the silvery little fish reached from bank to bank yesterday by the time autoists in any number began to gather in the vicinity of Troutdale. More than 2000 automobiles congested the Columbia river highway near the Sandy before noon and calls for assistance caused Sheriff Hurlburt to dispatch his entire motorcycle squad of six men and machines to the district to direct traffic and break the jam which had ensued. Bird cages, lace curtains and many other substitutes for fish nets, made their appearance and only a few minutes in the stream sufficed to supply any family with enough smelt for a re-union. All indications are that the run will last for a week or more and it is expected that the traffic will attain proportions by next Sunday which may make it necessary to employ traffic officers in addition to the sheriff's complement. It is not necessary to have a fishing license if the smelt are dipped out of the river for the use of oneself and family.
13 April 1922	Sandy River	<i>Morning Oregonian</i> , p. 10, col. 7	Those Who Come and Go. Tales of Folks at the Hotels. Smelt in the Sandy river, out near Troutdale, are as interesting to tourists at the hotels as they are to the householders of Portland. News of the annual run of smelt in the Sandy was received at the hotels yesterday and many persons chartered automobiles to go out and see this famous run. To

Date	Place	Source	Quote
			the easterner who is not familiar with a run of fish and particularly to people who live in the interior, the smelt are a wonderful attraction. The march of millions of these silver fish swarming up the confines of the glacial waters of the Sandy river toward their spawning grounds never fails to evoke exclamations of astonishment. Hotel clerks have learned that they can recommend a real attraction to visitors by sending them out the highway to see the run of smelt. Tourists yesterday were so notified and they were also advised to equip themselves with nets or buckets or something with which to scoop up the fish, for no one can stand on the bank of the stream and see the myriad of fish passing them without a wild desire to go fishing on the spot. The trouble with catching smelt is that the fisher gets more than he needs or can use, so he brings back a gunnysack or two with the fish and inflicts them on everyone who can be induced to accept them. Smelt are as fine eating fish as can be found when scooped from the Sandy waters, but a person cannot eat more than several dozen.
15 April 1922	Cowlitz River Sandy River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 5	Smelt Season Ends. Smelt fishermen are making their last shipments of smelt this week, and most of the fishermen will turn their attention to getting their salmon fishing gear in shape for the opening of the salmon season May 1st. The cold spring weather has been a benefit to the smelt fishermen extending the season longer than is usually the case. A run of smelt came into the Sandy river on the outskirts of Portland this week, but Portland dealers have been asking for shipments from local dealers [in Kelso].
16 April 1922	Portland, OR	<i>Morning Oregonian</i> , p. 3, col. 2	Smelt Season Ends at Kelso. KELSO, Wash., April 15.—(Special.)—Final shipment of smelt was made by Kelso fishermen this week, and they will be busy the rest of this month getting their salmon fishing equipment ready for the spring season and moving their outfits to drifts along the Columbia river. This has been a very good smelt season, the prolonged cold weather being a benefit to the industry.
18 April 1922	Portland, OR	<i>Morning Oregonian</i> , p. 1, col. 2	LOCKS BLOCK SMELT RUN. Millions of Tiny Fish Caught at Cascades of Columbia. Hood River, Or., April 17.—(Special)—The run of smelt has reached the Cascades of the Columbia, where they are blocked. Millions of the fish are trying to get to the headwaters by way of the government locks. Deputy Sheriff Meyers today telephoned to Sheriff Johnson that residents of Cascade Locks, utilizing as various an assortment of improvised nets as one sees at the Sandy, are taking fish by the boxfuls at the lower end of the locks. Schools of smelt appeared at Eagle creek Saturday.
21 April 1922	Sandy River	<i>Oregon City Enterprise</i> , p. 5, col. 7	TRAFFIC OFFICERS AID IN SMELT FISHERS JAM. So congested was the traffic of automobiles bearing Sandy smelt fishers on Wednesday [19 April] that a squad of motorcycle deputies from the sheriff's office of Multnomah county, was dispatched to the scene. More than 3000 automobiles were lined along the highway and Sandy expanses near Troutdale.
1 May 1922	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 2	Pantries Stocked With Smelt. HOOD RIVER, Or., April 30.—(Special)—Residents of Cascade Locks and Stevenson, Wash., made the most of the recent smelt run up the Columbia to the foot of the rapids below the Cascades, and many pantries have been

Date	Place	Source	Quote
			stocked with dried and salted fish. A. J. Pratt, a Stevenson, Wash. man, who captured 1600 pounds of smelt, salted and smoked them. His shrinkage, he reports was 66 percent, as he now has left 575 pounds of kippered smelt.
1 May 1922	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 3	MARVEL OF THE SMELT. The Eugene register has printed what we think is a timely warning concerning smelt. It predicts that unless there is some curb on the taking of this variety of fish, smelt will go the way of the passenger pigeon and the buffalo. Probably the fact made impressive by these early tragedies that wild life cannot long maintain itself against man's unrestrained rapacity, will cause us to take heed before the smelt have disappeared. But why not for once depart from the usual custom of delaying regulation until scarcity is upon us? Smelt fishing in the Sandy river is an asset to Portland whose importance is hardly realized. The incidents of the spring run have no counterpart anywhere. The Sandy is not the only stream in which smelt appear in vast numbers, but it is the one stream in which they swarm that is readily accessible from a populous community. Sandy river is a stream worth visiting for its scenic beauty alone. The point where the Columbia highway crosses it is within less than an hour's automobile ride from Portland over a paved road. It happens that the reaches of the stream directly above and below the highway bridge are the smelt fishing grounds. There, in beautiful surroundings and without license, hindrance or limit, the Portland citizen, one hour's journey from home, may with the crudest of home-made appliance dip out and take away as many delectable food fishes as the novelty of the occasion impels him to take. It is as the Eugene paper remarks—the rule is to take more than one can possibly use or give away. Smelt-taking in the Sandy, in which thousands of persons—rich and poor—participate annually, is one of the spectacles, one of the marvels, of the northwest and of the Columbia highway. The habits of the smelt, or candlefish as it is properly called, are little understood. Presumably they return to the stream in which they were spawned. If that be true, whatever protection given them elsewhere will not restock Sandy river if it is once fished out. As an important contribution to the food supply and as an advertisement for this community, smelt runs are worthy of scientific study and of protection, if need be, from greed and waste.
9 May 1922		<i>Morning Oregonian</i> , p. 10, col. 8	HOW INDIANS ONCE TOOK SMELT. Nails in Canoe Paddles Impaled Fish, Recalls Captain Gray. PASCO, Wash., May 7.—(To the Editor)—The Oregonian's editorial "Marvel of the Smelt," reminds me of the first runs of smelt in the Cowlitz river. The Indians drove sharp pointed nails through thin paddles, and as they forced their canoes upstream through the school, or rather stream of smelt, would soon fill their canoes by shaking the smelt from the nails in their paddles. I have not been on the Cowlitz for many years, but understand that the smelt runs on that river do not compare with the runs of the '60s, when steamboats did not run above Monticello or Freeport—they now run to Kelso. Did steamboats on the Columbia or log booms at its mouth check its smelt run? If so your Sandy river runs are safe, as steamboats cannot disturb them. We

Date	Place	Source	Quote
			used to know when the smelt were in the Columbia by the number of seagulls that followed the schools. Another thought: Is there not a danger of "overpopulation" of smelt if their taking is restricted? Hundreds of millions of eggs are deposited every year. Will the few thousands of fish captured relieve a congestion that would drive the smelt to some other stream? You are in error in saying the smelt is properly called a candle fish. The candle fish is only taken in salt waters like Puget sound, and takes its name from the fact that when it is dried its mouth opens wide and makes a base to support the greasy bones that stand upright. A lighted match touched to the tail of the dried fish makes a perfect candle. The flesh of the candle fish is far inferior to the smelt. The Columbia seems to be the only river that has the two distinct varieties of the best of fish, salmon and smelt. The Yukon river salmon is larger and compares in flavor with our Columbia river variety, but there are no smelt to compare with the genuine Columbia river variety, which seek the Cowlitz, Kalama, Sandy and other small streams every spring to spawn. W. P. Gray
1923			
29 December 1922	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 5	New Today in the Markets. A few smelt made their appearance on the Portland market yesterday, bringing the price, which was formerly about 35 cents, down to 30 cents. Marketmen state that fishermen have discovered a school of the fish making their way up the Columbia river.
5 January 1923	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 4	New Today in Markets. Columbia river smelt were selling yesterday for 12½ and 15 cents a pound. This was a considerable reduction from the 30-cent price which was asked last week. There has been a limited run in the Columbia river, although it has not been large enough to supply the demand. Dealers say if the water comes up too high the smelt will stop running.
6 January 1923	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 4	VEAL CUTS ARE SCARCE. ... Columbia River Smelt is Coming in Well, While Other Fish and Meats Are Priced Lower. ... Columbia river smelt is coming in quite well and is being sold two pounds for a quarter. This is a considerable drop, as the first was sold at 30 cents a pound. Dealers do not know whether the run in the Columbia will continue, as high water may stop it.
13 January 1923	Portland, OR	<i>Morning Oregonian</i> , p. 15, col. 2	New Today in the Markets. ... Columbia river smelt, where it is to be had, has gone up a few cents and is selling at 15 cents a pound. A scarcity of fresh water smelt is thought to be due to the high stage of the water and the swiftness of the current.
3 February 1923	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 2	VEAL SCARCE IN MARKET. ... smelt is 15 cents straight. ...
7 February 1923	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 5	Smelt Catches Are Heavy. The smelt, which had been loitering about in the Columbia for several weeks, came into the Cowlitz with a rush Sunday [4 February]. Only a few boats were out that day and they secured capacity catches. The smelt advanced up the river with unusual rapidity and the head of the run is already well above Kelso, and the stream is full of fish. It is no trouble now for a fisherman to fill a boat with a ton or more

Date	Place	Source	Quote
			of high quality fish in a few hours. The fish are of unusually fine quality. Seymour Simon, who has been dipping for smelt as far back as he can remember, almost had a swim in the Cowlitz Monday when he filled his net so full of smelt that the weight of the load almost carried him overboard. He succeeded in escaping a fall in the river. The netfull was about the heaviest he has ever scooped up.
8 February 1923	Cowlitz River	<i>Morning Oregonian</i> , p. 2, col. 3	SMELT RUN IN PROGRESS. School of Fish Dash up Cowlitz River From Columbia. KELSO, Wash., Feb. 7.—(Special.)—The main run of Columbia river smelt came into the Cowlitz river Monday after loitering in the Columbia just below the mouth of the stream for several weeks. Good catches of smelt were made by the few boats that were out, and a large number of boats now are engaged in fishing operations.
9 February 1923	Cowlitz River	<i>Rainier Review</i> , p. 2, col. 5	SMELT ARE RUNNING. Tiny Fish Are Selling Three Pounds for 10c. Smelt are running in the Cowlitz and the fish are quoted at 5c per pound or three pounds for 10c. J. J. Braim, who handles the fish quite extensively, is shipping them as far east as Salt Lake City and Boise, Idaho, as well as many shipments to closer points. The smelt is an edible fish and contains more nutrition than the average fish, while the appetite for the meat remains longer.
14 February 1923	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 4	New Today in Markets. ... In some shops smelt is selling as low as two pounds for 15 cents. ...
23 February 1923	Portland, OR	<i>Morning Oregonian</i> , p. 22, col. 5	New Today in Markets. Fish for today is offered at the following prices: ... smelt, 10 cents a pound, and three pounds for a quarter. ...
5 April 1923	Sandy River, OR	<i>Morning Oregonian</i> , p. 1, col. 5 and p. 3, col. 2	SMELT ARE RUNNING INTO SANDY RIVER. TROUTDALE REPORTS ANNUAL FISH HARVEST ON. Time for Everybody to Quit Work and Go Fishing With Shovels and Gunnysacks Here. The village of Troutdale, cuddled away by the Sandy river, came into its own again yesterday morning [4 April] when local scouts announced the approach of the annual smelt run. Known to have been off the mouth of the river for some days, at its junction with the Columbia, the countless numbers of fish were first descried in their spawning stream below the railroad bridge. “The smelt are in the river,” said Jens Coons, like an unmounted Paul Revere, as he carried the word to Main street. “Smelt are ‘n th’ river,” observed Jack Naismith, coming home from track duty up the line. “Smelt’n river,” all Troutdale repeated. Presently word reached Portland, by telephone, by courier, by grapevine. In less than three hours virtually every householder in the city knew, and had repeated the message, that the myriad oolichan—praised so highly by Captain Gray and all subsequent partakers—were, indeed, in the river. The inevitable exodus of harvesters began. For, while the smelt are in the Sandy, neither Troutdale nor Gresham, nor a very large percentage of Portland, deigns to toil. It isn’t toil to take smelt. You dip the net, or the bird cage, or the gunnysack, or the what-do-you-call-it, deep into the current and sweep downward. When you lift it to the surface it is heavy with the grayish silver fish that are like no other product of the sea—that are, as the skipper of the Columbia remarked, entirely in a class by themselves. Several

Date	Place	Source	Quote
			residents of Troutdale look forward to the smelt run as financiers anticipate a coup. For three or four days they are able to sell all the fish they take at a good price. Then, in a way of speaking, the market literally bogs down with smelt and the fishermen rest on their nets. The majority of the run spawns near the wagon bridge, on the Columbia highway, and but few of the midget fishes fare farther upstream. Firemen and policemen are noted as smelt fishermen. They hold records in gunny sackfuls. A census of smelters, which ought to be a word, undoubtedly would reveal that the period of smelt run is a mighty bad time to have a fire or a riot. Others who are addicted to the gentle sport of dipping smelt are bankers, tramps of the line, small boys, comely damsels, old women, merchants, ministers and newlyweds. The smelt run in the Sandy is the genuine melting pot of democracy. There is a jungles below the railroad bridge. You don't say "jungle" you say "jungies," though it is a singular place. Many vagrant men are ditched at Troutdale. You don't say "detained," you say "ditched." The cooking fires will rise in the jungles today. For a smelt of the Columbia is so fat, with its own tissues that it isn't necessary to buy bacon. And while the smelt are in the river a number of tattered, travel-stained guests are certain to register at Hotel Willows. Mrs. Evelyn Spencer, who ought to know, says that the little Columbia smelt, otherwise the oolichan, is one of the very finest fishes of Pacific waters. She says it is even superior to the little tom-cod, which is going quite a way, for swim, the little tom-cod is a dinger. And of all smelt that swim, they all swim, of course, the Columbia river smelt is by far the finest. This expert statement is borne out by Troutdale natives. The main run enters the Cowlitz river, that's granted, but everyone knows that the best fish swim straight to the Sandy. "Sandy river smelt," said Milt Fox, merchant and angler of Troutdale, "are always longer and larger than the rest of the Columbia run. They seem fatter, to me. By the way, if you see anyone that's interested, you might tell 'im that —"The smelt are in the river."
1924			
8 December 1923	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	FIRST-RUN SMELT IN LOCAL MARKETS. Retailers Offering Silvery Beauties at 50 Cents. ... Oregon Indians used to believe that the first run of smelt in the Columbia river showed the earliest signs of spring. Spring is normally on the way if that is the case, as Columbia river smelt have made their appearance in the local fish market. Some time between Thanksgiving and Christmas the first fish go up the river to explore and shortly there are millions of them in the Columbia and even in the tributaries. A fish market on Yamhill street received the smelt and placed them on sale at 50 cents a pound. As the season advances they will be much cheaper, but the first are fine and are welcomed with pleasure by fish-eating people. California smelt are less desired and less expensive, selling for 25 cents.
19 December 1923	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Get Good Catch of Smelt. The first smelt to be dipped from the Cowlitz river were taken Sunday [16 December] night, when Frank and Johnny Wannassay caught about 22 boxes of the tasty fish, which found ready sale when brought to the Columbia River

Date	Place	Source	Quote
			Smelt Co. dock Monday morning. The Wannassays almost every year make the first catch of smelt in the river, and netted a neat profit by their work early Sunday morning. Gill net fish have been on the market the past ten days, but they soon lose their popularity when the dipped fish come onto the market. These smelt are the early run or "scout fish" and but few are usually caught of this run.
20 February 1924	Cowlitz River Kelso, WA	<i>The Twice a Week Kelsonian</i> , p. 1, col. 4	Many Smelt Shipped. Smelt shipments have been going away from Kelso at the rate of from 1000 to 2000 boxes daily for the past two weeks, the height of the fishing season being here. This means that from 50,000 to 100,000 pounds, or 25 to 50 tons of smelt are shipped daily. The fish are of unusually fine quality, and there is a good demand this year, according to the fishermen.
21 February 1924	Kelso, WA	<i>Cowlitz County News</i> , p. 1, col. 4	Heavy Smelt Shipments. Manager W. A. Mable of the Columbia River Smelt Co. reports that during the past two weeks nearly 2000 50 pound boxes of smelt has been shipped at this point. The run this year is unusually heavy. Mr. Mable who has been shipping smelt from this point for many years states that the run is as heavy now as 30 years ago.
29 February 1924	Cowlitz River	<i>Rainier Review</i> , p. 1, col. 5	FISHING SEASON TO CLOSE. ... Smelt Fishing to Continue While Market Lasts. ... The closing of the salmon and sturgeon season does not affect the smelt fishing, which will be continued as long as there is a market for the little fish. This will be as long as the Portland market keeps up, according to J. J. Braim, for when the outside demand falls off, it will not pay the fishermen to go out for the small quantity of fish that the home demand would call for. Mr. Braim ships on an average of close to a ton of smelt per day, the shipments ranging from 20 to 50 boxes daily. Fishermen are now fishing up the Cowlitz, where they have followed the run of smelt. They say that many of the little fish have already gone as far as 25 miles up the Cowlitz for spawning.
8 March 1924	Cowlitz River	<i>The Twice a Week Kelsonian</i> , p. 4, col. 3	New Run of Smelt. A new run of smelt came into the Cowlitz river this week. They are the best quality fish of the year, averaging larger than the fish in the earlier runs, according to fishermen. The demand for smelt is holding up well and fishermen continue to ship more than 1,000 boxes daily, or 25 tons of fish each 24 hours.
29 March 1924		<i>Morning Oregonian</i> , p. 10, col. 3	THE EXCELLENT LITTLE EULACHON. Prodigal Mother Nature, who always keeps a full cupboard if only we knew where to look, thought it wise to create a sufficiency of the fish called Columbia river smelt. The multitude of the annual run of eulachon, or smelt, is incomprehensibly vast, as anyone will bear witness who has seen it, or who has been besieged by neighbors who wished to bestow gifts. Yet the most competent witness has glimpsed no more than the fringe of the anadromous horde that comes up from the sea. The race is far removed from hunger while ocean bears such crops. In a recent issue of the Scientific American the theory is discussed that the death of each sea fish replenishes the world's reservoirs of crude oil. The annual migration of menhaden along the Atlantic coast represents more potential petroleum than we have used since the discovery and utilization of the deposits. Since the Columbia river smelt is

Date	Place	Source	Quote
			regarded as the fattest of all fishes it is not unlikely, if we agree upon such a theory, that its ancestral migrations bore a brave part in stocking the earth with petroleum. Like the salmon the smelt run perishes once it has performed its parental duties in the coastal streams. What a quantity of fish oil must be thus released for nature's laboratory. It is surprising that the fine little fish hasn't been subpoenaed [sic] to tell what it knows about Teapot Dome. The tendency toward biologic misnomers is shown in the popular name given to this western fish. It is not a smelt, and ichthyologist ever accused it of being one. The bureau of fisheries, which sometimes enlivens its brochures with comment aside, observes that to call the eulachon a smelt is to foster a gross canard, since it is greatly superior to any smelt. It is properly called the eulachon, as christened by the Alaskan Indians.
31 March 1924		<i>Morning Oregonian</i> , p. 8, col. 3-4	DESTINY OF THE EULACHON. Lack of visual evidence of the death that overtakes the parent run has often given rise to the conclusion that eulachon, or Columbia river smelt, do not perish on their spawning beds. Belief balks at any assumption that these myriads of fish could die, in a river, such as the Sandy, or the Cowlitz, without furnishing abundant and perhaps olfactory evidence of their demise. The federal bureau of fisheries, however, has previously answered the question put by a correspondent in a letter to this paper. It declares that the adult eulachon yield up their lives so soon as they have deposited and fertilized the eggs. These lie upon the bottom so thickly, in certain favored spots, that trout taken days after the run has disappeared are found to have filled their stomachs with the minute spawn. Commercial fishermen are authority for the statement that dead smelt are often found looped about the cords of their nets, when the spent fish are carried down the Columbia. They agree with the bureau of fisheries that the day of the parent eulachon is done when it has insured the perpetuation of its kind. That the vast numbers of fish are not in evidence after death may be reasonably explained by the extreme softness of the flesh, which yields so readily to dissolution that it cannot be borne up and carried along the surface of the stream, or deposited on the shores, through the agency of generated gases. The fleshly tenement that insured another run of eulachon is speedily and almost literally dissolved by the river. For a week or so after the migration bait fishermen often bring to shore on their hooks the limp husks of the dead fish. How fat and nonchalant the crayfish must be at such a season. The Sandy river run of eulachon, as the correspondent points out, does not proceed far from the mouth of the spawning stream. In the course of a mile or so its incalculable multitude, to its last and least member, not only has found a suitable spawning ground but is spawning. As the smelt are "ripe," that is, bursting with freed eggs ready for the gravel, even when they turn into the tributary river, they proceed but a comparatively short distance. A female smelt lifted from the river frequently attests this condition by emitting spawn. The fish seen near the shores, however, are not perceptibly in the act of spawning, and experienced fishermen say that the true spawning beds lie in the deep

Date	Place	Source	Quote
			green current at the river's center. The natural law which governs the lives and migrations of such a fish as this evinces a wisdom that is not far to seek. So prolific a child of the sea, if its own life were not taken when the spawn had been deposited, must in profound terms of arithmetical progression presently increase to such numbers as actually to choke the streams themselves. The life of the smelt is a group life. It is concerned not with individuality, but with the re-creation of its kind, and for this dim primal ideal it suffers death. ...
March 1924	Columbia River	<i>Pacific Fisherman</i> 23(3): 35.	Shipping Smelt. For several weeks during February, shipments of smelt from Kelso, Wash., amounted to about 2,000 fifty-pound boxes daily, according to W. A. Mabie, manager of the Columbia River Smelt Company. Most of the shipments went to Portland, Ore., for distribution to consuming markets.
1925			
29 November 1924	Portland, OR	<i>Morning Oregonian</i> , p. 13, col. 3	New Today in the Markets. The very first Columbia river smelt have arrived in one of the local fish markets on Yamhill street. Last year the first smelt came in before Thanksgiving day but this year they came one day after. The Indians used to tell weather and season signs by the run of smelt in the Columbia river. If the tiny little silver colored fishes came into the Columbia early it was a sign that spring would open early. These little fish are very choice at the first of the season and sell for 50 cents a pound. They are even held for 75 cents at times and as the supply advances they may be had for 5 cents a pound. They often fall from a most popular place on the menu to a very low rank.
6 December 1924	Portland, OR	<i>Morning Oregonian</i> , p. 22, col. 4	Smelt Taken in Columbia. KELSO, Wash., Dec. 5.—(Special.)—The first Columbia river smelt of the season were dipped near the mouth of the Cowlitz river yesterday by a number of the fishermen. They were shipped by the Columbia River Smelt company and Fisher brothers. This was part of the early run of the smelt which usually lasts but a few days.
10 December 1924	Portland, OR	<i>Morning Oregonian</i> , p. 20, col. 1	FANCY APPLES ARE ON PUBLIC MARKET. ... Columbia river smelt are 25 cents. ...
7 January 1925	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 6	SHORTAGE OF FISH EXISTS IN MARKET. Smelt at 25 Cents a Pound. ... Fish of many kinds are still scarce, but fresh Columbia river smelt are now available and sell at 25 cents a pound. ...
16 January 1925	Columbia River Cowlitz River	<i>Rainier Review</i> , p. 1, col. 4	Annual Run of Smelt Is On. The annual run of smelt is now on in the Columbia river and will reach the Cowlitz by the close of the present week. The fish were on the market in Rainier this week and J. J. Braim, local fish dealer, made his first shipment Wednesday to parties in Spokane. The price at the opening was 12 cents per pound but by the first of the coming week the price is expected to drop to around three cents. The run of smelt is always accompanied by vast armies of sea gulls who feast on the fish. So adept are the gulls in catching the fish that they make a long swoop downward and dive deep into the water, coming up with their prey in their bills or already swallowed.
17 January 1925	Portland, OR	<i>Morning Oregonian</i> , p.	New Today in the Markets. ... Smelt are now running in the Cowlitz river, and many of

Date	Place	Source	Quote
		11, col. 2	these are being brought to the Portland market, where they are selling at 10 cents a pound. ...
21 January 1925	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 2	New Today in the Markets. ... Fresh Fish. ... Columbia river smelt, lb. ... 3 for .25 ...
23 January 1925	Columbia River Cowlitz River	<i>Rainier Review</i> , p. 1, col. 4	SMELT RUNNING STRONG. Popular Little Fish Here on Schedule Time. Smelt are now running strong. Reports from Kelso, the center of this trade, state that more than 2,000 boxes are being shipped daily, while the market here for the popular and palatable little fish is brisk and J. J. Braim, the local dealer, is shipping them to all parts of the country. People in the east and elsewhere cannot realize what is meant when the smelt begin to run. They cannot realize that they come in such crowded schools that fishermen literally dip them out of the river with a pouch on the end of a pole, and that thousands of the little beauties are scooped up in a single day by one lone fisherman. Gulls follow the river and feast upon the fish, swooping down into the water and filing their bills with the fish.
30 January 1925	Cowlitz River	<i>Rainier Review</i> , p. 3, col. 5	TAKE PICTURES OF SMELT HERE. Motion Pictures Snapped of Fishing Operations in Cowlitz River at Kelso. Thursday the Fox company motion picture camera men of Portland were in Kelso taking pictures of the annual run and catch of smelt in the Cowlitz river. They were stationed just south of town where Monroe Wyckhoff and others assisted them in getting what they wanted in the way of views. They snapped the fishermen in their boats, making casts, dipping out the fish and taking them to the docks. Likewise they secured pictures of the great number of sea-gulls wheeling about in the air and catching the fish as they traveled up the stream to the spawning grounds. Mr. Wyckhoff says that the sea-gulls eat a vast number of fish and he declares they are a real problem. He asserts the sea-gulls are increasing at the rate of forty per cent per year and that they are not scavengers but in reality deplete the fish supply.— <i>Kelsonian-Tribune</i> .
31 January 1925	Portland, OR	<i>Morning Oregonian</i> , p. 17, col. 1	NEW POTATOES ARE HERE FROM FLORIDA. ... Fish Are Plentiful. ... Columbia river smelt at four pounds for 25 cents are abundant and of good size. ...
4 February 1925	Portland, OR	<i>Morning Oregonian</i> , p. 16, col. 2	New Today in the Markets. ... The fish market is well supplied and all kinds are selling at moderate prices. Smelt and Chinook salmon are to be specially recommended. Fresh Fish. ... Columbia river smelt, lb. ... 4 for .25 ...
6 February 1925	Cowlitz River, WA	<i>Morning Oregonian</i> , p. 24, col. 4	SMELT SHIPMENTS HEAVY. Total of 1000 Boxes or 25 Tons Sent From Kelso Daily. KELSO, Wash., Feb. 5.—(Special.)—High water in the Cowlitz river has impeded but not interrupted smelt fishing operations and many good catches are made. An average of not less than 1000 boxes, or 25 tons, of smelt goes from Kelso daily by express, boat and truck. Shipments to Portland are largely by boat or truck, but more than 400 boxes are shipped by express daily. The Columbia River Smelt company is the largest shipper.

Date	Place	Source	Quote
			LONGVIEW, Wash., Feb. 5. —(Special.)—The American Railway Express company advises that an average of 300 boxes of smelt are shipped daily, while the Columbia River Smelt company Tuesday sold more than 400 boxes, officials of the concern advised. The J. J. Braim fish market, where smelt are boxed and shipped to points in Oregon, Washington, Idaho, Wyoming, California, Utah and Colorado, was able Tuesday to fill all incoming orders for the first time this season.
21 February 1925	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	DECLINE ON PRICE OF EGGS CHECKED. ... Smelts Cost Less. ... Smelt have experienced a further reduction in price and are now 5 cents a pound. ... Fresh Fish. ... Columbia river smelt, lb. 05 ...
4 March 1925	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	VEGETABLES ABOUND FOR LENTEN SEASON. Smelt Are Offered at 5 Cents a Pound ... Smelt may be had at 5 cents a pound ...
5 March 1925	Cowlitz, Toutle and Kalama rivers (Kelso, WA)	<i>Cowlitz County News</i> , p. 1, col. 5	VISITORS ENJOY FISHING. Many cars from Portland and from the northern part of the state were parked along the banks of the Cowlitz, Toutle and Kalama rivers Sunday taking advantage of the steelhead and smelt runs. Many baskets of smelt were dipped from the Cowlitz river ...
11 March 1925	Portland, OR	<i>Morning Oregonian</i> , p. 14, col. 1	PLENTY OF FLOWERS ON MARKET DAY. ... Fresh Fish. ... Columbia river smelt, lb. 03 ...
16 March 1925	Sandy River, OR	<i>Morning Oregonian</i> , p. 5, col. 2	THE SMELT ARE IN THE SANDY. The return of the smelt to the Sandy river is the seven-days' wonder of each succeeding year. That innumerable migration, but a small fraction of the incalculable host which seeks the great Columbia when winter is on the wane, is a gift of ocean and sure proof of the fecundity of the sea. For although the Columbia river smelt is an anadromous fish, hatched in the fresh current of a mountain stream, it is the Pacific ocean that mothers the multitude, feeds it fat, and sends it back again. And the numbers of the smelt are vast to amazement, so that any who see them can scarce escape from awe. ... When the smelt return to the Sandy, as now they have, the event takes precedence over affairs which, at any other time, would seem urgent. It is truly astonishing, how very soon, the information becomes the general property of several hundred thousand people. People think they go to get fish, bushels and bags of fish—as they do. But what they really go for is to marvel at the bounty and wonder of Dame Nature, who never tires in well-doing.
18 March 1925	Sandy River, OR	<i>Morning Oregonian</i> , p. 18, col. 1	FISH PRICES DROP WITH SMELT RUN. ... Those who have not visited the Sandy river smelt-fishing grounds, or whose neighbors have not done so, may purchase whatever quantity they wish at six pounds for 25 cents. Other fish show a slight decline in price on account of the abundance of smelt. ... Fresh Fish. ... Columbia river smelt, lb. 05 ...
23 March 1925	Sandy River, OR	<i>Morning Oregonian</i> , p. 8, col. 2	WHEN FIFTY THOUSAND FISH FOR SMELT. The Aberdeen World is worried over the report that 50,000 people dipped nets for smelt in the Sandy river, on a single day. If this sort of fishing is permitted to continue the time may come when the swift Sandy will be smeltless, the World warns us; and, as it is, the World does not wonder

Date	Place	Source	Quote
			that the run lasts only a few days. The Oregonian is one with the World in decrying those vandal practices which have despoiled our wild-life treasury, but it cannot quite agree that the oulchan is in any immediate danger of extinction. The Columbia river smelt is the rabbit of the sea. It is hunted by many predatory fishes and birds, and it is scooped up in silvery tons by men, the master hunters of all. Even a few days is sufficient for a normal smelt run to fill the Sandy river with such a host of oulchan as cannot be dipped by 50,000 fishermen or thrice that number. As a matter of fact, where hundreds go to view the run only a comparative few actually fish. The smelt run lasts but a few days for the sufficient reason that in so brief a period the living current which ascends the Sandy has taken full possession of the river for a distance measured in miles. ... When nature deals with numbers she is a prodigal accountant. She is an Einstein, indeed. Mere millions and billions are nothing to her. She sends the oulchan up from the sea to the Sandy in such multitudes as stagger the imagination. Hugh Mitchell, director of state fish hatcheries, attempted some days ago an estimate of the smelt then in the river, based upon his belief, attained by observation that not more than 10 per cent of the run actually is taken by fishermen. They were, he computed, approximately 6,000,000,000 oulchan in the run. Meantime, however, the run continued, and on Saturday was said to be at its heaviest. For eight days the run had been in progress, and even while his estimate was written down it became a fraction, possibly a major one, of the true number. It should also be remembered that the Sandy river run is itself but a fraction of the main run which enters the Columbia to seek spawning beds in the Cowlitz river in Washington. Despite the heavy fishing of several years past, increasingly heavy with each succeeding year, the present run is said to be the largest within the memory of Troutdale residents. Crowded from the accustomed spawning grounds by their own fellows, vast numbers of smelt ascended the stream to a point far beyond any of previous record. Men are wasteful and callous in their dealings with the bounties of nature, but as smelt are fished at present the joke would seem to be on us. Here is a gift of nature we have not as yet succeeded in demolishing, as a child breaks a toy. We do not appear to have harmed it at all, for all our eagerness to dip nets into the silver tide of fishes. That we cannot harm the smelt run by over-fishing, however, is of a part with that witless optimism which has heretofore presaged ruin. So, while one would counsel the Aberdeen World not to be unduly alarmed, the apprehensions of that excellent newspaper do not lack for foundation in American experiences. The authorities should preach and fight against waste, against the sin of waster—for many smelt are wasted, and waste of nature's bounty is both shameful and sinful. If in any year the run should slacken or otherwise give evidence of having diminished, the fishing of smelt should be prudently restricted until the run of another season attained the normally magnificent proportions of old. Abundant as the Columbia river smelt is today, with thousands of fishermen this very hour netting millions of fish in the Sandy river, it is presumptuous of any man, and foolishly greedy, as well, to take of

Date	Place	Source	Quote
			this gift more than he has the occasion to use.
27 March 1925	Sandy River	<i>Rainier Review</i> , p. 4, col. 2	5,750,000,000 Fish in Sandy, Expert Guess. Sleepless nights and endless arguments are over for the smelt fishermen, who for years has worried and argued himself to a mere shadow over the number of smelt in the annual run in the Sandy river. Hugh Mitchell, director of state fish hatcheries, has come forward with convincing data in the form of an official estimate of the number of fish in the smelt rush. In the first place, the fish commission took 50 tons of smelt from the Sandy river to use as fish food and a careful check showed that there were 11,500,000 smelt in the 50 tons. But Mitchell says this was about 2 per cent of the total taken by individual fishermen. That means the wielder of dip nets took 575,000,000 smelt. And since only about 10 per cent of the run is taken, the estimate for the total run is 5,750,000,000 fish. Mitchell did not go so far as to figure out exactly how much fish this really is, but with the fish averaging five inches in length, they would stretch 453,598 miles, or to the moon and almost back again to the earth, if placed end to end. For those who refuse to be without worries and argument it might be figured how much the run is worth with smelt selling in Eastern markets at from 50 to 75 cents a pound.— <i>Oregon Journal</i> .
1926			
28 November 1925	Portland, OR	<i>Morning Oregonian</i> , p. 13, col. 2	New Today in the Markets. The first Columbia river smelt have arrived, nearly a month earlier than usual, and are being sold today in one Portland market. They are of good size, and are especially firm, having been caught in colder waters than the usual smelt seen here. Scarcity of the fish and difficulty in catching are responsible for the price of 60 cents a pound. The few pounds offered today are the result of long and careful gill netting on the lower Columbia.
2 December 1925	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 4	New Today in the Markets. ... Fresh Fish. ... Columbia river smelt, lb. 50
5 December 1925	Portland, OR	<i>Morning Oregonian</i> , p. 17, col. 3	New Today in the Markets. ... Fresh Fish. ... Columbia river smelt, lb. 50 ...
19 December 1925	Portland, OR	<i>Morning Oregonian</i> , p. 14, col. 5	New Today in the Markets. ... Fresh Fish. ... Columbia river smelt, lb. 30 ...
23 December 1925	Portland, OR	<i>Morning Oregonian</i> , p. 13, col. 2	New Today in the Markets. ... Fresh Fish. ... Columbia river smelt, lb. 30 ...
9 January 1926	Portland, OR	<i>Morning Oregonian</i> , p. 15, col. 3	New Today in the Markets. ... Columbia river smelt are more plentiful and now sell from 12½ to 18 cents a pound. Those being brought in are of good size. ... Fresh Fish. ... Columbia river smelt, lb. .12½ @ .18
13 January 1926	Portland, OR	<i>Morning Oregonian</i> , p. 21, col. 7	New Today in the Markets. ... Fresh Fish. Columbia river smelt, lb. .12½ @ .15 ...
30 January 1926	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 4	New Today in the Markets. ... Fresh Fish. Columbia river smelt, lb. 12½ ...
6 February 1926	Portland, OR	<i>Morning Oregonian</i> , p.	New Today in the Markets. ... Fish markets offer spring Chinook salmon, Cowlitz

Date	Place	Source	Quote
		13, col. 3	river smelt and sturgeon, with special prices on small crabs. ... Fresh Fish. Columbia river smelt, lb. .07 @ .08 ...
10 February 1926	Portland, OR	<i>Morning Oregonian</i> , p. 14, col. 2	New Today in the Markets. ... Fish markets are well supplied today with spring chinook salmon, smelt, crabs and lobsters. ... Smelt are quoted at 7 and 8 cents a pound, which also means two pounds for 15 cents or four pounds for a quarter. Fresh Fish. Columbia river smelt, lb. .07 @ .08 ...
14 February 1926	Cowlitz River	<i>Morning Oregonian</i> , p. 12	COWLITZ RIVER NEAR LONGVIEW PRESENTS SCENE OF GREAT ACTIVITY: FISHERS WITH LARGE SIZED DIPPERS IN POWER BOATS PURSUING “SILVER HORDE” OF SMELT. Flocks of Gulls Hover Over Stream, Pointing Out to Crews in Boats Where to Cast Their Nets—Greatest Development in Industry Expected This Year as Result of Establishment of Saltery—500 Tons to Be Processed and Shipped to Orient, Following Word From China That All Available Fish Can be Marketed—Price Locally Ranges From 75 Cents to \$1 for 50-Pound Box. LONGVIEW, Wash., Feb. 13.—(Special.)—There is great excitement on the Cowlitz river these days, what with about 50 men in power boats chasing the little smelt and dipping them from the water, the “phut phut” of the gas engines and the great flocks of sea gulls that hover over the stream, pointing out to the dippers where the run is located. The waterfront swarms with busy men, and over across the tracks the expressmen are stepping lively to care for the rush of business. Cowlitz county’s most novel business is good just now. Last year the expense company handled 15,000 boxes, it was said, and indications were the output would be equally as heavy in 1926. But the greatest development ever known in the smelt industry on the Cowlitz may follow as the result of a saltery here this year. The Candle Fish company, of which Dan R. Hurley is manager, is salting and shipping 500 tons to the orient, and preparing to ship 1000 tons next year. Hurley formerly was connected with herring salteries in British Columbia, and decided to try salt smelt on the Chinese. A trial shipment last year resulted in a call for all that could be sent. The 500 tons this year will go to Shanghai to be handled by the fish guild there. The fish are salted down in huge tanks in proportion of one part coarse salt to three parts smelt. After five days in this brine they are packed in 400-pound boxes, barged to Portland and loaded on a steamer. Next year the shipments will be made from the public docks at Longview. An interesting figure in the business is Mrs. L. M. Mable, the “Smelt Queen of the Cowlitz.” Her husband had built up the Columbia River Smelt company before he died and she is carrying on alone. Smelt dippers who had delivered to her husband remained faithful to her, and now she admits she is the heaviest shipper of the fresh fish. Every large city and most of the smaller ones in the northwest get Cowlitz smelt. The fish known here as smelt really are Eulichan [sic], experts say. True smelt are to be found in the run that goes up the Sandy river in Oregon along in April, and in Puget sound. The Eulichan [sic] also run up the Nash [sic], Skeena and Fraser rivers in British Columbia. Locally they are sometimes called candle fish, because the Indians used to

Date	Place	Source	Quote
			pile up great heaps of them to let the oil drain off and use it for lights. Entering the Cowlitz river from the Columbia along in December, the first stop made by the smelt is at the spawning bed just above the Long-Bell mill. There are two or three runs, the heaviest usually in January and extending into February. The smelt are dipped up with nets as they halt at the spawning beds of which there are half a dozen between the mouth of the river and Castle Rock, where the last commercial catch is taken, owing to the swift current and rocky bottom. The men who dip the smelt operate in power boats. They anchor over the spawning beds in midstream. The nets are about 20 inches in diameter and fastened to poles from 15 to 20 feet long, because the fish swim along the bed of the river. The net is flung upstream mouth down, and worked along with the current. Sometimes only a few are caught, but when there is a good run a man often will pull out from 20 to 25 pounds at a cast, which would fill a large bucket. The smelt are dumped into boxes or on the bottom of the boat with a dexterous flip that turns the net inside out. Those that are dipped up for the market are mostly “bucks” or males, because the males precede the females to get the spawning beds ready, the wise ones say. As soon as females arrive the dipper ceases. Females are flabby when full of eggs and not good to eat. There is a wide range in prices. Buyers on the local market are now paying dippers from 20 to 35 cents for a 50 –pound box. The market price is 75 cents to \$1 a box f.o.b. At 20 cents a box a young fellow brought in a cargo the past week that was worth \$24.60—and he dipped it in two hours.
17 February 1926	Cowlitz River	<i>Morning Oregonian</i> , p. 20, col. 1	100 TONS OF SMELT SLATED FOR ORIENT. Steamer Las Vegas to Carry First Consignment. NEW INDUSTRY GLIMPSED. China Believed Likely to Afford Market for Surplus Catch in Columbia River District. Columbia river smelt is the latest product of the district to join the already varied list of commodities for which there is a market in the orient, and the initial shipment of consequence will be dispatched Sunday aboard the steamer Las Vegas for China. The smelt are part of the Cowlitz river catch and information from Longview is that there may be close to 100 tons in the first consignment. The fish were placed in brine after being scooped out of the river and have been prepared for shipment in salt, being packed in large wooden boxes. It appears that samples of smelt were sent to China last year. Their trial as part of the menu of the ordinary celestial family has stirred a demand that promises to offer a most important outlet for surplus fish. Quantities of herring that are moved from Barclay sound on northern lines for the Japanese and Chinese markets is pointed to as offering some idea of the active market in the orient for certain fish. Development of the smelt exporting trade would no doubt mean the runs would be followed in the Cowlitz, Sandy and other streams each year. Shipment during the early season is favored, since vessels in the trade are not fitted with special refrigerated facilities. The smelt are transported satisfactorily during the cool period. The Las Vegas is being loaded for her first voyage since returning to the Columbia river service and signs up her crew today. The Columbia Pacific

Date	Place	Source	Quote
			Shipping company, managing operator of the Oregon Oriental line for the shipping board, will have considerable other cargo on the Las Vegas, which proceeds to the Philippines via Japan and China.
20 February 1926	Portland, OR	<i>Morning Oregonian</i> , p. 14, col. 6	New Today in the Markets. ... Fresh Fish. Columbia river smelt, lb. .07 @ .08 ...
21 February 1926	Nisqually River	<i>Sunday Oregonian</i> , p. 16, col. 1	SMELT TAKEN TO SOUND. 20,000 Being Transported by Washington Officials. OLYMPIA, Wash., Feb. 20.—(Special.)—Seeking to introduce Columbia river smelt to Puget sound waters, and particularly to rivers emptying into the sound, the state is now engaged in transplanting 20,000 smelt in tanks in the Nisqually river, according to Charles R. Maybury, state director of licenses. Maybury declared that but little is known of the smelt's tenure of life or habits, and stated that the 5000 transplanted last year were of such a negligible quantity that little or no observation could be made.
24 February 1926	Portland, OR	<i>Morning Oregonian</i> , p. 11, col. 6-8	Fish Features in Skaggs Markets. ... COLUMBIA RIVER SMELT—the seas's daintiest contribution to your table. It's time for your annual smelt feast. 6 POUNDS 25c.
February 1926	Columbia River Grays River	<i>Pacific Fisherman</i> 24(3): 30.	Columbia River Activities. Up to the last of January, the run of smelt in the Columbia River which usually starts about January 15, had not appeared. About the middle of the month there was a small run, but few went up as high as the Cowlitz River or any of the other small streams which empty into the Columbia, except for about one day Grays River on the Washington side opposite Astoria fishermen secured considerable poundage. The run is still looked for by experienced men.
3 March 1926	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 3	EGGS NOW 28 CENTS ON YAMHILL MARKET. ... Cowlitz River Smelt Sell for 5 Cents Pound ... Fresh Fish. ... Columbia river smelt, lb. .05 @ .07 ...
6 March 1926	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 3-4	New Today in the Markets. ... Fresh Fish. ... Columbia river smelt, lb. 05
10 March 1926	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 8	FLOWER DAY LIVENS STALLS ON YAMHILL. ... Fresh Fish. ... Columbia river smelt, lb. 05
17 March 1926	Portland, OR	<i>Morning Oregonian</i> , p. 13, col. 6	New Today in Markets ... Fresh Fish. ... Columbia river smelt, lb. 05
24 March 1926	Portland, OR	<i>Morning Oregonian</i> , p. 16, col. 6	New Today in Markets ... Smelt are less plentiful than a few days ago, and smelt fishermen predict the early end of the season. ... Fresh Fish. ... Columbia river smelt, lb. 05
March 1926	Cowlitz River	<i>Pacific Fisherman</i> 24(4): 44	Good Oulachan Pack. The Candle Fish company, Kelso, Wash., engaged in dry-salting oulachans, or Cowlitz river smelts, for the Chinese market, report that owing to the unusually good run this year little difficulty is anticipated in filling their contracts. More than 80 tons of salted oulachans were in the company's vats on the Kelso dock Feb. 15. Profiting by this year's experience the company is planning on improvements that will more than double their production next year. Most of the catches during February were made at Sandy Bend between Kelso and Castle Rock. Fishermen and individual shippers

Date	Place	Source	Quote
			of fresh smelts have been reaping a harvest from their catches, the Columbia River Smelt company shipping on an average of 500 boxes daily.
10 April 1926	Lewis River, WA	<i>Morning Oregonian</i> , p.10, col. 5	Smelt Enter Lewis. KELSO, Wash., April 9.—(Special.)—A large run of Columbia river smelt, just in from the Pacific ocean, and of high quality, came into the Lewis river this week and many are being caught. Due to the early warm weather, the commercial fishermen who operate from Kelso discontinued their operations some time ago.
1927			
15 September 1926	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 5-6	Closed Days Protect Smelt. KELSO, Wash., Sept. 14.—(Special.)—A closed season for Columbia river smelt is established for the first time by the state fisheries board under order No. 16, which provides for a weekly closed season for Columbia river smelt in the Cowlitz river from 8 A. M. Friday to 8 A. M. Sunday. Few fish are dipped from the Cowlitz river or sold on Friday and Saturdays because of Sunday, so that the order will have little effect on fishing operations. The order prohibits the use of smelt or herring nets more than 350 feet in length, including the bag.
5 December 1926	Columbia River	<i>Sunday Oregonian</i> , p. 34, col. 2	SMELT RUN EXPECTED. Cowlitz Fishermen Preparing to Gather Harvest. KELSO, Wash., Dec. 4.—(Special.)—The first winter run of Columbia river smelt is expected in the Cowlitz river by the fishermen at any time as a few smelt have been caught in the lower Columbia. Indian fishermen also predict that the fish soon will be in the river. They say that the fish ducks act differently when the smelt are in the river, and that the action of fish ducks always shows when the smelt are to be expected in commercial quantities.
11 December 1926	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	MARKETS SUGGEST SMELT AND CLAMS. ... Columbia river smelt and razor clams, that may be purchased either in the shell or dressed, are specially recommended by fish dealers today. The smelt are large and firm. ... Fresh Fish. ... Columbia river smelt, lb. 60 ...
30 December 1926	Portland, OR	<i>Morning Oregonian</i> , p. 3, col. 1	MARKETS OFFERING NEW YEARS MENU. ... Fresh Fish. ... Columbia river smelt, lb. 60 ...
8 January 1927	Columbia River	<i>The Kelsonian-Tribune</i> , p. 5, col. 2	SMELT CAUGHT IN COLUMBIA. ADVANCE GUARD OF ANNUAL RUN APPEARS AT OAK POINT AND LOWER RIVER. ... What is believed by fishermen in this vicinity to be the first catch of the advance run of smelt expected here by about February 1, has been reported by fishermen from the lower waters of the Columbia. Frank Remick, manager of the Marine Supply Co. of Kelso, received a small shipment of the little fish this forenoon with information that several boxes of smelt had been caught near Oak Point and lower Columbia river points last night. Most of the fish are reported to have been shipped to the markets in Portland with prices ranging from \$6 to \$8 a box or about 15 cents a pound. Fishermen of the lower Columbia and native fishermen of this vicinity who have watched the habits of the smelt for years, report that in their opinion the smelt now being caught in the lower waters of the Columbia is really the advance run of the little fish which generally arrive at the mouth of the Cowlitz river

Date	Place	Source	Quote
			about February 1. ...
12 January 1927	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	CRISO GREEN BEANS COME FROM FLORIDA. ... PRICE OF SMELT FALLING. ... Fish and meat markets are well supplied. Columbia river smelt are plentiful, and becoming more so. This has brought the price down to 10 cents a pound in many markets, with a possibility of still lower prices soon. ... Fresh Fish. ... Columbia river smelt, lb. .10 @ .12½ ...
19 January 1927	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	PORTLAND MARKETS HAVE WINTER PEARS. ... Columbia River Smelt Price Drops. ... In fish markets the price of Columbia river smelt has now dropped to 10 cents a pound, with some markets reducing it still further to three pounds for a quarter. Fresh Fish. ... Columbia river smelt, lb. 10 ...
21 January 1927	Columbia River	<i>The Kelsonian-Tribune</i> , p. 1, col.1-2	Preparations Being Made to Handle Run of Cowlitz Smelt. OVER SUPPLY OF HERRING IN CHINESE MARKETS CAUSES HALTING OF PLANS TO SHIP TO ORIENT; MARINE SUPPLY COMPANY TO MILD CURE PRODUCT. Local fishermen are preparing for the smelt harvest which is expected to be at its height by the middle of next month in the Cowlitz river. Larger catches of the little fish in the Columbia river are being made each day as the smelt advance farther up the main stream before turning into the tributaries of the Columbia to spawn. Market demands for the smelt, particularly in Portland, are very keen and prices remain firm on the retail markets at 12.5 cents a pound. The Marine Supply Co. of Kelso, is now sending out a pick-up boat each day and buys directly from the independent fishermen on the Columbia all the smelt ... that can be procured. Frank Remick, manager of the Marine Supply Co., announced that the last consignment of smelt came from just below the Union cannery station on the Columbia near the Wallace slough, thirty-five boxes having been brought here Thursday morning. A communication from Messrs. Hurley and Jones, mild cure packers from Seattle, to the manager of the Marine Supply Co. here announces that the Candle Fish Co., who packed nearly 1,000 tons of smelt last season in Kelso for the Chinese market, will not operate this year when the main smelt run arrives, as was expected. The letter states this is due to the flooding of the Oriental markets with herring, of which there was an unusually heavy run last season, and which are sold for half of what it costs to put the smelt on the markets. ... What mild curing of smelt is done on the Cowlitz river this year will be handled by the Marine Supply Co., according to a statement made by Mr. Remick. Preparations are now under way by the local company to handle the surplus smelt during the heavy run by kippering, smoking and mild curing. ...
22 January 1927	Portland, OR	<i>Morning Oregonian</i> , p. 10, col.1	VEGETABLE COME FROM SUNNY LANDS. ... Prices of Columbia river smelt are changing rapidly. ... Fresh Fish. Columbia river smelt, lb. .15 @ .20
26 January 1927	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	CALIFORNIA SENDS VEGETABLES HERE. ... Columbia river smelt again are low in price, but this is apt to vary during the day, for the price depends on the day's supply. ... Fresh Fish. Columbia river smelt, lb. 15 ...
January 1927		<i>Pacific Fisherman</i> , 25	SMELT RUN IN COLUMBIA RIVER The first run of smelt in the Columbia River

Date	Place	Source	Quote
		(1):33.	this fall was reported Dec. 7 when a few catches in commercial quantities were made with gillnets between Clifton and Clatskanie on the Oregon side of the river. The fish taken at that time were in the finest condition.
2 February 1927	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	RED BANANAS JOIN FRUITS ON MARKET. ... Columbia River Smelt ... Plentiful. ... Columbia river smelt, which began the day at 15 cents a pound and may be lower before the day is over ...
3 February 1927	Columbia River	<i>The Kelsonian-Tribune</i> , p. 1, col. 5	SMELT SCARCE IN THIS CITY. Portland Taking Available Supply; Rains Expected to Bring In Big Run. During the past ten days no smelt have arrived at the local markets and what few are being caught go to the Portland markets, it was reported here. Fishermen report that what few smelt are found are in the Columbia river about twenty miles from the mouth of the stream and have not yet begun to go up the tributaries of the Columbia. Local fishermen declared that the recent rise in water may bring the little fish into the Cowlitz as they are already late this season and the first run is expected now at any time.
11 February 1927	Columbia River	<i>The Kelsonian-Tribune</i> , p. 1, col. 1-2	Fishermen Wait For Annual Run of Smelt in Cowlitz. LITTLE FISH ARE REPORTED ABOUT FORTY MILES DOWN COLUMBIA; JUST YEAR AGO AT THIS TIME THAT FIRST BIG RUN CAME ... COWLITZ BELOW KELSO. ... why the smelt which have ... famous as the smelt ... this section should be ... about forty miles down ... Columbia river instead of heading into the Cowlitz for the spawning grounds is something that none of the fish authorities can explain. Last year there were several advance guards of the little fish that came into the Cowlitz river some ... ahead of this time. It was just a year ago tomorrow that the ... came into the stream with a ... and headed up the stream toward Castle Rock and Toledo. Representatives of the state fisheries department are keeping check on the smelt. The local fishermen are all set but the fish have not yet arrived. The smelt being received on the local market are purchased from the down Columbia fishermen. Once the fish begin to arrive they come in great swarms. Their advent is also marked by the presence of great swarms of sea gulls. These birds enjoy a wonderful feast while the smelt run is in progress. ... what the situation is this ... is not known for there are so many conditions that may affect the smelt. It is known that in the fish taken down the Columbia the spawn is not yet ripe and they may be waiting for the weather to moderate. The check, it is stated, shows the water in the Columbia and Cowlitz is not much different, so far as temperature is concerned, from the conditions that prevailed at this time last year. But the main thing ahead of the local fishermen now seems to be to wait until they come. There is no known way of herding the fish in ahead of their schedule. They come or they stay and the fishermen just wait to see what happens. ...
12 February 1927	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	VARIETIES OFFERED IN VEGETABLE DIET. Columbia Smelt Plentiful ... Fish markets have a liberal supply of Columbia river smelt, on which prices begin at three pounds for a quarter. ... Fresh Fish. ... Col. River smelt, 2 lbs. 15

Date	Place	Source	Quote
15 February 1927	Columbia River	<i>The Kelsonian-Tribune</i> , p. 1, col. 1-2	Smelt, Weeks Late, Working Up Stream. HUNDRED POUNDS CAUGHT OFF THE KELSO PORT DOCKS, BULK OF SMALL FISH STILL NEAR EAGLE POINT; EXPECTED IN COWLITZ SOON. The current report Tuesday that the winter run of smelt had arrived off the mouth of the Cowlitz river and that 168 boxes had been dipped near the port of Kelso docks, electrified the citizens who expected to get out the usual collection of dip nets composed of everything from a flour sack to a bird cage preparatory to the big catches always made on the first run of the smelt. The report, however, proved to be erroneous, according to a check made by a representative of The Kelsonian-Tribune this afternoon. A few smelt were caught near the port docks Monday afternoon, and over 100 boxes of smelt were shipped by the Marine Supply Co., and the Columbia River Smelt Co., but the fish came from near Eagle Point on the Columbia river, and fishermen report that the main run is still in the Columbia river as far west as Stella. W. O. Campbell, a fisherman who has been operating near Eagle Point and selling the smelt to local buyers, arrived in Kelso at 8 o'clock last night, coming up the Cowlitz river in his boat, and there were no indications of smelt near the mouth of the Cowlitz although about 100 pounds were caught near the Port of Kelso docks and near Rainier on the Oregon shore Monday [14 February 1927]. He also declared that most of the present catch in the Columbia are females and are in poor condition, that the main run of males in prime condition has not yet arrived although several weeks late. Should the present change of weather bring on heavy rains and high water, local fishermen and pioneers who have watched the habits of the smelt, predict that the main run should arrive in the Cowlitz river by the first of next week.
17 February 1927	Columbia River	<i>The Kelsonian-Tribune</i> , p. 1, col. 6-7	Smelt Continue on Oregon Side River. Cowlitz River Avoided So Far and Orders Being Filled With Fish Taken From Columbia; Lewis and Kalama Rivers May Get Run This Year. Until early Thursday morning, local smelt dealers were discouraged in being unable to supply the many orders coming in from all parts of the western states, and wired markets in southern California and as far east as Minnesota that the smelt were not running as yet and their orders could not be filled until later. On Thursday [17 February 1927] morning, however, fishermen reported that the little fish were running off the Oregon shore of the Columbia river near Rainier and as far north as Prescott. Some of the nets were reported to have dipped as high as twelve to fifteen boxes on each set and by the end of the week it is believed the market demand will be fairly satisfied. With the smelt working up the Oregon shore and none of any consequence coming near the mouth of the Cowlitz, some fishermen predict that the run this year may be in the Kalama and Lewis rivers. Pioneers of this community report that on several seasons in past years the smelt have not entered the Cowlitz river in any numbers and what few did come in were of poor quality and too late in the season to supply market demands. ... Now that the season is so far advanced, fishermen in this vicinity are of the opinion that what smelt may arrive in the Cowlitz will be few and make a small run. No fish are being

Date	Place	Source	Quote
			caught in the lower Columbia where they have been running for the past month and it is thought that the smelt are now headed for the upper tributaries of the Columbia.
18 February 1927	Columbia River Kalama River	<i>The Kelsonian-Tribune</i> , p. 1, col. 6-7	Smelt Absence Is Still Big Mystery. Fishermen Advance Various Theories and Mayor Mallory Makes Trip To Mouth of Cowlitz; Little Fish Appear in Kalama River. That the annual run of smelt in the Columbia river and its tributaries is not only light and discouraging to dealers and fishermen, but also freakish and mysterious, is the report brought to Kelso by dealers and fishermen today. That the highly prized little fish may pass up the Cowlitz river entirely this year was predicted Thursday when a reported run was caught on the Oregon shores above Rainier and few boxes shipped from the Kalama river and vicinity of the Lewis. On Friday morning gill netters returned from the vicinity of the Kalama and Lewis rivers and up Columbia river points, reporting that the little fish had completely disappeared from the waters where they were reported to have been working the day before. Another report is current that the smelt are attempting to enter the mouth of the Cowlitz river from two angles, one from the down river point where they suddenly stop, and the other by rounding Cottonwood island and coming back down the Carrolton channel in the Columbia to the mouth of the Cowlitz. A theory is now being advanced by some fishermen that the smelt have not entered the Cowlitz due to various kinds [of] refuse deposits said to be emptied into the river. While but few of the fish were caught and shipped Thursday night, the report that a new run of smelt at Eagle Cliff had begun Friday morning, caused the fleet of fishermen to leave for down the Columbia, thirty miles below Kelso, where the fish have been running for the past month. The run is reported to be a new one and thought by some fishermen may move rapidly on up the Columbia and enter the Cowlitz and other tributaries. The annual run is now six weeks over due, the fishermen say, and it will soon be the usual time for the smelt to enter the Sandy river in Oregon which usually occurs in March. Fishermen in the pickup boats sent out by dealers each day say they don't know a thing about smelt this year. One day they are down the Columbia and the next are to be found many miles up the stream and about the only way they can locate the little fish is a careful watch of the sea gulls which are always found following the smelt. ...
19 February 1927	Columbia River	<i>The Kelsonian-Tribune</i> , p. 1, col. 6-7	Water to Be Tested For Effect on Fish. Game Warden Leichhardt Sends Samples of Waste to State Laboratory to Determine If It Is Responsible for Failure Smelt Run. Following the theory advanced by a few fishermen that waste water which empties into the Cowlitz river near its mouth, may contain chemicals which have caused the absence of the annual run of smelt ... a sample of the water running from the waste pipe of the plant to the river was taken on Saturday by Chester Leichhardt, county game warden. ... the annual run of smelt seems to be as far away as it was when the little fish made their first appearance on the lower Columbia the first of last month. Various theories are advanced for the absence of the smelt in the Cowlitz river this year among which are that the gill-netters on the lower Columbia disturbed the advance run in catching the leaders

Date	Place	Source	Quote
			and caused them to mill round in small schools from the mouth of the Columbia to a few miles above the Cowlitz river. Pioneer residents and fishermen declare that this is not the first season the smelt have failed to enter the Cowlitz and point out that no manufacturing plants of any kind were in operation during the years the smelt ran up other rivers to spawn. ...
22 February 1927	Columbia River Kalama River Lewis River	<i>The Kelsonian-Tribune</i> , p. 1, col. 4	EXPECT SMELT ENTER COWLITZ. FISHERMEN RETURN TO MOUTH OF COWLITZ WHEN FISH QUIT LEWIS RIVER. Late Run May Start Up Stream At Any Time Although Actions Most Mysterious. That the late run of smelt may now enter the Cowlitz river at any time, was the prediction made by local fishermen Tuesday when it was reported that no fish were being caught in the Lewis river on Tuesday forenoon. The probability of the fish now entering the Cowlitz river is said to be due to the rapid rise of water in the Lewis which has risen approximately fifteen feet in the past 24 hours and has caused the smelt to turn back into the Columbia again. Local fishermen claim that the Lewis river is too turbulent a stream for the smelt to spawn in during high water condition and since the smelt have turned back into the Columbia, scout boats of the smelt fleet have abandoned the Lewis river waters and are hovering around the mouth of the Cowlitz on the Columbia with the expectation that the little fish may turn back from the Kalama and Lewis rivers, new swollen torrents, into the larger and more placid waters of the Cowlitz. The Marine Supply Co. and the Columbia River Smelt Co. report good catches on Monday from the Lewis river, the fishing fleet bring several hundred boxes of smelt which were shipped from Kelso to supply the market demand. No catches are being in the Lewis river today, however, and the fishermen are now wondering where the smelt will appear next.
23 February 1927	Lewis River, WA	<i>Morning Oregonian</i> , p. 19, col. 5	Rising Waters Preserve Smelt. KELSO, Wash., Feb. 22.—(Special.)—Rising waters of the Lewis river have interrupted somewhat the taking of Columbia river smelt in that stream, where they were caught in large quantities yesterday and last night. This is the first time in nine years that the main run has passed the Cowlitz river and gone into the Lewis.
23 February 1927	Lewis River	<i>The Kelsonian-Tribune</i> , p. 1, col. 6-7	Smelt Pass Cowlitz Run Up Lewis River. Fishermen Busy Making Catches In Lower River Do Not Expect Annual Schools To Appear In Local Stream This Season. Reports on Wednesday morning from the Fischer Bros., Marine Supply Co., Columbia River Smelt Co. and local fishermen, confirm the prediction that the annual smelt run this year is confined to the Lewis river where the fishing fleet is now securing more smelt than the market demands. Early Tuesday morning it was reported that the smelt had again abandoned the Lewis river due to the rapid rise of the water but they were seen again later in the evening and are now reported to be about four miles beyond the Pacific highway bridge at Woodland, or about ten miles up from the mouth of the stream. Fishermen claim that the smelt had not entered the Lewis river two seasons ago and that this run is the one that was expected in the Lewis at that time. The smelt are

Date	Place	Source	Quote
			traveling up the Columbia river and local fishermen are of the opinion that the little fish will not enter the Cowlitz this year although they have been known to enter the Cowlitz river as late as May. Several hundred boxes of smelt were brought to Kelso for shipment on Tuesday night and Wednesday forenoon. Two boats from the Marine Supply Co. arrived in the river early Wednesday morning with nearly 200 boxes aboard. The fish are now being sorted and shipped while a large supply is being prepared for smoking and mild cure.
3 March 1927	Lewis River	<i>The Kelsonian-Tribune</i> , p. 1, col. 5	MANY SMELT BEING TAKEN AT WOODLAND. WOODLAND, Mar. 3 (Special) — Eighteen boats are busy in the smelt harvest at this place. Estimates vary from 800 to 1,200 boxes as the daily catch. Trucks are hauling to Portland, Salem and other points, fishermen claiming that they cannot fill the orders as fast ... [as] as they are received. Large numbers of cars from nearby cities from Oregon, and even from Idaho, Montana and California park along the Lewis river while parties dip smelt.
11 March 1927	Lewis River	<i>The Kelsonian-Tribune</i> , p. 2, col. 5	SMELT SEASON NOW NEAR END. Fishermen Report Heaviest Run Over; Fish are Being Taken Out of Lewis River. Marine Supply Company Ship Several Hundred Boxes Daily; Packing Surplus. Smelt fishermen now operating a fleet of boats on the Lewis river where the little fish are now running, announced that the heaviest run is apparently over and that the season will last but a few weeks longer. Most of the fish are now being taken about three miles up the Lewis river from the town of Woodland, and in sufficient quantities to supply all market demands. The Marine Supply Co. and the Columbia River Smelt Co. are the two heaviest shippers from Kelso and have shipped several hundred boxes daily from Kelso, shipments going as far east as the state of Maine. Some of the fish are being transported from the Lewis river to Kelso by auto truck but the heaviest shipments are brought by the fleet of fishing boats down the Lewis river into the Columbia and up the Cowlitz, a distance of three miles to Kelso. Frank Remick, manager of the Marine Supply Co., reports several hundred boxes of the surplus smelt now undergoing a variety of dry, smoked and mild curing. ...
18 March 1927	Lewis River	<i>Rainier Review</i> , p. 8, col. 3	SMELT MISS COWLITZ. Tiny Fish Pass on To the Lewis River. The annual run of smelt gave the Cowlitz the “go-by” this year for some unaccountable reason and instead went on up the Columbia and entered the Lewis river where fishing is now in progress. Several theories have been advanced explanatory of the action of the smelt, but none of them have undisputed logic. Some think the paper mill on the Cowlitz is the cause; others have suggested that the change in the mouth on the river, made by the Long-Bell Company may have deceived the smelt and they passed on. J. J. Braim, a fish dealer of many years, is of the opinion that the high water kept them from crossing the channel, as it is known that the smelt are always on the south side of the river at Mayger. At any rate Kelso has been left out in the cold and Woodland has become the smelt center at least during the present year. Mr. Braim states that about ten years ago the smelt refused to enter the Cowlitz and went up the Lewis river instead, just as they have done this year.

Date	Place	Source	Quote
22 March 1927	Lewis River	<i>The Kelsonian-Tribune</i> , p. 5, col. 3	SMELT STILL RUN IN LEWIS. Fishermen Start On Fifth Week In Lewis River; Many Boats Working The Stream. WOODLAND, Mar. 22 (Special) — Smelt fishing on the Lewis river entered its fifth week Sunday the 20th. With 18 boats on the river the catch has varied from 500 boxes a day at the present time to 800 a day at the height of the season for five days a week, the river being closed to fishing from Friday morning to Saturday evening, each week. Three or four runs have come up the river in the four weeks of fishing, each run being accompanied by thousands of gulls that swoop down and bury themselves in the water to catch their prey. The smelt keep going up stream and some of the runs have already gone so far that boats, though able to go above the first two rapids, can not bring a load down because of the lack of depth on the rapids. A peculiarity of a smelt run this river is that the females keep to the parts of the stream where the water runs slowest, while the males take to the swifter current. This accounts for the large proportion of males placed on the market as the fishermen, knowing the habits of the fish, allow the females to proceed up the stream to spawn. Fishermen here are at a loss to account for the fact that all the runs have missed the Cowlitz though some think that the lining of the banks of that stream may have caused it. They also say that the last run makes for the Sandy in Oregon.
26 March 1927	Lewis River	<i>The Kelsonian-Tribune</i> , p. 8, col. 5	RUN OF SMELT IS NEAR END. LAST CATCHES OF LITTLE FISH ARE EXPECTED TO BE MADE NEXT WEEK. None Came Up Cowlitz This Season. All Heading Into Lewis; Big 1928 Run Expected. Although for reasons that cannot be explained that toothsome little ocean fish known as smelt gave the Cowlitz, their usual spawning stream, the go by this year. The Columbia River Smelt company, of which Mrs. L. L. Mable is the active manager, has not been idle in the matter of the annual distribution of this popular finny delicacy. Every season, during the run, which generally commences in the latter part of January and continues up to about the 1st of April, the fishermen take hundreds of tons of smelt from the Cowlitz river. The catches ate in the main handled by the Columbia River Smelt company, and daily shipments are made to all part[s] of the coast. This year the smelt elected to head into the Lewis river, and fishermen have been busy snagging the smelt on that stream during the past several weeks. T. L. Randall, who has charge of gathering and shipping the smelt to their various destinations from this railroad center, sends trucks to Woodland every morning where the smelt are gathered and conveyed to Kelso. Here the fish are iced and orders filled. Mr. Randall states that there is no way of accounting for the failure of the smelt to enter the Cowlitz this year, and he expects the fish to return to their old ... right on time next season. He says this is not the first time the smelt have deserted the Cowlitz. The same thing occurred ten years ago and it is presumed that the little fellows change their tactics once in every decade. If that is the case it can be expected that the smelt catching activities will continue at this point for the next ten years, which is encouraging to those equipped to catch and handle these fish. Mr. Randall states that the smelt catching and

Date	Place	Source	Quote
			shipping will probably close next week as the weather is getting too warm for successful handling. He also stated that the fish this year are much smaller in the main than those usually taken from the Cowlitz river.
1928			
27 December 1927	Columbia River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 6	REPORT SMELT PASS COWLITZ. LITTLE FISH SAID TO BE GOING UPSTREAM TOWARDS LEWIS AGAIN THIS WINTER. Annual Run Here Failed Last Year; Fishermen Speculate On Cause of Change. There are rumors to the effect that the smelt, tiny rulers of the Cowlitz river for years past have forsaken their usual abode on their first run of the winter and are heading further up the Columbia river for the Lewis river where [they] sometimes stop instead of in the Cowlitz. Whether this is a fact or not is not fully determined. The fish have not entered the Cowlitz as yet, but it is possible that the reported run has not reached this point as yet. Reports have been rife it was possible that the paper mill situated close to the mouth of Cowlitz may have something to do with driving the fish from the local stream. Whether there is anything to this is something to be speculated on.
29 December 1927	Cowlitz River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 6	SEA GULLS MAY MEAN SMELT ARE IN COWLITZ. Sea gulls hovering over the Cowlitz river give indications according to A. A. Byrnes, Kelso bridge tender, that the smelt may be in the Cowlitz river. They have not been here for over a year and as a result it was feared that they had abandoned the Cowlitz. Although no catches are being reported the gulls indicate that the smelt are in the stream. This is about the time of the winter run and while light, is an important factor in the later runs. The smelt are already reported in the Columbia river.
11 January 1928	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	FIRST RUN OF SMELT ARRIVES IN MARKET. ... The first Columbia river smelt have reached the Portland market. The supply is uncertain, but some were received yesterday and more may be today. Prices are 25 and 40 cents a pound. ... Fresh Fish. ... Columbia river smelt, lb. 35 @ .40 ...
11 January 1928	Portland, OR	WDF (1929) SR-1: p. 67	Hufford (Vancouver, Washougal River, Stevenson) "... Few smelt in Portland market @ 35c per lb."
12 January 1928		WDF (1929) SR-1: p. 67	Henderson (Up Cowlitz River) "... Fishermen preparing for big smelt run soon."
12 January 1928	Columbia River at Cathlamet	WDF (1929) SR-1: p. 67	Hufford (Vancouver, Kalama, Kelso) "Smelt reported at Cathlamet."
13 January 1928	Columbia River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 2-3	Hufford Here Check Cowlitz Smelt Run. Columbia River Inspector of Fisheries Department Reports Smelt Are Coming Up Columbia and Have Passed Cathlamet. That the smelt in the Columbia river are coming up stream and have passed Cathlamet and should be near Oak Point and Stella soon and this weekend or by Tuesday at the latest should be in the Cowlitz river is the statement of Walter Hufford, state fish inspector of the Columbia river district who is spending a short time in Kelso and vicinity. He is keeping close watch on the smelt movement for the state. Last year the smelt failed to enter the Cowlitz. Various reasons have been assigned but it is known that

Date	Place	Source	Quote
			every nine or ten years, for some reason, they fail to come into the Cowlitz but the main body ascends the Lewis river. This has never been explained. Last year is believed to have been an off year for the Cowlitz. But this time, it is stated, they should go up the Cowlitz, past Kelso, Ostrander and Castle Rock and on up to the spawning grounds. So the state is keeping a careful check. The Cowlitz smelt has increased in importance as a factor on the menus throughout the Pacific northwest. It has been considerable of an industry and every move is now being watched by the state. Some of them were transported from the Cowlitz to the Nisqually river, between Olympia and Tacoma but whether the experiment was a success or not has not been determined. In time that is expected to be solved. One of the chief concerns of the state is to find a means of treatment of the fish. The smelt is a "soft" fish and runs high in oils. It is extremely valuable for food purposes but is always sold fresh and is not preserved or canned. The state would like to see some means found for making a wider use of the fish for food purposes and experiments along that line are in progress. So Inspector Hufford is here to make the official check and to keep the state fisheries department informed as to the exact situation along the Cowlitz river.
13 January 1928	Columbia River at Wallace Island	WDF (1929) SR-1: p. 67	Hufford (Cowlitz River, Columbia River, Longview and Kalama) "Report a few smelt being caught by gill netters at the head of Wallace Island opposite Eureka Cannery."
13 January 1928	Columbia River at Cathlamet	WDF (1929) SR-1: p. 67	McDonough (Cathlamet) "... one boat caught 20# smelt today."
14 January 1928	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	PORTLAND MUST PAY HIGHER BEEF PRICE. ... SMELT RUN INCREASES. ... Fish markets today offer Columbia river smelt at 35 cents a pound, with a possibility that prices will go lower soon because of the increasing run of fish. ... Fresh Fish. ... Columbia river smelt, lb. 35 ...
14 January 1928	Columbia River at Cathlamet	WDF (1929) SR-1: p. 67	McDonough (Cathlamet) "Fishermen catching 150 to 200# smelt ..."
15 January 1928	Columbia River	<i>Morning Oregonian</i> , p. 14, col. 1	SMELT COMING UP RIVER. Run Expected in Cowlitz Within Very Short Time. KELSO, Wash., Jan. 14.—(Special.)—Preparing for the annual run of Columbia river smelt, which has been coming up the Columbia river for several weeks, and which is reported to have passed Cathlamet. Walter Hufford, state fisheries inspector, is here. The run is expected soon to reach the Cowlitz river, which is the usual spawning ground of the fish. Last year they passed the Cowlitz and went into the Lewis river, but they have never done this two years in succession. The smelt fishing concerns have their headquarters here, and have preparations complete for the annual run.
16 January 1928	Columbia River at Klatskanie	WDF (1929) SR-1: p. 67	Henderson (Kelso) "No indications of smelt run. ... Few smelt from Klatskanie."
17 January 1928	Columbia River at Klatskanie	WDF (1929) SR-1: p. 67	Henderson (from Kelso) "Smelt run still at Klatskanie."
18 January 1928	Columbia River	<i>Daily Kelsonian</i> -	Smelt in Columbia Seem to Be Debating Future Course. Somewhere in the waters of

Date	Place	Source	Quote
		<i>Tribune</i> , p. 3, col. 1-2	the Columbia river, and note very far from the mouth of the Cowlitz river is a group of tiny fish, the first of millions to come, and if they were given the powers of speech and debate, a conversation might be heard that would run as follows: "Should we enter the Cowlitz or shall we try the Lewis, Sandy or those above?" "I insist upon the Cowlitz, for that is where they have the charming fishermen. And they use a better grade of nets in the locality of Kelso too." "Oh, I prefer the rivers further up. We are nearer Portland then." "Well, I hate large cities. I would rather stop near Kelso." "I tell you what we'll do. Let's flip to see where we go. Heads for the Cowlitz and tails for the Lewis." That may be all bunk, but again it may be that the tiny ones are tryin' that very thing. Anyway they have been reported in the Columbia river several times so far this year but they have failed to appear in the tributary streams where they regularly head for. The time is near for the yearly run of the fish, which are shipped from Kelso to all parts of the United States and used in many different forms, smoked salted and frozen, or cooked fresh. During the season of their run the platform of the Kelso depot is always piled high with boxes of smelt and it is an industry that annually gives many local people employment. Last spring the fish did not enter the Cowlitz river, traveling on up the Columbia to other streams, including the Lewis and Sandy rivers which also are also noted for their smelt. It was thought that the change in the mouth of the Cowlitz river may have had some part to play in the failure of the fish to appear in the waters of the Cowlitz and again that the paper mill located on the river may have kept them from the stream because of the peculiar waste that goes into the river from the mill. However, oldtime fishermen along the Cowlitz feel confident that it was "just one of those years" for the smelt and that sooner or later they will again fill the waters of the local stream in just the same style that they have for years past. And when they do, we'll eat 'em smoked, salted, fried or any way.
21 January 1928	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 6	VEGETABLE MARKET HAS GOOD VARIETY. ... Fresh Fish. ... Columbia river smelt, lb. 20 ...
23 January 1928	Columbia River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 6-7	Smelt From Columbia Are Reaching Kelso Market. According to Charles H. Olsen, manager of the Columbia River Smelt company, which is located in Kelso, a few smelt are being caught in gill nets, the first to come into the company today, being brought in from the Columbia river. No smelt have been reported in the Cowlitz river, as the main run seems to be still down the Columbia about twenty-five miles, catches being reported at Wallace Island in the Columbia Saturday and Sunday. The company here is prepared to handle any amount of shipments now, having all the necessary equipment on hand, a large shipment of box shucks arriving this morning for handling the smelt in and all is now in readiness, merely waiting for the fish to arrive.
25 January 1928	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	IMPORTATIONS AID VEGETABLE SUPPLY. ... Fish markets are well supplied with seasonable wares. Columbia river smelt, herring, ling cod and red snapper are among the lower priced fish. The smelt have now dropped to 10 cents a pound. ... Fresh

Date	Place	Source	Quote
			Fish. ... Columbia river smelt, lb. 10 @ .12 ...
26 January 1928	Columbia River at Eagle Cliff	WDF (1929) SR-1: p. 70	Henderson (Kelso and Longview) "Smelt coming up by boat from Eagle Cliff."
27 January 1928	Columbia River at Eagle Cliff	WDF (1929) SR-1: p. 70	Henderson (Kelso and Ridgefield) "The smelt nearer than Eagle Cliff. Nothing much to do at Kelso until smelt run."
28 January 1928	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	TANGERINES ON SALE AT 90 CENTS DOZEN. ... PRICE OF SMELT DROPS. ... Fish and poultry markets are well supplied with seasonal wares. Columbia river smelt have dropped in price again and today are 12½ cents a pound. ... Fresh Fish. ... Columbia river smelt, lb. 12½ @ .15 ...
29 January 1928	Columbia River at Wallace Slough	WDF (1929) SR-1: p. 70	Hufford (Kelso, Kalama, Vancouver, Stevenson) "Smelt still reported at Wallace Slough 20 miles below Cowlitz River."
30 January 1928	Columbia River at Cathlamet	WDF (1929) SR-1: p. 70	McDonough (Cathlamet) "There is a heavy run of smelt in the river here. 800 to 1000# taken in 90 fathoms of net ..."
30 January 1928	Columbia River at Eagle Cliff	WDF (1929) SR-1: p. 70	Henderson (Kelso) "A few smelt fishermen taking license. Smelt said to be still playing around Eagle Cliff."
January 1928		<i>Pacific Fisherman</i> 26 (1): 29.	SMELT RUN EARLY. The smelt run entered the Columbia River this winter a little earlier than usual, the first market delivery being made at Astoria Dec. 6 by fishermen operating near Clatskanle. The early smelt were taken with diver gillnets and were of the fine quality normally found in the first of the run.
1 February 1928	Portland, OR	<i>Morning Oregonian</i> , p. 21, col. 6	VEGETABLE MARKET HAS SPRING WARES. ... Chinook Salmon and Columbia River Smelt Available ... Columbia river smelt are today three pounds for 25 cents. ... Fresh Fish. ... Columbia river smelt, lb. 10 @ .12½ ...
1 February 1928	Columbia River	WDF (1929) SR-1: p. 70	Henderson (Kelso) "Columbia River Smelt Co. getting few fish from down river."
1 February 1928	Columbia River at Eagle Cliff	WDF (1929) SR-1: p. 73	Hufford (Kelso, Longview, Kalama, Vancouver, Portland) "Smelt still being taken near Eagle Cliff by gill netters. ..."
2 February 1928	Columbia River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 7	SMELT STILL LINGERING AMONG COLUMBIA ISLANDS. The smelt run is still hovering around a group of sand bars and small islands about twenty miles down the Columbia from the Cowlitz, according to Charles H. Olson, manager of the Columbia river Smelt company of Kelso. The company is receiving a number of boat loads of the tiny fish each day and these are being shipped to cities up and down the coast. Mr. Olson states that it will be likely sometime before it can be told whether the fish will proceed up the river any further or not.
3 February 1928	Columbia River at Wallace Island	WDF (1929) SR-1: p. 73	Hufford (Portland, Kalama, Kelso, Vancouver, Stevenson) "Smelt still reported near Wallace Island taken by gill netters."
3 February 1928	Cowlitz River	<i>Rainier Review</i> , p. 6, col. 2	SMELT BALK AT STENCH. Paper Mill Holds Tiny Fish In Lower River. Columbia river fishermen are puzzled over action of smelt which annually come into Cowlitz and Lewis rivers to spawn. Last year the run did not materialize in noticeable quantities. Two weeks ago the smelt appeared in the lower Columbia, where they reached a point just below Mayger. They halted, and have not since resumed their way

Date	Place	Source	Quote
			up the river. Since the establishment of a strawboard plant on the Cowlitz and a fiber company on the Columbia fear has been expressed that chemicals flowing into the river from these factories might hinder the smelt runs. Thousands of persons line the streams when fish are running and dip fish for household use. Hundreds of fishermen depend upon the annual run for the major portion of their livelihood. Their disappointment is keen. Recently a small plant for drying fish for export was established at Kelso, and this also may remain idle or be forced to bring fish from downstream if the smelt fail to appear in the Cowlitz.
4 February 1928	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	VEGETABLES FOUND AT LOWER PRICES. ... Columbia river smelt are 10 cents a pound. ... Fresh Fish. ... Columbia river smelt, lb. 10 @ .12½ ...
4 February 1928		WDF (1929) SR-1: p. 73	Hufford (Columbia River Points, Portland) "No improvement in run of smelt."
7 February 1928	Columbia River at Eureka	WDF (1929) SR-1: p. 73	Henderson (Kelso) "Smelt still down near Eureka"
7 February 1928	Columbia River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 4	REPORT THAT SMELT MOVING. Fish May Be On Way Towards Cowlitz River According To Fishermen. The smelt may be nearing the mouth of the Cowlitz river, according to reports received by the Columbia River Smelt company of this city as word brought by fishermen from down the Columbia where the fish have been delaying their upstream progress for sometime that they appear to have moved up the Columbia some distance and it is the general belief that they have started for smaller streams. The fishing for smelt with gill nets continues good down the Columbia and consistently large catches are being made. The local smelt company has been ordering from the Columbia river fishermen. From Kelso shipments are being made daily to towns up and down the coast and throughout the northwest.
8 February 1928	Columbia River	<i>Morning Oregonian</i> , p. 9, col. 2	SMELT MOVE UP STREAM. Run Expected to Enter Mouth of Cowlitz in Few Days. KELSO, Wash., Feb. 8.—(Special.)—The run of Columbia river smelt 20 miles below the mouth of the Cowlitz for the past two weeks has moved up the river, according to fishermen. Last evening it was a short distance below the Cowlitz and expected to come into the Cowlitz within the next few days. The fishing in the Columbia is done with gill nets. Heavy catches are made with dip nets. Shippers of smelt have their facilities here and make their headquarters in Kelso.
8 February 1928	Grays River Deep River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 3	SMELT ARE REPORTED TO BE IN GRAYS AND DEEP RIVERS. Reports have been received in Kelso from Stella to the effect that the smelt have started up the Grays and Deep rivers, although the main run seems to still be in the Columbia river about twenty miles down from the mouth of the Cowlitz river. This is said to be the first time that the fish have entered the Grays and Deep rivers, whereas they have usually had ... runs in the Cowlitz, Lewis and Sandy rivers further up the Columbia.
8 February 1928	Columbia River at Rainier	WDF (1929) SR-1: p. 76	Henderson (Kelso, Longview) "Some smelt taken today just below Rainier. ..."
9 February 1928	Columbia River at	<i>Daily Kelsonian-</i>	Reminds Fishermen of Laws As Smelt Approach Cowlitz. Ira Henderson, state

Date	Place	Source	Quote
	Coffin Rock	<i>Tribune</i> , p. 1, col. 1-2	fisheries inspector for the Columbia river district, while in Kelso today, Thursday, announces that the smelt are now nearing Coffin rock, below Longview, and should soon be in the Cowlitz river. Inasmuch as there were no smelt in the Cowlitz river last year he wishes to call attention to some of the new rules. They are simple, he says, but all must observe them when the fish get into the Cowlitz or Lewis rivers. They apply alike to commercial fishermen and those who are taking them for their own use. First, all streams in the state of Washington are closed for smelt from eight o'clock each Friday morning until eight o'clock each Saturday night. In the Cowlitz river the dead line for fishing smelt is at Peterson's Eddy, a mile and a half above Ostrander. No smelt may be taken from above that point. Inspector Henderson also wants all who sell fish, at retail directly to the consumer to remember that they must pay an annual license fee of \$1 to the state. This is most important. He has been watching the fish and expects the smelt to enter the Cowlitz river before long. He is giving the reminders about the law as some may have forgotten them since no smelt were in the Cowlitz river last year.
9 February 1928	Columbia River at Cathlamet	WDF (1929) SR-1: p. 76	McDonough (Cathlamet) "Very heavy run smelt here. ..."
9 February 1928	Columbia River	WDF (1929) SR-1: p. 76	Henderson (Kelso) "Smelt being taken by G.N. 2 miles below mouth of Cowlitz."
10 February 1928	Columbia River at Rainier, OR	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 1	Smelt Near Rainier. The smelt remain in the Columbia river and have not entered the Cowlitz according to reports received by the Columbia River Smelt company at Kelso. Fishing of the smelt is good in the Columbia around Rainier and down the river. Catches are consistently good. Kelso fishermen are making the trip to the Columbia daily and returning with loaded boats.
10 February 1928	Columbia River	<i>Rainier Review</i> , p. 5, col. 4	SMELT MOVE UP STREAM. Run Expected to Enter Mouth of Cowlitz in Few Days. The run of Columbia river smelt 20 miles below the mouth of the Cowlitz for the past two weeks has moved up the river, according to fishermen. Yesterday it was a short distance below the Cowlitz and expected to come into the Cowlitz within the next few days. The fishing in the Columbia is done with gill nets. Heavy catches are made with dip nets.
10 February 1928	Columbia River,	WDF (1929) SR-1: p. 76	Henderson (from Kelso) "Markets supplied with smelt from Oregon dealers, from Oregon gill nets."
10 February 1928	Columbia River at Rainier	WDF (1929) SR-1: p. 76	Hufford (Portland, Vancouver, Kalama, Longview, Kelso) "Looking from Longview deck smelt are being taken on opposite side of river just below Rainier docks by gill nets. Nothing in Cowlitz as yet."
11 February 1928	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	ROSEBURG BROCCOLI COMING IN QUANTITY. ... Fresh Fish. ... Columbia river smelt, lb. 10 @ .12½ ...
12 February 1928	Columbia River	<i>Sunday Oregonian</i> , p. 5, col. 5	SMELT CATCH INCREASES. Fishermen Report Run Thinning at Mouth of Cowlitz. LONGVIEW, Wash., Feb. 11.—(Special.)—An increasing number of boxes of smelt have been handled over the public port dock here, according to port authorities. The silver horde has approached the mouth of the Cowlitz river, fishermen said.

Date	Place	Source	Quote
			Wednesday 2500 pounds of smelt were brought into Longview and Thursday the shipment was 3600 pounds. The fish came from Clatskanie and were consigned to the Columbia River Smelt company of Kelso. The run is thinning, reported fishermen of this vicinity, and catches can be made almost anywhere in the Columbia river near the mouth of the Cowlitz.
12 February 1928	Columbia River	WDF (1929) SR-1: p. 76	Hufford (Vancouver, Woodland, Kalama, Kelso) "Smelt are now above Cowlitz river, headed for Lewis River. No indications of smelt in Cowlitz River."
13 February 1928	Columbia River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 5	FISHERMEN EXPECT SMELT GO UP LEWIS. If the prediction of numerous fishermen who have been bringing their catches to the Columbia River Smelt company of Kelso from down the Columbia river are correct the smelt are not going to make their annual run up the Cowlitz river this year. The fishermen are preparing to go to the Lewis river where reports are that the smelt are nearing and are expected up that stream this week. Catches are still being made in the Columbia river, mostly on the Oregon side of the stream. Some large catches have been made near St. Helens, Oregon.
13 February 1928	Columbia River	WDF (1929) SR-1: p. 76	Henderson (Kelso) "Smelt run reported above Kalama. Expect smelt run any time Cowlitz and Columbia."
13 February 1928	Lewis River	WDF (1929) SR-1: p. 76	Henderson (Woodland) "A lot of smelt fishermen pouring in."
15 February 1928	Portland, OR	<i>Morning Oregonian</i> , p. 14, col. 4	RADISH AND CRESS FOUND ON MARKET. ... Columbia river smelt are plentiful. Ten cents a pound, three pounds for a quarter, is the usual price. ... Fresh Fish. ... Columbia river smelt, lb. 10 @ .12½ ...
15 February 1928	Lewis River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 1-2	Travels of Smelt Are Now Giving Fishermen Worries. Large catches of Columbia River smelt were made in the Lewis river Tuesday night [14 February] and today and all the fishermen were operating in that stream today. This is the first time since this district has been settled that the smelt have passed the Cowlitz river for two successive years and many fishermen ascribe the failure of the fish to enter the Cowlitz last year and this year to the operation of industries, whose waste water goes into the water. Ira Henderson, state fisheries inspector, states that the smelt may yet come into the Cowlitz, despite the fact that the first run is in the Lewis river. Fishing operations in the Lewis river are more difficult than in the Cowlitz and because most of the fishermen have their headquarters and shipping facilities here they are put to considerable extra expense because of the run going into the Lewis. Regarding fishing of smelt by individuals for their own use, Mr. Henderson advises that there will be no objection to individuals taking a few, with 50 pounds as the limit, for their own use, but that individuals are not permitted to take smelt for their friends. No fishing by either commercial fishermen or individuals is permitted from 8:00 a. m. Fridays to 8:00 p. m. Saturdays.
15 February 1928	Lewis River	WDF (1929) SR-1: p. 76	Henderson (from Kelso via Woodland) "Fine smelt run in Lewis river, about 40 fishermen. Fish getting very cheap."
15 February 1928		WDF (1929) SR-1: p. 76	Hufford (Woodland, Kalama, Kelso) "Checking smelt fishermen. Very heavy run of smelt."

Date	Place	Source	Quote
16 February 1928	Lewis River	<i>Morning Oregonian</i> , p. 7, col. 6	SMELT DISDAIN COWLITZ. Fish Run Entering Lewis River for Second Year. KELSO, Wash., Feb. 15.—(Special.)—The run of Columbia river smelt, which has continued in the Columbia river, below the Cowlitz for several weeks, passed the Cowlitz for the second successive year and went into the Lewis river last night. Few fish were dipped today because of adverse water conditions, but it is expected that large quantities will be caught tonight. The action of the smelt in passing the Cowlitz again lends many fishermen to think that the waste water from the Pacific Straw Paper & Pulp company causes a condition that the fish dislike.
16 February 1928	Lewis River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 6-7	Woodland Is Scene of Big Smelt Shipping Activity. The Lewis river waterfront at and near Woodland presented a scene of great animation yesterday and today as a result of the smelt fishing operations in that stream. Scores of fishermen were doing their boxing and loading along that frontage and points of vantage where the bank sloped gently were in great demand. Boys [were] contracted to carry the full boxes of smelt up the bank to the highway where they were loaded onto trucks. Two cents a box was the prevailing price for the work and a team of two boys made \$2.50 in less than an hour at one point. Most of the fishermen have moved their floats and their floating houseboats into the Lewis river and they are moored along the banks. Large quantities of smelt were shipped by express from Woodland, and larger quantities went by truck to markets in all parts of the Northwest. Catches were large, and the prevailing price yesterday was two cents a pound. Many individuals are catching smelt for their own use.
16 February 1928		WDF (1929) SR-1: p. 76	Henderson (St. Helens, Oregon, Kalama and Woodland) "A lot of smelt fishing. Fishermen very numerous, checked most all and took many applications."
17 February 1928	Lewis River	<i>Morning Oregonian</i> , p. 12, col. 6	SMELT RUN IN LEWIS. Individuals Restricted to 50-Pound Catches. KELSO, Wash., Feb. 16.—(Special.)—Huge quantities of Columbia river smelt were caught in the Lewis river yesterday and large shipments are being made from Woodland and Kelso by express, and even larger quantities of the smelt are going to market by truck. Individuals will be permitted to catch smelt for their own use as long as the[y] do not take more than 50 pounds of fish, according to state fisheries department inspectors. No one will be permitted to fish for smelt from 8 A. M. Fridays to 8 P. M. Saturdays, which is the closed season established by the state law.
17 February 1928	Lewis River	<i>Daily Kelsonian-Tribune</i> , p. 5, col. 1-2	Smelt Run Brings fame to Woodland. United Press Writer Visits Lewis River and Tells of Scenes There: Cowlitz River So Far Avoided by Little Fish. The heavy run of smelt into the Lewis river continued last night and fishermen made huge catches. The fishing season closed at 8 o'clock this morning until tomorrow evening at 8 o'clock and no one will be permitted to catch smelt between those hours, whether for their own use or not. The shipments from Woodland are heavy and as no smelt are in the Cowlitz, Kelso is not the usual center of attraction. The fame of the smelt is being advertised to the world once more, and hundreds of parties will head to Cowlitz county merely to see the fishing in progress or to get some smelt for themselves. George D. Crissey, United

Date	Place	Source	Quote
			Press Staff Correspondent, has written as follows of the smelt run. The fact that fish obey the biblical command to be fruitful and multiply today was reducing the cost of living in many parts of the United States. The smelt run, that freak of nature known only to Alaska and the Pacific Northwest, is well underway in the Lewis river in Washington, a few miles down the Columbia from Portland and twenty miles from Kelso. Millions of the fish, having struggled up from the ocean, are swarming in the Lewis river seeking a spawning ground. The placid little stream is a teeming mass of life. Anglers who play with hooks and lines, however, may as well stay away. For such there is no sport at a smelt run. Dipping is the thing and dip brings up a full container. And so today commercially minded men are reaping a rich harvest by profiting upon the spawning habits of the smelt. They are being seined by the millions and tons and tons of them are shipped from Woodland to Portland and out from Portland each day. Into the dozen states boxcar loads of the silvery and tasty little fish are being sent. They command a wholesale price of about 3 cents a pound—less in many cases. This makes the smelt rank as one of the lowest priced food articles in the world. Like the sardine, there is practically no waste to a smelt. The smelt is a lover of the sea. He spends most of his time there but, like the old salt he is, turns shoreward for family life. They spawn in fresh water. Each spring, as a rule, the smelt pick the same stream, never venturing into strange waters. But occasionally they will pass up old grounds. This year, for example, the Cowlitz river, also entering the Columbia, was passed up. Some inconsiderate persons built industries along its shores and the fastidious smelt refused to enter. But they are swarming in the Lewis by the millions and later in the year will be in the Sandy, just outside Portland, and they will be dipped up in such numbers that many persons, ignoring the law, will use them to fertilize land.
17 February 1928	Columbia River Lewis River	<i>Rainier Review</i> , p. 1, col. 6	WILL TEST COWLITZ WATER. Some Say Chemicals Caused Smelt to Forsake River. A state test will be made of the water in the Cowlitz river to determine definitely whether or not chemicals discharged into the river by the Pacific Straw Paper and Board company are causing smelt to turn from their favorite haunts in the Cowlitz. This action has been decided in view of the fact that the tiny fellows have for the second consecutive year forsaken the Cowlitz as a place to spawn. The smelt run, eagerly watched for at this time of the year, was slow in reaching this point in the Columbia. They stayed around Mayger and Clatskanie, and were caught by the tons down there. But up here they did not put in an appearance, while fishermen chafed and wondered at the nonappearance of the choice little fish. Then, some time Monday night, they came up this way, passed by the mouth of the Cowlitz for the second year, and entered the Lewis river. Consternation has reigned among the smelt fishers as a result. When the smelt passed the Cowlitz last year old time fishermen declared it was nothing out of the ordinary, because it was a custom with the silvery little fellows to miss that river once in seven years. How the fish know what year it is, the fishermen do not undertake to explain. Fishermen have a way of

Date	Place	Source	Quote
			stating definitely that the fish do certain things, and they accept that as final. But none remembers when the fish missed the Cowlitz two successive years, and there is speculation as to what the reason for this occurrence may be. Many believe that the chemicals from the paper mill on the Cowlitz has cause[d] the fish to turn from that stream, which in past years has been famous for its smelt catches. Charles F. Shaub, president of the company, has stated, however, that chemical tests of the discharges have been made and that nothing has been found in them that would turn the fish away. The test of the water will decide definitely whether or not the chemicals would prevent smelt from coming up the Cowlitz, it is said. The test will be made immediately by the fisheries department of the state of Washington, by taking samples of the water and placing the fish in it to observe the effect on the fish. It is pointed out that, although the belief has been expressed that the chemicals from the plant along the Washington side do not affect the fish, practically none are being taken on that side of the Columbia around the mouth of the Cowlitz while comparatively heavy catches are being made along the Oregon side. Meanwhile the Lewis river, near Woodland, is reported to be "alive" with smelt.
19 February 1928	Lewis River	WDF (1929) SR-1: p. 76	Hufford (Washougal, Woodland, Kelso) "About 1000 boxes smelt shipped out of Woodland today, heaviest run for years, price 75c per box."
20 February 1928	Lewis River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 6-7	SMELT FISHERMEN ARE FLOCKING TO WOODLAND. ALL KINDS OF GEAR AND CARS ARE USED TO CATCH AND TRANSPORT FISH; SUNDAY IDEAL DAY AND GREAT THROGS CROWD BANKS OF LEWIS. With the Lewis river enjoying one of the largest smelt runs in history and the fish being of exceptionally high quality while none has come into the Cowlitz interest is still keen as to why the smelt have abandoned the Cowlitz for two years in succession, something never known in past history. There are many theories being advanced from pollution of the stream by industries to the activities of gill netters in breaking up the runs, and the theory which the fishermen and others are reporting to Walter Hufford, state fisheries inspector for the Columbia river that other causes may also be factors. It is claimed by those who have been on the river for years that other things affect the movements of the smelt. Sunday the commercial fishermen at Woodland moved out no less than 1,500 boxes of smelt. How many were taken away in cars by persons who used them for domestic purposes was not even estimated. But they equaled if not exceeded the catch of the commercial fishermen, according to observers. Woodland was the Mecca for fishermen Sunday. They flocked in there from all directions with all kinds of conveyances. There were big fine limousines and rattly trap cars that seemed about ready to go to pieces at any time. They were loaded with men, women and children. Not a few trucks were in evidence and they left laden with boxes and baskets of smelt. There was [sic] also all kinds of gear used from aprons and bits of under clothing to bird cages and colander(s) as well as regular fishing equipment. The day was ideal and the catch of the

Date	Place	Source	Quote
			little smelt was enormous.
20 February 1928	Lewis River	WDF (1929) SR-1: p. 76	Henderson (Woodland and smelt fisheries on Lewis River) "Piles of smelt and fishermen."
21 February 1928	Lewis River	WDF (1929) SR-1: p. 76	Henderson (Woodland and smelt fisheries) "Unlicensed home supply fishermen very numerous and hard to handle, many from Oregon."
21 February 1928	Lewis River	WDF (1929) SR-1: p. 76	Henderson (Woodland and smelt fisheries) "Heavy smelt run continues. Great quantities of smelt wanted."
22 February 1928	Portland, OR	<i>Morning Oregonian</i> , p. 14, col. 1	NEW POTATOES IN FROM CALIFORNIA. ... Fish markets are exceptionally well supplied. ... Columbia river smelt as low as four pounds for a quarter ... Fresh Fish. ... Columbia river smelt, lb. 05 @ .10 ...
22 February 1928	Lewis River, Kalama River	WDF (1929) SR-1: p. 76	Henderson (Woodland and Lewis River) "Still quantities of smelt and more fishermen. New run of smelt at Kalama."
23 February 1928	Cowlitz River	WDF (1929) SR-1: p. 76	Spence (Kelso) "No smelt running in Cowlitz at all."
23 February 1928	Lewis River	WDF (1929) SR-1: p. 76	Henderson (Woodland and Vancouver) "Smelt very plentiful. More fishermen and retail dealers coming daily."
24 February 1928	Lewis River	WDF (1929) SR-1: p. 76	Henderson (Woodland) "Smelt still coming in, indications of still heavier run."
25 February 1928	Lewis River	WDF (1929) SR-1: p. 76	Henderson (Woodland) "Smelt still very plentiful."
27 February 1928	Lewis River	<i>Daily Kelsonian-Tribune</i> , p. 5, col. 6-7	Crowds Again Flock Into Woodland to Catch Smelt. The banks of the Lewis river at Woodland were swarming with people from many parts of southwest Washington and northern Oregon Sunday coming to that vicinity for the purpose of trying to catch a mess of smelt which are in the Lewis river this year in such large numbers. Every method that could be imagined was used by the visitors to catch the fish. Landing nets, buckets, sacks, baskets and almost everything that was available was put into service, all being dipped along the banks of the stream or from boats that were found usable. The Pacific highway near Woodland was lined with cars that had brought the many people to the banks of the Lewis so that they could secure a catch of the little fish. Furthermore the men were not the only ones doing the fishing. Women, girls and small boys were to be found trying their hand at the game of hide and seek with the fish, but to be truthful on the subject the fishing could hardly be called hide and seek for the finny beauties are in such large numbers in the Lewis river that they can hardly swim around and the fish appeared to be there for the mere dipping.
27 February 1928	Lewis River	WDF (1929) SR-1: p. 76	Henderson (Woodland) "Run of smelt continues, good catches made. ..."
28 February 1928	Lewis River	WDF (1929) SR-1: p. 76	Henderson (Woodland and vicinity) "New run of smelt said to be coming in this evening."
28 February 1928	Columbia River, Lewis River	WDF (1929) SR-1: p. 76	Lake (Woodland and Vancouver) "Lots of smelt coming up the Columbia river and Lewis."
1 March 1928	Lewis River	WDF (1929) SR-1: p. 81	Henderson (Vancouver and Woodland) "Still have heavy run of smelt. Seem to be more smelt coming every day."

Date	Place	Source	Quote
1 March 1928	Cowlitz River	WDF (1929) SR-1: p. 81	Lake (Woodland and Lewis River) “No smelt in the Cowlitz River, they are all going by.”
3 March 1928	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	PRODUCE MARKETS FORECAST SPRING. ... Fresh Fish. ... Columbia river smelt, lb. 08 @ .10 ...
3 March 1928	Lewis River	WDF (1929) SR-1: p. 81	Henderson (Aetna on Lewis River) “Found some smelt 10 miles above Woodland. Few natives fishing from banks.”
4 March 1928	Lewis River	WDF (1929) SR-1: p. 81	Henderson (Woodland from Aetna) “Still great quantities of smelt. Indications of long run of smelt.”
5 March 1928	Lewis River	WDF (1929) SR-1: p. 81	Henderson (from Woodland) “No change in heft of smelt catch.”
6 March 1928		WDF (1929) SR-1: p. 81	Henderson (Vancouver via Ridgefield) “Smelt fishing dropping off due to low price.”
10 March 1928	Lewis River	<i>Daily Kelsonian-Tribune</i> , p. 5, col. 6	Smelt Run Continues. Ira Henderson, state fisheries department inspector, says that the run of smelt into the Lewis river is as heavy as ever and that fishermen are getting all the smelt that they can market. Indications are, he reports, that the run will continue for some time.
10 March 1928	Lewis River	WDF (1929) SR-1: p. 83	Henderson (from Kelso to Kalama and Woodland) “Still quantities of smelt.”
12 March 1928	Lewis River	WDF (1929) SR-1: p. 83	Henderson (from Woodland) “Smelt fishing falling off some. ...”
13 March 1928	Lewis River	WDF (1929) SR-1: p. 83	Henderson (Woodland from Vancouver) “Still plenty of smelt.”
16 March 1928		WDF (1929) SR-1: p. 86	Henderson (from Woodland to Kelso) “Still plenty of smelt. Several fishermen quit, no price for fish.”
17 March 1928		WDF (1929) SR-1: p. 86	Henderson (from Kelso via Longview & Woodland) “Smelt still plentiful, some fishermen quitting.”
18 March 1928	Lewis River	WDF (1929) SR-1: p. 86	Henderson (from Woodland) “Good catches of smelt this morning. ...”
19 March 1928	Lewis River	<i>Daily Kelsonian-Tribune</i> , p. 3, col. 4	SMELT RUN IN LEWIS HEAVIER THAN LAST YEAR. WOODLAND, Mar. 19 — Estimates obtained from fishermen here indicate that the smelt run has already exceeded that of last year with probably two weeks to go, for it is thought the run will reach into April although it began a week earlier than last year. The nearest figures that can be obtained puts the shipments at 1,350,000 pounds without the tons that went out by boat. Last year’s production was placed at 1,000,000 pounds. These figures do not include the smelt caught by the hundreds of ranchers and Sunday trippers who have profited by the run.
19 March 1928	Sandy River	WDF (1929) SR-1: p. 86	Henderson (Camas) “Since smelt run arrived in Sandy River we have very few fishing for own use.”
21 March 1928	Lewis River	<i>Morning Oregonian</i> , p. 4, col. 3	LEWIS SMELT RUN HEAVY. Kelso Fishermen Take Catches in Large Volume. KELSO, Wash., March 20.—(Special.)—Shipments of Columbia river smelt this year have been much heavier than a year ago, and it is estimated that more than 1,500,000 pounds, or 30,000 50-pound boxes of the smelt have been taken from the Lewis river and shipped by rail or by truck. This estimate does not include the large numbers of smelt that have gone out in the fishing boats. It is expected that shipments will continue for

Date	Place	Source	Quote
			about two weeks. The run continues heavy. Most of the fishermen live here or in this vicinity and have transferred their activities to the Lewis river because the run went there again this year.
21 March 1928	Lewis River	WDF (1929) SR-1: p. 86	Henderson (Woodland from Vancouver) "Smelt run continues with fewer fishermen. ..."
23 March 1928	Lewis River	WDF (1929) SR-1: p. 86	Henderson (from Woodland to St. Helens & Kelso) "Smelt still plentiful in Lewis River. Very little demand for fish, most fishermen quit."
25 March 1928		WDF (1929) SR-1: p. 86	Henderson (From Kelso to Vancouver) "Smelt still plentiful. Very few fishermen working. ..."
March 1928		<i>Pacific Fisherman</i> 26 (4): 25.	SMELT RUN IN LEWIS RIVER. The annual Columbia River smelt run started early last month and at last report was still going strong, being very heavy during the latter part of the month. For the second season the fish are passing by the Cowlitz, to which the principal run formerly went, and entered the Lewis River, where Woodland has been the center of fishing operations. The Columbia River Smelt company has maintained a station at that point and has had an active season, shipping direct to many points through the Pacific Coast and Middle West.
April 1928		<i>Pacific Fisherman</i> 26 (5): 38.	HEAVY SMELT SHIPMENTS. The run of Columbia River smelt in the Lewis River, Washington, started earlier than last year and continued into April, with shipments well ahead of last year. Rail shipments alone were figured by March 22 at 1,350,000 lbs., against last year's shipments of about 1,000,000 lbs.
1929			
5 December 1928	Columbia River	<i>Morning Oregonian</i> , p. 9, col. 2	SMELT ENTER COLUMBIA. Little Fish reported in River Near Clatskanie. KELSO, Wash., Dec. 4.—(Special.)—The first run of Columbia river smelt for this year is reported in the Columbia river in the vicinity of Clatskanie, Or., and the coming of the tiny fish is leading local fishermen to conjecture whether or not they will enter the Cowlitz river this year after an absence of two years, or will again enter the Lewis river. Fishermen and shipping concerns have had their headquarters in Kelso for years, but for the last two years have had to move their headquarters for the smelt fishing season to Woodland. The fishermen think that pollution of the waters of the Cowlitz and Columbia rivers by waste from the paper mills in Longview has caused the smelt to give the Cowlitz a wide berth. The main run of smelt is not due ordinarily until about February 1.
15 December 1928	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	MARKETS PROVIDE HOLIDAY SUPPLIES. ... Columbia river smelt, at 45 cents a pound, are to be had in very limited quantities. ... Fresh Fish. ... Columbia river smelt, lb. 45
19 December 1928	Portland, OR	<i>Morning Oregonian</i> , p. 14, col. 1	FRUITS AND GREENS IN MARKET TODAY. ... Fish markets have more Columbia river smelt, at 30 cents a pound. ... Fresh Fish. ... Columbia river smelt, lb. 30
22 December 1928	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	MATERIAL ON HAND FOR FRUIT BASKETS. ... Fresh Fish. ... Columbia river smelt, lb. 30
26 December 1928	Cowlitz River	<i>Daily Kelsonian</i> -	Small Run of Smelt Starts in Cowlitz. FOR FIRST TIME IN MORE THAN TWO

Date	Place	Source	Quote
		<i>Tribune</i> , p. 1, col. 2-3	YEARS FISHERMEN ARE MAKING HAULS AND THEY HOPE IT MEANS BIG SPRING RUN WILL ENTER STREAM. For the first time in more than two years smelt entered the Cowlitz river just before Christmas and brought to the local fishermen a fine Christmas present and the hope that the winter and spring run of smelt will return this year. The catches so far have run well over 200 boxes and while it has diminished for the present is expected to pick up again and continue for perhaps a week or ten days. Fishermen attribute the entry of the fish at this time to the recent high and muddy water in the Cowlitz. This caused the gill netters in the Columbia some trouble and the fish came by and got into the Cowlitz. They are now around the lower Cowlitz and are due to come up as far as the home of Senator Frank G. Barnes. It is not expected that they will go as far as the Kelso bridge this time. As a result of this sudden arrival of the smelt the local fishermen are hoping that the big winter run due late in January or early in February will again come into the Cowlitz. While the present run of smelt is rather scarce, the retail price of the smelt is now about twenty-five cents per pound. However, the demand for them is active, and the express company has been taking up consignments to fill the orders for the delicate fish.
28 December 1928	Cowlitz River, WA	<i>Morning Oregonian</i> , p. 2, col. 3	Smelt Enter Cowlitz River. KELSO, Wash., Dec. 27.—(Special.)—The first run of Columbia river smelt that has entered the Cowlitz river in two years came into the stream just before Christmas and several hundred boxes of the fish have been caught.
28 December 1928		<i>Daily Kelsonian-Tribune</i> , p. 4, col. 3-4	Notice Given of Law for Fishing for Smelt Here. That the run of smelt in the Cowlitz river may be the forerunner of the regular winter run is the statement of Ira Henderson state fish inspector for the Columbia river district, who was in Kelso Friday but he adds that no one knows all must wait to see what happens. It has been two years since the smelt ran up the Cowlitz and their absence was attributed to a variety of reasons, ranging from pollution of the waters by industrial plants to the changing of the mouth of the Cowlitz. He says that frequently the advent of the early winter run, now in progress, means the main run will follow a few weeks later. But he insists no predictions are safe. All must wait to see what the fish will do. Inspector Henderson says that all should remember, when they go after smelt, that there is a closed season on smelt in the Cowlitz river each week, from eight o'clock Friday morning until eight o'clock Saturday night. This applies to those fishing for their own use as well as for commercial fishermen. Persons may take fifty pounds of smelt for their own use, without a license. Likewise no fishing for smelt is allowed above Peterson's Eddy, in the Cowlitz, one mile and a half above Ostrander. State officials are keenly interested in the run of smelt in the Cowlitz again. Why they left was never actually determined. Why they have returned is about as mysterious. But it is hoped they have come back here and the fishermen are watching eagerly. Thursday night the smelt apparently had scattered for the catches were extremely light.
2 January 1929	Cowlitz River	<i>Daily Kelsonian-</i>	SMALL CATCH OF SMELT IS TAKEN IN COWLITZ. Tuesday [1 January] night

Date	Place	Source	Quote
		<i>Tribune</i> , p. 5, col. 1	a total of but forty-nine and a half pounds of smelt were taken in the Cowlitz river. The catch was decidedly small but it has convinced the fishermen that the smelt are remaining in the Cowlitz. Whether the advance guard means the heavy run will follow late in January or early in February is a matter of speculation but it is keeping the local fishermen interested. They are keenly following all news of the smelt in the Cowlitz. For two years, until the small present run started, there have been no smelt in the river.
5 January 1929	Columbia River Cowlitz River Lewis River Kalama River	<i>Daily Kelsonian-Tribune</i> , p. 2, col. 4	SMELT LOITER IN COLUMBIA. Fishermen Unable To Predict Which Stream Will Be Entered. Although the winter run of smelt is not expected to enter any of the smaller streams running into the Columbia the fish are now in the Columbia according to local fishermen who also report that there are still smelt in the Cowlitz. The smelt were also reported to be in the Kalama and the Lewis rivers but in small numbers. Just when they will start up the smaller streams is a matter of speculation. They may begin running within two weeks or it may be well into February before they start. Some smelt are still being caught in the Cowlitz, which they have entered for the first time in two years, and the Kelso fishermen are hoping it marks the return of the winter run for the stream.
8 January 1929	Columbia River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 1	EXPECT SMELT ENTER LEWIS. Fish Seem To Have Left Cowlitz Again and Returned To Columbia. According to local fishermen the smelt which entered the Cowlitz river recently for the first time in two years apparently have left the stream again. No traces of them has been found for the past few days. Reports reaching here are that they are back in the Columbia with the main school. They are expected any time at the Lewis river and reports are due to be received that they have entered that river. In fact they are expected to be in there either Tuesday or Wednesday as they are believed to be in the immediate vicinity of the mouth of that stream.
9 January 1929	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	SMELT AND SNAPPER APPEAR IN MARKET. ... Columbia river smelt in larger quantities, therefore at lower prices, and red snapper, also at very moderate prices, are two of the less expensive fish, plentiful in Portland markets today. Smelt, larger than the usual run, according to some dealers, are priced today averaging two pounds for a quarter ... Fresh Fish. ... Columbia river smelt, lb. 12½
16 January 1929	Columbia River off Oak Point	<i>Daily Kelsonian-Tribune</i> , p. 8, col. 1	SMELT FISHERMEN MUST ALL TAKE OUT STATE LICENSES. Smelt are reported in the Columbia river, off Oak Point, but not in large schools, says Ira Henderson, fish inspector for the state in this section. He also brings official word that all persons who take smelt must have the \$1 license, whether for their own use or for sale. Formerly a person was allowed to take fifty pounds for home use. Now each one must have a license.
16 January 1929	Columbia River at Eureka	WDF (1929) SR-1: p. 162	Stetson (Longview, Rainier, Eureka, Cathlamet) "It seems that all the smelt are at Eureka, as nearly as I could figure. There are about 80 gill net boats fishing mostly Oregon."
16 January 1929	Columbia River	WDF (1929) SR-1: p. 162	Henderson (from Kelso to Kalama & by boat to Cathlamet) " Smelt fishing- G.N. about 25 boats. ..."

Date	Place	Source	Quote
17 January 1929	Columbia River at Eureka	WDF (1929) SR-1: p. 162	Stetson (Cathlamet, Eureka, Longview, Kalama) “Smelt still showing fair at Eureka, smelt being taken at Eureka are very large size.”
19 January 1929	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	FRESH FISH FOUND IN MANY VARIETIES. ... The fish market displays a wide variety of fresh, seasonable fish ... smelt at two pounds for 25 cents ... Fresh Fish. ... Columbia river smelt, lb. 15
26 January 1929	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	GARDEN PRODUCTS SEEN IN VARIETY. ... Fresh Fish. ... Columbia river smelt, lb. 15
2 February 1929	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 1	FRESH VEGETABLES FOUND IN MARKETS. ... Fresh Fish. ... Columbia river smelt, lb. 15 @ .20
6 February 1929	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	FRESH FISH FOUND AT LOCAL MARKETS. ... Fresh Fish. ... Columbia river smelt, lb. 15 @ .20
6 February 1929	Columbia River Grays River	<i>Daily Kelsonian-Tribune</i> , p. 5, col. 2	REPORT SMELT RUSH STARTS. KELSO FISHERMEN HEAR THAT MAIN WINTER RUN IS IN GRAYS RIVER. Reports in Kelso are that the main run of the smelt has come in from the ocean and that Grays River, fifty miles down the Columbia, is fairly alive with them. The first run is close to Clifton and the main run is due to arrive at any time. This means, say the fishermen, that the smelt are due in the Cowlitz or the Lewis rivers within a short time. At this time a heavy thaw or a rain that would send the Cowlitz booming upward, the fishermen declare, would bring the smelt into the Colwitz. But the track of the fish is being awaited with interest and locally it is admitted none can guess with certainty where the fish will proceed. In Grays river, which is closed, the smelt are declared so plentiful that they can be scooped out by hand. But the boats cannot fish there as the water is too shallow, they declare.
9 February 1929	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	SIGNS OF SPRING SEEN AT MARKETS. ... Fresh Fish. ... Columbia river smelt, lb. 15 @ .20
15 February 1929		<i>Rainier Review</i> , p. 8, col. 2	No Protection for Smelt. Bird cages, wash tubs, straw hats and other fishing gear used in taking smelt out of the Oregon streams will continue to be as popular as ever. All attempts to specify what shall be used in assisting the smelt from the water to the frying-pan failed at Salem Wednesday when the house did not pass bill 329. This measure sought to specify dipnets or gill-nets as smelt-fishing gear. Representative Charles W. Robinson of Astoria, sponsor of the bill, made an urgent plea for its passage stating that his bill sought to regulate the annual smelt run. “With the growth of the run comes the growth of greed, and to keep the fish from extermination this bill is necessary. All we’re trying to do is to avoid the destruction of smelt. There has been an appreciable decrease in the last five years. Vicious types of gear have been used on the Columbia and Sandy. This bill will prevent a power seine as was used last year. Objectors of the measure thought it was an infringement of the rights of the people since smelt are not listed as game fish in this state.
16 February 1929	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	NEW POTATOES HERE; ALSO STRAWBERRIES. ... Fresh Fish. ... Columbia river smelt, lb. 15 @ .20

Date	Place	Source	Quote
18 February 1929	Columbia River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 3	RUN OF SMELT IS UNDER WAY. Now Off Rainier and Local Fishermen Try To Figure Out Course. Although the smelt are reported to be moving steadily up the Columbia river, on the Oregon side, and were off Rainier, Sunday, the local fishermen see small indication that they will enter the Cowlitz river unless they suddenly change their course. They are also unable to figure out if they will enter the Lewis river and if so, when. The fishermen are all set and reports are that the smelt are plentiful. If there had been a heavy rain to move the snow off and which would have brought the Cowlitz booming to a higher level the fishermen are confident the smelt would have come into the stream. But now they are uncertain. They are still hoping they will come in here or go up the Lewis river, but they are prepared to move to any spot where the fish head upstream to spawn.
20 February 1929	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	VEGETABLES SHOW GREATER VARIETY. ... Columbia river smelt ... to be had in good quantity. ... Fresh Fish. ... Columbia river smelt, lb. 18 @ .20
20 February 1929	Columbia River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 6	Smelt Are Still Out In Columbia. That the smelt are staying close to the bottom of the Columbia river and are thick near the Kelso cannery is the report brought to Kelso by the state officials. The smelt are not expected to do much moving until the water gets warmer and they get ready to ascend the streams for spawning. It is asserted that a freshet that would bring up the small streams flowing into the Columbia would bring in the smelt. But as yet the fishermen are undecided just what to do in the matter and they can only wait and see whether they start up the Cowlitz or up the Lewis river.
27 February 1929	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	FISH MARKETS FULL OF FARE FOR LENT. ... smelt are two pounds for a quarter ... Fresh Fish. ... Columbia river smelt, lb. 12½ @ .15
2 March 1929	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	DEALERS GET FIRST OF NEW POTATOES. ... Fresh Fish. ... Columbia river smelt, lb. 12½ @ .15
9 March 1929	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 1	VEGETABLE PRICES LOWER THIS WEEK. ... Fresh Fish. ... Columbia river smelt, lb. 15
12 March 1929	Cowlitz River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 2	Smelt Entering Cowlitz River. MORE THAN 200 BOXES CAUGHT DURING NIGHT. Fishermen Busy Monday Night; Extent of Run Still Uncertain. Scattered schools of smelt entered the Cowlitz river some time Monday or Monday night [11 March] and while no big run was located the twenty-seven boats that were in the stream from Kelso caught more than 200 boxes. Lee Galloway and Gus Hanson with twenty-seven boxes having the high boat of the night. Just when the smelt entered the Cowlitz the fishermen say they do not know for over the weekend they just about vanished and were decidedly scarce on the market even from the Columbia river. Tuesday morning the smelt had advanced as far upstream as Tickler's Bar in the vicinity of Ostrander. The fish seem to be scattered and evident broke from the run when they went by the mouth of the Cowlitz river. They are expected to mass again and the fishermen are contemplating large catches. There was a small run of smelt into the Cowlitz early in the winter but this is the first time in two years that the fish have come into the Cowlitz in large numbers

Date	Place	Source	Quote
			and last year none was taken here, the smelt avoiding the stream. Now they have as mysteriously returned for the state and federal fish authorities admit they do not know why the smelt come into or do not come into the Cowlitz. There are as many theories as there are experts and fishermen. Local fishermen insisted that when the Columbia river was closed to all fishing the smelt would enter the Cowlitz this year. The closed season arrived. The smelt are in the Cowlitz. Whether this is the large main run or just an offshoot, the local fishermen do not know. But they are busy with their work. The seagulls flying along the river and making their dips for catches have been attracting attention but they are not overly numerous as yet. Whether the smelt remain remains to be seen but the fishermen are hopeful. The run is a fair one, according to Charles H. Olson of the Columbia River Smelt company, but the supply is still short for the market, he added. The run was first noticed in the Cowlitz just about the mouth of the river and fishermen had to follow the schools up the river making their catches "on the run," so to speak, until they reached the vicinity of Lexington, above Kelso and there the best catches of the fish have been reported. This is the first spring run of the fish, which have been expected for sometime but which seemed to hold off, staying in the Columbia river below the mouth of the Cowlitz.
13 March 1929	Cowlitz River, WA	<i>Morning Oregonian</i> , p. 1, col. 2	SMELT RUN UP COWLITZ. Little Fish Visit River After Absence of Two Years. KELSO, Wash., March 12.—(Special.)—The Columbia river smelt came into the Cowlitz river last night after two years' absence from the stream and large catches were made today. The main run of the smelt has gone into the Lewis river. The run has been off the mouth of the Cowlitz for several weeks, and it is the latest it has been in years.
13 March 1929	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	MARKET SUPPLIED WITH DELICACIES. ... Fresh Fish. ... Columbia river smelt, lb. 12½
13 March 1929	Cowlitz River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 2-3	Cowlitz Smelt Run Continues Heavy. FISHERMEN TAKING BIG CATCHES AND ALL PARTS OF STREAM HAVE FISH; HEAVIEST TAKES ARE REPORTED BETWEEN KELSO AND OSTRANDER. Good catches of smelt, the best in many years, are being reported in the Cowlitz river, from the vicinity of Ostrander down the stream to the mouth of the river, according to reports of Kelso fishermen. The main run of the smelt have apparently entered the Cowlitz river after an absence of two years, although a light winter run was reported in last winter, but the catches were not heavy in comparison with the present. From what the fishermen who are busy now taking their boats full of the fish with dip nets, report fair catches can be made in most any spot in the river. The best catches of all, however, have been made in the vicinity of Ostrander and above Kelso. The market supply is still short and while catches are large the price remains fairly high, owing to the fact that this is the first big run in this locality. There are no smelt in the Lewis river and most of the fishermen in that district are preparing to start down the Columbia to enter the Cowlitz for the fishing here, says Charles H. Olson, according to telephone advices from there. Ira Henderson, fish

Date	Place	Source	Quote
			commissioner for this district, is on hand in Kelso keeping an eye on the activities of the fishermen to see that all goes well. Large number[s] are being shipped out of the city and Charles H. Olson of the Columbia River Smelt company reports that that concern is working full shift handling the business.
14 March 1929	Cowlitz River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 2-3	Main Run of Smelt Moves Up Cowlitz. FISHERMEN TAKING LARGE CATCHES AND REPORTS INDICATE FISH HAVE MOVED UP AS FAR AS OLEQUA; WEEKEND TO BE BUSY. With the smelt reported to have gone up the Cowlitz river as far as Olequa and more than 100 fishermen dipping, Ira Henderson, state fish inspector for this district, says there is no question but that the main run of smelt has entered the Cowlitz river. The local fishermen are making fine catches and some of them took as many as three loads yesterday. News of the smelt being in the Cowlitz has spread rapidly and the fishermen are indeed busy. The shipments out of here by the Columbia River Smelt company are growing and most of the orders, of which there is a large list, are being filled. So the smelt are rapidly being forwarded to points far removed from Kelso. According to Inspector Henderson no smelt have entered the Lewis river as yet. But the report was circulated they were in there. Fishermen report that his brought over some Oregon fishermen. But they soon found the mistake in the report and decided they would have no success there. The river is closed to fishing for a period on Friday and that is the time the smelt are allowed free access to the upper reaches. The state does not allow fishing above a point about a mile and a half north of Ostrander. The weekend is expected to see a large influx of visitors from points as far away as Puget Sound. The annual smelt run is considered a great event and now that they are back in the Cowlitz the gulls hovering over the stream along the Pacific highway add a touch of the unusual for the autoists who come down to see the fishermen at work.
15 March 1929	Cowlitz River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 3	Smelt Shipment Heavy. Inasmuch as the law provides for a closed season on smelt over Friday the fishermen are idle now but will be out in force Saturday. Fish caught before midnight supplied the heavy shipments that left Kelso Friday for various points. The smelt are now reported to be well up the Cowlitz.
15 March 1929	Cowlitz River	<i>Rainer Review</i> , p. 3, col. 1	SMELT RETURN TO COWLITZ. Fish Find Way Back After Absence of Two Years. The Columbia river smelt entered the Cowlitz river Monday night after two years' absence from the stream and large catches are being made. The main run of the smelt has gone into the Lewis river. The run has been off the mouth of the Cowlitz for several weeks, and it is the latest it has been in years.
16 March 1929	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	SHOPS GET SUPPLY OF BITTER ORANGES. ... Fresh Fish. ... Columbia river smelt, lb. 10 @ .12
18 March 1929	Cowlitz River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 6	GREAT CROWDS WATCH SMELT. CARS DRIVE LONG HIGHWAY TO OBSERVE FISHERMEN AND SEA GULLS. Sunday saw great crowds along the Cowlitz river watching the smelt fishermen at work and observing the vast flocks of seagulls that hovered above the water, swooping down to get the smelt, or resting along

Date	Place	Source	Quote
			the sand bars. In places the gulls were so thick they looked like snow. Ira Henderson, state inspector, says he is unable to say how long the run will continue. The fish loitered in the Columbia river so long that this run may be comparatively short although the last time the smelt were in the stream they remained for six weeks. While there is a report that the smelt are in the Lewis river, Inspector Ira Henderson has no official notice of them. He says the fishermen from Woodland who came to the Cowlitz Monday reported no smelt there. But he is going down to make an official inspection. A number of people came from distant points to watch the smelt fishermen. It is considerable of a novelty and not a few bring their cars loaded with children so that the youngsters may see the annual run of smelt and the attendant flocks of seagulls, whose presence shows that the smelt are in the stream. Shipments continue heavy as the fishermen are enjoying fine catches. Smelt are moving out of Kelso on all trains and by trucks and private cars. The smelt are in big demand and the orders are heavy for them.
19 March 1929	Lewis River	<i>Morning Oregonian</i> , p. 5, col. 4	Smelt Back After Two Years. RIDGEFIELD, Wash., March 18.—(Special.)—The main run of the famous Columbia river smelt which had been off the mouth of the Cowlitz river for several weeks and later entered the mountain stream after an absence of two years, has gone into the north and east forks of Lewis river, also a mountain stream, a few miles north of here, according to local fishermen. The run is the latest it has been in years.
20 March 1929	Cowlitz River	<i>Morning Oregonian</i> , p. 14, col. 1	Smelt Catch Heavy One. KELSO, Wash., March 19.—(Special.)—Large catches of Columbia river smelt were made in the Cowlitz river Sunday and yesterday, and heavy shipments of the fish were made those days. Sunday more than 900 boxes of smelt, or approximately 23 tons, were shipped by express alone, and even larger quantities of the fish leave here by truck and boat.
20 March 1929	Cowlitz River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 2	READY TO SHIP CAR OF SMELT. MANAGER OLSON SAYS FIRST CAR OF SEASON IS TO GO TO VANCOUVER. Run Is Still Heavy; Henderson Warns of Weekly Closing Period. C. H. Olson of the Columbia River Smelt Company of Kelso, announced Wednesday morning that that company was preparing a carload shipment of four hundred boxes of smelt for Vancouver, B. C., to the Canadian Fishing Company, Ltd. This will be first carload of smelt to be shipped out of Kelso this year, or in several years for that matter, but Mr. Olson states that arrangements are now being made [for] the shipment of several other carloads in the near future, the demand for smelt being great as yet and the outside market still good for the tiny fish. The present carload will leave on the northbound freight train about nine o'clock Wednesday night for the Canadian city. Logs in the upper Cowlitz river are reported to be bothering the activities of the fishermen now and the catches are somewhat lighter, it is reported. The heaviest run has now passed on up the river into the spawning area but there are still many heavy schools of the fish in the Cowlitz in the vicinity of Kelso and the fishermen are still making some good catches. The boats were late Wednesday morning coming into Kelso

Date	Place	Source	Quote
			and it is expected that this is because of the floating logs in the river, slowing up the speed of the boats. State Ins. Ira Henderson wishes to call attention to all fishermen to the fact that smelt fishing has a weekly closed period from eight o'clock Friday morning until eight o'clock Saturday night and also that no fishing is allowed above Peterson's eddy, a mile and a half north of Ostrander.
23 March 1929	Cowlitz River	WDF (1929) SR-1: p. 165	Hart (Cowlitz River) "New run of smelt came into the Cowlitz yesterday."
23 March 1929	Cowlitz River	WDF (1929) SR-1: p. 165	Henderson (Kelso) "Smelt run said to be good."
24 March 1929	Cowlitz River	WDF (1929) SR-1: p. 165	Hart (Cowlitz River both sides to Castle Rock) "The Cowlitz River is full of new run of smelt from mouth to Toledo."
24 March 1929	Cowlitz River	WDF (1929) SR-1: p. 165	Henderson (Kelso) "Smelt fishing at peak, approx. 2,500 boxes shipped from Kelso today by express & truck. One car load to Portland Fish Co., fish good quality."
25 March 1929	Cowlitz River	WDF (1929) SR-1: p. 165	Hart (Kelso) "About 1,500 boxes smelt caught in Cowlitz River today, most all large males."
26 March 1929	Cowlitz River	WDF (1929) SR-1: p. 165	Hart (Kalama & Cowlitz Rivers) "Smelt are most all up to Peterson Eddy now & no new ones coming in yet."
26 March 1929	Cowlitz River	WDF (1929) SR-1: p. 165	Henderson (Castle Rock & Vancouver from Kelso) "Still plenty of smelt & good quality."
27 March 1929	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	FIRST SEASON SHAD OFFERED IN MARKET. Smelts are abundant, two pounds for 15 cents, four pounds for a quarter ... Fresh Fish. ... Columbia river smelt, lb. 10
27 March 1929	Columbia River	WDF (1929) SR-1: p. 165	Henderson (from Vancouver) "Still large catches of smelt and markets said to be good."
29 March 1929	Cowlitz River	WDF (1929) SR-1: p. 166	Hufford (Kelso, Kalama, Vancouver, Portland, Stevenson) "Smelt run still holding up in Cowlitz River."
30 March 1929	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	EARLY VEGETABLES SHOWN IN MARKETS. ... Fresh Fish. ... Columbia river smelt, lb. 10
31 March 1929	Kalama River	WDF (1929) SR-1: p. 166	Henderson (Kelso) "Smelt run scattered, light catch today, said to be plenty of smelt in Kalama River."
31 March 1929	Kalama River	WDF (1929) SR-1: p. 166	Hart (Martins Bluff & Kalama River) "Smelt in Cowlitz seem to be backing out & going into Lewis & Kalama Rivers."
1 April 1929	Cowlitz River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 5-6	Best Smelt Run In Years Is Now Over. COWLITZ RIVER DESERTED BY LITTLE FISH AFTER EXTENDED AND HEAVY RUN; SUNDAY SEES SCORES OF DIPPERS GATHERING REMNANTS OF RUN. Reports of fishermen and shippers of smelt in this vicinity are to the effect, Monday that the smelt have left the Cowlitz river and the annual run is at an end. Some few fishermen predict that there will be more fishing later on but the general opinion is that the fish have gone until next year. The smelt are due to appear next in the Sandy river near Portland. Smelt catches were

Date	Place	Source	Quote
			made early on Sunday, but later in the day the dippers kept bringing up fewer fish on each try and finally the fishermen gave up the try and returned with small amounts of the popular food fish. The present season has been a remarkably successful one, with the sales of the fish holding up extremely well, according to those who have been handling the fish and shipping the smelt. Large quantities have been sent to all parts of the country. Two car load shipments were sent out of Kelso when the run was at its height to packing companies in British Columbia and according to Charles H. Olson of the Columbia River Smelt Company, there has been an average of almost three carloads of the fish shipped from Kelso daily since the run reached its best. In addition to the commercial fishing, there has almost been a great many who have taken out the license and caught for their home consumption, smoking and canning the fish for future use during the year. Sunday, as if seeming to sense the nearness of the end of the run, the banks of the Cowlitz was lined with amateur home fishermen north of the city, particularly in the vicinity of Ostrander, the people using everything that would serve as a seine to hold fish and let the water run out so as to land the smelt.
1 April 1929	Cowlitz River	WDF (1929) SR-1: p. 166	Henderson (Lewis River below Woodland) "Smelt catch at Kelso very light & poor fish."
1 April 1929	Lewis River	WDF (1929) SR-1: p. 166	Hart (Cowlitz River) "Smelt fishing started in the Lewis River today."
4 April 1929	Lewis River	<i>Daily Kelsonian-Tribune</i> , p. 1, col. 3-4	Olson Arranges to Handle Lewis Smelt. FISH WHICH COMPLETED RUN UP COWLITZ RIVER ARE NOW PLENTIFUL IN STREAM IN LOWER END OF COUNTY. Charles H. Olson of the Columbia River Smelt Company of this city has gone to Woodland to supervise the shipping of smelt from there for that company, where there is a large run of smelt reported. Several local fishermen have taken their boats to Woodland to fish. A good run of fish is now in the Lewis river, and they were first noted early Wednesday morning. They are said to be moving rapidly upstream and large crowds have been out catching them. Fishermen from the Cowlitz river are joining the crew on the Lewis river to take advantage of the run, the fish having recently left the waters of the Cowlitz and continued up the Columbia river turning into the Lewis river.
6 April 1929	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 1	NEW STRAWBERRIES COME FROM SOUTH. ... Fresh Fish. ... Columbia river smelt, lb. 10
6 April 1929	Cowlitz River	<i>Morning Oregonian</i> , p. 9, col. 8	SMELT DRYING AT KELSO. Several Hundred Tons of Fish in Process of Curing. KELSO, Wash., April 5.—(Special)—Approximately 200 tons of Columbia river smelt are being dried by F. A. Coles, veteran fishermen and fish dealer of the Columbia river district, at his drying plant on the Cowlitz river south of Kelso this season. Mr. Coles started construction of his plant last year and had it in readiness for operations after making test runs on small quantities of fish for this year's smelt season. The fish are dried in a kiln, after having been put through a salting process. They are in the kiln for a period of 12 hours and are thoroughly cured in that time.

Date	Place	Source	Quote
8 April 1929		WDF (1931) SR-2: p. 126	Henderson (Kelso from Woodland) "Not over 150 boxes of smelt taken last night."
11 April 1929	Columbia River (Oakland, CA)	<i>Oakland Tribune</i> , p. 39, col. 5	THE DOG WATCH. PORTLAND, Ore., April 11.—A school of Columbia river smelt boarded the British motorship Neptunian while she was coming here to load lumber, and put the auxiliary machinery out of commission. The little den[i]zens of the river boarded the vessel by the intake on the side of the ship. "The fame of the Columbia river salmon has spread afar, and they are fine fish, in the water or out, but deliver me from another boarding party of toy fish that can stop a plant like this," the chief engineer said.
March 1929		<i>Pacific Fisherman</i> 27 (4): 43	SMELT RUN DISAPPOINTING. While the run of smelt in the COLUMBIA River proper has held steady since shortly after the first of the year, with gillnet catches supplying the fresh and frozen market in moderate degree, the fish had not run in volume by early March into the Cowlitz or Lewis Rivers, from which the heavy production normally is derived. Numerous early indications of the run starting proved false and fear was expressed that the run might be a failure in these streams, or would come so late that the fish would not be desirable. The fish appeared early in Grays River, as they occasionally do, but the major portion of the catch thus far has come from the Columbia River proper between Clifton and Rainier, Ore.
April 1929		<i>Pacific Fisherman</i> 27 (5): 36.	SMELT RUN IN COWLITZ. The run of Columbia River smelt, which had occasioned some uneasiness by its tardiness, moved into the Cowlitz River shortly before the middle of March, assuming practically its normal volume. Shipments of smelt from Kelso, Wash., rose to more than 750 boxes per day and fishing with dip nets was extensive. The smelt run was watched with unusual interest this year, as in 1927 and 1928 the fish avoided the Cowlitz entirely and ran into the Lewis River instead, giving rise to the fear that industrial development on the former stream might have diverted the fish. Observers declare that the 1929 run has apparently been normal in all respects except its lateness. The fish have been present in the Columbia in normal numbers since shortly after the first of the year, but showed unwillingness to run into the small tributaries, except Grays River, where they have been present in more than usual numbers. The first full carload shipment of Cowlitz River smelt to roll from Kelso this season was dispatched by the Columbia River Smelt company March 27 to the Canadian Fishing company at Vancouver, B. C. It contained 400 boxes of smelt.
1929	Cowlitz River	<i>Pacific Fisherman</i> , Annual Statistical Volume, 1930. 28(2): 189.	The run of Columbia River smelt appeared in the Cowlitz River again in 1929 in volume reported to exceed that of any previous season. The two preceding years had been complete failures and had given rise to the fear that pollution had destroyed the Cowlitz smelt, a supposition adequately disproved by the experience in 1929.
1930			
21 December 1929	Columbia River at Cathlamet	WDF (1931) SR-2: p. 220	McDonough (Cathlamet) "Two boats trying their luck for smelt report catching 10 to 16 pounds to the boat. ..."
23 December 1929	Cowlitz River	<i>The Daily Tribune and</i>	FIRST OF SMELT TAKEN IN COWLITZ. According to Frank Remick of the

Date	Place	Source	Quote
		<i>Kelsonian</i> , p. 1, col. 6	Marine Fish Company, a catch of twenty-one pounds of smelt was made by gill netters operating near the mouth of the Cowlitz river Sunday night [22 December]. This is the first catch of the season, but fishermen in this vicinity are expecting that the run will start most any time now. The early run is usually due about this time or early in January. The December run is starting a little late this year. Fishermen feared it might not come. But after the big run last spring it is hoped that the smelt which stayed out of the river for two years are now returning in full force. The run now reported is known as the small or the winter run.
24 December 1929	Columbia River at Cathlamet	WDF (1931) SR-2: p. 220	McDonough (Cathlamet) "...smelt fishermen catching 6 to 10 pounds to the tide."
25 December 1929	Columbia River at Clifton	<i>Morning Oregonian</i> , p. 8, col. 4	SMELT TAKEN AT KELSO. Advance Run of Season Begins In Columbia River Waters. KELSO, Wash., Dec. 24.—(Special.)—Columbia river smelt were on the market here yesterday for the first time this year. They were gillnetted in the Columbia river near Clifton. The winter run of the fish, which generally arrives in the Cowlitz river in December or early January, is expected at any time by fishermen. The main run does not come until February or March. Last year it came into the Cowlitz river after passing up this stream for two years, when the run went up the Lewis river.
26 December 1929	Columbia River at Clifton	<i>Morning Oregonian</i> , p. 5, col. 3	THE RETURN OF THE EULACHON. The first few fish of the annual migration of Columbia river smelt, or eulachon, have been taken near Clifton, Clatsop county, on their slow ascent to the spawning grounds of the Cowlitz and Sandy rivers. The information provides a news item which, we dare say, was read with keen interest by thousands of people. Though a considerable industry is dependent on the regular appearance of these small fishes, than which there is no fish more delicately flavored, we doubt the average reader thought of the eulachon in commercial terms, or of these at all, as he read the information of their appearance. For the public interest in the migrations of the eulachon is one of ever-recurrent wonderment at the fecundity and resource of nature. The numbers of these fishes, as they ascend the Columbia, to turn aside to the Cowlitz and the Sandy, transcend the remarkable and attain the unbelievable. There are billions upon billions of them. The imagination lags, the pencil falters. Nor is the public fancy stirred by mere numerical vastness alone. Even the dullard perception finds in the migration of the eulachon an illustration of the blind yet purposeful, and forever invincibly persistent, will to live, not in individualism, but in species; not in one span of life that is quickly spent, but in the illimitable span of many lives conjoined. And finds, too, an object lesson of the strength that is in mere passivity of great numbers—for though men draw the eulachon from its natal streams by truckloads, though fishes and birds prey incessantly upon it so soon as it enters the rivers, and though doubtless it is continually harassed by a vast and insatiate appetite during its period at sea, still the abundance of this fish is always miraculous. It is the marvel and the mystery of the eulachon which give us pause, and thrill us somewhat, as we read that a thin advance guard of the

Date	Place	Source	Quote
			incalculable horde again has entered the destined river. There isn't any mystery comparable to the mystery of life—no, not even the mystery of death.
27 December 1929	Cowlitz River	WDF (1931) SR-2: p. 218	Henderson (Cowlitz River) "Smelt run starting."
28 December 1929	Portland, OR	<i>Morning Oregonian</i> , p. 2, col. 1	FRESH SMELT NOW IN CITY MARKETS. ... When Columbia river smelt are first to be found in Portland fish markets, shoppers begin to look for other signs of spring, as well. ... Fresh Fish. ... Columbia river smelt, lb. 30
28 December 1929	Cowlitz River	WDF (1931) SR-2: p. 218	Henderson (Cowlitz River) "A few boxes of smelt, all told not enough to attract fishermen."
28 December 1929	Columbia River at Cathlamet	WDF (1931) SR-2: p. 218	McDonough (Cathlamet) "Was advised smelt catch was 20 pounds the boat, the tide."
29 December 1929	Cowlitz River	WDF (1931) SR-2: p. 218	Henderson (Cowlitz River) "Just a few smelt."
30 December 1929	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 3	SMELT NOW IN LOWER RIVER. Fishermen Get Light Catches As Fish Seem To Be Well Scattered. Although there are plenty of smelt in the Cowlitz river, according to all indications, the fishermen had poor success in making catches over the weekend when the season again opened. Small catches were made but the main school was not located, or else they had scattered. Smelt was [sic] caught all the way from the mouth of the Coweeman river up as far as the Barnes place. So far as known none was reported up as far as the Kelso bridge.
31 December 1929	Columbia River at Cathlamet	WDF (1931) SR-2: p. 218	McDonough (Cathlamet) "Smelt fishermen have been catching 300 to 450 pounds of smelt the tide the past 24 hours, it seems the run has just started here. ..."
1 January 1930	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 2	PORTLAND MARKET QUOTATIONS. ... Fish. ... Columbia river smelt, 9@10c.
4 January 1930	Portland, OR	<i>Morning Oregonian</i> , p. 13, col. 6	PORTLAND MARKET QUOTATIONS. ... Fish. ... Columbia river smelt, 9@10c.
8 January 1930	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 4	VEGETABLE SUPPLY AFFECTED BY COLD. SMELT BECOME CHEAPER. ... Fish supplies are good with Columbia river smelt now selling at 10 cents a pound, three pounds for a quarter. ... Fresh Fish. ... Columbia river smelt, lb. 10 ...
9 January 1930	Columbia River	WDF (1931) SR-2: p. 226	Henderson (Kelso) "Smelt coming from down river that are caught in gill nets."
10 January 1930	Columbia River at Cathlamet	WDF (1931) SR-2: p. 226	McDonough (Cathlamet) "Was advised very few smelt ... being caught."
11 January 1930	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 1	HOT HOUSE RHUBARB COMES TO MARKETS. ... Fresh Fish. ... Columbia river smelt, lb. 10 ...
20 January 1930	Portland, OR	<i>Morning Oregonian</i> , p. 18, col. 7	PORTLAND MARKET QUOTATIONS. ... Fish. ... Columbia river smelt, 9@10c.
7 February 1930	Columbia River at	WDF (1931) SR-2: p.	McDonough (Cathlamet) "Smelt in this section very scarce. ..."

Date	Place	Source	Quote
	Cathlamet	237	
8 February 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 7	REPORT SMELT IN COWLITZ AGAIN. When a box of smelt was received by the Marine Fish Company on south Pacific Avenue Saturday morning, they were the first to be taken from the Cowlitz river since the recent cold spell. The smelt were reported to be just entering the Cowlitz when the cold weather arrived and the fishermen were forced to cease operations as their nets were frozen as they tried to fish. Following the break up of the ice a few smelt were caught in the Columbia. But now that the Cowlitz has been freed of the ice and the recent rains have had their effect, the smelt appear to be entering the stream again.
11 February 1930	Columbia River at Rainier	WDF (1931) SR-2: p. 237	McDonough (Rainier) "...smelt very scarce."
13 February 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 6-7	Smelt Begin Enter Mouth of Cowlitz. Catches Made Off Mouth and Inside of Stream During Night Cause Stir Among Fishermen. Coming in somewhat the same manner of the circus parade of old, the annual run of the smelt in the Cowlitz river moved closer to Kelso Thursday morning, when it was reported that small catches had been made by fishermen in the Columbia near the mouth of the Cowlitz and some in the Cowlitz river itself. The Marine Fish Company had reports of the fish in the Cowlitz itself but the main run was not yet in the stream. One of the heaviest catches reported was that of W. Galloway, veteran fishermen here, who took five boxes Wednesday noon near the mouth of the Cowlitz and twelve boxes late Wednesday night near the mouth of the Columbia river. Charles H. Olson, manager of the Columbia River Smelt Company, with its plant here, reported that catches were being made in the Cowlitz river, but the fish are scattered and no heavy dipping has been found as yet. Fishermen here are preparing for a busy season now, getting their boats and gear in shape for the annual run of the smelt, which may start full blast at any time. Gill netters in the Columbia reported some catches of smelt in their nets the past few days. The fish have been running heavy farther down the Columbia and in Deep River. The past two years have seen good runs of smelt in the Cowlitz river, but previous to that for two years the fish refused to enter this river for some unknown reason. Instead they entered the Lewis river. Some fishermen claimed various causes but investigation showed that the reason was unknown. According to reports Thursday morning, fishermen are getting eight cents a pound for their fish. The market prices will necessarily be high until the run actually gets underway, it is stated.
14 February 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 2, col. 1	SMELT MOVING TO COWLITZ. Kelso Fishermen Make Catches In Stream Just Below City Limits. The smelt are entering the Cowlitz river for sure, according to word received here late Thursday, as many fishermen prepared their gear and started down the river to begin dipping the tiny fish, and Friday morning many good catches had been reported. The fish have been reported as far up the river as the place of State Senator Frank g. Barnes, just south of Kelso. While the run of fish is not unusually heavy the

Date	Place	Source	Quote
			smelt are about the finest of the year, the early run always bringing superior fish, it is reported by fishermen. A. A. Byrnes, Kelso bridge tender, reported in the morning seeing several fish boats come in from down stream with large loads of the fish. Thursday the run was reported at the mouth of the river, with a few scattered schools in the river. The Columbia River Smelt company here, is making preparations to handle the shipping of the fish and is caring for the large loads being brought in here.
14 February 1930	Cowlitz River	WDF (1931) SR-2: p. 239	Hufford (Kelso, Longview, Vancouver, Portland) "Fair run of smelt in Cowlitz on Wednesday night (Feb. 12) but fell off on Thursday."
15 February 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 5, col. 7	RUN OF SMELT IS IMPROVING. Closed Season Gives Fishermen Time To Prepare For Big Catches. With the catches of smelt reported consistently good early Friday morning [14 February], the tiny fish are believed to still be in the Cowlitz river in good sized quantities, but owing to the closed period on commercial fishing from eight o'clock Friday morning to eight o'clock Saturday night, fishermen have not been able to check on their whereabouts at present. However, all the fishermen are preparing to head down the Cowlitz Saturday night in an effort to locate the schools of smelt and start dipping again immediately, it is reported. Several good sized shipments of fish have been made to Portland and Seattle by local fishermen and firms, the market being reported good at this time.
15 February 1930	Cowlitz River	WDF (1931) SR-2: p. 239	Henderson (Kelso) "A lot of smelt fishermen coming to Cowlitz."
15 February 1930	Columbia River at Eagle Cliff	WDF (1931) SR-2: p. 239	McDonough (Eagle Cliff) "Smelt fishermen catching about 300 lbs. to the tide ..."
17 February 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 7	SMELT MOVING INTO COWLITZ. Fishermen Report Catches Off Ames Lumber Company Site. Smelt are now coming onto the Cowlitz river in larger numbers but are still scattered. They are being caught in Kelso off the Ames Lumber company site in south Kelso but have not yet reached the bridge, says A. A. Byrnes, bridge tender. The Marine Fish company reports getting Cowlitz smelt and the shipments are increasing. "Fishermen report light catches of smelt in the Cowlitz below Kelso and in the Columbia river in the vicinity of the mouth of the Cowlitz," was the word from Charles H. Olson of the Columbia River Smelt Company here Monday morning. The fishermen are getting light catches in the river but the smelt are not bunching in schools, so that it is hard to get heavy dipping in any one spot in the river at present, says the report. However, the fishermen are out in force after the tiny fish and are endeavoring to bring in as large a catch as possible. Gill netters in the Columbia are making some hauls now.
17 February 1930	Columbia River at Cathlamet	WDF (1931) SR-2: p. 240	McDonough (Cathlamet) "Smelt fishermen catching about 6 boxes to the tide. ..."
18 February 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 6-7	Recall Old Times During Smelt Run. Boats are Busy Between Kelso Bridge and Railway Depot As Fish Move Up Cowlitz. The Cowlitz river presented a site that made old timers recall the days of long ago when "smelt fishin' was the best ever" Tuesday

Date	Place	Source	Quote
			with over a score of fish boats drifting and anchored in the river between the Allen street bridge and the Northern Pacific Railroad depot, and their operators dipping steadily for smelt. While the fishing is not reported as unusually heavy, the fishermen are making consistently good catches and the annual smelt run in the Cowlitz river seems to be at full blast now. According to the count of A. A. Byrnes, bridge tender, there were twenty-four boats in the river late in the morning, all engaged in getting smelt. The Columbia River Smelt company is handling the bulk of the shipments out of Kelso now, and reports a good market for the fish at present. Ira Henderson, state fish inspector for this district, is now in Kelso and will probably remain in this section for some days. The smelt have entered the stream in an ever increasing volume and while they appear to be scattered there are many of them in the stream. The sea gulls, harbingers of the smelt run, are coming in increasing flocks. As is usual, there are many observers lingering on the bridge and loitering along the shores to watch the fishermen at work. The gulls also provide objects of interest.
19 February 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 8	HIGHER WATER SCATTERS FISH. Catches of Smelt Light As Schools Separate: Run Reaches Ostrander. High water in the Cowlitz river hampered the activities of the smelt fishermen Wednesday, while the river seemed fairly alive with the tiny fish, but the swift water kept them scattered and dipping was not heavy any place in the stream. Reports indicated that the smelt run extended from out in the Columbia river up to near Ostrander in the Cowlitz. Many fishermen are out, however, endeavoring to get boatloads of the fish and are reporting only fair success because of the swift water which scatters the schools of smelt. The market is reported to be good and the demand steady, shipments being made to Seattle and Portland daily. A drop in the river is expected to help materially in permitting the fishermen to get the smelt.
20 February 1930	Portland, OR	<i>Morning Oregonian</i> , p. 24, col. 7	PORTLAND MARKET QUOTATIONS. ... Fish. ... Columbia river smelt, 9@10c
20 February 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 8, col. 4	SMELT TAKES ARE LIGHTER. Rapid Rise of Cowlitz Hampers Efforts Of Fishermen Of Kelso. With the swift waters of the Cowlitz river now nearing the flood stage smelt dropped off late Wednesday and there were only small catches reported last night or Thursday in the river, although the gill netters in the Columbia river are making good hauls of the fish. It is feared that smelt fishing in the Cowlitz will not be good again until the high water drops and by that time the run may have passed Kelso. It is virtually impossible to dip big hauls of smelt because the swift current scatters the schools of fish and makes dipping unusually difficult. Fishermen, however, are holding their boats and gear in readiness for a quick start should the river drop at all, and fishing become[s] possible. The market for smelt continues good, it is reported, with shipments being made daily to the larger cities in the northwest from Kelso
21 February 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 3	SMELT SCARCE IN RIVER NOW. Stream Drops Slightly But Weekend Closed Period In Effect. Although the Cowlitz river dropped about half a foot during the night

Date	Place	Source	Quote
			the smelt were decidedly scarce in that stream Friday and then came the weekend closed period so the fishermen after smelt were again handicapped in catching the little silvery denizens of the deep in this section. The recent rains sent the Cowlitz booming to higher levels and scattered the schools so that catches have been exceedingly light. But the fishermen also state that the high water may cause the smelt to linger a little longer in their dash for the spawning grounds. So if the stream does go down and schools get a chance to reform there may be some good fishing next week.
22 February 1930	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 1	HOT HOUSES SUPPLY PORTLAND TABLES. Columbia Smelt ... to Be Had in Markets ... Fish markets are especially well supplied this week. Columbia river smelt and spring Chinook salmon are two of the most popular items. ... Fresh Fish. ... Smelt, lb. 10
22 February 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 4, col. 8	FALLING WATER AIDS FISHING. Cowlitz Is Dropping Now and Smelt Thought Still In River. With the Cowlitz river falling slightly, it was reported Saturday that the smelt were still in the stream, although not in large quantities, but owing to the closed period from Friday morning to Saturday night, dippers are not out in the river trying to make catches. However, it is probable that after the closed period ends this evening, some of the fishermen will try their hand at dipping the smelt again. Gill netters in the Columbia are making fair catches daily. While the Cowlitz river has dropped some the last two days it still stands at a high mark. A. A. Byrnes, Kelso bridge tender, announcing the river reading this morning was 115 feet. With the warm rains more high water in the Cowlitz is anticipated. The Columbia river is nearly stationary, staying close to the five foot mark at the Port of Longview dock.
23 February 1930	Portland, OR	<i>Morning Oregonian</i> , p. 17, col. 4	PORTLAND MARKET QUOTATIONS. ... Fish. ... Columbia river smelt, 4@7c ...
24 February 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 7	RIVER SMELT STILL SCARCE. Small Catches Made In Cowlitz As Stream Is Still High And Swift. While the waters of the Cowlitz river remain swift and difficult to fish yet, report of small catches of smelt in the stream were received by local shippers Monday, although the majority of the fishermen are not attempting to dip smelt from the stream at present. Gill netters are continuing their activities off the mouth of the Cowlitz getting fair catches daily. They furnish the bulk of the supply at present. But as the Cowlitz river is beginning to drop to a lower level, local fishermen are anticipating a chance to try dipping again before long and are expecting to make good catches then.
25 February 1930	Columbia River Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 2	SMELT SHY IN LOCAL WATERS. Local Market Reports Demand Is Weak; Cowlitz Too High For Fish. Only gill netters are making catches of smelt at present, according to Charles H. Olson of the Columbia River Smelt Company, here, and the fishermen are receiving a low price for their fish as the market is not strong, although the reason for this situation is not known. While a few smelt are still reported in the Cowlitz, no effort on the part of the dip net fishermen to make catches have been reported lately as the water is still unusually high and swift. The local market continues good, Mr. Olson

Date	Place	Source	Quote
			states, but the market in Portland and Seattle is not good and the orders for the fish are not coming in their usual numbers.
26 February 1930	Portland, OR	<i>Morning Oregonian</i> , p. 14, col. 1	GARDEN PRODUCTS COMING TO MARKET. ... Columbia River Smelt in Evidence ... Fish markets are offering Columbia river smelt at three pounds for a quarter. ... Fresh Fish. ... Smelt, lb. 10
26 February 1930	Columbia River	<i>The Daily Tribune and Kelsonian</i> , p. 8, col. 1	LIGHT SMELT CATCHES MADE. Cowlitz Takes Drop With Mercury; Fish Reported Off Eagle Cliff. While the Cowlitz river has dropped to the 84 foot mark and is continuing its fall, smelt fishing in the Cowlitz river was not improved Wednesday, although it was reported that a few fishermen were trying to dip smelt down the stream near its mouth and some small catches were made. Gill netters are still making the best catches in the Columbia for the shipments out of Kelso. Ira Henderson, state fish inspector, reports large schools of smelt off Eagle Cliff in the Columbia river. Cold weather has caused the Cowlitz river to drop suddenly as there is a light snow fall reported in the foothills of the Cascades and the minimum temperature is down to freezing of late. Tuesday night the minimum was 31 degrees above.
27 February 1930		WDF (1931) SR-2: p. 234	Henderson (Kelso to Cathlamet) "... gill net smelt catch good."
1 March 1930		WDF (1931) SR-2: p. 234	Henderson (Cathlamet) "No smelt in Cowlitz."
4 March 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 2-3	Smelt Are Back in Cowlitz in Force. LITTLE FISH SWARM INTO RIVER AND FISHERMEN ARE HAVING BIG HAULS JUST BELOW CITY LIMITS. After having disappeared from the waters of the Cowlitz river for almost two weeks, the spring run of smelt has again entered the stream and fishermen are reporting some of the largest catches of the year in the Columbia tributary, the big schools of the fish having moved up into the Cowlitz from the Columbia, where gill netters have been making good catches all the time. The first run was spoiled when the water became too swift for dipping and fishermen were forced to abandon fishing at that time. But with the waters of the Cowlitz down to a medium low mark, conditions are ideal for the dippers. The most of the boats of the "smelt fleet" are centering their activities in the vicinity of the Senator Frank Barnes place, a little over a mile south of the Kelso city limits, where they are making good hauls. It is expected that with this run the first big supply of smelt will be ready for the market, owing to the fact that at no time was there an over-supply of the fish. Shipments have been made regularly from Kelso to outside cities in the northwest and local sales have been steady and good, say reports. Fishermen state that the first taken in the runs at the time are superior as they are younger and fresher.
4 March 1930	Cowlitz River	WDF (1931) SR-2: p. 234	Henderson (Kelso) "Good run of smelt and lots of fishermen. We think main annual run of smelt is now arriving."
5 March 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 2-3	Big Catches Smelt Made in Cowlitz. Local Fishermen Make Hauls That Keep Transportation Lines Busy; Now Above Kelso Bridge. Fishermen in the Kelso are

Date	Place	Source	Quote
			taking big hauls of smelt and they are being sent out of Kelso by train, truck and boat, the catches being reported heavier than for some time past. In striking contrast to the first runs of smelt into the Cowlitz the fish are moving rapidly up stream. The fish were down at the Barnes place below the city the night before last. On the tides of Tuesday night they went up the river in a hurry and Wednesday morning the fishermen were busy well above the Kelso bridge. Prices for the smelt took a drop with the big run of the silvery denizens of the deep. But to offset this, the catches were decidedly larger. One boat reported taking more than one hundred boxes in two hours. Likewise the number of fishermen increased. The boats have been decidedly busy and the fish are so thick they have had no trouble in getting their loads in quick time. Many stood on the bridge to watch the operations. Flocks of sea gulls are following the smelt. They hovered over the stream in great numbers and they gave notice to all that the smelt were moving upstream.
6 March 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 8, col. 2-3	Smelt Fishing Is Setting New Mark. Local Dippers Report Catches Are Better Than For Many Years Past; Demand Is Heavy. Local fishermen report one of the heaviest smelt runs in years Thursday in the Cowlitz river with fishing the best experienced since the days of long ago, while at the same time the market is reported to be good still and shipments heavy. Most of the boats are concentrated in the vicinity of the Weyerhaeuser bridge north of Kelso, where the fish are reported as the thickest and dipping easier. However, it is not necessary to go to that point to make heavy catches, for the stream is said to be literally full of the finny creatures. While the fishermen are making record catches, shipments from Kelso are heavy, going by train, truck and boat. Some fish are being sent to points in Idaho, Montana, Wyoming and other eastern cities. Portland and Seattle are receiving large shipments as well. The Columbia River Smelt Company dock near the Northern Pacific Railway passenger depot in Kelso is the center of activity in the industry, where a large crowd is being kept busy caring for the boat loads of fish as they are brought in by the dippers. There the fish are inspected, boxed and then transported to their shipping or sales points.
7 March 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 2-3	Smelt Run Biggest Since Year of 1910. State Official Reports On Heavy Rush Of Fish Into River After Previous Starts. With record shipments of smelt moving out of Kelso, the railroads alone moving about a carload a day, not to mention the fish moving by boat and by truck to various markets, the run of smelt in the Cowlitz river at the present time is the largest since 1910, according to Walter Hufford, deputy fish supervisor for this section of the state. The fish this year are not only plentiful but are of an exceptionally high grade and quality. Fishermen report that the smelt are in all parts of the stream. They are fairly swarming up the river. Even the amateurs are making good catches because they have only to dip in their nets and pull them out loaded with fish. This is the third time the smelt have entered the Cowlitz this year. Cold weather and high water drove them back twice but on this occasion they have come with a rush and are setting a new mark for the stream.

Date	Place	Source	Quote
8 March 1930	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	SPRING DINNER MAY BE SERVED AT HOME. Smelt are now four pounds for a quarter. ... Fresh Fish. ... Smelt, lb. 08
8 March 1930	Cowlitz River	<i>Morning Oregonian</i> , p. 8, col. 7	SMELT RUN IN COWLITZ. Little Fish Go Up River in Record Numbers. KELSO, Wash., March 7.—(Special.)— One of the heaviest runs of Columbia river smelt in years is in the Cowlitz river at present and fishermen have been making large catches the last two or three days. At present the head of the run is in the vicinity of the Weyerhaeuser Timber company bridge above Kelso. The fish are boxed at the Columbia River Smelt company dock near the railway station or at floats along the river. Huge shipments of smelt leaving here daily by truck, rail and boat. They are being shipped to points as far east as Montana, Colorado, Wyoming and the Dakotas.
8 March 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 7	SMELT RUN IN RIVER HEAVY. Closed Season Ending To See Fishermen Back In Stream Again. Until tonight, from Friday, the sea gulls are doing all the smelt fishing that is being done in the Cowlitz river as the closed season hours are in effect and while the river is full of the little fish the dippers are barred. Now the question is how long will the smelt stay in the river. Inasmuch as the main run is known to in the stream and the state officials say the run is the heaviest since 1910, the fishing may last for several days or perhaps two weeks longer. While the closed season is in force the fishermen are making preparations to gather in more of the little fellows. Their boats and gear are in first class shape. The demand for the smelt is reported to be good. With the railroads hauling about a carload a day out of here, the boasts and trucks also are taking big consignments. Some are moving by truck as far south as Salem, Ore., and as far north as Seattle. More and more spectators are being drawn to the waterfront to watch the smelt fishing. The boast and their crews are always of interest and the small boys provide plenty of thrills.
9 March 1930	Cowlitz River	WDF (1931) SR-2: p. 244	Henderson (Kelso and Castle Rock) “Smelt run continues good, prices getting very unsteady.”
10 March 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 7	SMELT RUN IS AT HIGH PEAK. Multitudes Of Fish Are Shipped Out Of Kelso To Various Points. Smelt are still in the river in great numbers and Ira Henderson, deputy fish inspector for this section, says he cannot predict nor can anyone else, how much longer they will remain. A year ago he says, they stayed until the last of March after starting the run on March 11. This year they started a little earlier. They are in the river in large quantities. But they are not so massed as in previous as in previous years. Despite the fact that they are widely scattered the fishermen are no trouble in making record catches and the statement that this is the largest run since 1910 is amply verified. Smelt are moving out at the rate of more than a carload a day be rail. This means, as the fish run from eight to ten the pound, that a fifty pound box has more 400 smelt in it, or in other words, using round figures, there are from 325,000 or more smelt going out by rail. Although he has no exact data, Deputy Ira Henderson figures that about one half or less move by rail the others by truck or other means of transportation. This indicates that well

Date	Place	Source	Quote
			over 500,000 smelt go out each day to various points in the Pacific northwest, California and Idaho, and some as far back as the middle western states. A number of local residents are shipping individual boxes to friends in various places. Many fishermen are getting smelt at Peterson's Eddy above Ostrander. The presence of gulls indicates that they are now well up in the vicinity of Castle Rock.
10 March 1930	Cowlitz River	WDF (1931) SR-2: p. 244	Henderson (Castle Rock and Kalama) "Smelt run continues strong but fish poor quality."
11 March 1930	Cowlitz River	WDF (1931) SR-2: p. 244	Henderson (Kelso and Rainier) "Smelt still very plentiful, quantities going out by trucks in all directions. Smelt said to be rather a poor quality."
12 March 1930	Cowlitz River	WDF (1931) SR-2: p. 244	Lee (Kelso above Toledo) "Lots of smelt in river, many people from all over western part of state here."
13 March 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 3	SMELT RUN IS STILL HEAVY. Fish Are Also Reported To Have Entered Lewis River At Woodland. While further up the Cowlitz river than on previous days of the run, the smelt fishermen were continuing to make heavy catches, sufficient to supply the demands of the market, which it is reported by the Columbia River Smelt Company here, to be fair and a run of smelt is reported in the Lewis river at Woodland. Fishing is now near Rock Point, where motorists on the Pacific highway north of Kelso can see the dippers busy loading their boats with fish. Shipments to Portland, Seattle and eastern points are continuing heavy, in order to supply the market demands at present. Fishermen report a new run of smelt entered the Cowlitz Wednesday. But water conditions are not the best for taking smelt and they are largely operating in the upper river sections.
13 March 1930	Cowlitz River Lewis River	WDF (1931) SR-2: p. 248	Lee (Woodland and Lewis and Cowlitz rivers) "Small run of smelt hit Lewis. Fewer fish in Cowlitz today, run up near to dead line."
14 March 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 2-3	Fisher Shipping Smelt to Hawaii. Cowlitz River Supplies Five Thousand Pounds Of Fish Sent From Kelso so To Meet Demand [sic]. R. R. Fisher of Kelso, is shipping 5,000 pounds or 100 boxes of smelt to fill an order from Honolulu, the fish leaving for the Hawaiian Islands on the refrigerator steamer Willimena from Portland on March 20. They are being what is termed hard frozen. If the smelt run is favorable an order for 25,000 pounds will be filled April 1, when they will be shipped from Seattle. While the Cowlitz river smelt have been shipped from Kelso regularly for years to various parts of Washington, Idaho, Oregon, Montana, California and Nevada, this order from the Hawaiian Islands is a new one. There are still plenty of smelt in the Cowlitz and likewise the run in the Lewis river at Woodland is reported to be heavy.
15 March 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 7	SMELT RUN IS STILL STRONG. Shipments Out Of Kelso During Season Have Been Heavy. This being the closed season on smelt, the sea gulls are doing the only fishing until eight o'clock tonight and from their actions it is apparent that there were lots of smelt in the Cowlitz river Saturday. So far this season the Columbia River Smelt Company is reported to have sent out an average of from six to eight tons of the little fish per day, and this is in addition to the vast numbers sent out by the others since the run

Date	Place	Source	Quote
			started. How long the fish will remain is uncertain. As they proceed farther up the stream, the fishermen find it more difficult to get them in large numbers.
15 March 1930	Cowlitz River Lewis River	WDF (1931) SR-2: p. 248	Henderson (Woodland and vicinity) "...Found good light run of smelt in Lewis river. Still plenty of smelt in Cowlitz."
15 March 1930	Cowlitz River Lewis River	WDF (1931) SR-2: p. 249	Hufford (Kelso, Kalama, Woodland, Vancouver, Cascades and Stevenson) "Smelt seem to still be going up Lewis river. Smelt above Toledo in Cowlitz."
17 March 1930	Cowlitz River Lewis River	<i>The Daily Tribune and Kelsonian</i> , p. 8, col. 3	CROWD OUT TO DIP UP SMELT. Anglers Enter Catches in Hope of Landing Fine Prizes Offered. Smelt fishing continued Sunday and Monday with some heavy catches being made in the Cowlitz river above Kelso by the commercial fishermen, while some of the "amateur" dippers also tried their hand over the weekend at hauling in some of the fish. The smelt are now running in the Lewis river and Sunday large crowds gathered on that river near the Pacific highway out of Woodland to watch the fishermen dip the smelt there. Shipments out of Kelso continue heavy at this time. Around Castle Rock there were a number of amateur dippers reported busy Sunday. They were taking fairly good sized catches and the children were having plenty of sport. They were catching them for use at home.
17 March 1930	Cowlitz River	WDF (1931) SR-2: p. 249	Lee (Cowlitz river from Kelso to Castle Rock) "Smelt run in Cowlitz beginning to drop back."
17 March 1930	Lewis River	WDF (1931) SR-2: p. 249	Henderson (Kalama and down river 20 miles) "Smelt about all moved to Lewis river. No fish running in Columbia so far."
18 March 1930	Sandy River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 2-3	No Foolin'! Fishin' In Sandy For Smelt Is Great. PORTLAND, Ore., March 18—(UP)—Two hundred thousand persons prepared Tuesday [18 March] to make up the world's biggest fishing party—the smelt are in the Sandy river. The horde made its annual entry into the river, which empties into the Columbia twelve miles above Portland, during the night and reports were that the run is heavy. By Wednesday thousands of persons, men, women and children, will line the banks of the stream for a space of a mile and a half. Their "lure" will consist of nets running all the way from "boughten" ones, to bird cages, popcorn poppers, gunnysacks, lace curtains, mounted on the ends of sticks. The fish will be dipped by the bucketfuls. From the appearance of the run there will be plenty for everyone' millions will be taken during the next two weeks. P.S. (This story is no exaggeration, believe it or not.)
18 March 1930	Cowlitz River Lewis River	WDF (1931) SR-2: p. 249	Lee (Columbia River from Kalama to below Longview) "Still some smelt in Woodlawn [sic]. Smelt run over in the Cowlitz ..."
18 March 1930	Lewis River	WDF (1931) SR-2: p. 249	Henderson (Kalama to Kelso to Woodland) "Plenty of smelt at Woodland. Fishermen seem to think smelt run about over as Sandy river run is always at tail end."
19 March 1930	Cowlitz River Lewis River	<i>The Daily Tribune and Kelsonian</i> , p. 8, col. 5	CATCH SMELT IN COWLITZ. Fishermen Report Consistent Dipping In Local Stream; Lewis Has Fish. Smelt fishing is still reported consistently good in the Cowlitz river with a number of fishermen out daily loading their boats with the tiny fish, with good sized shipments being made each day from this city through the Columbia River

Date	Place	Source	Quote
			Smelt company, although a run of smelt has been reported in the Lewis river. Most of the fishing is being done up the Cowlitz, above Kelso, where the river narrows down and dipping is much easier for the schools of fish are closer together.
19 March 1930	Lewis River	<i>The Daily Tribune and Kelsonian</i> , p. 8, col. 5	Smelt In Lewis. WOODLAND. March 19—Smelt are again in the Lewis river in commercial quantities, the Columbia River Smelt Company now being busy catching and shipping from this point. There are also a number of Kelso boats her[e] besides the local fishermen who are busy. In 1927 and 1928 the smelt missed the Cowlitz entirely but went up there last year and again this year, while in the same years a big business was done here, but in 1929 few smelt came into the local stream. Many years ago, old timers say, the delectable fish came up the Lewis about once in seven years. However, in the last six years, smelt have come up every year enough for people to supply their needs besides the two commercial years of 1927 and 1928.
19 March 1930	Cowlitz River	WDF (1931) SR-2: p. 249	Hufford (Stevenson, Vancouver, Kalama, Kelso) “A new run of smelt hit in the Cowlitz on Wednesday [19 March] and is a very good run and fine fish.”
20 March 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 6	FRESH RUN OF SMELT IS HERE. Fishermen and Gulls Busy As Fresh Arrivals Head Up Cowlitz. Again Thursday the Cowlitz river presented a scene of annual activity to say the least, with sea gulls winging overhead and then diving quickly to the surface of the stream and back into the air at a dizzy pace, carrying its victim, another smelt partially swallowed. But that was not the only cause for activity – the fishermen were speeding up the river to near Rocky Point, where they were dipping smelt in large quantities and getting their boats loaded in record time, it is reported. Fishing continued good in the Cowlitz for the smelt dippers, who are doing a big business with shipments reported still fair, although the market is being supplied at all times now and the prices declared to be low.
21 March 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 6-7	Clouds of Seagulls Show Schools of Smelt In River. According to reports of Kelso fishermen, the Cowlitz river continues to be fairly alive with smelt, although no fishing is allowed Friday and up until Saturday night, this being a closed period each week, and while the waters continue fairly filled with the fish, the air over the stream continues to be clouded with seagulls, preying upon the tiny creatures. But a warning of the nearing of the end of the smelt fishing season came during the night when the Cowlitz river began to rise rapidly and continued Friday morning, as the heavy rains and warm temperatures of the past several days started to melt the snow in the foothills and send floods of water into upper portions of the stream, so that should the present weather continue, the smelt season will soon be at an end. Notwithstanding, new runs of smelt continued to enter the Cowlitz daily and the seagulls hovered close over the surface of the river, ever a signal of the presence of the fish.
21 March 1930	Cowlitz River	WDF (1931) SR-2: p. 253	Lee (Cowlitz river to Tokeland) “Smelt run over in Cowlitz river, grade of fish very poor.”
21 March 1930	Cowlitz River	WDF (1931) SR-2: p.	Henderson (Kelso and Woodland) “Smelt still plentiful in Cowlitz and Lewis rivers.”

Date	Place	Source	Quote
	Lewis River	253	
22 March 1930	Cowlitz River Lewis River	WDF (1931) SR-2: p. 253	Henderson (Woodland) "Smelt run at Kelso and Lewis river seems to be as good as a week ago."
23 March 1930	Cowlitz River Lewis River	WDF (1931) SR-2: p. 253	Henderson (Woodland) "Still plenty of smelt. Fish seem scattered all over river in Lewis and Cowlitz – no big catches, but plenty. ..."
24 March 1930	Cowlitz River Lewis River Sandy River	<i>The Daily Tribune and Kelsonian</i> , p. 8, col. 3	REPORT BLACK GULLS ARRIVE. Smelt Bring Siberian or Alaska Variety Into Cowlitz River. Smelt fishing is continuing good and fine catches are reported in the Cowlitz river near Peterson's Eddy above Ostrander and in addition observers along the river have noted the presence of some sea gulls with black heads and necks and black wings which are reported to be Siberian or Alaskan gulls. Captain A. E. Hayes reported Monday morning that a large number of them have appeared in the river over the weekend. They otherwise resemble the native gulls. Both of the kinds apparently work together in harmony and were having plenty of action in securing smelt. Runs of smelt continue to be reported in the Lewis river and in the Sandy river. This year the little fish are especially plentiful. The fishermen are having no trouble in keeping a supply ready to meet all orders, it is announced.
24 March 1930		WDF (1931) SR-2: p. 253	Henderson (Rainier, Oregon and Kalama) "Smelt run continues good, but fish scatter."
25 March 1930		<i>Oregonian</i> , p. 8, col. 1	SMELT AND THE SANDY RIVER. It should be evident by now, as it is, that the plan to finance an improvement of the mouth of the Sandy river, by funds derived from a small license fee for the public dipping of smelt, is more than slightly askew. At the present rate of accumulation fifteen or twenty years would be required to provide the necessary amounts, and such a length of time, it is agreed, is preposterous. Not only that, but the prevailing restrictions on smelt dipping are so curiously shaped as to serve to drive people away from the Sandy, when the smelt migration is on, and not toward it. Let us see. The public license fee for smelt netting in the Sandy is 50 cents, entitling the holder to take 25 pounds of the fish a day. The commercial license fee is \$1, entitling the holder to take as many fish, thousands of pounds if needful, as he can market. The utterly absurd effect is that the holder of a 50 cent license, assuming that he but takes one trip to the river, pays 2 cents a pound for his fish, counting only the cost of the license, while fresh, flopping smelt are available in the pens and floats of the commercial fishermen at 1 cent a pound or less. A secondary result, which might well have been anticipated, is that non-commercial fishermen, perceiving this, in some instances take out commercial licenses, as is their privilege, and dip as many hundreds of pounds as they desire. This for the extra half dollar. Thus both aims of the original measure are frustrated. The improvement of the mouth of the river is scarcely any nearer, because thousands of people refuse to pay 2 cents a pound for that which may be had for 1, and the purpose of conservation, which was secondary in the framing of the law, is made ridiculous by the low commercial license fee. Let us here declare our conviction, as a newspaper long

Date	Place	Source	Quote
			associated with the cause of conservation that the smelt run in the Sandy, if the mouth of the river is improved, is in no danger whatever of extinction under any reasonable law. No more than the fringe of the run, along the banks, is dipped at any time. An unreasonable and illogical law not only deprives citizens of the recreation to which they were accustomed, the economic value of the fish they were wont to smoke, preserve and can, but actually delays the time when the river may be caused to flow unrestricted, through the deep channel, into the Columbia. It is a startling illustration of conservation standing one foot on another, unable to proceed. Two things are needful, and should be embodied in remedial legislation. The commercial license fee should be sharply raised, and the proceeds thereof should enter the Sandy river improvement fund together with the non-commercial fees. Such a license fee for commercial fishing would prevent the exploitation of commercial licenses by non-commercial fishermen, keep out the irresponsible, and make the run profitable to men that paid the fee. The second necessity is that the poundage limit for public licenses should be raised to not less than fifty pounds per day, making it feasible for citizens to visit the river for a supply worth canning, drying or salting, and bringing the returns from such a license somewhere within the scope of the actual commercial price of the fish on the river bank. These matters are not unimportant, nor are these remedies vague. When the remedies are applied the rush to the Sandy will be as great as ever, or nearly so, and the Sandy river improvement fund should mount rapidly. Again it is emphasized that that the original purpose of the license law and poundage provision was to finance a deepening of the channel at the mouth, and that while conservation should be practiced it at least should be consistent and sensible, and not a hindrance to its own objectives.
25 March 1930	Cowlitz River Lewis River	WDF (1931) SR-2: p. 253	Henderson (Kalama to Vancouver) "Still plenty of smelt in Lewis and Cowlitz rivers."
26 March 1930	Cowlitz River Lewis River	WDF (1931) SR-2: p. 253	Henderson (Kelso from Vancouver) "Still plenty of smelt in Lewis and Cowlitz. Fishermen getting fewer."
27 March 1930	Cowlitz River Lewis River Kalama River Sandy River Cascade Locks	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 6-7	Smelt Are Setting Records This Year. Walter Hufford, of State Fisheries Department, Says Situation Is Decidedly Unusual. Walter Hufford, district supervisor of state fisheries, who was in Kelso Thursday, reports that the smelt run this year is breaking all previous records and so far no explanation has been reached as to the cause. The smelt are not only still in the Cowlitz river at Kelso and above, he says, but he reports there are plenty in the Lewis river and Thursday [27 March] there was a run of them in the Kalama river. They are seldom in the Kalama in large numbers, he adds. Likewise, the Sandy river in Oregon has a heavy run of smelt and before he left his home town of Stevenson they were dipping smelt there in large numbers out of the Columbia, as they reached the Cascade locks. This is something decidedly unusual. The smelt are not only more plentiful than ever but are in all the streams at the same time. He says that once, while in Kelso this season, he reported that the run had passed Peterson's eddy in

Date	Place	Source	Quote
			the Cowlitz and appeared to be dropping back. The run seemed to be over. But the next day a new run came. Just what is happening no one seems to know but the fact is outstanding that they are setting new marks and are in 11 of the streams at the same time. The state is seeking to find some cause. For two years they did not enter the Cowlitz and were light elsewhere. Some think they are now making up for lost time.
29 March 1930	Lewis River	WDF (1931) SR-2: p. 256	Henderson (Kelso to Woodland) "Lewis river seems to have plenty of smelt yet."
31 March 1930	Lewis River	WDF (1931) SR-2: p. 256	Henderson (Kalama and St. Helens) "Woodland smelt fishermen report run of fish still good."
March 1930		<i>Pacific Fisherman</i> 28 (4): 38.	COLUMBIA RIVER SMELT RUN. The Columbia River smelt run began to move into the Cowlitz River about the middle of February, with conditions appearing about normal. The smelt had been present in the main river for some time and ran in good volume of Grays River and Deep River early in February.
2 April 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 6	SMELT RUN IN COWLITZ REPORTED MAKING RECORD. Although the smelt have been in the Cowlitz river for a month, a fresh run was reported in the stream Wednesday morning. A run of smelt off Stella in the Columbia river was reported Sunday. This is believed to be the same run. The fishermen report that the smelt are remaining unusually long this year and the runs have been exceptionally heavy.
2 April 1930	Cowlitz River Lewis River	WDF (1931) SR-2: p. 256	Henderson (from Kalama and Longview) "Smelt about done in Lewis and Cowlitz."
April 1930		<i>Pacific Fisherman</i> 28 (5): 47.	SMELT RUN EXCELLENT. The smelt run in the Cowlitz River, Wash., as well as the Lewis River and the Sandy River, which support minor runs, continued well through March, developing, such volume as to make the fishery a distinct success. Large quantities of smelt were shipped from Kelso, Wash., for a period of several weeks.
1931			
4 November 1930		<i>Morning Oregonian</i> , p. 9, col. 3-4	GLIMPSES OF OREGON COUNTRY. ...DIPPING SMELT FROM THE SANDY RIVER. This is fact and not fiction: A certain Portlander, with a yen for figures, set out to count the smelt in the annual run up the Sandy river, glacial stream which enters the Columbia river 16 miles east of Portland. The calculator scribbled and scribbled and finally gave up the ghost when the run had reached its crest. His conclusion: That sufficient smelt had entered the Sandy to provide three, or fish enough for a meal, for every person in the world. And the run continued two weeks after he stopped figuring. The annual smelt run up the Sandy is one of nature's strangest phenomena and is not duplicated elsewhere in the 48 states. Usually in March the smelt enter the mouth of the Columbia from the ocean, work slowly up the Columbia for several weeks, and in the latter part of March or early April begin their ascent up the Sandy river. There are literally billions of the small fishes, so thick that any man or woman or child with any sort of receptacle can scoop them out of the stream. The smelt is related to the salmon or the trout, ranges from seven to ten inches long, resembles a young trout, and is

Date	Place	Source	Quote
			considered America's finest tasting fish by many authorities. Ranging from the Columbia river on the south to Alaska on the north, the smelt is known by the Alaskan Indian name, "Eulachon," and is called the "Ooligan," and the "Hooligan." The fish is not found on the east coast. Hordes of the Columbia river smelt migrate up the Cowlitz river in Washington, but not to the extent with which they charge the Sandy. Arrival of the smelt in the Columbia and later at the Sandy is announced by banner headlines in the newspapers. This is a signal for Oregonians to get their bird cages, nets and dishpans ready; thence a trip to the Sandy, where, with thousands of similarly bent fishermen, they scoop out the fish by the ton. Formerly the fish were taken out by the gunnysack full to be salted down or used as fertilizer, but now the catch is limited to 25 pounds per person.
12 December 1930		WDF (1931) SR-2: p. 353	McDonough (Kalama) "No smelt being caught that I know of. ..."
13 December 1930	Columbia River	WDF (1931) SR-2: p. 353	McDonough (Kalama and Kelso) "A few smelt, about 47 lbs., sold to buyers today. These were the first for the winter."
15 December 1930	Columbia River at Cathlamet	WDF (1931) SR-2: p. 356	McDonough (Cathlamet) "There are about 10 boats fishing smelt in this locality – average catch per boat is 15 lbs."
16 December 1930	Columbia River at Cathlamet	WDF (1931) SR-2: p. 356	McDonough (Cathlamet) "From what I hear there will be quite a few boats that will fish for smelt from Cathlamet to Oak Point this winter."
19 December 1930	Columbia River	<i>Morning Oregonian</i> , p. 1, col. 2	SMELT RUN IN COLUMBIA. First Fish of Season Caught off Clatskanie for Markets. ASTORIA, Or., Dec. 18.—(Special.)—What is believed to be the first seasonal run of Columbia river smelt was brought to local markets today. The fish came from Clatskanie.
22 December 1930	Columbia River at Cathlamet	WDF (1931) SR-2: p. 358	McDonough (Skamokawa and Cathlamet) "Smelt are coming better ..."
24 December 1930	Columbia River at Cowlitz River mouth Grays River section	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 3	SMELT VANGUARD FOUND IN RIVER. Kelso fishermen today are concentrating their efforts, on the mouth of the Cowlitz river, where, reports indicate that a small winter run of smelt have been located. A small amount of the fish have been brought to Kelso. Reports earlier in the week indicated a light run in the Grays river section where some were dipped. Other schools of smelt have been found in the Columbia for the past few days. It is hoped the run will now increase and the fish reach points above Ostrander.
25 December 1930	Cowlitz River Columbia River Grays River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 4	FIRST SMELT REPORTED IN THE COWLITZ. Tiny Food Fish Enter Mouth of River; Fishermen Expect Good Run This Year. Large numbers of seagulls, the true barometer by which the smelt run can be judged, today hovered over the Cowlitz river as reports were received that the first winter run of the tiny food fish was in the mouth of the river. Kelso fishermen today were preparing to start dipping and if the run continues it is expected that some small amounts may be placed on the market soon. The run was first brought to attention early this week when some fish were dipped in the Grays River, then the schools were located in the Columbia and early yesterday local fishermen brought tidings of the start of a run in the Cowlitz. Many fishermen headed for the mouth

Date	Place	Source	Quote
			of the river to get any fishing that might be possible at that time. So far the run has been light and few fish have been dipped. But fishermen are expecting a good year as soon as the run picks up.
26 December 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col .4	WINTER RUN OF SMELT IN RIVER. There are smelt in the Cowlitz river today Kelso fishermen report, but the run is scattered and the catches are being made as yet by dippers who are out on the river trying to locate sizable schools of the small fish to catch. The fish are not believed to be very far up the Cowlitz, hovering around the mouth of the stream, where fishermen are keeping close tab on the whereabouts of the winter run in an effort to get some good dipping while the river is not too high for real fishing.
26 December 1930	Columbia River at Cathlamet	WDF (1931) SR-2: p. 358	McDonough (Cathlamet) "... The smelt are coming better, the price paid fishermen is 8c per lb."
29 December 1930	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 3, col .4	Smelt Run in Cowlitz Light. Conflicting reports were received here today regarding the smelt run that is supposed to be in the Cowlitz river—some fishermen reporting catches of smelt near the Olson bar in the Cowlitz, while others indicate that the run has left the Cowlitz and now smelt are being caught near Clatskanie, Oregon, in the Columbia river. But whether or not the run of smelt is in the Cowlitz river, some fishermen are bringing in small catches that they claim they have dipped in the river near here. However, it is believed that the run is light so far.
29 December 1930	Columbia River Cowlitz River	WDF (1931) SR-2: p. 360	Hufford (Vancouver, Kalama, Kelso) "Smelt being taken by gill net down river, but only 6 boxes taken so far in the Cowlitz River."
29 December 1930	Columbia River at Cathlamet	WDF (1931) SR-2: p. 360	McDonough (Cathlamet) "Smelt fishermen here catching about 3 boxes to the tide. ..."
29 December 1930	Cowlitz River	WDF (1931) SR-2: p. 360	Henderson (Kelso) "A few pounds of smelt taken from Cowlitz."
30 December 1930	Cowlitz River	WDF (1931) SR-2: p. 361	Hufford (Kelso, Longview and Cowlitz River) "Less than a box of smelt in the Cowlitz today."
31 December 1930	Cowlitz River, WA	<i>Morning Oregonian</i> , p. 5, col. 2	Run of Smelt Light. KELSO, Wash., Dec. 30.—(Special.)—Fishermen are dipping a few boxes of Columbia river smelt in the Cowlitz river each night, but the mid-winter run of the fish is smaller than usual this year, and the fish soon will be dispersed. The main run of the smelt does not come into the Cowlitz river ordinarily until late in February.
31 December 1930	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	COLD SPELL CUTS VEGETABLE SUPPLY. ... Columbia River Smelt in Market With Other Fish Varieties Holding Up Well. ... Fish markets are well supplied with Columbia river smelt at the top of the popularity list. ... Fresh Fish. ... Columbia river smelt, lb. 20
31 December 1930		WDF (1931) SR-2: p. 361	Hufford (Kelso, Longview, Kalama and Vancouver) "No smelt in the Cowlitz and gill netters are having trouble with nets freezing."
5 January 1931	Columbia River	WDF (1931) SR-2: p. 363	Hufford (Vancouver, Kalama, Kelso, Longview) "No smelt in the Cowlitz and very few taken from the Columbia."

Date	Place	Source	Quote
5 January 1931	Columbia River at Cathlamet	WDF (1931) SR-2: p. 363	McDonough (Cathlamet) "Smelt fishermen catching 15 to 20 lbs. of smelt to a tide. ..."
6 January 1931	Columbia River at Cathlamet	WDF (1931) SR-2: p. 363	McDonough (Cathlamet) "No improvement in the catch of ... smelt."
6 January 1931	Columbia River	WDF (1931) SR-2: p. 363	Henderson (Kelso) "Smelt in small quantities being caught by gill netters – none yet in Cowlitz of Lewis rivers."
8 January 1931	Columbia River	WDF (1931) SR-2: p. 363	Henderson (Vancouver to Cathlamet) "Light catches of smelt reported from all fishermen with whom I talked."
12 January 1931	Columbia River	WDF (1931) SR-2: p. 365	Henderson (Vancouver, Portland) "Find approximately 50 boxes of smelt per day coming to Portland, which represents nearly entire catch."
14 January 1931	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	EARLY VEGETABLES COME INTO MARKET. Columbia River Smelt and Tasty Chinook Salmon Added to Table Possibilities. ... Fresh Fish. ... Columbia river smelt, lb. 15
14 January 1931	Columbia River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col .5	Report Smelt in River at Stella. According to the reports of the local fishermen the smelt run main body is now off Stella. They are declared this year to have gone into Deep river, which is regarded as unusual, as they generally go into Grays river. There are considerable smelt being taken but the catches are still far behind the demand, it is stated. If the smelt enter the Cowlitz again this year it means there will be heavy catches here.
17 January 1931	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	TOUCH OF SPRING NOTED. ... Fish markets have abundant supplies of Columbia river smelt, at 10 cents a pound, and, occasionally, three pounds for a quarter. ... Fresh Fish. ... Columbia river smelt, lb. 10
20 January 1931	Columbia River	WDF (1931) SR-2: p. 367	Henderson (Kelso to Eagle Cliff) "The run of smelt seems to be better in last two days, dealers report plentiful catches today."
24 January 1931	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 1	SMELT AVAILABLE IN MARKETS TODAY. ... Another sign of spring comes today, when Columbia river smelt are to be had in fish markets, four pounds for a quarter. ... Fresh Fish. ... Columbia river smelt, lb. 08
28 January 1931	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	MANY VEGETABLES HERE FROM SOUTH. ... Fresh Fish. ... Columbia river smelt, lb. 10
29 January 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col .3-4	Big Run of Smelt Is Now in Cowlitz. Little Fish Enter River During Night and Morning Finds Dippers with All Kinds of Gear Busy. After hovering around the mouth of the Cowlitz river for some days and making several starts, only to fall back again, the run of smelt definitely entered the Cowlitz river with a rush Wednesday night [28 January] and Thursday morning, were well up toward Rocky Point while the fishermen were busy dipping them. By noon Thursday all kinds of gear and nets were being used and the river was lined with the fishermen. One boat took in ninety odd boxes during the night and another dipped over sixty boxes. Shipments of smelt have been moving out of Kelso or some time at the rate of a few hundred boxes a day. They were taken with gill nets in the Columbia and were being forwarded to fill orders from customers. Many of the smelt are moving into eastern Washington, Oregon and into

Date	Place	Source	Quote
			Idaho and some were billed to Montana points. It is expected that the trucks loaded with smelt will soon be starting from here for various nearby places. For days past the fishermen have been watching the Cowlitz river waiting for the little fish to enter. Last night they apparently made up their minds to move up the stream. They began with a rush and in a few hours were all over the stream. They were being caught from bank to bank. The millions of little fish fairly crowded up the stream. Boats out in the middle and at various points were soon loaded. They were extremely thick. Those along the banks also caught them. Many and varied were the types of nets being used and all made substantial hauls. Men and women were soon packing the fish away from the river. Although there have been gulls hanging about the river for some time apparently the smelt fooled them. For the fish are well up the river and the sea gulls in numbers have not yet assembled. For the next few days the Cowlitz river is due to be an extremely busy place.
30 January 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 6-7	Smelt Due to Draw Big Weekend Crowd. Run Continues Heavy and Dippers Are Busy; Comment Made as to Absence of Gulls. While the run of smelt in the Cowlitz river which started with a rush Wednesday night, continues to be extremely heavy, the river apparently being filled from bank to bank, the old timers are commenting on the absence of the usual flock of sea gulls and predicting that the weekend will see one grand rush to Kelso and vicinity from all parts of the southwest [sic]. The rush to the smelt run is one of the features of the entry of the smelt into the Cowlitz river each season. Not only the boats in the stream but the dippers along the banks perched on float houses, rafts, and logs as well as rocks have been reaping a rich harvest of the little fish. They are extremely plentiful this year. Saturday night and Sunday the banks are expected to be lined with the people taking fish. This will be especially true if the weather remains as pleasant as at present. The warm days and balmy evenings have permitted the fishermen to ply their tasks in comfort. As usual, a number of novices have had thrills. One woman who had heard of the smelt run went down to a boat house. She was persuaded to take a dip. She did and called for help. There was about forty pounds of smelt in the net and she couldn't get it out of the stream without help. She believes now that the smelt are as plentiful as claimed. Just why the sea gulls are absent is puzzling the men around the depot. For weeks the gulls loitered around the river. Evidently the smelt fooled them. For when they started upstream the gulls were not on hand. Usually the gulls appear to be about as thick as the smelt. But it is predicted the gulls will be on hand before long. In the meantime smelt fishing is the popular pastime now for young and old around Kelso. The smelt also cause much conversation.
31 January 1931	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	NEW GREENS APPEAR ON LOCAL MARKETS. ... Columbia river smelt are available at four pounds for 25 cents.
1 February 1931	Cowlitz River	WDF (1931) SR-2: p. 370	Stetson (Kelso, Cowlitz, Woodland and Lewis River) "It looks like a new run is coming into the Cowlitz River as seagulls are all down the river fishing. Fishermen are fishing

Date	Place	Source	Quote
			just above the bridge in Kelso and loading their boats. Heard smelt were in Lewis River but upon investigation found no smelt there. New boats and fishermen coming in today.”
1 February 1931	Cowlitz River	WDF (1931) SR-2: p. 370	Henderson (Kelso and Cowlitz River) “A great lot of people fishing from banks for their own use. Heard new run of smelt reported. Everybody everywhere playing with smelt.”
2 February 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 3	CROWDS TURN OUT TO CATCH SMELT. Sunday saw a great crowd of people fishing for smelt in the Cowlitz river in addition to the regular commercial fishermen and while a good many were caught in the vicinity of the Kelso bridge and Rocky Point, the large catches were made in the vicinity of Ostrander. Monday saw a great number of boxes being shipped out while Sunday night hundreds of boxes moved out to various points in Washington and Oregon, some taking truck loads into Eastern Washington and Oregon. Now the fishermen are waiting for the next schools to enter the river. The ones that came in last week did not tarry. They seemed intent on reaching the spawning grounds at once. Instead of lingering for days or perhaps two weeks they made a sudden dash up stream. Sunday many paused on the bridge to watch the fishermen busy in the stream below.
2 February 1931	Cowlitz River	WDF (1931) SR-2: p. 371	Stetson (Cowlitz River from Kelso to Castle Rock and return) “People are using almost anything to catch smelt with. More fishermen came in today. Smelt are all the way from Kelso up to and above Castle Rock.”
3 February 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 6, col. 6	SMELT ARRIVE BUT NO GULLS. Run in Cowlitz Continues Heavy; Fish Also Moving Up Columbia. Smelt are in the Cowlitz river in large numbers and big catches are being made all the way from below Kelso to above Ostrander. But the big mystery now is where the sea gulls are holding forth as only small flocks of them are in the Cowlitz. Fishermen report that the smelt are also moving up the Columbia river and it is reported they are starting up the Lewis river. They are also making their way toward the Sandy river above Portland. Paul Plebuch who ships smelt to all parts of the Northwest reports that he had two newcomers to this section out with him Monday night. They got the surprise of their lives when they started to dip, not believing so many fish could be gathered in one scoop.
4 February 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 6, col. 8	Report Two Smelt Dippers Get Wet. ... The smelt are reported to be extremely plentiful in the Cowlitz. Big catches are being made, it is stated, and the fish are being shipped broadcast. But as yet the sea gulls have not appeared.
4 February 1931	Cowlitz River	WDF (1931) SR-2: p. 371	Stetson (Cowlitz River from Kelso to Castle Rock and return) “More fishermen coming in every day. Smelt running strong. Trains and trucks going out loaded. Smelt stacked everywhere.”
5 February 1931	Cowlitz River	WDF (1931) SR-2: p. 371	Stetson (Kelso, Cowlitz River to Stoney Point, Ostrander and return) “Smelt still running strong. Boats coming in loaded. Fishermen taking good care of smelt – no waste.”
6 February 1931	Cowlitz River	WDF (1931) SR-2: p. 371	Stetson (Cowlitz River from Kelso to and above Castle Rock and return: Kelso to Petersen’s Eddy and return) :There was a stream of smelt going all day up the river along both shores from Petersen’s Eddy to above Castle Rock.”

Date	Place	Source	Quote
6 February 1931	Cowlitz River	WDF (1931) SR-2: p. 371	Lee (Kelso and Cowlitz River) “ Very heavy run of smelt on, fishermen think the run is at its peak.”
6 February 1931	Cowlitz River	WDF (1931) SR-2: p. 371	Henderson (Kelso, up Cowlitz River and return) “Hundreds of people from distant points fishing. Heavy run of smelt.”
7 February 1931	Cowlitz River	WDF (1931) SR-2: p. 371	Stetson (Cowlitz River from Kelso to above Castle Rock and return) “Smelt still running strong.”
8 February 1931	Cowlitz River	WDF (1931) SR-2: p. 372	Stetson (Cowlitz River from Kelso to above Castle Rock) “Smelt still running strong. Commercial fishermen coming in with boat loads.”
8 February 1931	Cowlitz River	WDF (1931) SR-2: p. 372	Lee (Kelso to Toledo) “Big run of smelt – lots of fishermen, all got plenty of fish. Boats got about 100 boxes to the trip and most of them made two trips today all were sold by tonight.”
9 February 1931	Cowlitz River	WDF (1931) SR-2: p. 372	Henderson (Kelso, Vancouver, Ridgefield) “... There are still smelt but reported scattered.”
9 February 1931	Cowlitz River	WDF (1931) SR-2: p. 372	Lee (Kelso to Toledo) “The fish have gotten to about three miles below Toledo. Found that a large run is still coming at the mouth of the Cowlitz River. Market and prices are better at the peak of the run than last year and the fishermen have no trouble in selling their fish.”
9 February 1931	Cowlitz River	WDF (1931) SR-2: p. 373	Stetson (Cowlitz River from Kelso to Castle Rock and up to Petersen’s Eddy) “Not many fishing for their own use today. New run of smelt coming in.”
10 February 1931	Cowlitz River	WDF (1931) SR-2: p. 373	Stetson (Cowlitz River to Petersen’s Eddy) “More new fishermen coming in – fishermen are fishing from Kelso up to Petersen’s Eddy. Smelt still running strong – some boats are loaded as many as three times a day.”
10 February 1931	Cowlitz River	WDF (1931) SR-2: p. 373	Henderson (Kelso and Cowlitz River) “Smelt still very plentiful with prices around 50¢ per box – a lot of wrangling among dealers.”
11 February 1931	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	VEGETABLE SUPPLY FOUND TO BE GOOD. ... Fish markets are particularly well supplied. Columbia river smelt are now selling two pounds for a dime, and many markets make this amount the minimum purchase. ... Fresh Fish. ... Columbia river smelt, 2 lbs. 10
11 February 1931	Cowlitz River	WDF (1931) SR-2: p. 373	Lee (Cowlitz River from Kelso to above Toledo) “Lots of smelt still coming up river at the mouth. Small runs reported in the Lewis River near the mouth. The market is still good and the boats are getting good catches.”
11 February 1931	Cowlitz River	WDF (1931) SR-2: p. 373	Stetson (Cowlitz River from Kelso to Castle Rock – Kelso to Petersen’s Eddy) “Smelt run is not so good at Kelso but fishermen are getting boat loads just below Petersen’s Eddy.”
11 February 1931	Cowlitz River	WDF (1931) SR-2: p. 373	Henderson (Kelso and Cowlitz River) “Run of smelt still strong with indications of scattering.”
12 February 1931	Cowlitz River	WDF (1931) SR-2: p. 373	Lee (Cowlitz River) “Smelt have stopped running at mouth of the Cowlitz but still lots above Kelso bridge. Boats average about 90 to 100 boxes – fish in good condition –

Date	Place	Source	Quote
			market good.”
12 February 1931	Cowlitz River	WDF (1931) SR-2: p. 373	Stetson (Cowlitz River to Castle Rock and Kelso to mouth of Cowlitz) “Smelt run not so good. Fishermen all fishing pretty well up the river near the dead line.”
13 February 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 5	DRY ICE MAY AID FISHERMEN. New Methods for Handling Smelt Shipments Being Given Test. While it is reported many smelt are still in the Cowlitz river, this is the closed period of the week and there is no fishing permitted until eight o’clock Sunday morning when it is lawful again to take them, but the catch made up to last night is being shipped out to the markets. Again on Sunday a big crowd is expected to fish for them as the weekend always brings in an array of people from outside who come down to take the smelt. Catches are not so heavy, but there are still plenty to meet the market demands. It is reported that in the Columbia river they are so thick that the big ships are leaving many dead ones in their wake as they plow through a school of them. Kenneth Fisher, well known local smelt fisherman, is reported to be experimenting with preserving the smelt in dry ice. Indications are the move is successful. It is possible that if the plan can be worked out and dry ice does not cost too much the smelt may be shipped as far as New York. To this time the shipments sent long distances are arriving in good shape.
13 February 1931	Cowlitz River	WDF (1931) SR-2: p. 373	Henderson (Cowlitz River to Olequa and to Castle Rock) “Still plenty of smelt. Fishing letting up some.”
13 February 1931	Cowlitz River	WDF (1931) SR-2: p. 373	Stetson (Cowlitz River from Kelso to Toledo, Vader, Winlock, Napavine and return) “Smelt still coming in good – quite a few dead ones along the shores.”
14 February 1931	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	MORE VEGETABLES COMING TO MARKET. Spring Chinook Salmon and Smelt From Columbia River Now in Evidence Here. ... Fresh Fish. ... Columbia river smelt, 2 lbs. 10
14 February 1931	Columbia River	WDF (1931) SR-2: p. 373	Stetson (Cowlitz River to Toledo – Kelso to Petersen’s Eddy) “Had a report from a fishermen today that the Columbia River was full of smelt from the mouth of the Cowlitz down to Cathlamet.”
14 February 1931	Columbia River	WDF (1931) SR-2: p. 373	Henderson (up Cowlitz River) “There is a report of more smelt coming into the Columbia.”
15 February 1931	Columbia River	WDF (1931) SR-2: p. 376	Lee (Kelso and Columbia River) “Found from inquiry that the run is still large far down the Columbia. Fishermen are still getting good catches and the prices still remain at \$1.00 per box.”
15 February 1931	Cowlitz River	WDF (1931) SR-2: p. 376	Stetson (Cowlitz River from Kelso to Castle Rock) “Boats coming in loaded. Price 35¢ to per box fishermen. Smelt still coming in Cowlitz strong, but they are not as large as at the first of the run.”
15 February 1931	Cowlitz River	WDF (1931) SR-2: p. 376	Henderson (Kelso and up Cowlitz) “Still strong run of smelt – not so many fishermen.”
16 February 1931		<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 4-5	Propose Half Cent Tax Levy on Smelt. ... the Washington and Oregon joint legislation conference committees at Portland, Saturday, after an all day hearing, agreed to put a tax

Date	Place	Source	Quote
			of half a cent a pound on all smelt caught for commercial purposes and to fix a \$5 commercial smelt fishing fee which it is hoped will bring more protection. The plan to limit the catch of smelt to twenty-five pounds for private purposes was rejected. ... the Cowlitz river smelt run is one of the attractions of the stream that draws state wide interest. For it was testified by Kenneth Fisher of Kelso that from 25,000 to 50,000 boxes of smelt, each weighing fifty pounds is shipped from Kelso each year. This means from around 700 to 1,250 tons move out of here. As the smelt are estimated to run from eight to nine to the pound the statisticians can give an idea of just how prolific the run of smelt in this stream is. Likewise it might be added that many dip for their own use. This has been particularly true this season. The river has been lined each day and actually crowded on Sunday with people, whole families of them, fishing smelt for their own use. They have come from near and far to get to the fish to eat. There is some who question the effects of the poundage tax on smelt as they insist the bootlegger will be abroad as usual and these smelt on which the tax is not paid will have an advantage in an outside market of twenty-five cents a box. The tax, however, is expected to provide funds for additional protection. ...
16 February 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 6, col. 2	RUN OF SMELT DRAWS CROWDS. Sunday Sees Cowlitz Bank Lined with Dippers Taking Fish Home. Smelt were dipped by fishermen over the week end in great quantities from the Cowlitz river and some fine catches were made as the little fish are extremely thick in the little stream and have reached as far as Toledo, which is declared to be unusual. The run gets up that far about every three or four years it is claimed. There is still an absence of sea gulls and this is one of the mysteries of the smelt run this year. The sea gulls are not nearly so numerous as in former years. Sunday the banks of the Cowlitz river were lined with persons dipping for smelt for their own use. The commercial fishermen stop above Ostrander but those taking them for their own use have been taking them all along the banks. In a number of instances the private parties are taking them home and smoking them. In the way they can be preserved for use some time later but the fish are so soft that the usual means of putting up the fish are of no avail.
16 February 1931	Cowlitz River	WDF (1931) SR-2: p. 376	Lee (Cowlitz River from mouth to Castle Rock) "A new run of smelt in mouth of river and a big run still in the Cowlitz. Fishermen say that this is the largest run in years."
16 February 1931	Cowlitz River	WDF (1931) SR-2: p. 376	Stetson (Cowlitz River from Kelso to Castle Rock and Petersen's Eddy) "Smelt dippers still getting plenty of smelt. Not many dipping for own use today. Smelt still running strong."
16 February 1931		WDF (1931) SR-2: p. 377	Henderson (Kelso and Vancouver) "Smelt catch continues good. More rain with conditions ideal for smelt run."
17 February 1931	Cowlitz River	WDF (1931) SR-2: p. 377	Lee (Kelso and Cowlitz River) "Still a large run of smelt in the river."
17 February 1931	Cowlitz River	WDF (1931) SR-2: p.	Stetson (Cowlitz River from Kelso to Castle Rock) "A new run of smelt is coming into

Date	Place	Source	Quote
		377	the Cowlitz. Dippers are getting half a dip net full at a lift.”
17 February 1931	Cowlitz River	WDF (1931) SR-2: p. 377	Henderson (Vancouver and Kelso) “Still a plentiful run of smelt. ...”
18 February 1931	Cowlitz River	WDF (1931) SR-2: p. 377	Lee (Kelso) “Still lots of fish – the high water has forced the boats to fish along the shore.”
18 February 1931	Cowlitz River	WDF (1931) SR-2: p. 377	Stetson (Cowlitz River to Castle Rock) “New fishermen coming in. Smelt are all over the river. Smelt still going wild – river raising fast.”
18 February 1931	Cowlitz River	WDF (1931) SR-2: p. 377	Henderson (Kelso) “Good catches of smelt today – prices very low. There seem to be more smelt coming in – hundreds of gulls coming.”
19 February 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 3, col. 5	FRESH RUN OF SMELT COMES. High Water Aids Fishermen; Demand Continues to Be Strong. Heavy rains which have caused the streams to swell a little have not interfered with the smelt save to drive them a little closer to the shores and to increase the strength of the current which carries the weak ones out to the Columbia river, is the report of the fishermen who are busy in the Cowlitz taking the little fish. The demand for them is holding firm and in fact shows a little strength because of the arrival of the Lenten season which started Wednesday, known in church circles as Ash Wednesday. A new run of smelt is now in the Cowlitz. Smelt are being shipped long distances by rail and the trucks also are reaching into remote sections. Reports coming back to Kelso are that some of the trucks have not only gone down into Oregon and over to the eastern part of Washington and Oregon but are into Idaho close to the Montana line. The smelt are decidedly plentiful but sea gulls are still scarce. It is reported they are well down the Columbia river where they are finding plenty of food without effort.
19 February 1931	Cowlitz River	WDF (1931) SR-2: p. 377	Lee (Kelso) “Lots of new fish.”
19 February 1931	Cowlitz River	WDF (1931) SR-2: p. 377	Stetson (Cowlitz River from Kelso to Castle Rock) “The high water does not bother the fishermen in getting the smelt, they are coming in with loads. Smelt still running strong.”
19 February 1931	Cowlitz River	WDF (1931) SR-2: p. 377	Henderson (Kelso and up Cowlitz to Castle Rock) “Plenty of smelt every where from Castle rock down. Smelt seem scattered everywhere but good catches taken – sales slowing up.”
20 February 1931	Cowlitz River	WDF (1931) SR-2: p. 377	Stetson (Cowlitz River from Kelso to Toledo) “Lots of smelt going up the river along the shores.”
21 February 1931	Cowlitz River	WDF (1931) SR-2: p. 377	Stetson (Cowlitz River from Kelso to Castle Rock) “Smelt still running well.”
23 February 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 5, col. 1-2	[Best available transcription] Thrills Found in Dipping of Smelt. ... Gulls Now in Columbia Off Cowlitz Mouth. Over the weekend a new run of smelt entered the Cowlitz river, some fishermen report, with the result that the commercial dippers soon had all they could handle and Monday morning an unusually lot of heavy shipments moved out of Kelso. However, it seems that the commercial fishermen are not so numerous as the[y] were for a while when the smelt first started coming into the stream.

Date	Place	Source	Quote
			One Oregon boat was reported to have slipped into the Cowlitz Sunday night, took on a load of smelt and then headed back across the river. ... comment has been caused ... by reason of the absence ... sea gulls over the Cowlitz ... while the smelt run is in ... They are plentiful in the Columbia river off the mouth of the Cowlitz. This, the fishermen sat indicates the smelt run is extremely heavy this year. On this they base their predictions that the run may last for some time yet. They expect the sea gulls to come into the Cowlitz once the fish get ... the Columbia or move farther upstream toward the Sandy river ... Portland.
23 February 1931	Cowlitz River	WDF (1931) SR-2: p. 377	Henderson (Vancouver to Kelso) "Still good runs of good smelt. ..."
24 February 1931	Cowlitz River	WDF (1931) SR-2: p. 377	Henderson (Kelso and Cowlitz River) "Still good runs of smelt. Good catches of smelt today."
26 February 1931		<i>The Daily Tribune and Kelsonian</i> , p. 3, col. 5	SMELT MOVING OUT BY MAIL. Packed in "Dry Ice" Containers Fish Move to Distant Points. ... Smelt are still plentiful in the river. They are going out by train, truck and mail. The Lenten season is helping to hold up the demand for the tasty little fish and many are still coming to Kelso from long distances to fish the smelt for their own use and to distribute them among their neighbors. ...
26 February 1931	Cowlitz River	WDF (1931) SR-2: p. 377	Henderson (Kelso and Cowlitz River) "Good catches continue – prices around here 1¢ per lb. No change for days – the demand normal."
27 February 1931	Cowlitz River	WDF (1931) SR-2: p. 377	Henderson (Cowlitz River and Kelso) "Found no smelt above the Toutle River. Smelt reported at the mouth of the Sandy River."
28 February 1931	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	FRESH VEGETABLES REDUCED IN PRICE. ... Smelt Offered at 5 Cents. ... smelt are only 5 cents a pound, with Sandy river run expected hourly. ... Fresh Fish. ... Columbia river smelt, 2 lbs. 10
28 February 1931	Cowlitz River	WDF (1931) SR-2: p. 377	Henderson (Castle Rock and Kelso) "Run of smelt continues good."
February 1931		<i>Pacific Fisherman</i> 29 (3): 43.	COWLITZ SMELT APPEAR. The main run of smelt appeared to have struck the Cowlitz River, Wash., shortly before the end of January, or somewhat earlier than usual. While smelt had been available in the Columbia River for some weeks, the main production does not come until the fish strike in at the Cowlitz. Quantity shipments of these fine fish to Coast and Eastern points were going forward daily from Kelso and Longview during late January and the early part of February.
1 March 1931	Cowlitz River	WDF (1931) SR-2: p. 380	Henderson (Kelso and Vancouver) "Good catches of smelt this morning."
2 March 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 4, col. 2	SMELT BRING GREAT CROWDS. Sunday Sees Banks of Cowlitz Lined with Visitors from Many Places. Once again the week end saw a record number of people fishing for smelt in the Cowlitz river and they were particularly numerous from the Big Bottom country in Lewis county. They supplemented the people of Kelso and Cowlitz district and many were also on hand from Clark county and not a few cars were observed

Date	Place	Source	Quote
			to have Oregon licenses. There seems to be still a new run of smelt in the Cowlitz river. The fish have been in for more than a month now and apparently are as plentiful as ever. Fishermen who were out after steelheads report that in the narrow places near the bars the smelt seemed to be in a solid mass. Great quantities are being shipped out daily from Kelso. The “dry ice” method is being used more extensively and some of the smelt are being shipped to far distant points. In this section many have taken to smoking them and when this is done properly, it is stated, splendid results have been achieved. At Olympia a bill has been introduced that would levy a \$5 instead of a fee of \$1 each year on commercial fishermen. The joint session of Washington and Oregon legislative committees some time ago urged a half a cent a pound tax. To this there was some opposition owing to the danger of the “smelt bootleggers.” ...
2 March 1931	Cowlitz River	WDF (1931) SR-2: p. 380	Henderson (Portland and Kelso from Vancouver) “Smelt run said to be slowing some.”
3 March 1931	Cowlitz River	WDF (1931) SR-2: p. 380	Henderson (Kelso and Cowlitz River) “Smelt continue to be plentiful.”
4 March 1931	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	SPRING SIGNS SEEN IN FOOD MARKETS. SMELT STILL PLENTIFUL. ... Smelt are as plentiful as ever, though the Sandy river run has not yet been announced. ... Fresh Fish. ... Columbia river smelt, lb. 05
4 March 1931	Cowlitz River	WDF (1931) SR-2: p. 380	Henderson (Chehalis from Kelso) “Run of fish still good with good shipments.”
5 March 1931	Cowlitz River	WDF (1931) SR-2: p. 380	Henderson (Kelso) “Seems to be fresh run of smelt – are still of best quality.”
6 March 1931	Cowlitz River	WDF (1931) SR-2: p. 380	Henderson (Kelso and Cowlitz River) “Smelt run seems to be weakening.”
7 March 1931	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 1	GREEN BEANS NOW FAIRLY PLENTIFUL. ... Fresh Fish. ... Columbia river smelt, lb. 05
7 March 1931	Cowlitz River	WDF (1931) SR-2: p. 380	Henderson (Kelso and Cowlitz smelt fisheries) “Said to be another light run of smelt in the river.”
8 March 1931	Cowlitz River	WDF (1931) SR-2: p. 383	Henderson (Vancouver from Kelso) “Good catch of smelt this morning. There seems to be a light run of new fish coming in.”
9 March 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 5, col. 6	SMELT IN MAD COWLITZ RUSH. With a fresh run of smelt in the Cowlitz river Sunday the fishermen who like to hook the lordly Chinook are worried that the run of smelt which has continued for several weeks will make the salmon fishing difficult. The reason for this is that they claim the Chinook live on smelt, one Chinook haven eleven smelt in its interior when opened. But the smelt have brought in some sea gulls and Monday morning they were up as far as the Kelso bridge across the Cowlitz river. It was only the second time the gulls have come up the river that far. However, large numbers of them are around the mouth of the Cowlitz river where it empties into the Columbia. Dealers report that the smelt are not in such big demand as a short time ago. However,

Date	Place	Source	Quote
			there are a large number of places taking them and Monday several truck loads pulled out of Kelso for various destinations.
9 March 1931	Cowlitz River	WDF (1931) SR-2: p. 383	Henderson (Kelso from Vancouver) "Very much as last week. Smelt still good quality but harder to get."
10 March 1931	Cowlitz River	WDF (1931) SR-2: p. 383	Henderson (Kelso) "Good catches of good smelt still being taken."
11 March 1931	Columbia River	WDF (1931) SR-2: p. 384	Henderson (Kelso to Cathlamet) "More smelt than yesterday."
13 March 1931	Cowlitz River	WDF (1931) SR-2: p. 384	Henderson (Cowlitz River to Castle Rock – Kelso) "Smelt run seems to continue."
14 March 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 8, col. 5-6	Smelt Will Draw Big Sunday Crowd. Sea Gulls Hovering Over River Present Pretty Picture and Interest Tourists Along Pacific Highway. Clouds of sea gulls hovering over the Cowlitz river and reports of the fishermen who are trying for Chinook salmon and steelheads that they are snagging smelt, and smelt are found in the Chinooks when they are caught and cleaned, indicate that the exceptionally long run of smelt in the Cowlitz is continuing. As a result there is due to be a large number of people along the river Sunday to catch more fish as the open season starts again at eight o'clock tonight, Saturday. The river is closed for smelt fishing from eight o'clock Friday morning until eight o'clock Saturday night. Each weekend since the run started, many people have come from far and near to catch the smelt. They are easy to catch with almost any kind of a net and they have been carried away by the auto load. They have been a material help in supplying food for many people. The commercial fishermen have shipped them out if here by the car load and by the truck load. They have been distributed throughout the entire Northwest and as far south as California and east into Montana. Estimates are that the fish have meant from \$30,000 to \$50,000 to Kelso and vicinity. This is considered all the more remarkable as there is no practical method of preserving them on a commercial scale, such as canning or smoking. Individuals smoke many of them and the Indians smoked them in large quantities. With the sea gulls out in large numbers, the smelt fishing always interests tourists who pass along the highway. They show that the smelt are in the river and the smelt are so plentiful that stories of their numbers are met with skepticism. The smelt run eight or more to the pound. A fifty pound box, the ordinary size used, means there are 400 in a box. As 800 boxes would make a car load, then there would be 320,000 in a car. So there are not millions but billions of the smelt in the river, say the experts and this simply sounds unbelievable to one who is not familiar with the smelt.
15 March 1931		WDF (1931) SR-2: p. 386	Henderson (Kelso to Vancouver) "Last night catch of smelt light – indications of end of run."
16 March 1931	Columbia River	WDF (1931) SR-2: p. 386	Hufford (Cascades, McGowan, Vancouver, Washougal) "Smelt in Columbia off Sandy River but not going in the Sandy yet."

Date	Place	Source	Quote
16 March 1931		WDF (1931) SR-2: p. 386	Henderson (Cathlamet, Kelso and Vancouver) "Continuation of smelt run and last night's catch very good quality. Shipments of smelt much lighter."
18 March 1931	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 2	NEW VEGETABLES APPEAR IN MARKET. ... Fresh Fish. ... Columbia river smelt, lb. 05
18 March 1931	Columbia River	WDF (1931) SR-2: p. 386	Henderson (Ilwaco, Kelso, Cathlamet) "Smelt still with us."
19 March 1931	Cowlitz River	WDF (1931) SR-2: p. 386	Hufford (Kalama and Kelso and Cowlitz River) "Smelt run falling off."
19 March 1931	Columbia River	WDF (1931) SR-2: p. 386	Henderson (Cathlamet and Kelso) "From indications great flocks of fish ducks – looks like fresh school of smelt at Eagle Cliff."
20 March 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 4, col. 4	SMELT RUN IN COWLITZ LONG. Fish in River Close to Two Months; Crowds Expected on Sunday. Although the smelt have been in the Cowlitz river for a full seven weeks, an exceptionally long period for recent years, but not by any means a record, they are still plentiful and fishermen report that the catches taken Thursday night just before the closing period, were fresh and firm. In addition, Ira Henderson, deputy state fish inspector, who has come in from the lower Columbia region, says that off Oak Point there were ducks and other water fowl working over an area of five acres or more on the smelt. They went through with their boat and chased the birds, but they only circled around and returned to the smelt. All indications are that the run will continue for some time yet. The weekly closed season is now in force. ... So far this season there have been shipped out about thirty cars of smelt by railroad. These brought \$12,000 or better and it is figured that the rail lines did not handle twenty-five percent of the take, according some fishermen. So the smelt have meant and are still meaning, much money to the Kelso district. The sea gulls are still plentiful. They are attracting almost as much attention as the smelt. Numbers of people park their cars and go out on the bridge to watch the gulls circling over the river and fishing for smelt.
20 March 1931	Cowlitz River	WDF (1931) SR-2: p. 386	Henderson (Cowlitz River, Castle Rock and Kelso) "Good catches of smelt last night – can hear of no spring salmon in Columbia River."
21 March 1931	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 1	PRODUCE SUPPLIES IN MARKET AMPLE. ... Fish Plentiful Despite Lack of Sandy Smelt ... In spite of the shortage of Olympia oysters, and the threatened lack of smelt unless the little fish decide to enter the Sandy river soon, there will be found and excellent assortment of fish. ... Fresh Fish. ... Columbia river smelt, lb. 05
21 March 1931	Cowlitz River	WDF (1931) SR-2: p. 386	Hufford (Kelso, Longview, Kalama, Woodland, Vancouver) "Some smelt still in the Cowlitz River."
22 March 1931		WDF (1931) SR-2: p. 390	Henderson (Vancouver and Kelso) "Last night's catch of smelt very light – fishermen say the fish are plentiful but scattered due to muddy water."
23 March 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 5, col. 3	SMELT MOVING OUT OF KELSO. Shipments Made Following End of Closed Season; Gulls Active. Shipments of smelt continued to move out of Kelso Sunday and Monday following the regular weekly closed season end on Saturday night and as usual

Date	Place	Source	Quote
			the sea gulls are forming a most unusual attraction for a large number of visitors as well as local people. The Cowlitz river is running high and is far from clear. This seemed to hamper the local fishermen but did not interfere with the operations of the sea gulls, so far as spectators could observe. ...
25 March 1931	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	FRESH SHAD ARRIVE ON LOCAL MARKETS. ... Fresh Fish. ... Columbia river smelt, lb. 05
26 March 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 4, col. 2	GULLS ACTIVE OVER COWLITZ. Fishermen Report Smelt Getting Scarce but Birds Keeping Busy. Although the smelt have been in the Cowlitz river since January 29, making a full eight weeks, shipments were still moving out of Kelso Thursday but the fishermen reported the fish are getting harder to catch. The closed season for the week starts tomorrow, Friday morning at eight o'clock and continues until eight o'clock Saturday night. However, the sea gulls are still decidedly numerous and busy whether the fishermen are having trouble or not. The smelt have been on the market for three months as the gill netters secured them for a month before they entered the Cowlitz from the Columbia river. This is an unusually long period for the smelt to be in this section although it does not set a record. They have been available all through the Lenten period and that season is not yet over.
28 March 1931	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 1	STRAWBERRIES HERE WITH FALLING SNOW. ... Fresh Fish. ... Columbia river smelt, lb. 05
30 March 1931	Cowlitz River	WDF (1931) SR-2: p. 390	Henderson (Vancouver and Kelso) "Kelso fishermen report more fresh smelt with good catches last night."
31 March 1931	Cowlitz River	WDF (1931) SR-2: p. 390	Henderson (Kelso and Cathlamet) "Some smelt still taken at Kelso."
March 1931		<i>Pacific Fisherman</i> 29 (4): 55.	SMELT SUPPLY ABUNDANT. A well sustained run of Columbia River smelt continued in the Cowlitz River through February, the take at Kelso and Longview, Wash., being steady and in fair volume. At no time was the run so great that the market was flooded, although the demands of the trade were easily satisfied at all times. The little fish sold at retail through the Pacific Northwest at a general level of 5 c per lb., 6 lbs. for a quarter, although sometimes running higher due to temporary shortages. Kenneth Fisher, Kelso smelt shipper, is reported to have experimented with the use of solid carbon dioxide as a refrigerant for express shipments of smelt, with early indications that the practice is entirely feasible.
1 April 1931	Portland, OR	<i>Morning Oregonian</i> , p. 16, col. 1	SPRING VEGETABLES VARIETY INCREASED. ... Fresh Fish. ... Columbia river smelt, lb. 05
3 April 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 6-7	New Run of Smelt Reported in River. Heavy Rains Followed by Entry of Schools of Fine Fish; Run Now Coming Close to Record. Fishermen report a new run of smelt in the Cowlitz river Thursday night [2 April], and they declare that apparently there are more smelt than ever before. Latest reports were that the smelt were not entering the Sandy river above Portland in any quantities and some believe that the recent rains and

Date	Place	Source	Quote
			high waters have caused the little fish to enter the Cowlitz instead of proceeding farther up the Columbia river. For the past several years the latest shipments of smelt out of Kelso were on April 3. Last night there were heavy shipments out of here by express and a number of truck loads of the fish also moved out of the city. Friday morning the closed season for the week went into effect. The fish cannot be taken again now until eight o'clock Saturday night. But unless the smelt suddenly vanish, the indications are that Easter Sunday will see plenty of fish for the taking and some guests may come from far away points again to join in the fun of catching them. The run is not yet to the record mark, but fish have been in the Cowlitz river since January 29. ... But the salmon fishermen insist the smelt hamper their efforts to land the big Chinooks.
4 April 1931	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	EASTER FARE FOUND IN ABUNDANT SUPPLY. ... Fresh Fish. ... Columbia river smelt, 2 lbs. 15
4 April 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 8, col. 6	SMELT CENTER KEEN INTEREST. Tonight Will Show Extent of Run Reported in Cowlitz Thursday Night. Starting at eight o'clock tonight, Saturday, the commercial fishermen will know for certain just how extensive is the new run of smelt that entered the Cowlitz river Thursday night, for at eight o'clock this evening, the weekly closed season will end. If the fish are in the river then there will be a big crowd, no doubt, Easter Sunday to catch the little fish. They are still popular as an article of diet and they are so easily caught that many go after them. ... the smelt, with the high water, have been getting through the screen at times and into the pumps of the city water plant. They have to be removed from time to time.
8 April 1931	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 2	FRESH VEGETABLES OFFER WIDE CHOICE. ... Fresh Fish. ... Columbia river smelt, 2 lbs. 15
11 April 1931	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	LOW PRICE LEVEL FOUND IN MARKETS. ... Fresh Fish. ... Columbia river smelt, 2 lbs. 15
11 April 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 5, col. 3	ANGLERS SEEK RIVER SALMON. Smelt Apparently Are Through so Hook and Line Fishermen Busy. While there are still some sea gulls hanging about the Cowlitz river and fluttering overhead making frequent plunges into the stream to catch smelt or other food, the smelt run so far as the commercial fishermen are concerned, is believed to be over for this season unless a new run, which is not anticipated, enters the river. The presence of the sea gulls indicates that the fish are still in the river, but there are none being taken by the fishermen.
January 1932	Cowlitz in January 1931	<i>Pacific Fisherman</i> 30th Annual Statistical Volume, 30 (1): 205.	Smelt Abundant. The run of Columbia River smelt struck the Cowlitz River, Wash., late in January, somewhat earlier than usual. The run was fairly steady for a considerable period, but was without the extreme peaks which sometimes characterize it. This was extremely fortunate, as it resulted in steady supplies within the absorptive capacity of the market. On the whole, production was probably as good as in any previous season, with the added advantage of evenness. Action of the Oregon and Washington legislatures in raising the poundage tax on Columbia River smelt to half a cent a pound will result in

Date	Place	Source	Quote
			a considerable proportionate increase in the price of these fish in the future.
Season of 1931	Columbia River	Pollock, C. R. (1932)	Columbia River Smelt (Eulachon). Each year from early February until late March and sometimes into April, the unfailing runs of eulachon, commonly called Columbia River smelt, appear, first, in the main Columbia River, from Grays Bay to the mouth of the Cowlitz River. Here they are caught with gill nets and bring advanced prices in the coastal markets. These little fish enter first, the Cowlitz River, in by far the largest schools, later, the Lewis River, both in Washington, and later schools appear in the Sandy River of Oregon; all on their way to their spawning beds in these streams. In these streams, the dipping of smelt is the method of fishing used for their capture and the amount the commercial smelt fishermen can take generally depends upon the orders the dealers have for fresh smelt to be shipped. Coming, as they do, at a time of the year when commercial fishing for salmon is prohibited, and winter fishing for other varieties of food fish is hampered by weather conditions, the fresh smelt, or eulachon, naturally command a receptive market for the first two or three weeks of their run. Later, with more and larger quantities of fish available, prices weaken with a lessened demand. However during the peak of this smelt activity, labor is provided for several hundred people. Naturally, with fishing for personal use allowable, some regulation of this activity is necessary. More often than not, people take more fish than they can use or give away, causing wastage of fish that otherwise would have proceeded to their spawning beds to leave seed for future runs of these fishes. To provide against this wastage and yet provide an ample supply of fish for each person interested in taking them for their own use, the session of the legislature just closed (1931) provided in section 51B, chapter 133, a bag limit recommended by the department, which reads as follows: "Provided, however, that any person may at any time take not to exceed twenty (20) pounds of eulachon, commonly called smelt, in any one day for the personal use of such person in areas where commercial fishing is permitted." In addition, upon recommendation of the smelt dealers and fishermen the dipper's license was advanced to \$5.00 per year, with a tax rate on these fish of 50 cents per 100 pounds. The previous rate of tax was 3½ cents per 100 pounds and was considered too small to pay the necessary patrol cost. ... Since 1925, the tonnage of smelt handled, taken mostly in the mouths of the Cowlitz and Lewis rivers, is as follows: 1925 ... 1,194,314 pounds[;] 1926 ... 881,314 pounds[;] 1927 ... 1,149,670 pounds[;] 1928 ... 1,158,419 pounds[;] 1929 ... 1,260,314 pounds[;] 1930 ... 1,521,966 pounds. ...
1932			
3 December 1931	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	VARIETY OF FOOD FOUND IN MARKET. ... Fresh Fish. ... Columbia river smelt, lb. 35
21 December 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 2-3	First Smelt of Season Are Taken In River Here. Wannassey Gets Four Boxes at Mouth Cowlitz. Johnny Wannassey, local fisherman, brought in to Kelso the first smelt of the year from the mouth of the Cowlitz river, when he and his partner delivered four

Date	Place	Source	Quote
			boxes of the fish, of the choicest variety to the Columbia River Smelt company near the railway depot. The catch caused much excitement and is looked upon as a splendid Christmas present for the fishermen of this section, especially if the run holds up. The news quickly spread and the commercial fishermen are sure to be out in force. This year the smelt are coming a little earlier than usual. They may be expected, as a rule, early in January. How extensive this run is will be determined soon. For some time the smelt have been known to be in the Columbia river and the gillnetters got some of them off Oak Point. The first shipment from there to reach the Portland market, consisting of but twelve pounds, brought the fishermen who shipped them in, sixty cents a pound, or \$7.20 for the shipment. When the run gets heavy, the smelt prices usually take a substantial drop. The last legislature passed a law imposing a tax of twenty-five cents on each fifty-pound box or half a cent a pound. The dip nets also require a license fee. The law was enacted at the request of many of the smelt fishermen and the state, who sought to head off the waste of the fish. The smelt may still be taken for personal use but all the catches must be reported. All of Kelso and vicinity are interested in the smelt. Of the run is heavy as indicated and really has started, it means much more Christmas money for the fishermen and the business and commercial interests of the city.
22 December 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 4	SMALL CATCHES OF SMELT ARE MADE. Monday night the fishermen in the Cowlitz river brought in less than 100 pounds of smelt. But the few caught are of exceptionally fine quality and there is a big demand for them. Johnny Wannassey and the Fisher brothers secured some smelt last night. The Columbia River Smelt company has standing orders for the fish but as yet the supply is decidedly limited. There have not been enough caught to determine just how extensive is the present run. Whether it means the advance guard or a heavy run or not has not yet been determined. As a rule they come after Christmas but in some years have come this early in time past.
23 December 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 3	MORE SMELT BEING TAKEN FROM COWLITZ. Again the fishermen caught some smelt in the Cowlitz river Tuesday [22 December] night but they made no big hauls. The smelt seem to be in small schools but they are of exceptionally fine flavor. There is a good demand for the supply brought in but the catches are slim. As yet it has not been determined whether the run is the advance of the main winter run or not. Some look for a big run at any time and others believe that no great amount of fish will be taken for a few weeks yet.
25 December 1931	Cowlitz River	<i>Morning Oregonian</i> , p. 10, col. 5	Smelt Catches Small to Date. KELSO, Wash., Dec. 24.—(Special.)—A number of fishermen made catches of Columbia river smelt in the Cowlitz river last night, but the catches were light, as the fish are scattered badly. The main run of smelt will probably not reach the Cowlitz for several weeks.
31 December 1931	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 6, col. 7	HEAVY RUN OF SMELT COMES. Good Catches Made in Cowlitz but Market Is in Slump. Wednesday night [30 December] there was a heavy run of smelt, that is, comparatively heavy, in the Cowlitz river and the dippers made some good hauls,

Date	Place	Source	Quote
			according to Ira Henderson, state fish inspector for this district. He reports that Marion Smith got 48 boxes and S. Clutchie got 24 boxes and the others lesser amounts. One trouble is now that there is a doubtful holiday intervening and the demand for fish is at a low ebb at this time. Henderson declined to predict whether this is the main run of smelt now in the Cowlitz or not. He says no one knows. The gillnetters are getting many fish in the vicinity of Oak Point. He says one trouble is that the new law taxing the smelt at half a cent a pound as they come from the river is causing more or less trouble. The law requires the tax be paid at once and the fishermen would like to have a chance to market their catches in order to pay.
6 January 1932	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	SPRING ON HORIZON OF MARKET VIANDS. Smelt, Greens and Other New Foods Appear. Those who are eagerly searching for signs of spring may number among those present in Portland markets and stores today Columbia river smelt at 10 cents a pound, or three pounds for a quarter ... Fresh Fish. ... Columbia river smelt, lb. 10
7 January 1932		<i>The Daily Tribune and Kelsonian</i> , p. 6, col. 2	No Smelt Caught Wednesday Night. Wednesday night no smelt were caught in the Cowlitz river by the dip netters and only a few were landed Tuesday night. Some feel there are still plenty of smelt in the stream because the seagulls are hovering over the river. The demand for the smelt is strengthening a little it is reported as the holidays get farther away.
8 January 1932	Columbia River at Oak Point	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 3	Smelt Still Shy In Cowlitz River. Again on Thursday night no smelt were dipped from the Cowlitz river but good catches are being made by the gillnetters in the vicinity of Oak Point who are working in the Columbia river. The fish seem to have scouted the Cowlitz river and the first advance run entered the stream. The main body of smelt seems to be loitering down in the Columbia. Local fishermen expect the smelt to start up the Cowlitz at any time now. The vanguard apparently came a little earlier than usual this winter, being in the Cowlitz before Christmas. The regular run is now about due to start, the fishermen assert.
9 January 1932	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1-2	VARIETY CONTINUES TO FEATURE FOODS. Fish Markets Offer River Smelt at Three Pounds for Quarter ... Fresh Fish. ... Columbia river smelt, lb. 10
11 January 1932	Columbia River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 1	RAIN MAY AID SMELT TAKERS. Cowlitz Waters Expected to Get Higher and Fish to Return. Smelt fishermen are hopeful that the heavy rains of the past 48 hours will bring up the Cowlitz river so that the fish which disappeared after entering the mouth of the stream will be back again in full force. The rains have come in fitful squalls and as they are warm showers it is expected that they may melt the snows in the hills and bring up the Cowlitz river. There are more orders coming in for smelt but the local fishermen are not making heavy catches. One report is that the fish have moved over to the Oregon side of the Columbia river. The gill netters are reported to be getting them with much regularity.
12 January 1932	Columbia River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 2	HUFFORD COMES TO CHECK FISH. Walter Hufford, state deputy fish supervisor for the Columbia river district, is in Kelso today on business. He is interested in the smelt

Date	Place	Source	Quote
			run and is watching developments. The smelt have not appeared in the Cowlitz since they dropped back into the Columbia river a few days ago. The gill netters are making good catches in the Columbia. The storms of the week end and Monday which sent the Cowlitz river up five feet within a short time may have the effect of bringing the smelt back. At least some of the fishermen are so predicting.
20 January 1932	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	VEGETABLES HERE IN GREAT VARIETY. ... Fresh Fish. ... Columbia river smelt, lb. 10
20 January 1932	Columbia River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 5	SMELT SCARCE AGAIN FOLLOWING HIGH WATER. Reports are that the smelt are now hard to get again because of the high waters following the recent rains. The smelt have not been in the Cowlitz river for several days and the gillnetters in the Columbia report small catches. This is due to the fact that the fish have dropped down toward the bottom of the river and are being taken only on the low tides. There are still many shipments being made from Kelso.
21 January 1932	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 5, col. 6	DIPPERS GET SMELT HAULS. Little Fish Again in Stream After Ten-Day Absence. Catches of smelt were made in the Cowlitz river Wednesday night and Thursday morning and while only about three boxes were secured, they were evidence that the fish are back in the stream. They were in about ten days ago in large numbers, but later they dropped back into the Columbia and since then have only made occasional short runs into the Cowlitz. Walter Hufford, state fish supervisor for this section, was in Kelso Thursday. He says the fish are more plentiful now near Oak Point and Eagle cliff and over on the Oregon side near Clatskanie, than for days past. He predicts they will be in the Cowlitz river in force today if the river continues to clear up as it is doing. The stream did not get as high by reason of the recent rains and snows as had been expected. A. A. Byrnes, bridge tender, reports that it only got a trifle above thirteen feet. He had expected it to reach seventeen or eighteen feet. The smelt season closes at eight o'clock Friday morning and stays closed until eight o'clock Saturday night, giving thirty-six hours during which the smelt may have a free run up stream. A goodly number of smelt are shipped from Kelso each day, being secured from the gillnetters who get them in the Columbia river.
23 January 1932	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 5	MARKET STROLLERS FIND FRESH VIANDS. ... Fresh Fish. ... Columbia river smelt, lb. 10
27 January 1932	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 1	WAX BEANS ADDED TO VEGETABLE LIST. ... Fresh Fish. ... Columbia river smelt, lb. 10
28 January 1932		<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 6	MAY ATTEMPT MOVE SMELT TO NEW HOME. State Biological Department Considers Transplanting to Puget Sound. Following the effort of several years ago, which was not a success, to plant smelt taken from the Cowlitz river in the Nisqually river near Olympia, Floyd Royal, of the state biological department of Seattle, who has been in Kelso for several days, may attempt to transplant smelt this year from the Cowlitz river to the Snohomish river, near Everett, and the Skagit river that empties into

Date	Place	Source	Quote
			Puget Sound at LaConner. The details have not been arranged, it is stated, but if conditions appear favorable an effort will be made to transplant them when the run starts here. This time, it is stated, instead of taking mature fish, an effort will be made to get the young ones. This would be done with the assistance of the force at the Kalama hatchery. The smelt that crowd up the Cowlitz river by the millions do not frequent Puget Sound waters and as yet all efforts to transplant them have ended in failure.
30 January 1932	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 3-4	MARKETS OFFERING SHOPPERS VARIETY. ... Fresh Fish. ... Columbia river smelt, lb. 10
January 1932		<i>Pacific Fisherman</i> 30 (2): 55.	COWLITZ SMELT RUN EARLY. The annual run of smelt struck into the Cowlitz River, Wash., exceptionally early this winter, first shipments of the fish being made before Christmas, while the run was supporting a considerable shipping trade by the first week of the new year. This is several weeks earlier than the fish usually appear in the Cowlitz itself, although they are not infrequently available from the Columbia River before the first of the year. In early January the run slacked off again sharply. Commercial smelt fishermen are required to pay an annual license fee of \$5, as well as a poundage tax of 50c per 100 lbs. under the Washington law effective this year for the first time. The first smelt to appear on the Seattle market in any quantity retailed for 12½ c per lb.
3 February 1932	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 1	FISH AND POULTRY SUPPLY PLENTIFUL. ... Fresh Fish. ... Columbia river smelt, lb. 10
5 February 1932	Columbia River	<i>The Daily Tribune and Kelsonian</i> , p. 4, col. 6-8	SMELT DUE AS COLD VANISHES. With moderation of the recent cold spell, the fishermen are hoping that the final traces of winter have vanished and that the smelt, which have been loitering in the Columbia river, will start moving up the Cowlitz river. Local fishermen report that the smelt are now near Stella and some have been observed this side of that point. The first run of smelt entered the Cowlitz before Christmas but later dropped back into the Columbia and have remained there ever since, with but few venturing into the Cowlitz. Now it is expected that they will advance again. The smelt are moving out of here in regular shipments, but they are gill net fish that are caught in the Columbia river and brought to Kelso by truck and boat.
5 February 1932	Columbia River at Rainier, OR	<i>Rainier Review</i> , p. 1, col. 3	SMELT ASCENDING COLUMBIA. Run Said to Be off Rainier and Staying to Oregon Side. Concerning the much heralded and much discussed run of smelt up the Columbia river, a Portland afternoon daily had this to say yesterday afternoon: "Smelt are coming up the Columbia river in great schools. The main school has been located just off the docks at Rainier and is keeping well to the Oregon side. Whether they switch across the river and enter the Cowlitz, which is directly opposite, is keeping the trade guessing. In the meantime the cold weather is ruining the nets." Yesterday, also, a dispatch from Longview about the recent report that some persons had dumped lime into the Cowlitz river to prevent the smelt coming up into that river stated that the rumor was found to be groundless and was being discounted in Longview. Says the dispatch: "A

Date	Place	Source	Quote
			rumor current among smelt fishermen in this section to the effect that lime had been dumped into the Cowlitz river to keep the smelt run from going up the ... stream, has been found groundless and is discounted here. Recent high water and the cold spell are given as the reason for the slowness of the silvery horde to move up the Cowlitz. Several tons of smelt are taken each day near Stella, 12 miles west of the mouth of the Cowlitz, in the Columbia river."
10 February 1932	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 1-2	VARIETY OF FOODS FOUND IN MARKETS. ... Fresh Fish. ... Columbia river smelt, lb. 10
12 February 1932	Columbia River at Eagle Cliff	<i>Rainier Review</i> , p. 1, col. 7	Smelt Run Still Downstream Says Report. The main body of the smelt run is believed now to be in the Columbia river at Eagle Cliff, where the best catches have been made for the past several weeks. Fish men in the Rainier district were inclined to believe last week that the run was already passing up the mouth of the Cowlitz river. Late reports, however, indicate the fish are most plentiful 10 or 12 miles below Longview.
17 February 1932	Columbia River	<i>The Daily Tribune and Kelsonian</i> , p. 8, col. 2	REPORT SMELT NEAR AT HAND. Henderson Says Little Fish Close to Cowlitz Mouth. According to Ira Henderson, deputy state fish supervisor for this area, the smelt this morning, Wednesday, were in the Columbia river just below Coffin Rock and not far from the mouth of the Cowlitz river. If they keep moving at the pace they started and conditions are favorable they are expected to enter the Cowlitz late today, or at least within the next few days. A change in the weather, it is predicted, would bring them into the stream. Local fishermen have been watching them closely and with much interest. The gillnetters are still supplying the demand and many are being shipped out of Kelso. The dip net men expect to have an opportunity to get some of them within a short time.
20 February 1932	Portland, OR	<i>Morning Oregonian</i> , p. 7, col. 6	FISH OFFERED IN VARIETY. ... Fresh Fish. ... Columbia river smelt, lb. 10
22 February 1932	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 4-5	Smelt Enter In Cowlitz and Run Well Under Way. Thousand Boxes Taken; Sea Gulls Plentiful. After waiting around the mouth of the Cowlitz river for several days and loitering in the Columbia river, the annual spring run of smelt started up the Cowlitz about eight o'clock Sunday night [21 February] and by midnight they had "schooled" up and the fishermen were busy with their dip nets. Before morning more than 1,000 boxes of fifty pounds each had been taken and reported in to the state deputies. Before nine o'clock the fish were above the Kelso bridge and moving up stream at a rapid rate. Overhead the sky was alive with sea gulls, large and small, coming around for their annual feast on smelt. Ever since the advance guard arrived in the Cowlitz before Christmas and then dropped back into the Columbia, the dippers have been waiting for the main run to arrive. Cold weather and snow apparently held them back. But over the weekend the weather moderated and a semi-Chinook wind evidently had the desired effect. The commercial fishermen were after them from the start. But the fish seemed to be unlimited. The boats were making good catches and about midnight all had from ten or fifteen boxes up to sixty or more. The fish did not school at first but later formed in

Date	Place	Source	Quote
			their schools and started up the stream. Monday morning they were all well on their way and had moved up to the Crescent mill. The fish and the sea gulls combined to draw crowds to the Kelso bridge for it is a fine sight to see the birds hovering overhead while the fishermen are busy with their dip nets from the boats. Individuals, under the new law may take twenty pounds for their own use without a license. But the commercial fishermen must all have licenses. The state collects a tax of half a cent a pound before they may be shipped. The Columbia River Smelt company is shipping steadily from Kelso by express and many others are moving out by truck to distant points. The smelt taken by the dip nets are in much demand. The fish shipped out up to this time have been taken by the gill netters in the Columbia river. As yet the price is reported to be holding firm on the outside markets. The state deputies are here in force checking the catches.
24 February 1932	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	SUPPLIES OF FOOD IN MARKETS GOOD. ... Fresh Fish. ... Columbia river smelt, lb. 10
24 February 1932	Cowlitz River Kalama River	<i>The Daily Tribune and Kelsonian</i> , p. 3, col. 5	SMELT IN DAY TIME ARE WARY. New Run Enters Cowlitz; Some Are Taken in Kalama. Smelt began new tactics in the Cowlitz river since their arrival last Sunday night and while they are apparently wary and particular about "schooling," the dippers are making good catches. So far there has been but poor success experienced in taking them during the day and last evening they seemed to have vanished. But the night fishermen made good hauls. Paul Plebuch heard last night that they had entered the Kalama river. A hurried trip there and more than seventy boxes were taken. But the smelt were in on the tide and only came with it. A new big run was reported entering the Cowlitz on Wednesday morning. So far no smelt have entered the Lewis, river it is stated. There are eight state inspectors here under the direction of State Supervisor Walter Hartford of this district. They report good catches are being made.
25 February 1932	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 2	SMELT LAWS FORM BASIS COMPLAINTS. Run Continues but Tax and Private Fishing Are Causing Complications. With the passage of the new smelt law by the last legislature its enforcement is bringing a series of problems for the state officials who are on the ground and one cause of complaint comes from the residents of the north end of the county who have been stopped from taking their usual allotment of twenty pounds of smelt for personal use above the "dead line" at Peterson's Eddy near Ostrander. They have been halted and a hurry up call has been sent to the higher officials relative to this. The commercial fishermen are not allowed to fish above that point and private individuals are barred. They object to coming down stream to get the fish. An added complication is added this year by the fact that the fish are decidedly flighty and are now "schooling" in the lower river as customary. They are in a mad rush to go up stream and in the upper reaches are reported to be unusually thick. Carl C. Lee, assistant inspector, says the inspectors are here to enforce the law and intend to enforce it. An Appeal has been made to Chief Inspector B. M. Brennan, of Seattle. Walter Hufford and Ira Henderson, inspectors, and a crew of assistants are on the ground here to check for

Date	Place	Source	Quote
			how the state collects a half cent tax on all fish caught. This amounts to twenty-five cents a box and some fishermen complain the state gets more than those who go out and catch and sell the fish. The tax must be paid at once and the fishermen usually wait thirty days for their money so a complaint is heard on that score. Wednesday night there was a fine run of smelt in the river. But the fish seemed to hurry up stream without "schooling." The dippers all made good catches but some ran far ahead of the others and the smelt are reported to be unusually plentiful above the "dead line." Some advocate abolishing the "dead line" and others that the law be strictly enforced. Friday morning at 8:00 o'clock the regular weekly "closed season of thirty-six hours" starts. No fish can be taken until Saturday night at 8:00 o'clock. As usual the sea gulls are out in force. They add to the scene and many loiter on the Kelso bridge to watch the operations of the fish boats and shore dippers while the birds almost whiten the sky overhead.
26 February 1932	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 3	SMELT RUNS FLOOD INTO RIVER HERE. Cowlitz Teems With Little Fish; Protests Many Over State Regulations. Under a ruling by Charles R. Maybury, director of licenses, of Olympia, the "dead line" on smelt has been moved from Peterson's Eddy, near Ostrander, to Sandy Bend, near Castle Rock, and this is expected to satisfy both the commercial fishermen and those who take them for personal use. The law permits 20 pounds to be taken by individuals without a license for their own use. It is also intimated that the ruling requiring a wife, when she goes out with her husband, actually to dip the 20 pounds, will be abrogated. "Fix it so that the people who need them for food get the smelt with the least possible trouble and annoyance," was the word from the state officials. That is expected to give enough lee-way to solve all problems. This is expected to end the trouble. The welfare boards and chambers of commerce of the entire area had protested the rulings. However, the weekly closed season from Friday morning at 8:00 o'clock until Saturday night at 8:00 o'clock must be observed by all who take fish. New runs of smelt have entered the Cowlitz river which is now at a high stage and getting higher as the result of the balmy Chinook wind which is melting the snows in the higher altitudes, but the questions of permitting the people to take smelt for their own use above the dead line and to allow a husband to catch the twenty- pound limit for his wife and such children as may accompany him are still unsettled. The local state inspectors have no discretion in the matter but it is hoped to get a revocation of the strict interpretations. There is particular protest from the Castle Rock section. There are plenty of smelt in the river and every indication is they may remain for a long time. The warm and balmy winds have caused all the creeks and streams west of the Cascades to run bank full. The Kalama river is reported to be particularly high. The high water in the Cowlitz is believed to be bringing the smelt into the stream in unusual numbers. ... New runs of smelt are reported in the Columbia below Eagle Cliff. ... Thousands of boxes of smelt are being taken by the commercial fishermen and shipped out. While a large number are moving by express there are also vast numbers of boxes of smelt going out

Date	Place	Source	Quote
			by boat and by truck.
27 February 1932		<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 1	EXPECT SMELT RUSH TO START. Closed Season Ends Tonight; Flood Waters may Affect Fishing. When the weekly smelt closed season on the Cowlitz is ended at eight o'clock tonight the fishermen are expected to out in force. The Cowlitz is now in flood stage and speculation is rife as to what will be the effect on the run of smelt. The "dead line" at the request of the welfare organizations and chambers of commerce has been moved from Peterson's Eddy near Ostrander to Sandy Bend near Castle Rock. This will permit the ones who take them for individual use greater latitude. The officials on the ground now have permission to use discretion and it is not likely there will be any more disputes about a man catching twenty pounds for his wife when she is along. Formerly she had to do her own dipping while he stood idly by and watched.
February 1932		<i>Pacific Fisherman</i> 30 (3): 47.	SMELT FISHING CONTROLLED BY PRODUCERS' AGREEMENT. Columbia River smelt fishermen during January put into effect a means of controlling the price of the fish through restriction of production. By agreement among themselves, the fishermen stopped fishing whenever the price paid to them fell below 2c per lb. This agreement was effective during the period while the smelt were in the Columbia River itself and served to keep the price above the 2c level. The smelt entered the Cowlitz River in good volume early in January, several weeks ahead of the normal run, but they dropped back again into the Columbia and it was near the end of January before they again appeared in the Cowlitz in a considerable run.
February 1932		<i>Pacific Fisherman</i> 30 (3): 57.	MAY UNDERTAKE TO PLANT SMELT IN PUGET SOUND. Plans are being worked out by the Washington division of fisheries for the planting of smelt from the Cowlitz River in the Snohomish and Skagit Rivers, emptying into Puget Sound. A similar experiment was made some years ago, the fish being placed in the Nisqually River but without favorable return. The Columbia River smelt are an anadromous fish which run into glacier fed streams to spawn, the Cowlitz, Lewis and Sandy River, tributary to the Columbia being the principal spawning waters of the annual run.
2 March 1932	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 6	SNOW FLURRIES AND RAIN HERE. Heavy New Run of Smelt Comes Into Cowlitz River at Night. ... Reports from the fishermen are that the smelt run was heavy last night and about midnight a run of fine big smelt entered. Excellent catches were made by the dippers and some boats got more than 100 boxes within a few hours. ...
3 March 1932	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 1, col. 1	CATCHES OF SMELT GOOD IN COWLITZ. Fish Plentiful; Notice Is Given of Changes Made in Regulations. Smelt fishing was excellent last night in the Cowlitz river and fine catches were made in short time. Some boats garnered in more than 100 boxes in about three hours. Carl. E. Lee, assistant state fish inspector for this territory states that under the ruling of the department officials at Olympia private individuals may take twenty pounds of smelt anywhere along the full length of the Cowlitz river for private use. But commercial fishing cannot be followed above the dead line established at Sandy Bend, near Castle Rock. The individual who needs smelt for himself may take

Date	Place	Source	Quote
			them anywhere and needs no license. But only twenty pounds per day per person is allowed. Tomorrow morning at eight o'clock the river will be closed for all fishing purposes so far as smelt are concerned, until eight o'clock Saturday night. That applies to all smelt fishing and that weekly closed season is established by law. Flocks of sea gulls are hovering over the river. So far the fishing for the sea gulls has not been so good. They now confine their efforts mostly to the riffles along the stream and around the bridges where the water swirls and smelt are brought to the surface. In a few days the weaker smelt are due to be carried down stream. Then the sea gulls are due to be out in force.
7 March 1932	Cowlitz River	<i>The Daily Tribune and Kelsonian</i> , p. 5, col. 6	SMELT ATTRACT GREAT CROWDS. Many Line Cowlitz to Take Little Fish From Stream. Men, women and children lined the banks of the Cowlitz river from Kelso north Sunday, hundreds being intent on catching smelt for their personal use as the law permits each individual to take twenty pounds for such purpose without having a license and without paying the state tax of half a cent a pound demanded of commercial fishermen. The commercial fishermen also had plenty of success. For some reason Sunday afternoon, the boats fishing off Kelso seemed to have the most success. As crowds watched from various places, the dippers could be seen to make excellent hauls of the little silvery fish. Crowds lined the bridge and the river banks, too, merely to watch. It was a pretty sight to see the dippers and also to watch the great flocks of seagulls hovering overhead and then wheeling and diving for the smelt.
9 March 1932	Cowlitz River Lewis River	<i>The Daily Tribune and Kelsonian</i> , p. 6, col. 1	SMELT NOW IN LEWIS RIVER. New Runs Enter Cowlitz Here and Fishermen Are Kept Busy. While new runs of smelt entered the Cowlitz river last night and the fishermen had excellent success, the fish being fine and of even size and firm quality, the smelt entered the Lewis river also last night [8 March] and state inspectors were sent down there as the dippers were busy in that section. The smelt are now running in both streams. In 1928 and 1929 the fish entered the Lewis river in commercial quantities when they stayed out of the Cowlitz. But for the last two years they did not go up the Lewis. This year the fish are in both streams at the same time. Kelso fishermen report that this has happened before but when they run freely in the Cowlitz few commercial fishermen went to the Lewis. But this year both streams are being fished. Last year the best catches of smelt were made north of Kelso near the Weyerhaeuser bridge.
14 March 1932	Cowlitz River Coweeman River	<i>The Daily Tribune and Kelsonian</i> , p. 6, col. 2	RARE GEAR IS USED TO FISH. Smelt Plentiful in Cowlitz and Throng Line Bank to Get Fish. [Microfilm unreadable]. ... All day the river banks were lined. Some stayed late and in many instances the visitors built bonfires and enjoyed a meal of smelt before going home. The regular fishermen got plenty of smelt for new runs are going up stream all the time. The fish were not only thick around Kelso but also in the vicinity of Castle Rock. Although it is considered unusual some smelt were taken out of the Coweeman river over the week end.
26 March 1932	Cowlitz River	<i>The Daily Tribune and</i>	SMELT RUN IS GOING STRONG. Cowlitz and Lewis Rivers Filled With Little

Date	Place	Source	Quote
	Lewis River	<i>Kelsonian</i> , p. 6, col. 6-7	Fish. That the exceptionally heavy runs of smelt in the Cowlitz and Lewis rivers this year means that the fish are certainly plentiful and that only comparatively small catches are being made for commercial purposes, is the assertion of Walter Hufford, deputy state fish inspector who is in this district. He says, however, that probably more fish than ever are being taken for home consumption. The law while fishing a tax a tax of half a cent a pound on fish taken for commercial purposes permits each individual to take twenty pounds for domestic use without a tax. He reports that the Cowlitz river smelt are above Toledo now and that individuals are taking them all along the stream. The commercial fishing is not allowed above Sandy Bend. Sunday is the favorite time for the families to get their supplies of smelt. Each Sunday the river is lined with the men, women and children who are catching them for their own use. The only restriction on them is that they may not take smelt during the closed period each week from Friday morning until Saturday night. Last Sunday there was almost a traffic jam on the Lewis river near Woodland. The fisher folks were out in force.
29 March 1932	Cowlitz River Lewis River	<i>The Daily Tribune and Kelsonian</i> , p. 8, col. 2	SMELT SCARCE IN RIVER HERE. Tuesday Shipments Are Largely Taken From Lewis River. Smelt were scarce or scarey in the Cowlitz river Monday night and most of the fish shipped out from here Tuesday morning were from the Lewis river. The smelt are plentiful in both streams but yesterday they were harder to locate in the Cowlitz river. The demand for smelt is still fairly strong although the competition in the larger markets is keen as in the big cities fish prices are reported low.
March 1932		<i>Pacific Fisherman</i> 30 (4): 48.	PRICE OF SMELT MAKES WHOLESALE MAN MARVEL. Tony Busanich of the Tacoma Fish & Cold Storage Co. was shipping out several orders of Columbia River smelt and other fish one afternoon late in February when he fell into some observations on the subject of smelt. "These fish were caught in the Cowlitz River yesterday. They were unloaded on our floor today at \$ 1 per box, delivered here. A box is 50 lbs. Yesterday a fisherman dipped these smelt. Someone paid him for his catch; someone bought a new box, put the fish into it, and then paid the state 25c tax on the fish; someone loaded them onto a highway transport truck, which carried them over 100 miles to Tacoma, and delivered them—three boxes of them—at my door for \$ 1 per box. "When you take 25c tax out of a dollar bill and spread the rest of it out all the way from Kelso to Tacoma you can easily see that there can't be much money for anyone in the smelt business."
April 1932		<i>Pacific Fisherman</i> 30 (5): 45.	SMELT RUN ABOVE AVERAGE. Observers of the Cowlitz River smelt run, which came to an end during March, declare that it was exceptionally good, production being somewhat above the average. Prices were very low—even for smelt—and few difficulties were encountered in connection with the collection of the new tax of 50c per 100 lbs., in place of the 15c per 100 lbs. previously collected. The run appeared in the Lewis River following that in the Cowlitz, although naturally was much smaller.
1932	Columbia River	<i>Pacific Fisherman</i> ,	Cowlitz Smelt. At the opening of the year production of fresh fish in the Pacific

Date	Place	Source	Quote
	Cowlitz River	Annual Statistical Volume, 1933. 31(2): 167.	Northwest centered to a large degree on the Columbia River, where the winter salmon season yielded in a normal way, while the smelt run supplied another item of fresh fish. Before the smelt entered the Cowlitz the fishermen were able to hold the price to them at 2c per lb. or above by the simple expedient of suspending their operations whenever the price went below that figure. When the smelt run struck the Cowlitz the price dropped off sharply, as has been mentioned. The Washington smelt catch was one of the largest on record, being 1,476,939 lbs., surpassed in the previous seven years only by 1931.
1933			
10 December 1932	Columbia River Cowlitz River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 1	SMELT ARE IN GREAT DEMAND. Having taken small catches of smelt in the Columbia and Cowlitz rivers the Kelso fishermen are hoping that when the weekend closed period is over Sunday night that the weather will have moderated a trifle and that the fish will have formed some schools so they can make real catches of the little denizens of the deep that have made the Cowlitz river famous. As the water is now cold the silvery fish taken are in prime condition and in big demand as they are the first of the opening pre-Christmas run of smelt. This is about the time they come each year says Johnny Wannassey, who with his father usually gets the first fish taken in the stream. This year there is a half cent tax on smelt taken which must be paid to the state in advance by the commercial fishermen. Individuals are allowed to take as many as twenty pounds in a day for their own domestic use but these must not be offered for sale.
12 December 1932	Columbia River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 4	COLD HAMPERS SMELT TAKING. Ice in Cowlitz Prevents Fishermen From Much Activity. Floating ice in the Cowlitz river, as well as in the Columbia, due to the current cold spell, hampered smelt fishermen out over the week-end. And, expectations are that the catches of smelt will be practically nil so long as ice continues in the rivers, making it hazardous for small fishing craft to be navigating the Cowlitz and Columbia streams. Last Friday, Johnny Wanassay, local fisherman, brought in 40 pounds of smelt taken in the Columbia, this being one of the largest catches so far since signs of the run became known.
30 December 1932	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 1	MARKETS BULGING WITH GOOD THINGS. ... Fresh Fish. ... Columbia river smelt, lb. 15
30 December 1932	Columbia River Cowlitz River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 4	SMELT SLOW IN REACHING KELSO AREA. Ira Henderson Says He Doubts If Main Run Is Yet in Columbia River. Ira Henderson, state fish inspector, reports that while the smelt are in the Columbia they are slow reaching the Cowlitz river. Catches are being made by gillnetters of Clatskanie and near Cathlamet but with the best results in the Grays River section. He says the main run evidently has not yet reached the Columbia river although some have been taken in the Cowlitz. Gill net fishermen in the vicinity of Clatskanie, Oregon, are making some light catches of smelt in their drift net outfits and the price of the fish is high at present, as few are on the local markets at this time, although some have reached Kelso. The Columbia River Smelt company, which is in readiness for the start of the winter run of the tiny fish, which each year swarm in huge

Date	Place	Source	Quote
			schools up the Cowlitz, Lewis and Columbia rivers, is expecting a small shipment of the smelt from the Clatskanie gill nets in on Monday, they reported today. The local fishermen have not gone down the Columbia to seek the small fish as the run is reported light and scattered, only the fishermen with the big drift net outfits being out for the fish at present.
31 December 1932	Columbia River	<i>Daily Tribune and Kelsonian</i> , p. 8, col. 2	SMELT FAIL TO REACH COWLITZ. Local Fishermen on Alert for Arrival of Little Silvery Hordes. Although the smelt are not in the Cowlitz river yet, they are ... in the Columbia and hope is entertained that when the weekly closed period ends here that fishermen may have a pleasant New Year surprise. In any event the river is being closely watched. Some of the truck drivers are making plans to carry the little fish to ... markets if the run is plentiful. The fish are now due at any time.
3 January 1933	Cowlitz River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 2-3	Fishermen Happy As First Smelt Taken In River. Also First Shipments Move Out by Rail. Arriving about the usual time but a little later than last year when they came in before Christmas the annual winter run of smelt is now in the Cowlitz river and Johnny Wannasse, local fisherman, lived up to his reputation by bringing in the first forty boxes he caught off the mouth of the river. The fish are now well scattered between the plant of the Kelso Mill company and the mouth of the stream. The start of the run means thousands of dollars will be brought into Kelso through the sale of the fish. Some few fish were taken a few weeks ago. But no more were caught, save for a few strays, until Monday night when they apparently schooled and came into the river in force. Tuesday also saw the first shipments by express out of Kelso. These, however, were gill net fish taken in the Columbia river. They were consigned mostly to nearby points and to Grays Harbor and Willapa Harbor. From now on the boats are expected to be out in force in the Cowlitz river. If they get real numerous the trucks will begin operating to take the fish to Seattle, Portland and over into eastern Oregon points. This has been developed into a considerable business. As yet the fish have not come above the Kelso lumber mill plant. It is expected they may get as far as upstream as the depot but few expect them to get above the Kelso bridge. Smelt taken for commercial purposes are subject to a tax of half a cent a pound by the state. This must be paid before the fish can be moved from the docks. Each individual may take twenty pounds of smelt a day for his own private use but these fish cannot be sold. On them no tax is required.
4 January 1933	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	ROOT VEGETABLES MUCH IN EVIDENCE. ... Fresh Fish. ... Columbia river smelt, lb. 15
6 January 1933	Cowlitz River	<i>Rainier Review</i> , p. 1, col. 3	SMELT FISHERMEN GET GOOD CATCHES IN COWLITZ. Heavy catches of smelt were made in the Cowlitz river this week when the winter run of the fish was found in the stream. John Wannassay of Kelso caught 40 boxes, or approximately a ton of the fish, and other fishermen also made good catches. Some fish were caught by Wannassay and others several weeks ago and some fish have been taken in the Columbia with gillnets, but Wednesday was the first time this year that the fish have been in the

Date	Place	Source	Quote
			Cowlitz in quantities. It is believed that the fish are part of the light midwinter run and that they will be scattered in a few days.
6 January 1933	Columbia River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 8	SMELT APPARENTLY HAVE GONE OUT OF COWLITZ. While orders for smelt are scarce, not many smelt are being taken and no catches of any size were made Thursday night and the impression is that the smelt have gone out of the Cowlitz and back into the Columbia river again. The fishermen had decidedly poor success last night.
7 January 1933	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 5-6	Vegetables in Big Supply on Markets. ... Fish and meat markets are well supplied. The former this week have more Columbia river smelt ... Fresh Fish. ... Columbia river smelt, lb. 10 @ 12½
11 January 1933	Portland, OR	<i>Morning Oregonian</i> , p. 11, col. 5	SPRING SIGNS SEEN IN MARKET STALLS. ... Spring Chinook and Columbia river smelt are two recent additions to be counted upon from now on. ... Fresh Fish. ... Columbia river smelt, lb. 08
14 January 1933	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 5-6	Variety and Low Prices Are Offered. ... Columbia river smelt, selling two pounds for 15 cents, or four for a quarter, popular and inexpensive. ... Fresh Fish. ... Columbia river smelt, lb. 08
21 January 1933	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 5-6	New Arrivals Add Variety to Supplies. ... Fresh Fish. ... Columbia river smelt, lb. 07 @ .08
25 January 1933	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 1	SOUTHERN GARDENS SEND NEW SUPPLIES. ... Columbia river smelt ... four pounds for a quarter ... Fresh Fish. ... Columbia river smelt, lb. 07 @ .08
28 January 1933	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 6-7	Fruits and Greens Come From South. ... And, of course, at this time of year, Columbia river smelt, at four pounds for 25 cents, hold first place in popularity among the inexpensive fish. ... Fresh Fish. ... Columbia river smelt, lb. 07 @ .08
January 1933		<i>Pacific Fisherman</i> 31 (1): 34.	COLUMBIA FISH SUPPLY LIGHT. The December cold snap, which filled the Columbia River with floating ice, cut heavily into the catch of gillnet smelt from that stream ... for a time. It was expected that deliveries of smelt ... would be normal again by the first of the year ...
1 February 1933	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	VEGETABLES FROM SOUTH PLENTIFUL. ... Columbia river smelt at four pounds for a quarter hold the popularity spotlight in the fish markets. ... Fresh Fish. ... Columbia river smelt, lb. 07 @ .08
1 February 1933	Cowlitz River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 1	SMELT RUN IN COWLITZ SLOW. Smelt fishermen, through their organization, announce that they do not expect a run of smelt in the Cowlitz river now until about February 15. There are some smelt being shipped out of Kelso but they are gillnetfish from the Columbia river. There was one winter run of fish into the Cowlitz but it was decidedly small. It is estimated that probably not more than 300 boxes were taken by the dippers. So they do not expect now until about the middle of the month. The fish are in the Columbia but still, at last reports, well below the mouth of the Columbia. On the other hand they might come in quickly but that is not expected.
8 February 1933	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	SPRING HARBINGERS FOUND ON MARKET. ... Fresh Fish. ... Columbia river smelt, lb. 07 @ .08

Date	Place	Source	Quote
11 February 1933	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 2	Wintry Days Curb Supply of Vegetables. ... Columbia river smelt ... four pounds for 25 cents ... Fresh Fish. ... Columbia river smelt, lb. 07 @ .08
13 February 1933	Cowlitz River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 4	SMALL RUN OF SMELT IS HERE. Light Catches are Reported in Cowlitz but Cold Hampers Work of Fishermen. With the cold weather making dip net fishing uncomfortable and difficult, local fishermen are making fair sized catches of smelt in the Cowlitz river, the run having come into the stream over the weekend and fishermen were busy this morning. Fishermen said that while the run is not heavy, some fair catches are being made. The fish are not far up the river, being some distance below Kelso. Shipments are being made out of Kelso on every train, the Columbia River Smelt company office reported, although the amounts being sent out are not large, depending much on the size of the catch. Floating ice in the Columbia river has about halted all fishermen operating in that stream at present, this applying particularly to the gill net fishermen, who have been making early catches of smelt in the Columbia, where they picked up scattered schools.
14 February 1933	Cowlitz River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 1	SMELT HERE; DIPPERS IN RIVER BUSY. Newly Organized Union adopts Policy for Dividing of Stray Fish Orders. With the first good-sized run of smelt this year now in the Cowlitz river and being dipped by fishermen, the local dip netters union held a short meeting ... It is understood that the minimum this week, the first week of the heavy run, that the price will range around a dollar a box, but effective the first of next week the minimum will be 50 cents a box. ... The smelt run is reported on in earnest by the fishermen, the fish having entered the stream over the weekend and first fishing starting yesterday forenoon. It was estimated that four full fishing days could be had this week by the dip netters, namely, Tuesday, Wednesday, Thursday and Friday until eight p. m., when the stream is closed to the smelt fishermen over the weekend.
17 February 1933	Cowlitz River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 3	SEA GULLS ARRIVE TO ENJOY SMELT BANQUET. One of the sights of the annual smelt run in the Cowlitz river is now being staged in Kelso as the flocks of sea gulls hang over the water. They whirl and wheel over the whole area above and below the Kelso bridge. They attract much attention and crowds watch them as at times the air seems to be full of the birds. It is their annual feast and harvest time and they are on hand to enjoy the banquet to the fullest possible extent.
20 February 1933	Cowlitz River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 2-3	Weather, Seagulls, Smelt Bring Out Sunday Crowds. Sunday was the hottest day of the year! Yesterday, Sunday, according to the thermometer of A. A. Byrnes, local weather observer, was the warmest day of 1933 and probably the warmest day since early November. The maximum temperature rose to 52 degrees, while the minimum this morning was down to only 39 degrees above zero. No precipitation was recorded yesterday, either. With the sky whitened by the wings of innumerable seagulls, and the weather ideal for being out-of-doors yesterday, many persons improvised dip nets and in boats or on foot along the banks of the Cowlitz river attempted to dip some of the smelt now in the river, meeting with varying success, according to the luck and skill of the

Date	Place	Source	Quote
			person. Many persons, driving cars bearing long poles with almost anything from the family's canary cage to a flour sack fastened on the end of a pole, were to be seen speeding in or out of Kelso during all day Sunday. Some of the amateurs made small catches of the fish. They can dip the fish for home use without being required to have a license. The limit for home use is twenty pounds per person. ...
23 February 1933	Cowlitz River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 5	CLOSE SEASON FOR WEEKEND. Law Bars All From Taking Smelt From Cowlitz River Until Saturday Night. ... The smelt are now about to Rocky Point but are heaviest near the Weyerhaeuser bridge north of Kelso. There seems to be plenty of smelt in the river.
24 February 1933	Cowlitz River	<i>Rainier Review</i> , p. 1, col. 5	RAINIER FISHERS GO TO COWLITZ. Ernest Hollenbeck and Elmer Masten of Rainier left Wednesday for the Cowlitz river to catch smelt. They reported the fish are making their way up that stream and that good catches have been made by Washington fishermen.
27 February 1933	Cowlitz River Lewis River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 2-3	Smelt In Lewis River and Many Flock to Catch Fish. Smelt are not only in the Cowlitz but also in the Lewis river, is the report of Walter Hufford, state fish inspector for this area, who also states that the Sunday smelt fishing crowd was about the largest of the season. He also reports the commercial fishermen made the biggest hauls since the run started. He says the fish are now about to Ostrander and are being taken all along the stream. Ira Henderson, state fish inspector, has gone to Woodland and is remaining there. The other inspectors are busy here. Some of the Kelso fishermen shifted to the Lewis river as it is twenty miles nearer to the Portland market. Sunday many persons came from distant points to catch smelt for their individual use. They are allowed to take twenty pounds per day without a license and without paying a tax for their own domestic consumption. Many do this each year and the number is now swelled because so many people are out of work. Also many came just to see the fishermen at work and to watch the clouds of seagulls.
February 1933	Cowlitz River	<i>Pacific Fisherman</i> , 31(3): 40.	COWLITZ SMELT EARLY. The first run of smelt struck the Cowlitz River about the first of the year, the fish appearing a little earlier than usual, although not so early as last year, when the run came in before Christmas, setting a new early record. John Wannassey, Kelso fisherman, kept up his reputation of landing the first smelt of the run in the Cowlitz proper. The fish had been taken for some time in the Columbia River, somewhat below the Cowlitz. The initial run differed from the usual "pilot run" in that it contained females as well as males. The fish went up river and spawned, leading to the belief that the main run was on, but the fish slacked off entirely.
5 March 1933	Puget Sound	<i>Sunday Oregonian</i> , p. 2, col. 5	SMELT PLANTING TRIED. Spawning Experiment Under Way at Kalama River Hatchery. KELSO, Wash., March 4.—(Special.)—Experiments in the propagation of the Columbia river smelt are being made this year by the state fisheries department at the Kalama river hatchery. Several years ago the state department tried to establish the fish in the Nisqually river, which flows into Puget sound. Large quantities of the smelt were

Date	Place	Source	Quote
			taken from the Cowlitz river, placed in proper containers where they could be kept alive, and taken to the Nisqually, where they were released. None of the descendants of these fish have ever been found in that stream. At the Kalama river hatchery the staff has reproduced so far as is possible natural spawning conditions for the fish and a number of the fish that are entering the Cowlitz for their journey to the spawning grounds will be taken to the hatchery, where those conducting the experiment hope that the fish will spawn so that the baby smelt can be hatched under conditions that will permit observation.
30 March 1933	Cowlitz River Lewis River	<i>Daily Tribune and Kelsonian</i> , p. 2, col. 2	SMELT RUN IS CLOSE TO END. State Inspector Hufford Reports Market Demand Has Remained Strong. That the smelt run in the Cowlitz river is over and the run in the Lewis river is now ending if not through, is the statement of Walter Hufford, state fish inspector for this area, who has been here checking out the fish and collecting the state tax. He says the run may have been a little heavier or a little lighter than last year and the surprising thing has been the steady demand for the fish. He states there would probably have been a longer run had a freshet come down stream to wash out the river and give the stronger smelt a better showing. He also reports that the experiment of hatching smelt eggs at the Kalama hatchery proved a success. Just when and where the little fish will be liberated has not been decided upon.
6 April 1933	Cowlitz River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 6	Smelt Are Gone, Seagulls, Also. While the smelt fishing season has been over for the past several days so far as the fishermen are concerned it is now nearing the end for the sea gulls. Those birds, which hovered over the Cowlitz river in vast flocks, are now becoming more scarce. They are still here in plentiful numbers but each day sees fewer of them coming back. This is taken as the most sure indication that the smelt run is just about a thing of the past.
1934			
29 November 1933	Columbia River	<i>Morning Oregonian</i> , p. 14, col. 5	First Columbia River Smelt Here. The first Columbia river smelt have appeared in the market. Only a small shipment was received and they sold in the downtown stores at the fancy price of 60 cents a pound. The first catch for the market was made by Jolma Erickson of Clatskanie, Or.
9 December 1933	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 5	Packages for Gifts Appear on Markets. ... Fish markets announce a very few Columbia river smelt, with more expected early in the week.
13 December 1933	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1-2	Gay Baskets Offered for Use on Table. ... Fish markets offer Columbia river smelt at 30 cents a pound ... Fresh Fish. ... Columbia river smelt, lb., ...30
20 December 1933	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	Food Shops Offer Big Variety for Holiday Shoppers. ... Fresh Fish. ... Columbia river smelt, lb., ...30
27 December 1933	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	Supply of Fish Smaller; Other Foods Plentiful. ... Fresh Fish. ... Columbia river smelt, lb., ...30
30 December 1933	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 2	Lack of Frost Keeps Vegetables Plentiful Here. ... Fresh Fish. ... Columbia river smelt, lb., ...30

Date	Place	Source	Quote
3 January 1934	Portland, OR	<i>Morning Oregonian</i> , p. 3, col. 3	Fresh Crabs Back After Absence Due to Coastal Storm. ... Fresh Fish. ... Columbia river smelt, lb., ...30
6 January 1934	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 2	Fish Prices Low; Vegetable Supply on Market Large. Columbia river smelt have been caught in such quantities that they sell at 10 cents a pound, three pounds for a quarter ... Fresh Fish. ... Columbia river smelt, lb., ...10
10 January 1934	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	Grapefruit and Oranges Popular in Food Markets. ... Fish markets are well supplied, with Columbia river smelt leading in popularity, also in price, three pounds for a quarter. ... Fresh Fish. ... Columbia river smelt, lb., ...10
10 January 1934	Columbia River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 7	Smelt Fishermen Meet Saturday. ... Although the smelt usually come into the Cowlitz river along about Christmas time the flood waters are believed to have delayed the run this year. Some smelt are being taken by the gill netters in the Columbia river.
16 January 1934	Columbia River	<i>Daily Tribune and Kelsonian</i> , p. 6, col. 5	SMELT SLOW TO COME UP RIVER. Plenty in Columbia but Cowlitz Fishermen Still Waiting for Winter Run. While there are plenty of smelt in the Columbia river, down about 16 miles, and the gill netters are making good catches, none have entered the Cowlitz river as yet. Some of the local fishermen are afraid the gill netters may break up the schools and that the usual run in the Cowlitz may be lacking. They are now about due. It is felt that the high water kept out the usual winter run that is due between Thanksgiving and Christmas time. But the Columbia fishermen are making good catches. They are shipping hundreds of boxes of the little fish out of Kelso, but the Cowlitz fishermen have been able to get none up to this time.
17 January 1934	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 3	PRODUCE OFFERED GIVES TASTY MEALS. ... Fresh Fish. ... Columbia river smelt, pound 05
20 January 1934	Portland, OR	<i>Morning Oregonian</i> , p. 7, col. 2	Wide Choice of Edibles on Display. ... Fresh Fish. ... Columbia river smelt, pound 05
24 January 1934	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 6	Vegetables Give Portland Markets Springtime Touch. ... Columbia river smelt, for which the price has gone down to two pounds for 15 cents. ... Fresh Fish. ... Columbia river smelt, pound 08
27 January 1934	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 1	Wide Variety of Vegetables, Fruits Found on Market. ... Fresh Fish. ... Columbia river smelt, pound 08
31 January 1934	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 1	Supply Holds Up in Out-of-Season Vegetable Lines. ... Fresh Fish. ... Columbia river smelt, pound 08
January 1934		<i>Pacific Fisherman</i> 32 (1): 14.	Smelt Tax Lowered. The Oregon poundage fee on smelt taken from the Columbia River was reduced by the special session of the Oregon legislature from 5c to 1c per lb.
7 February 1934	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 2	FOOD PRICES ADVANCE. ... Fresh Fish. ... Columbia river smelt, pound 08
10 February 1934	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 3-4	FOOD SUPPLIES AMPLE. ... Fresh Fish. ... Columbia river smelt, pound 08
17 February 1934	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 2	NEW VEGETABLES COME. ... Fresh Fish. ... Columbia river smelt, pound 08

Date	Place	Source	Quote
19 February 1934	Cowlitz River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 1	SMELT POUR INTO RIVER IN SCHOOLS. Fish Found Saturday Afternoon and First Shipments Are Made Out of Kelso Sunday. GULLS HERE ALSO. Dips Nets Busy As Silvery Hordes Make Dash for Upper Cowlitz Spawning Grounds. The smelt are in the Cowlitz. That news flashed up and down the Cowlitz river late Saturday afternoon, and Saturday night the fishermen with their dip nets were out in force. Probably more than 1,000 boxes of the little silvery fish were shipped out of Kelso before Sunday night by truck and by train and in private autos. After a long wait and with no advance winter run about Christmas time, owing to the flood waters, the smelt came in with a rush Saturday night. Up until the present time the gill netters of the Columbia river have been supplying the markets. But now the fishermen who use their dip nets in the Cowlitz river are harvesting their share of the little denizens of the deep which have come out of the ocean and moved up the mighty Columbia river to enter the Cowlitz for spawning purposes. Captain A. E. Hayes, veteran fisherman and riverman of this section, had predicted they would enter the Cowlitz about February 15. They came in two days just behind the schedule he picked for them. The first fish were known to be in the river Saturday afternoon. By evening it was found the schools were moving upstream at a rapid pace. But there is a weekly closed season on smelt of 36 hours from 8:00 o'clock each Friday morning until 8:00 o'clock each Saturday night. So it was Saturday night before the fishermen could get busy. The news was flashed to the state fisheries department. The inspectors were on hand. For each 50-pound box of smelt must pay a 5-cent tax and the state gets its money and stamps the boxes before they can be sent to market. By the time the fishermen got busy the advance guard of the smelt had passed upstream beyond the Kelso bridge and the big catches were made near Clark's bar off North Kelso. During the early morning the fishing was not so good and few were caught below Kelso. But the boats located them above the bridge. Where the first boats brought in from thirty to forty boxes the boats returning toward dusk Sunday evening had from fifty to seventy boxes and were loaded to the gunnels with the little fish. By this morning the little fish had proceeded upstream to Lexington and Ostrander. As the flood has destroyed the old city dock near the bridge Captain Hays rigged up a conveyer at the old Kellogg landing. From there probably more than 500 boxes were shipped by truck during Sunday. At the Columbia River Smelt company dock more fish were being unloaded. From there they moved by truck and by train. Farther down the river more were being taken from the water. Fishermen expect the smelt to continue their run for at least a month. More optimistic ones think they will still be shipping smelt from here in April. Captain Hayes says the fish are of a fine quality and flavor this season. All the fishermen are rushing to get them to market. This year Captain Hayes has a more ambitious plan than ever. Although the smelt are known as a "soft" fish, he plans to ship big consignments east of the Mississippi river and has already started some fish back to Pennsylvania points. He says the demand for them is strong. It was not long before all

Date	Place	Source	Quote
			Kelso knew the smelt were in the river. For the seagulls arrived in clouds as they follow the smelt with greater enthusiasm than do the human fishermen. So Kelso people got out their own dip nets and gathered in a mess of the smelt. ...
21 February 1934	Portland, OR	<i>Morning Oregonian</i> , p. 14, col. 1-2	NEW VEGETABLES ARRIVE. ... Dip smelt from the Cowlitz river looks good and sells for 5 cents a pound. ... Fresh Fish. ... Columbia river smelt, pound 08
27 February 1934	Cowlitz River	<i>Morning Oregonian</i> , p. 16, col. 2	Columbia River Smelt Scarce. Columbia river smelt continue very scarce. A few scattered boxes came in from the Cowlitz and sold at \$1.50. Fishermen are looking for a run to appear in the Lewis river in the next few days.
28 February 1934	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 6-7	ASPARAGUS PRICES DROP. ... Fresh Fish. ... Columbia river smelt, pound 08
1 March 1934	Lewis River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 4	SMELT NOW IN LEWIS RIVER. News came to the state fish inspectors Thursday morning [1 March] that the smelt were in the Lewis river. State inspectors left for Woodland at once and some of the fishermen who have been operating in the Cowlitz river went down to investigate. Last night the Kelso fishermen had a fair night and made some good catches, much better than the previous night when not more than 100 or 125 boxes were taken. As a result of the recent floods changing the bed of the river the smelt are hard to obtain although the gulls apparently are more numerous than ever in this section, indicating there are plenty of smelt in the stream but they are not in schools, or if they are, the fishermen have trouble in locating them. The shipments Thursday were fairly heavy and the price is holding firm. Woodland shipped out some smelt and supplies of boxes were taken there. The fishermen fear that the Lewis river floods may also have upset fishing in that stream. Friday morning at 8:00 o'clock the weekly 36-hour closing period starts.
3 March 1934	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 1	SPRING GREENS VARIED. ... Fresh Fish. ... Columbia river smelt, pound 08
3 March 1934	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 6	Variety of Good Things in Markets. ... Fish markets again have more generous quantities of smelt from the Lewis river, which may be the forerunners of another big run. ... Fresh Fish. ... Columbia river smelt, pound 08
3 March 1934	Lewis River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 7	FISHERMEN TO TRY IN LEWIS. Movements of Smelt Are Keeping Operators of Rover Boats Badly Worried. When the smelt fishermen go after the little silver fish at 8: o'clock this evening, the week-end closing period that started at 8 Friday morning ending at that hour, half or more of the fishing fleet will be on the Lewis river. Several boats are remaining in the Cowlitz river but a run is expected near Woodland, so most of the boats will go there. There are plenty of smelt in the Columbia between the Cowlitz and Lewis rivers and the fishermen expect them to make a dash for the Lewis as the streams are falling after the recent sudden rise. Just how much effect the December floods had on the fish run this year is a matter of speculation with the commercial fishermen. So far the fishing has not been of the best. Some good fishing was had earlier in the Cowlitz. One good night was enjoyed in the Lewis river. But otherwise the fishing

Date	Place	Source	Quote
			has not been up to expectations.
5 March 1934	Sandy River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 5	Smelt Run Goes Into Sandy River. TROUTDALE, Ore., March 5, (UP)—The smelt run entered the Sandy river early Sunday [4 March] morning. The undeniable harbinger of spring occurred earlier than usual. By afternoon the word had spread and hundreds of Portland residents flocked to the river. The run was reported to be unusually heavy. A license costing 50 cents is necessary for persons who wish to dip the silvery fish out of the river in nets, bird cages or popcorn poppers.
5 March 1934	Sandy River	<i>Eugene Register-Guard</i> , p. 1, col. 3	Smelt Run Early; Portlanders Busy PORTLAND, March 5—(AP)—Several weeks ahead of time, the advance guard of those silly little fish, smelt, turned into the Sandy river at Troutdale near here at 9 o'clock Sunday [4 March] morning. A few minutes later, residents of the community were busy with their nets, and before the day was over, the river banks were crowded with Portlanders using everything from dishpans and bare hands to elaborate seining devices to get their share of the wriggling feast.
10 March 1934	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 7	Spring Lamb Found High in Quality. ... Fresh Fish. ... Columbia river smelt, pound 05
10 March 1934	Cowlitz River Lewis River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 6	SMELT WANDER ABOUT STREAM. Fish Are in Cowlitz and Lewis Rivers; Chinooks Now in Cowlitz. With smelt fishing closed ... until 8:00 o'clock tonight the Kelso fishermen admit they are unable to say who happens to be the dizzier, the fishermen or the smelt. Some good runs of smelt have entered both the Cowlitz and Lewis rivers and both streams are believed to have plenty of smelt in them at this time. Some especially fine catches were made in the Lewis river Thursday night. Good catches were also made here. The fishermen expected the smelt to remain in for about another three weeks. ...
13 March 1934	Cowlitz River Lewis River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 6	SMELT RUN IS AT HIGH PEAK. Fine Catches Being Made in Cowlitz River Below Bridge In Kelso. That the finest and most abundant run of smelt this season is now in the Cowlitz river and the dippers are catching them below the Kelso bridge is the announcement of Robert Yantis, state fish inspector, who is in Kelso checking up on the smelt run. He says the smelt being taken are of exceptional fine quality and are so plentiful that the fishermen get their loads in a hurry. There is also good fishing in the Lewis river. The smelt run there is also plentiful and of a high quality. But some of the fishermen who took their boats to the Lewis are now back in the Cowlitz. All indications are there will be a few more weeks of good fishing. That the smelt are being taken below the Kelso bridge is regarded as an indication that that they have adjusted themselves to the changed conditions in the stream following the December flood which tore up the bed of the Cowlitz. The first schools of smelt coming in hurried by the bridge and most of the catches were made around or above Rocky Point. But now they are being taken below the span. Yantis also reports that the fish are plentiful near Castle Rock. He spent Sunday along the banks of the stream and says there were no end of fine smelt moving up there in solid schools.

Date	Place	Source	Quote
13 March 1934	Lewis River	<i>Daily Tribune and Kelsonian</i> , p. 2, col. 7-8	LEWIS YIELDS FISH HARVEST. Best Smelt Takes In Years Are Now Being Made in Waters at Woodland. WOODLAND, March 13 (Spl.)—Smelt fishing on the Lewis river has reached the greatest peak for commercial fishing of any season so far, according to the various interests here. About fifty fishermen are at work here with a catch running close to 2200 boxes a day. These are being shipped by truck to Seattle, Portland, eastern Washington, Idaho and Montana. Occasional truck loads have gone as far east as Salt Lake City, being refrigerated. Consideration is being given to shipping by refrigerated express in car load lots. The quality of the fish now being caught leads the old time fishermen to believe that the season here will last into the first of April. They report no red eyed fish so far but large, firm fish. ...
19 March 1934	Cowlitz River Lewis River	<i>Daily Tribune and Kelsonian</i> , p. 6, col. 1	SMELT RUN IS CLOSE TO END. After “dizzy” experiences trying to locate the smelt, Kelso fishermen believe the end of the present run is near, although there are still plenty of the little fish in the Cowlitz and Lewis rivers. Good catches are reported at times from both streams. Last Wednesday and Thursday produced good catches. Today the smelt were not so plentiful. The catches were light and the fishermen had to work hard to get the fish. The smelt have been in the river for some time so it is felt that the end of the run is near, although they may be in the river until after April 1. From all sources reports have been the same this year. The fish have been erratic. Some are convinced that the December floods, which tore up the river beds, had something to do with the erratic season. One factor favoring the fishermen has been that the market has been steady and the prices firm.
17 March 1934	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 1	NEW VEGETABLES COME. ... Fresh Fish. ... Columbia river smelt, pound 05
March 1934		<i>Pacific Fisherman</i> 32 (4): 45.	Smelt Move to Cowlitz. The annual run of Columbia River smelt struck the Cowlitz River Feb. 17, initial production from that stream being excellent. For about six weeks prior to that time moderate quantities of smelt had been taken from the Columbia River by gillnet operations, but with the beginning of the Cowlitz run the landings moved into quantity figures. Estimates said about 50,000 lbs. of smelt were taken from the Cowlitz during the first 24 hours of the run. The tax on smelt this year is 5c per 50-lb. box, while there is a 36-hour weekly closed period from 8 Friday morning until 8 Saturday night. With the advent of the Cowlitz run the price of smelt at retail in neighboring city markets dropped to about 5 c per lb.
4 April 1934	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 7	Berry Supply to Be Increased in Portland Marts. ... Fresh Fish. ... Columbia river smelt, pound 05
1935			
21 November 1934	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 5	COLUMBIA SMELT NOW ON MARKET. Price Opener for initial Lot 25 Cents Per Pound. Arrival of the first Columbia river smelt is the news in Portland fish markets today. Twenty-five cents a pound is the opening price. ... Fresh Fish. ... Columbia river smelt, pound 25

Date	Place	Source	Quote
24 November 1934	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 3	Foods for Thanksgiving Are Plentiful in Portland Markets. ... Fresh Fish. ... Columbia river smelt, pound 25
1 December 1934	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 2	Foods Ample to Accompany Cold Turkey. ... More Columbia river smelt, the price still 25 cents a pound, are found in fish markets. ... Fresh Fish. ... Columbia river smelt, pound 25
7 December 1934	Portland, OR	<i>Morning Oregonian</i> , p. 8, col. 6	FRUIT REFLECTS HOLIDAY SPIRIT. ... Columbia river smelt at 15 cents a pound ... Fresh Fish. ... Columbia river smelt, pound 25
7 December 1934	Columbia River	<i>Morning Oregonian</i> , p. 21, col. 7	SMELT RUN SMALL. Small quantities of Columbia river smelt are coming in about 15 or 16 boxes daily, from Eagle Cliff. The east winds are likely to shorten the catch. Fresh salmon is almost off the market now.
8 December 1934	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 3	New and Pleasing Things Found in City Markets. ... Fresh Fish. ... Columbia river smelt, pound 12½
10 December 1934	Columbia River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 6	Columbia River Smelt Are Being Sent From Here. Shipments of Columbia River smelt are now being made from here. The fish are caught by gillnetters in the lower Columbia near Cathlamet and are brought here by truck for shipment. They are going to points in California, Idaho and Montana as well as to closer markets. It will be a month or more before the main run of smelt gets into the Cowlitz river when dipping of the fish commences on an extensive scale although the small early run of fish in the Cowlitz may arrive any time now.
12 December 1934	Portland, OR	<i>Morning Oregonian</i> , p. 7, col. 6	Plentiful Supply of Nuts Offered by City Markets. ... Fresh Fish. ... Columbia river smelt, pound 12½
15 December 1934	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 3	Ducks, Geese and Hens Now Fill Markets. ... Columbia river smelt is selling at the low price of two pounds for 25 cents. ... Fresh Fish. ... Columbia river smelt, pound 12½
19 December 1934	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 7	Rare Fruits Now Offered by Markets. ... Fresh Fish. ... Columbia river smelt, pound 10
22 December 1934	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 2	Food Supply on Markets Declared to be in Prime. ... Fresh Fish. ... Columbia river smelt, pound 10
24 December 1934	Cowlitz River	<i>Daily Tribune and Kelsonian</i> , p. 1, col. 8	First Smelt of Season Caught in Cowlitz Sunday. The smelt came into the Cowlitz river just in time for Christmas. At least some of the finny horde did, as Herman "Butch" Clatchie and Herman and Ted Ulrich, local fishermen, dipped a fifty pound box full of the smelt from the Cowlitz waters last night. They hope to get more of the fish tonight. Gillnet fishermen have been catching smelt near Cathlamet for several weeks but these are the first reported dipped from the Cowlitz. A small mid-winter run of the fish usually comes into the Cowlitz about this time of the month.
29 December 1934	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 3	Food Prices Are Headed Upward, Avers Observer. ... Fresh Fish. ... Columbia river smelt, pound .13 @ .15
5 January 1935	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 7	Markets Have Abundance of Fruit and Vegetables. ... The price of smelt jumps up and down so fast that we can scarcely keep track of it. Today it is selling at the give-

Date	Place	Source	Quote
			away price of 5 cents a pound. ... Fresh Fish. ... Columbia river smelt, pound 05
9 January 1935	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 7	Lamb and Veal Prices Up; Smelt Still Quite Cheap. ... Smelt is still at the bottom, affording excellent meat for any man's diet, selling at 5 cents a pound. ... Fresh Fish. ... Columbia river smelt, pound 05
12 January 1935	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 4	Local Food Markets All Dressed Up. ... The smelt run is about over for this week, but another one can soon be expected. ... Fresh Fish. ... Columbia river smelt, pound .07½ @ .10
17 January 1935	Columbia River, Oak Point	<i>Morning Oregonian</i> , p. 4, col. 5	FOUR TONS OF SMELT GO TO MARKET DAILY. KELSO, Wash., Jan 16. (Special)—Four tons of Columbia river smelt are being shipped from Kelso daily. The shipments average from 150 to 200 50-pound boxes each day. They are not being dipped from the Cowlitz river at present, but are caught by gill net fishermen in the Columbia near Oak Point and come here by truck.
18 January 1935	Portland, OR	<i>Morning Oregonian</i> , p. 17, col. 7	SMELT CATCH LIGHT. Columbia river smelt continued in light supply, only a few boxes coming up yesterday. Jobbers quoted \$2.50 a box. The catch is not expected to be larger while present weather conditions continue.
23 January 1935	Portland, OR	<i>Morning Oregonian</i> , p. 11, col. 6	Chinook Salmon Attracts Portland Market Buyers. ... Smelt stays at two pounds for 15 cents. ... Fresh Fish. ... Columbia river smelt, pound .07½ @ .10
26 January 1935	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 1	Local Marts Tempt With Wide Array. ... Fresh Fish. ... Columbia river smelt, pound .07½ @ .10
27 January 1935		<i>Morning Oregonian</i> , p. 4, col. 1	Now I'll Tell One. Nature Lavish in Providing Millions of Eulachon Fish for Rivers of Northwest. BY HERBERT S. LAMPMAN, Staff Writer, The Oregonian, and author of "Northwest Nature Trails." As each tributary claims the eulachon in its march up the Columbia river newspapers herald the arrival of the platinum-hued legions in a manner befitting their royal lineage—for they are cousins to the bright salmon and the lithe cutthroat trout. They are nearing the end of their brief days and the sandbars of the tributaries shall claim their bequest of eggs that will provide "runs" for other years. The Columbia river smelt is not a true smelt. It is properly identified as the eulachon, and sometimes it is known as the candlefish. The Coast Indians claimed great quantities of them in their dip nets and traps and found that the dried bodies would burn with the brilliance of an oil-soaked torch. Few other fishes are so rich in fat and none is more prolific. Mortality Rate High. The mortality rate among the eulachon must be tremendous not only in the egg stage but in the adult span at sea. While the fishes themselves are more than legion, their eggs, deposited on the spawning bars, are beyond all calculation—are, indeed, infinite in number. An ambitious gentleman with a flair for figuring once calculated that the Sandy river alone, during a peak run, contained enough eulachons to supply every man, woman and child in the world with a repast of four fish. Not long after he had displayed these statistics pridefully to his friends the same run hit a new peak. It is related that he collapsed at the announcement and was led mumbling to a quiet sanitorium. Assuming that the mathematician's figures were even half correct, he

Date	Place	Source	Quote
			based his calculations on the Sandy river, only one of the Columbia's many tributaries that carry the eulachon to its spawning grounds. There is the Cathlamet river, the Cowlitz and the Lewis—and many others. The runs in these streams are as great as those of the Sandy and sometimes even greater. Millions Enter River. Besides these must be calculated the main run of the Columbia river itself. There are figures that reach into the infinite. They come in from the sea in a solid shoal of shimmering platinum and steel, and their journey up the river may take weeks. The millions that enter the river have been visited by predators at sea—the swift hake, the paunchy rockfish and the savage seal. When they enter the river other predators take up the piscatorial and avian cudgels, for here even the birds join in. The squawfish, slant-browed and handsomest of the great minnows, slashes his way through their shoals and the gulls wheel over them, crying their excitement to the world. Even the rascal crows are known to seek their share. Sturgeon, plated and armored as they were a million years ago, surge up from the bottom in pursuit and sometime the salmon have been known to exact a few from the legion. Gulls Devour Many. Where the runs must cross shallow river bars to enter the tributaries, the gulls assemble with the abandon and noisy glee of delegates at convention time. The sky and the water are white with their broad wing and the din of their feasting often is audible for miles on a windless day. But still they thrust upward to their spawning bars. Their strength, like that of the salmon, is provisional for just this much trekking. They hover over the bars, turning the river to saffron with the silt stirred by their purpose and the billions upon billions of eggs are dropped in the sand. The eggs often collect in waves along the bottom, held in current-grooved sand like gold in a sluice box. To this repast flock the cutthroat trout—ravenous and ill-mannered as ever. They scoop mouthfuls of the pin-head eggs into their ever-empty stomachs until they are replete as an alderman at a banquet. Then comes man. First the commercial fishermen with their long-handled nets and then the amateur with the inevitable birdcage on a pole or the family colander or a flour sack—or any object that might serve as a scoop. Kitchens Fall Heir. Tons find their way into suburban kitchens and are distributed with a lavish hand to those neighbors, who have not yet gone “smelting,” until, as an Oregonian editorial of last year so neatly stated (concerning the smelt-filled neighbor and his sated appetite); No thank you, Mr. Penny — but we wouldn't care for any, We have had so very many that we're sort of in a fog. Smelt no longer can enthuse us—we can't see why you should choose us— Take your smelt to Mrs. Whoosis—or we'll have to call the dog! Then, as swiftly as they come, they are gone. The river again is dark and moody and no dully glittering spearhead of eulachon drives through the shoreward eddy. For a week or so afterward an angler may occasionally hook the skin of one as his tackle drags across the floor of the river, and you might see a skin or so caught by the willows at the mouth

Date	Place	Source	Quote
			of a creek. Their soft, oily bodies decompose suddenly and the other small denizens of the river feast for a day or so.
30 January 1935	Columbia River	<i>Morning Oregonian</i> , p. 10, col. 4	SMELT RUN COMING. Columbia river smelt are still in light supply, but there are indications of a larger catch soon. The run is moving up the Columbia and is now close to the Lewis and Cowlitz rivers. Present wholesale prices are \$2.25 to \$2.50 a box.
30 January 1935	Portland, OR	<i>Morning Oregonian</i> , p. 12, col. 1	Food Markets Show Abundance. ... Columbia river smelt, pound ... 6½ and 8½ ..
31 January 1935	Columbia River, Oak Point and Eagle Cliff	<i>Morning Oregonian</i> , p. 15, col. 4	HUGE SMELT RUN NOW IN COLUMBIA. KELSO, Wash., Jan 30 (Special)—The largest shipments of Columbia river smelt of the year have been made from here the past few days. Approximately 400 boxes, or more than ten tons, of the fish have been shipped daily by express to the more distant points and by truck to Portland and Puget sound. The heaviest shippers are the Columbia River Smelt company and the Central Smelt company. The latter is an organization of gill-net operators. The smelt at present are being caught by gillnetters in the vicinity of Oak point and Eagle cliff, but it is expected that the fish will be in the Cowlitz river soon, when dipping will start. LONGVIEW, Wash., Jan. 30 (Special)—Seagulls by the thousand are hovering over the Columbia river at Cathlamet, feasting on the spring run of smelt. Each evening they can be seen winging their way to salt water for the night, only to return to their feast in the morning.
2 February 1935	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 5	Season's First Bockwurst Appears in City Markets. ... There is also another run of smelt, so great in quantity that the price is exceptionally low, only 5 cents a pound or six pounds for a quarter. ... Fresh Fish. ... Columbia river smelt, pound .05½ @ .08½
6 February 1935	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 6	Prices of Fish Unchanged for Local Mart Shoppers. ... Smelt and salmon are plentiful and reasonably priced. ... Fresh Fish. ... Columbia river smelt, pound .05 6 for .25
8 February 1935	Cowlitz River	<i>Daily Kelsonian Tribune</i> , p. 1, col. 3	Run Has Entered Cowlitz River. The first of the main run of smelt arrived in the Cowlitz river last night when the Columbia River Smelt Company reported light catches of the little fish have been made in Grays river, and along the Columbia river near Eagle Cliff and Cathlamet.
9 February 1935	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 4	Butter Clam Abounds in Fish Markets. ... Smelt are very scarce, unless an unexpected shipment comes in today. ... Fresh Fish. ... Columbia river smelt, pound .05 6 for .25
9 February 1935	Cowlitz River	<i>Daily Kelsonian Tribune</i> , p. 1, col. 9	Friday, Saturday Are Closed Time to Smelt Taking. Smelt fishing is unlawful from 8:00 a. m. Fridays until 8 p. m. Saturdays, Tom Horn state game protector, advised this morning for the benefit of amateur fishermen who may want to dip a mess of smelt from the Cowlitz river now that the big run of smelt is in the river. Fishing is not permitted above Sandy Bend and amateur fishermen are permitted only 20 pounds of smelt in any one day. No license is necessary to fish for smelt unless more than 20 pounds is caught.
13 February 1935	Portland, OR	<i>Morning Oregonian</i> , p. 11, col. 2	New Potatoes, Fine Fruits and Vegetables on Market. ... In the fish markets. ... Smelt are down to six pounds for 25 cents. They are so plentiful that the fishermen can get

Date	Place	Source	Quote
			them in dipnets. ... Fresh Fish. ... Columbia river smelt, pound .05 6 for .25
16 February 1935	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 3	Fresh Poultry, Fish and Vegetables on Market. ... Columbia river smelt are still very plentiful and selling for 5 cents a pound, or six pounds for a quarter. ... Fresh Fish. ... Columbia river smelt, pound .05 6 for .25
20 February 1935	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 2	Strawberries Arrive From Sunny South. ... Fresh Fish. ... Columbia river smelt, pound .05 6 for .25
20 February 1935	Cowlitz River	<i>Daily Kelsonian Tribune</i> , p. 1, col. 6	SMELT PRICE AGREED UPON. Forty cents for 50 pounds of smelt at the boat was decided upon by smelt fishermen as their minimum price for fish at a meeting yesterday when tentative plans were made for a union organization to embrace smelt fishermen. Since the run of fish came into the Cowlitz the price to the fishermen has been dropping steadily until he was not assured enough for his fish to pay his operating expenses, it is declared. George Adams is secretary of the local union. The worst problem of the smelt fishing industry, as in former years, is the indiscriminate operator who purchases fish here, trucks them to Portland or Seattle and dumps them on the market for whatever they will bring, according to local fishermen. There is no immediate danger of any strike of the fishermen as the regularly established companies are willing to pay the price of 40 cents a 50-pound box for the smelt if the independent operator does not get his fish any cheaper and does not cut the price. ... Smelt are not as plentiful as they were last week and most of the fishing is now being done above Ostrander.
22 February 1935		<i>Daily Kelsonian Tribune</i> , p. 1, col. 1	NEW TYPE OF BOX TO HELP SMELT SALES. Wider and Shallower Container Better Preserves Soft Fish for Shipping to Market. NEWLY ADOPTED. New Box Contains Same Weight of Smelt as Old Box; Expected It Will Be Used Generally. Use of different shaped box in shipping smelt will result in a big improvement in the condition of smelt when they arrive at their destinations, recent use of a wider box indicates. The newly adopted box is much wider than the old style of smelt box and is correspondingly shallower. The tender fish are not piled as deep into the new box and as a result are not so badly crushed when they reach the retail dealer or consumer. ... It contains fifty pounds of smelt, the same as the old box. The weekend closed season on fishing commenced at eight o'clock this morning and no fishing will be permitted by either commercial fishermen of those dipping for their own use until Saturday evening at eight o'clock. This afternoon fishermen met at the Labor Temple in Longview to consider formation of a union under the Columbia River Fishermen's Protective Union. Arvid Mattson, Astoria, secretary of the union, was on hand for the meeting.
23 February 1935	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 3	Butter and Egg Prices Show Slight Decreases. ... Fresh Fish. ... Columbia river smelt, pound .05 6 for .25
23 February 1935		<i>Daily Kelsonian Tribune</i> , p. 1, col. 2	UNION FORMED BY FISHERMEN OF DISTRICT. Columbia River Fishermen's Protective Includes Smelt Fishermen; to Hold Up Price. ... The fishermen decided to maintain the price of 40c per fifty pounds of smelt at the boat, agreed upon at a meeting earlier in the week, as the minimum price for the season. Almost all of the fishermen will

Date	Place	Source	Quote
			join the union, it is anticipated. Ole Soleim, manager of the Columbia River Smelt company, and other fish dealers are agreeable to the 40c minimum price, which they think will prove a stabilizing factor in marketing smelt and which will prevent the dumping of smelt in Portland markets and other markets at excessively low prices.
27 February 1935	Portland, OR	<i>Morning Oregonian</i> , p. 9, col. 6-7	Fruit and Vegetable Prices Drop as Supplies Increase ... smelt are here in such quantities that the price is only three pounds for 10 cents. ... Fresh Fish. ... Columbia river smelt, pound 3 for .10
27 February 1935		<i>Daily Kelsonian Tribune</i> , p. 1, col. 6	SMELT PRICE HELD BY ACT OF FISHERMEN. Refusal to Catch and Deliver Fish to Portland Firm That Fails to Meet Price Has Effect. RECEIVE MORE. Cooperation of Fishermen Has Resulted in Maintaining Higher Return Than in Former Year. Smelt fishermen refused to catch any smelt last night for a Portland firm which failed to meet the price of 40 Cents for fifty pounds at the boat that was set recently by the fishermen, and that firm did not get any smelt last night and today. The local dealers were delivered smelt as usual last night and deliveries went to other distributors and firms in Portland and elsewhere in the Northwest. As a result of their co-operation this year in maintaining their price smelt fishermen have received an average of 15 cents a box more for smelt than last year it is estimated, and more fish have been shipped to date this year than in the corresponding period last year. Indications today were that the Portland firm would agree to the 40 cent price for 50 pounds of fish today and that the fishermen would fish for it tonight.
2 March 1935	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 2	Week Brings Few Changes in Portland Food Prices. ... Fresh Fish. ... Columbia river smelt, pound 3 for .10
3 March 1935	Portland, OR	<i>Morning Oregonian</i> , p. 14, col. 4	Local Market Quotations. ... Fish. ... SMELT—Columbia river \$1.25 per box
6 March 1935	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 8	Portland Egg Prices Drop Several Cents; Kumquats, Rhubarb, Strawberries on Mart. ... Fresh Fish. ... Columbia river smelt, pound 3 for .10
9 March 1935	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 5	Portland Fish Markets Now Offering Second Shipment of Fresh Shad. ... Fresh Fish. ... Columbia river smelt, lb. ... three for .10
10 March 1935		<i>Daily Kelsonian Tribune</i> , p. 1, col. 4	U. P. Cannery Employs Many Canning Smelt. Four thousand cans of smelt have been packed already this year by the United Producers of Cowlitz county at the Evans cannery in Longview, where a crew of eight women and four men of the cooperative group are busy each day preparing the smelt for the cans and canning them. Part of the smelt are smoked before they go into the cans and others are canned in sauce without smoking. Three members of the organization are also engaged in catching the smelt. Approximately 1,000 pounds of smelt are used each day that canning is in progress, filling about 800 cans. The canning operation will be continued by the United Producers until the run of fish ends, according to P. P. Palmer, manager. At the present time the cooperative has 226 members.
13 March 1935	Portland, OR	<i>Morning Oregonian</i> , p.	Fish Markets Well Supplied With Variety. ... Fresh Fish. ... Columbia river smelt, lb.

Date	Place	Source	Quote
		11, col. 2	... three for .10
16 March 1935	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 1	First Spring Lamb Comes to Markets. ... Fresh Fish. ... Columbia river smelt, lb. ... three for .10
20 March 1935	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 1	Fish and Berries Add Variety to Market Offerings. ... Fresh Fish. ... Columbia river smelt, lb. ... three for .10
30 March 1935	Portland, OR	<i>Morning Oregonian</i> , p. 16, col. 4	SEVILLE ORANGES NOW ON MARKET. ... Fresh Fish. ... Columbia river smelt, lb. ... three for .10
March 1935		<i>Pacific Fisherman</i> 33 (4): 41.	Smelt Prices Stabilized at 40c Per Box. After remaining steady for the early part of the Cowlitz River season, the price of smelt went into a series of tail spins about the middle of February. It was finally stabilized at 40c per 50-lb. box to the fishermen when the producers agreed among themselves not to sell below that figure. The larger buyers of smelt were heartily in accord with the movement to stabilize the price, being desirous of having a stable market rather than runaway selling. Some of the principal shippers of Cowlitz River smelt have adopted a wider and shallower box than the traditional container. While the new box holds the same amount—50 lbs.—as the old style, it is contended that the delicate little fish ship better and suffer less damage in the shallower box.
March 1935		<i>Pacific Fisherman</i> 33 (4): 46.	Smelt Fishermen Organize Branch of C. R. F. P. U. A Cowlitz River branch of the Columbia River Fishermen's Protective Union was organized at Longview late in February. Paul Unger of Carrolls was elected president, Carl Forsberg secretary and Herman Cultchie and William Marston directors. The meeting was designed essentially to organize a union of smelt fishermen, but it will also include salmon fishermen, representing the interests of men engaged in either or both of these activities. The union decided to maintain the price of 40c per 50-lb. box of smelt to the fishermen.
3 April 1935	Portland, OR	<i>Morning Oregonian</i> , p. 19, col. 4	HALIBUT PRICES LOWER. ... Columbia river smelt are no longer on the market as the run is over.
April 1935		<i>Pacific Fisherman</i> 33 (5): 51.	Various Uses For Cowlitz River Smelt. The United Producers League canned a considerable quantity of Cowlitz River smelt at Longview in March for the use of its members. The fish were packed in No. 2 cans in two styles. Some of them were smoked and then canned, while others were canned plain, with a little mustard sauce added. The smoking of smelt continued at a number of points, principally Kelso and Tacoma, the Northern Fish Products Co. of Tacoma annually smoking a moderate volume of these fish in two styles—kippered, with a quick, hot smoke; and hard smoked. In spite of the fact that these fish come on the market at an off season, Seattle smokers never have done much with them except to smoke a few each year for the local Jewish trade. Clyde Chase of the Coast Fisheries, Reedsport, Ore., had some smelt shipped clear down there this spring as a fill-in item for his smoke house.
April 1935		<i>Pacific Fisherman</i> 33 (5): 52.	Smelt Prices Closely Controlled by Fishermen. Cowlitz River smelt fishermen during the latter part of the season apparently kept the price situation well in hand, the newly

Date	Place	Source	Quote
			organized Cowlitz Branch of the Columbia River Fishermen's Protective Union acting from time to time to restrict production and keep the price to the fishermen from falling below the minimum figure of 40c per box of 50 lbs. to the fisherman. This price was predicated upon the fish in the boat, the buyer standing the tax and all boxing, handling and transportation charges. The fishermen acted, moreover, to support a schedule of wholesale prices in the local and Oregon territory by refusing to sell to buyers who quoted wholesale figures under \$1 per box at Kelso, \$1.25 at Portland and its immediate area and \$1.35 per box in western Oregon from Oregon City to Eugene. In taking this section, these fishermen worked closely with the principal wholesalers, who felt that a stable market was highly desirable in the smelt trade, but whose efforts at orderly marketing had been seriously handicapped by price cutting.
1935 season		<i>Pacific Fisherman</i> 1936 Annual Statistical Volume, 34 (2): 203.	Smelt Trade Firm. Marketing of Columbia River smelt was attended by a degree of stability which was refreshing in comparison with the demoralization so frequently encountered in this fishery in previous years. The fishermen have taken a strong position with respect to the production and marketing of smelt and work closely with the established distributive trade to support the market. Catches have been restricted to the pattern of the probable demand and sales have been confined in large degree to responsible and established houses.
1936			
December 1935		<i>Pacific Fisherman</i> 33 (13): 46.	Smelt Fishermen Plan To Control Situation. In an effort to prevent demoralization of the Columbia River smelt market, fishermen who catch the fish in gillnets met recently in Portland and organized a branch of the Columbia River Fishermen's Protective Union. The organized fishermen plan to control the catch to the requirements of the market, selling only at a price determined upon by themselves after consideration of the supply and demand. They will sell only to dealers who comply with the union requirements, buying only union fish and handling them in accordance with terms agreed upon. The initial undertakings applied only to smelt taken in gillnets, the organization of the dipnet fishermen and the development of a marketing program for that fishery being deferred until later. In general it is believed that the established buyers of smelt welcomed the fishermen's program as a means of preventing the demoralization which so often occurs in the marketing of Columbia River smelt.
10 January 1936	Kelso, WA	<i>Daily Kelsonian Tribune</i> , p. 5, advert.	EVERGREEN FRUIT & GROCERY. Fresh Dipped Smelt, lb. 7c
11 January 1936	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 2	Lower Prices to Gladden Homemakers. ... Fresh Fish. ... Columbia river smelt, pound .10 @ .15
12 January 1936	Cowlitz River	<i>Daily Kelsonian Tribune</i> , p.1, col. 1	SMELT RUN IS ABOVE NORMAL. Local smelt fishermen have made their best catches of early season smelt in many years during the past ten days and when the fishing closed Friday morning for the 36-hour closed season the smelt apparently were as plentiful as ever and fishermen anticipate that they will have good catches again today.

Date	Place	Source	Quote
			Usually the early season run of smelt lasts for only a day or so and the fish then become so scattered that fishing is not profitable. For the past ten days the Cowlitz river fishermen have been getting 200 or more boxes of smelt in each twenty four hours. A heavy run of smelt, which is probably the main body of them, is in the lower Columbia in the vicinity of Grays river and some if the fish have been dipped in Grays river, which they enter on the tides going out again with the tide. While the smelt are being caught in the Cowlitz, lower Columbia gill net fishermen are not working. Fish are bringing \$2.50 for a 50-pound box wholesale.
15 January 1936	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 7	SMELT OFFERED ON LOCAL MART. Little Fish Are Priced at 10 to 15 Cents a Pound. Columbia river smelt are plentiful in Portland markets this week, selling generally for 10 and 15 cents a pound. . . . Fresh Fish. . . . Columbia river smelt, pound .10 @ .15
18 January 1936	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 4	Cheap Foods to Aid Wives in Menu Plans. . . . Fresh Fish. . . . Columbia river smelt, 2 lbs. 15
20 January 1936	Cowlitz River	<i>Daily Kelsonian Tribune</i> , p. 3, col. 6	SMELT SEASON PROVING GOOD. Smelt fishermen are enjoying their most profitable season in many years this winter due to two factors. One of them is that the run of fish came into the river earlier than for a long time and slipped by the Columbia river gill-netters who in recent seasons have marketed the fish early in the season when the demand was heavy and prices were higher, and the other is that the fishermen, who perfected a one hundred per cent organization last year for the first time in the history of the industry, are maintaining their organization and are not permitting any underselling of fish, which is giving the fishermen better prices. The run of fish continued good yesterday and last night when dipping was resumed after the weekend closed period of 36 hours and boats made good catches many of them getting 60 boxes of fish or more.
23 January 1936	Quinault River, WA	<i>Morning Oregonian</i> , p. 5, col. 7	Columbia's Smelt Lose Way, Appear in Quinault River. HOKUIAM, Wash., Jan. 22 (AP). Columbia river smelt apparently got lost over the week end. Quinault tribesmen reported smelt, starting several days ago, have been swarming up the Quinault in millions. With small nets the tribesmen dipped thousands of pounds of the smelt from the river. Because they are just out of salt water they are firm and in prime condition.
28 January 1936		<i>Daily Kelsonian Tribune</i> , p. 1, col. 3	FISH RETURNS ARE GREATER. The price of smelt to the fishermen was lowered to \$1.00 for each fifty pound box net by the Fishermen's Union at a recent meeting and it is the intention of the fishermen to maintain their price at \$1.00 per box for the rest of the season. The union is supervising the distribution of fish to wholesale dealers and distributors so as to maintain the price and prevent under-selling and dumping of too many fish in Northwest markets. As a result of the fishermen getting together for the first time in the history of smelt fishing and maintaining a fair price they are having their most prosperous season in years, and some of the fishermen have already made as much money this year as they did during all of last season, it is said.
31 January 1936		<i>Daily Kelsonian</i>	SMELT FIGHT SMOLDERS AS SCHISM WIDE. Paul Unger's Craft Sunk

Date	Place	Source	Quote
		<i>Tribune</i> , p. 1, col. 1	During Night. Trouble broke out in the smelt fishing industry last night when the fishing boat of Paul Unger was untied from the Captain A. E. Hayes float and a hole punched in the hull. ... At present the fishermen receive \$1.00 for each 50 pounds of smelt and the price to the wholesalers or dealers is \$1.65 for a 50-pound box. The fishermen have been very successful in maintaining prices this season. The fishermen pay into the union fund 7 cents for each 50-pound box of smelt that is stamped with the union emblem. Most of the smelt shipped are handled over the Columbia River Smelt company dock, which receives a set price for each box of smelt for the use of its elevator and facilities. Ole Soleim is manager of that company, which has turned its wholesale business over to the union, but which continues to ship smelt to the express markets. ... From 500 to 700 50-pound boxes of smelt are being shipped daily from here.
3 February 1936	Cowlitz River	<i>Daily Kelsonian Tribune</i> , p. 1, col. 8	FISHERS QUIET OVER WEEKEND. ... Heavy shipments of smelt were made both nights. Last night one truck left here with 180 boxes of smelt, or approximately four and a half tons of fish aboard.
5 February 1936	Devil's Lake, OR	<i>Morning Oregonian</i> , p. 5, col. 2-3	Fishes That Won't Conform. A small run of eulachon, or Columbia river smelt, recently entered Devil's lake, in Lincoln county, ascending the short outlet and finding their uncharted way to the mouth of Rock creek—through a mile or more of lake water—which stream the migration then penetrated and possessed. It has been axiomatic in this region that the eulachon, though occasionally it may avail itself of a spawning stream not theretofore utilized, never entered any river south of the great Columbia. The Devils lake migration, therefore, is of exceptional interest. It may, indeed, establish a new fishery for this fine sea migrant, though observation is against the prospect, since the run appeared to be comprised only of male specimens. The lady eulachons? Somehow they seem to have missed the appointment. Like the early Puritans in meeting house, these fishes at the outset of the migration, maintain separation of the sexes. Two especial points of interest, in this extraordinary migration to a new water and region, present themselves readily. The one, of course, is the presence of the fish in a water habitually forbidden them; the other is the circumstance of their cruise through a lake to find the beckoning spawning riffles. Something always is occurring to upset, to discomfit, our fixed opinions and teachings—as to many another matter aside from fish. But, adhering to the specific theme it may appropriately be recorded that minor specimens of silver salmon, taken at the outlet of Siltcoos lake—and there locally styled forked-tails—have this year been found, so the game department attests, with ripe eggs. It is axiomatic, too, that all salmon having access to the sea will go down to the ocean, there to live and grow great in the sea-cycle. But these fish, though the sea waited them, and they might have descended to the free tides at any time, seemingly decided to remain in Siltcoos lake and pretend they were landlocked. There really seems nothing to say about it, and certainly there is nothing to be done. For this is the way, and that other above alluded to, in which the dark woman—perhaps—undertakes the shaping of species. And for herself, you must

Date	Place	Source	Quote
			comprehend, her laws may be in abeyance, though for none other.
5 February 1936		<i>Daily Kelsonian Tribune</i> , p. 1, col. 6	SECRETARY OF FISHER'S UNION UNDER ARREST. Forsberg Is Said to Have Beaten Fisher. ... The possibility that the Cowlitz river might be closed to all smelt fishing operations if trouble continues has been hinted by representatives of the state fisheries department. ... The trouble arose because of the refusal of a number of fishermen-shippers, who were members of the union, to turn their orders over to the union and handle only their pro-rated share of the business. They were blacklisted Saturday by the union.
7 February 1936		<i>Daily Kelsonian Tribune</i> , p. 1, col. 3	NO VIOLENCE IS REPORTED. ... The wholesale price was cut from \$1.45 to \$1.00 for a 50 pound box of smelt by the union, independent fishermen stated today, and they promptly met the reduction. That price will give the fishermen a price of 60c to 65c net for 50 pounds of fish. ...
8 February 1936	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 3	Green Stuff Continues in Good Supply. ... Fresh Fish. ... Columbia river smelt, 2 lbs. 15
10 February 1936	Cowlitz River	<i>Daily Kelsonian Tribune</i> , p. 1, col. 4	Smelt Fishermen Resume Operating. Smelt fishing was resumed Saturday night flowing the 36-hour closed period with good catches for the fishermen and with no trouble that night or last night. The run has reached a point above Castle Rock but the commercial fishermen operate principally in the vicinity of Ostrander and Sandy Bend. Robin Reed, Reedsport, Oregon ... has entered the smelt wholesale business under the name Washington Smelt Company and has shipped several truckloads of fish to Northwest markets. Local fishermen are associated with him. He has been boxing and loading his fish at the Fisher Brothers landing in West Kelso, where they have installed a power driven hoist, but has no connection with them, it is said.
19 February 1936	Portland, OR	<i>Morning Oregonian</i> , p. 7, col. 3	Food Supply Curtailed by Bad Weather. ... Fresh Fish. ... Columbia river smelt, 2 lbs. 15
22 February 1936	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 4-6	Fresh Truck Supply Now Fairly Good. ... Fresh Fish. ... Columbia river smelt, 2 lbs. 15
26 February 1936	Portland, OR	<i>Morning Oregonian</i> , p. 7, col. 2	Eggs Drop Few Cents; Butter Up. ... Fresh Fish. ... Columbia river smelt, 2 lbs. 15
29 February 1936	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 5	Fresh Green Stuff Again Plentiful on Local Markets. ... Columbia river smelt is now very inexpensive. ... Fresh Fish. ... Columbia river smelt 05 @ .07
11 March 1936	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 2	Vegetables Are Offered At Low Price. ... Fresh Fish. ... Columbia river smelt 05 @ .07
14 March 1936	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 4	New Strawberries on Market Hold Appeal for Housewives. ... Fresh Fish. ... Columbia river smelt 05 @ .07
18 March 1936	Portland, OR	<i>Morning Oregonian</i> , p. 6, col. 6	Green beans Coming Into Market Now. ... Fresh Fish. ... Columbia river smelt 05 @ .07
20 March 1936	Lewis River	<i>Daily Kelsonian Tribune</i> , p. 1, col. 5	Smelt in Lewis River This Week. A run of smelt came into the Lewis river this week according to reports from that area and many persons are dipping the fish with

Date	Place	Source	Quote
			improvised nets and dish pans. Another run of high quality smelt also came into the Cowlitz river and commercial fishermen are getting as many fish as they need to fill their orders which are dwindling.
21 March 1936	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 8	Second Day of Spring Finds Markets Filled With Early Fruits and Vegetables. ... Fresh Fish. ... Columbia river smelt 05 @ .07
24 March 1936	Cowlitz River	<i>Daily Kelsonian Tribune</i> , p. 1, col. 2	RUN OF SMELT MUCH BETTER THAN NORMAL. Fifty-Two Thousand Dollars Accrues to Fishers. Silvery smelt overloaded the Cowlitz river this season, L. Royal biologist of the state department of fisheries announced today after preliminary computation of shipments by fishers this season, which is now nearly over. With approximately 2,600,000 pounds of the fish consigned by commercial fishermen, this year's "take" has been one of the largest in the annals of the state department of fisheries, Royal. Said. A great many more pounds have been lifted from the river by persons who wanted them for home consumption. To make up the poundage tagged by the fisheries department, more than 20,000,000 fish had to be netted. Millions more were taken by private fishers, over whom the state has no check. A huge sum has accrued to commercial fishermen this season. At the prevailing price of \$1.00 per 50-pound box, they have realized a gross of about \$52,000. The smelt this season were unusually large, well-proportioned and solid, Royal said. He could advance no reason for the heavy run. Last year it was about normal, which is little more than half of this year's. The second run, which has been in progress for 10 weeks, is nearly finished, it was said at the Columbia River Smelt company. Fishers there said they thought it would end either this week or next, but were not certain.
31 March 1936	Portland, OR Sandy River	<i>Morning Oregonian</i> , p. 8, col. 3	Smelt in the Sandy. ... the eulachon or Columbia river smelt, are in the Sandy river again ...
March 1936		<i>Pacific Fisherman</i> 34 (4): 41.	Cowlitz Smelt Fishery Develops a Small War. Conflict between union smelt fishermen and independent operators on the Cowlitz River flared up in violence early in February, resulting in a number of "beat-ups" and some arrests. Some members were voted out of the union because they refused to abide by pro-rating of catches by the union, declining to turn over their orders to the union and to accept only an equal share of the shipping business. A fish dealer's place of business in Salem, Ore., 100 miles from the Cowlitz River, was picketed because he was accused of having handled "hot" smelt.
March 1936		<i>Pacific Fisherman</i> 34 (4): 43.	Making it Hot For Independent Smelters. The Cowlitz River "smelt war" proved pretty vicious this season, with frequent conflict between organized and independent groups. There were several "beat-ups" and arrests, but the No. 1 act came about the middle of February when Earl Gibbons of Kalama was treated literally to a "baptism of fire." He was taking his boat into the Kalama River after delivering fish to The Doty Fish Co. As the boat was passing under a railroad bridge he saw several men drop flaming cans into his boat. The cans evidently contained gasoline or kerosene, which had been ignited before they were dropped. Gibbons' father was following in a second boat and he

Date	Place	Source	Quote
			ran in close to permit his son to jump aboard. Earl Gibbons' boat was burned and sunk.
2 April 1936	Portland, OR Sandy River	<i>Morning Oregonian</i> , p. 6, col. 3	Smelt Furnish Fish Menu for Portland Folk. BY NANCY MORRIS, Director, Oregonian Home Institute. The famous smelt run in the Sandy river is supplying local homemakers with all this delicious fish that they can possibly use. Whether it comes from the market or is hand-dipped with the family bird cage, now is the time to eat and enjoy smelt. Favorite methods for cooking these fish include baking, frying, boiling and pickling, and these, with their many variations, offer suggestions for using plenty of smelt without becoming tired of them.
11 April 1936	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 4	Finding Foods For Easter Dinner Easy Matter Here.... Fresh Fish. ... Columbia river smelt 05 @ .07
April 1936		<i>Pacific Fisherman</i> 34 (5): 33.	Cowlitz Smelt Season Proves One of Best. The 1936 smelt season on the Cowlitz River, Wash., was one of the best in the history of the fishery, preliminary figures showing that approximately 2,600,000 lbs. of fish were taken commercially, in addition to a very large tonnage caught for private use. Despite the "smelt war" which flared off and on during the season, the ruling price to fishermen during the major portion of the run was \$1 per 50-lb. box.
1936 season		<i>Pacific Fisherman</i> 1937 Yearbook 35 (2): 175.	Cowlitz Smelt Catch Heaviest in Years. The 1936 catch of smelt on the Cowlitz River, Wash., was around 2,600,000 lbs., one of the best in the history of this fishery. While there was some fluctuation, the ruling price for the season was \$1 per 50-lb. box to the fishermen, the buyer to pay the state tax. The Cowlitz River smelt fishermen were fairly well organized and endeavored to maintain a stable market, although there was occasional trouble and some violence during the season.
9 July 1936		<i>Morning Oregonian</i> , p. 1, col. 3-4	98 Miles of Salmon Eaten by Oregonians Last Year; Fillet of Sole Popular, Too. BY HERBERT S. LAMPMAN, Staff Writer, The Oregonian. ... Second in consumption importance was the lithe Eulachon or Columbia river smelt. It was estimated that 1,039,096 pounds of these were eaten. Their record in the frying pan annals was beaten only by the halibut.
1937			
23 November 1936		<i>Daily Kelsonian Tribune</i> , p. 1, col. 2	RIVER SO LOW FISH CARRYING CANTEENS NOW. Unless Rain Falls Soon Frogs Will Battle Dust Storms. ... Old timers report that they have never seen the river at such a low level above tidewater. ... Similar conditions prevail in the Lewis, Toutle, and Kalama rivers and other nearby streams. ... Smelt fishermen are commencing to worry about the winter migrations of the little fish. They are apprehensive that the smelt will think the mouth of the Cowlitz is the Los Angeles river of dry channel fame and will seek spawning grounds in other waters.
31 December 1936		<i>Daily Kelsonian Tribune</i> , p. 1, col. 1	INDEPENDENTS BUY INTEREST IN SMELT CO. ... Soleim, who has a dock below Oak Point, will ship from there during the gill-net fishing season which has just started with light catches of smelt being made in the Grays river and Puget Island areas. Unless a run of fish comes into the Cowlitz soon the local fishermen may do some gill

Date	Place	Source	Quote
			netting in the Columbia themselves. In past years they have confined their operations principally to dip-netting smelt after they came into the Cowlitz.
4 January 1937	Columbia River, Oak Point and Stella	<i>Daily Kelsonian Tribune</i> , p. 1, col. 7	Smelt Begin Run Near Oak Point. Gill-netters were catching smelt in the Columbia river in the vicinity of Oak Point and Stella yesterday. The fish were more plentiful than last week. Unless the winter run of smelt appears in the Cowlitz soon the local fishermen who are members of the Columbia River Smelt Company plan to engage in gill-netting in the Columbia also. They have their nets ready, and will move a scow down the river to use as their operating base and will haul the fish to their plant here for shipping.
6 January 1937	Columbia River, Oak Point and Cathlamet	<i>Morning Oregonian</i> , p. 3 col. 7	Smelt Overdue And Fishermen To Try Gillnets. LONGVIEW, Wash., Jan.. 5 (Special) — Unless the overdue winter run of smelt shows up in the Cowlitz river by tomorrow night, fishermen plan to move their boats into the Columbia for gillnetting. Several small runs of the fish have been located below Oak Point and Cathlamet, it was reported. Fishermen were on the Cowlitz the past two nights, but failed to find any trace of fish. The Cowlitz is dropping rapidly, with the present cold spell, and may reach a point where the fish will pass on up the Columbia. Should gillnetting operations be started, the fishermen will take a scow downstream and unload their catches on the larger craft, where they will be boxed and trucked to the Columbia River Smelt company plant at Kelso.
9 January 1937	Portland, OR	<i>Morning Oregonian</i> , p. 4, col. 2-3	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Moderate Supply and Price—Columbia river smelt, pound, 20c ...
13 January 1937	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 5-6	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Moderate Supply and Price—Columbia river smelt, pound, 20c ...
16 January 1937	Portland, OR	<i>Morning Oregonian</i> , p. 5, col. 2-3	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Small Supply, High Price—Columbia river smelt, pound, 20c ...
26 January 1937	Columbia River Grays River	<i>Daily Kelsonian Tribune</i> , p. 1, col. 4	Ice Halts Smelt Fishing in River. Ice in the Columbia river has prevented gill-netting for smelt recently. A few boxes of the fish were caught in Grays river in the past day or so and it is believed a large run of them is in the Columbia near Clifton, and gill-netters are ready to gather the harvest if the fish are there, as soon as the ice situation improves, R. R. Fisher of the Columbia River Smelt company reported today.
January 1937		<i>Pacific Fisherman</i> 35 (1): 46.	Smelt Run Late On Columbia River. The Columbia River smelt run was several weeks later than usual this season, according to Dudley Turnacliffe of the Portland Fish Co., one of the largest handlers of these little fish. No smelt had been taken in any quantity in the gillnets used on the Columbia to the first of the year, and of course the run had not put in its appearance in the Cowlitz. Usually the gillnetters in the Columbia are taking smelt in fair volume by the middle of December. The delay is not much loss to the trade, however, as demand for smelt during the holiday period is never interesting. ...
9 February 1937	Columbia River at Eagle Cliff	<i>Daily Kelsonian Tribune</i> , p. 6, col. 5	Few Smelt Taken in the Columbia. Only a few boxes of smelt were caught by the fishermen who are operating drift nets in the vicinity of Eagle Cliff last night. With the ice gone from the Columbia fishermen were hopeful that the main run of the fish would

Date	Place	Source	Quote
			show up, especially after the catch picked up Sunday, but it fell off again yesterday and last night. Several of the Columbia River Smelt company fishermen are now seeking fish down the river.
14 February 1937	Columbia River	<i>Daily Kelsonian Tribune</i> , p. 1, col. 8	Muddy River Holds Smelt In Columbia. [Microfilm not readable].
23 February 1937	Cowlitz River	<i>Daily Kelsonian Tribune</i> , p. 1, col. 7	LIGHT RUN OF SMELT STARTS IN RIVER HERE. Advance Guard of Annual Visitation Reported Small. The long awaited run of smelt started in the Cowlitz yesterday, but the advance guard of the annual invasion of the small but commercially valuable fish amounted to little more than a light scouting expedition. Fishermen who swarmed after them yesterday returned last evening with but between 60 and 70 boxes, while last night none were caught. The fishermen refusing to be discouraged by the meagre results of the first 24 hours effort, are working the river again today. The catch yesterday was made between the bridge and Rocky Point. The smelt have been slowly working their way up the Columbia river for the past 60 days and have been expected in the Cowlitz for several weeks. The annual harvest here amounts to many thousands of dollars and the advent of the fish is always welcome news to the community.
25 February 1937	Columbia River at Clifton	<i>Daily Kelsonian Tribune</i> , p. 1, col. 7	NO SMELT YET APPEARING IN COWLITZ RIVER. Run Still Awaited and Columbia Season Closes Monday. There will be no more smelt on the market after Monday unless the fish enter the smaller streams before for [sic] then, or until they do for the government closed season on the commercial fishing starts the first of next week. At the present time there are no smelt in the Cowlitz or other smaller tributaries of the Columbia and the only catches being made now are in the Columbia near Eagle Cliff, where the fish appear to be lingering with no evident purpose of moving further at this time. The small advance guard of smelt that entered the Cowlitz early in the week apparently failed to find conditions to their liking and disappeared entirely. There is no attempt being made today to fish the stream, but fishermen are working today down near Eagle Cliff. The Columbia River Smelt company is shipping smelt taken there and the price now is \$2.50 a box, which is very high for this season of the year. The run is very late and fishermen presume that the late winter freeze is responsible for holding back the normal trek of the fish into the Cowlitz. There is the possibility that they will not enter this stream at all this year, as was the case one season several years ago, but run up the Lewis and other streams instead. That, however, is yet to be determined after the smelt start moving up the Columbia.
26 February 1937	Portland, OR	<i>Morning Oregonian</i> , p. 10, col. 6	Salmon Runs Change Menu. Various Ways of Cooking Devised; Smelt Also Included as Dish. BY NANCY MORRIS Director, Oregonian Home Institute. The spring runs of salmon and smelt are now ascending rivers in the northwest ... A supply of Columbia river smelt is available in local markets at very low prices, though the run has not yet reached Portland. ...
26 February 1937		<i>Daily Kelsonian</i>	Sam Smelt has Yet to Put in His Appearance. Cowlitz river smelt fishermen have a

Date	Place	Source	Quote
		<i>Tribune</i> , p. 1, col. 4	half a notion to believe the rumor that is flying about that old Sam Smelt is on a sit-down strike. Today they again looked in vain for the appearance of even just one smelt in the river. But it was no use, there wasn't a sign of the swift little silver fish.
4 March 1937	Cowlitz River	<i>Daily Kelsonian Tribune</i> , p. 1, col. 3	SMELT ENTER COWLITZ AND TAKERS BUSY. Fair Catches Made During Night; Price \$2 a Box to Fishermen. The smelt broke their long sit-down strike yesterday and entered the Cowlitz river with a rush. They travelled without stop until they reached Petersen's Eddy and fishermen who started after them on the appearance of the run were unable to make any catches until that point in the river, well above Rocky Point, was reached. Catches last night averaged between 50 and 60 boxes to the boat and the Columbia River Smelt company said this morning that the price to fishermen is \$2.00 a box, a price that undoubtedly will be maintained the balance of this week as the weekly closed period starts tomorrow at 8:00 a. m. and continues until Saturday at 8:00 p. m. The fish travelled so rapidly upstream on entering the Cowlitz that a person could hardly keep up with the run at a fast walking pace. This is by no means a big run and more smelt are expected to come into the river at any time. There were large numbers of them in the Columbia river near Eagle Cliff when commercial fishing ended there on March 1. The only commercial fishing last night was at Peterson's Eddy, the highest place upstream where commercial fishing is permitted. While the run is late this year, considerably later than usual, it is by no means a record late, as in 1929 the first run did not appear until March 13.
8 March 1937	Cowlitz River	<i>Daily Kelsonian Tribune</i> , p. 1, col. 6	Smelt Price Agreed Upon; Full Run On. With the full run of smelt in the Cowlitz river, fishing was reported good Saturday night and Sunday and again today. The commercial fishermen are taking smelt upstream at the Peterson's place, near the limit of permitted commercial fishing in the river, and Sunday the Commercial Smelt company shipped out between 500 and 600 boxes by truck and railway express. The company expected to ship an equal number of boxes today. At a meeting Sunday afternoon between commercial fishermen and buyers a price of 70 cents per 50-pound box was agreed upon for fishermen, with the wholesale price \$1.00 and price to retailers \$1.25 a box. Great numbers of non-commercial fishermen dipped and raked for smelt Sunday, whole families gathering quantities of the succulent little fish for home consumption.
11 March 1937	Cowlitz River	<i>Daily Kelsonian Tribune</i> , p. 1, col. 8	Smelt Run Good with Fair Hauls. Although there is a "prime run" of smelt in the Cowlitz river at the present time the small silvery fish, running upstream, are hard to get, according to local fishermen. Wednesday night's catch was poor compared to fishing on previous nights. Hauls today indicated much better fishing. Between 400 and 500 cases were shipped to Portland this morning. The price remains unchanged with fishermen drawing 70 cents a box, the wholesaler paying \$1.00 and the retailer \$1.50 a box.
25 March 1937	Cowlitz River	<i>Daily Kelsonian Tribune</i> , p. 1, col. 7	New Smelt Market is Developing. Concerns are in the market for approximately 100 tons of smelt for salting and freezing. Bids from fishermen and dealers were entered this week by two companies that are seeking fish. One of them wants 2,000 boxes for

Date	Place	Source	Quote
			freezing. The salting is being done experimentally and if the company finds that it can dispose of the fish profitably a large market may be developed for future seasons. New runs of fish came into the Cowlitz this week and fishermen are making good catches, although they have to do most of their dipping at night because the smelt were wild during daylight hours and scatter when dipping starts. Prices in the Portland market and some of the other markets have dropped this week due to cutting of prices by some of the shippers. The week end closed season starts at 8:00 o'clock tomorrow morning and ends at 8:00 Saturday night. Neither commercial nor amateur fishermen are allowed to fish between those hours.
29 March 1937	Cowlitz River	<i>Daily Kelsonian Tribune</i> , p. 1, col. 7	SMELT FIRM BOOKS LARGE FISH ORDER. Local Company Contracts To Ship 6,000 Boxes; Good Catches Made. Orders for 6,000 boxes of smelt, or 15 tons of the fish, are now booked by the Columbia River Smelt company, which will ship them as rapidly as its fishing crews can get the fish, R. R. Fisher, manager, announced today. In addition the company receives other numerous orders daily and the biggest job now, Fisher says, is to catch enough smelt before the run is over. The company is shipping large quantities of fish to a Seattle firm which is salting them for the Oriental market. It is anticipated that a large market will be developed in the Orient for salted smelt as a result of trial shipments to be made this year. Good catches were made yesterday and the fish are of fine quality due to the coming of a new run into the Cowlitz. One truckload of 150 boxes or more than four tons of fish left last evening and several other trucks carried almost as large loads to Northwest markets.
March 1937		<i>Pacific Fisherman</i> 35 (4): 57.	Columbia River Smelt Run Very Late. The run of smelt in the Columbia and Cowlitz Rivers was very late this season, and gave promise of yielding only a light catch. The fish were not taken in substantial volume until February was well advanced, and it was only at the end of that month that really active shipping was under way. Early in the season prices were very high, fishermen getting \$6 per box of 50 lbs. Feb. 12. By the end of the month the price had declined to \$2, and it was anticipated that \$1 would be the price set early in March when dipping got actively under way on the Cowlitz.
8 April 1937		<i>Daily Kelsonian Tribune</i> , p. 1, col. 7	Smelt Fishing Is Nearly Over For the Season. Smelt fishing is nearly over for this year. Only a few fishermen are dipping fish now, and the run is so scattered that they are hard to catch. The demand for fish is fair, however, and all that are caught can be sold. ...
April 1937		<i>Pacific Fisherman</i> 35 (5): 68.	Smelt Run Profitable Despite Scant Volume. Although the Columbia and Cowlitz River smelt run this spring was very late and light in volume as result, the return to the fishermen generally was considered satisfactory. This was due to the higher prices secured as result of the light supply. Moreover, the gillnet smelt in the Columbia River, which always command prices far above those of the dipnet fish from the Cowlitz, due to better condition, evener production and smaller volume of catch, were taken in substantially great volume than in the previous season. Prices for these fish were never

Date	Place	Source	Quote
			below \$2 per box, and went as high as \$6. Ole Soleim, smelt buyer, estimates that about 6,500 boxes of gillnet smelt were taken this season, as against only 1,000 boxes in the 1935-36 season. In that year, however, the Cowlitz produced heavily, and this season very lightly.
1937 season		<i>Pacific Fisherman</i> 1938 Yearbook 36 (2): 241.	Smelt —The Columbia-Cowlitz River smelt run of 1937 was normal, but production and marketing were closely controlled by the fishermen's organization, contributing very definitely to the stability of the trade. There was some friction in maintaining control of the situation, but so far as the distributive trade was concerned the situation was thoroughly favorable.
1938			
18 December 1937	Portland, OR	<i>Oregonian</i> , p. 6, col. 2-3	Homemaker's Market List. From Portland Retail Markets. ... Fish. ... Small Supply, High Price ... Columbia river smelt, pound, 30c ...
23 December 1937	Portland, OR	<i>Oregonian</i> , p. 10, col. 1-2	Homemaker's Market List. From Portland Retail Markets. ... Fish. ... Small Supply, High Price ... Columbia river smelt, pound, 30c ...
30 December 1937	Portland, OR	<i>Oregonian</i> , p. 5, col. 5-6	Homemaker's Market List. From Portland Retail Markets. ... Fish. ... Small Supply, High Price ... Columbia river smelt, pound, 20c to 25.
December 1937		<i>Pacific Fisherman</i> 35 (13): 59.	\$2 Smelt Price Forecast. Columbia River smelt operators and fishermen have announced a tentative minimum price of \$2 a box or 4c a pound for smelt subject to final ratification at a conference to be held early in December. The tentative price announcement followed negotiations between buyers, handlers, and the Columbia River Fishermen's Protective Union representing the gillnet and dipnet smelt fishermen.
5 January 1938	Portland, OR	<i>Oregonian</i> , p. 9, col. 5-6	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Small Supply, High Price ... Columbia river smelt, pound, 20c.
8 January 1938	Portland, OR	<i>Oregonian</i> , p. 6, col. 2-3	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. Plentiful and Inexpensive ... Columbia river smelt, pound, 2 pounds 25c.
12 January 1938	Portland, OR	<i>Oregonian</i> , p. 8, col. 2-3	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. Plentiful and Inexpensive ... Columbia river smelt, pound, 2 pounds 25c.
15 January 1938	Portland, OR	<i>Oregonian</i> , p. 6, col. 6-7	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. Plentiful and Inexpensive ... Columbia river smelt, pound, 2 pounds 25c.
17 January 1938	Columbia River	<i>Daily Kelsonian Tribune</i> , p. 2, col. 8	Smelt May be in Cowlitz This Week. Smelt come, and smelt ... never at the same time ... and many are the prophecies just exactly the day they enter the Cowlitz river for the ... spring run. Fishermen, now catching smelt with gill nets off Eagle Cliff ... Columbia river, foretell the ... will probably enter the ... next week. Some 60 or 70 pounds ... amount shipped from here ... week, which sounds inconsequential when they are sent out by the thousands of pounds a little [later] in the year.
22 January 1938	Portland, OR	<i>Oregonian</i> , p. 5, col. 2-3	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. Plentiful and Inexpensive ... Columbia river smelt, pound, 2 pounds 25c.
29 January 1938	Portland, OR	<i>Oregonian</i> , p. 6, col. 3-4	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. Plentiful and Inexpensive ... Columbia river smelt, pound, 2 to 3 pounds 25c.

Date	Place	Source	Quote
January 1938		<i>Pacific Fisherman</i> 36 (1): 47.	Fancy Prices Paid For First Smelt. Smelt gillnetters working the Columbia River in the vicinity of Clifton and Grays River made sporadic catches during the month of December, receiving varying prices, all of which were high. When available, smelt were retailing in Columbia River cities for 30c for lb.
3 February 1938	Portland, OR	<i>Oregonian</i> , p. 8, col. 2-3	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. Plentiful and Inexpensive ... Columbia river smelt, pound, 2 to 3 pounds 25c.
3 February 1938	Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 1	Cowlitz Fails to Attract Smelt. The annual run of smelt is still ... in the Columbia river, near Cathlamet and Oak Point. None of the little fish have appeared in the Cowlitz as yet and there has been no indication so far that they had ... up river unless the fact that the catch yesterday was small meant that they had begun to move.
5 February 1938	Portland, OR	<i>Oregonian</i> , p. 5, col. 2-3	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. Plentiful and Inexpensive ... Columbia river smelt, pound, 2 to 3 pounds 25c.
11 February 1938	Portland, OR	<i>Oregonian</i> , p. 18, col. 5	SMELT SUPPLY SMALL. Not many Columbia river smelt are coming in the market yet and the small supplies are prorated among dealers. ...
12 February 1938	Portland, OR	<i>Oregonian</i> , p. 4, col. 4-5	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. Plentiful and Inexpensive ... Columbia river smelt, pound, 2 pounds 25c.
15 February 1938	Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 4-5	Smelt May Not Enter Cowlitz River This Year. Fishermen are still awaiting the annual run of smelt in the Cowlitz river, already overdue, and are beginning to be dubious about the prospects, according to the Columbia River Smelt company. The smelt are remaining in the Columbia river above Oak Point, where they have been for more than a month past and showing no disposition to move further up stream. Sunday the catch was good but yesterday the fish seemed to have disappeared entirely and the fishermen returned empty handed for the most part. According to the Columbia River Smelt company there are not enough of the small fish in the Columbia river to make a run in the Cowlitz and when they do turn into that stream, unless more fish come into the larger river in the meantime, the run is bound to be disappointing. The smelt are spawning in the Columbia and there is even the possibility that the experience of ten years ago, when none ascended the Cowlitz, may be repeated, it is said.
16 February 1938	Portland, OR	<i>Oregonian</i> , p. 9, col. 4-5	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. Plentiful and Inexpensive ... Columbia river smelt, pound, 2 pounds 25c.
19 February 1938	Portland, OR	<i>Oregonian</i> , p. 6, col. 2-3	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. Plentiful and Inexpensive ... Columbia river smelt, pound 10c.
23 February 1938	Portland, OR	<i>Oregonian</i> , p. 7, col. 5-6	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. Plentiful and Inexpensive ... Columbia river smelt, pound 10c.
26 February 1938	Portland, OR	<i>Oregonian</i> , p. 4, col. 3-4	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. Plentiful and Inexpensive ... Columbia river smelt, pound 10c.
February 1938		<i>Pacific Fisherman</i> 36 (2): 53.	Smelt Fishermen Embark On Stabilization Plan. A program for stabilization of the Columbia and Cowlitz River smelt fisheries was worked out in January by the Columbia River Fishermen's Protective Union, which expects that the "smelt wars" and market

Date	Place	Source	Quote
			collapses of previous years will be eliminated this season. Under the plan, to which all smelt fishermen are said to have agreed, a minimum price of \$2 per 50-lb. box will be maintained for smelt until 48 hours after the main run hits the Cowlitz. This 48-hour period is to permit the gillnet fishermen to dispose of their fish before the dip-net prices go into effect. The minimum price on dip-net fish will be \$1 per box, with fishermen limited to 30 boxes per day. Buyers will assume taxes and dock charges. All Cowlitz fish will be handled through a clearing house at Kelso. This will be maintained by a manager, assisted by two business agents. Through the first half of January the smelt run was fairly light on the Columbia and the price hung at \$3 per box, 50 per cent above the minimum.
2 March 1938	Portland, OR	<i>Oregonian</i> , p. 6, col. 6-7	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. Plentiful and Inexpensive ... Columbia river smelt, pound 10c.
6 March 1938	Kalama River	<i>The Kelsonian Tribune</i> , p. 1, col. 4	Smelt Make Unusual Run to Kalama River. The run of smelt which usually chooses the Cowlitz river for spawning grounds this year has decided upon the Kalama river, the first time in 12 years that the silvered fish have taken to these waters. Fishermen were dipping all last night, the week-end closed period ending at 8:00 p.m. yesterday. The river is likely to be alive with fishermen both amateur and commercial, all during the day. Twenty-two boxes of smelt were dipped by Elmer House, Kalama fisherman, Friday [4 March] before the closing period which is from 8:00 p.m. on that day for 24 hours. Clem Bradford of Kalama reported 25 pounds of smelt in one dip of his net. Persons are allowed 20 pounds of fish in their possession without securing a commercial license. A commercial license amounts to \$5 plus a state tax of 20 cents per 100 pounds. Archie Wyard, state fisheries inspector, has issued a warning to dippers that the week-end closing hours will be rigidly enforced.
7 March 1938	Kalama River	<i>The Kelsonian Tribune</i> , p. 1, col. 6	Few Smelt But Plenty of Fishermen. Run in Kalama River Believed Brief; Crowds After Fish Line Banks. Commercial fishermen caught relatively few smelt in the Kalama river last night, when less than 200 boxes were secured by them, which was not nearly enough to fill their orders. Saturday night approximately 400 boxes were dipped by the fishermen who were limited to 10 boxes each. Lloyd Dixon was named some time ago by the fishermen to handle the pro rating of orders and to take care of the distributing. Run May Not Last. While there is ample water in the Kalama river, snags make fishing difficult and no commercial dipping was attempted during the day because the water was not clear. A different run of smelt was in the Kalama last night from the fish caught Saturday, veteran fishermen said today. They don't think the run will stay in that stream very long and many of the fishermen prospected in the Cowlitz at various points yesterday and today hoping to locate a run of smelt in the local stream. Fishermen Thick. Hordes of amateur fishermen and night ... knotted traffic in the vicinity of the Kalama river yesterday afternoon and last evening. Fishermen stood almost shoulder to shoulder along the banks of the ...
12 March 1938	Portland, OR	<i>Oregonian</i> , p. 4 , col. 2-	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry.

Date	Place	Source	Quote
		3	Plentiful and Inexpensive ... Columbia river smelt, 2 pounds 25c.
16 March 1938	Portland, OR	<i>Oregonian</i> , p. 19, col. 5	— Local Market Quotations — ... FISH. ... SMELT—Columbia river, \$4.25 per box.
25 March 1938	Lewis River Kalama River Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 5	Smelt Are Elusive This Year. After playing hide and seek with the fishermen for almost two months the elusive smelt have completely disappeared from the tributaries of the Columbia and fishermen have about decided to call the season a total loss and hang up their nets. Only 2,750 boxes of smelt were caught so far by dipnet fishermen, according to Lloyd Dixon, who was named by the fishermen to handle all orders. The fish came into the Lewis River on tides last week and it was anticipated they would spawn in that stream but did not remain and the last catches were made in the Lewis Tuesday night. They also made cursory visits in the Kalama river earlier, but have not shown up in their usual spawning stream, the Cowlitz. It is possible a late run of the fish may come into the Cowlitz or Lewis but fishermen are not counting on it. The old timers say it is the first time smelt have not spawned in one of the major Columbia river tributaries.
10 April 1938	Portland, OR	<i>Oregonian</i> , p. 7, col. 7	FIRST STRIPED BASS COME FROM MARSHFIELD. ... The Columbia river smelt season is ended. ...
13 April 1938	Portland, OR	<i>Oregonian</i> , p. 10, col. 3	Tallapus Withheld the Smelt. Is Tallapus, the coyote half god, wroth with his people again? Perhaps the failure of the Columbia river smelt run, but a lean affair at best this spring, is the manifestation of his displeasure, for that is how the tribes interpreted a similar dearth of eulachon a long while ago. They said that Tallapus was punishing them for being wasteful of the silver shoals that ascended from the sea. Their punishment, too, was hunger and death by a strange plague. In the period when the smelt were almost wholly absent from the great river of the west and its tributaries it is told that more than 30,000 Indians sickened and died. It was then that the Multnomah nation on Sauvies knew such mourning as visited every lodge, and repeatedly, until no more than a remnant was left. While the tribes of the lower river, in 1840 and for the ten lean years thereafter, attributed the virtual disappearance of the smelt to the resentment of Tallapus, the Indians of Sauvies and of the Cowlitz were of the opinion that the malady which reduced them so sadly in numbers was caused by eating of those few smelt which occasionally appeared. These fish were in poor flesh and without spawn, a most unnatural circumstance, and such as partook of them sickened and died. The abnormal smelt were called “pil chick a-min,” brass fish, by the survivors, for it was remarked that their flesh had the taste of this metal, as though the smelt had absorbed a poisonous metallic property somewhere in their oceanic pastures. Old Patch Eye of the Cowlitz vowed that this undoubtedly was the reason. And was not Tallapus, the same that had given his people the salmon, no less the guardian of the smelt? “—Sees God in the clouds and hears him in the wind.” However that may have been, this aboriginal reasoning, it is of interesting record that almost a century ago, when the eulachon were by no means preyed upon as now, there began a decade in which the smelt were phenomenally scarce and ill-conditioned. Then both white man and red gloomily foretold the eventual and impending

Date	Place	Source	Quote
			extinction of the species. A note in the columns of The Oregonian, of some years ago, observes: "This interruption of the habits of the fish has never been explained." We know, of course, that the migrations returned at last in undiminished numbers. Had Tallapus relented in pity for his people? Or has science now an abler answer? All that we know, who miss the smelt today, is that ten years would be a long, long while to wait for another order of fried smelt. But perhaps Tallapus will not be so unkind this time.
April 1938		<i>Pacific Fisherman</i> 36 (5): 67.	Washington Smelt Catch Falls 75 Per Cent. The catch of Columbia River smelt in Washington tributaries will be only about 25 per cent of the yields of the past few years, it was indicated at the end of March, when it seemed entirely probable that the run, such as it was, had definitely passed. The fish did not enter the Cowlitz River—the normal center of the fishery—in any substantial quantity this season. They did appear in the Kalama, which does not usually receive any significant run; and were taken later in some quantity in the Lewis River. Estimates of the catch to the end of March put it in the vicinity of 500,000 lbs., as against an average of about 2,000,000 lbs. in recent seasons.
1939			
29 November 1938	Portland, OR	<i>Oregonian</i> , p. 16, col. 7	First Columbia Smelt in Market. The first Columbia river smelt of the season arrived Monday morning, a total catch of about 100 pounds. The fish were shipped by Isaac Jolma, who represents the fishermen at Clatskanie. It is the largest catch for this early date in the recollection of dealers, although on one or two occasions a few pounds have been received for Thanksgiving. The retail price of the first offering will naturally be high. There was a time a few years ago when the first smelt retailed at \$1 a pound, but the general opening price is around 35 or 40 cents.
30 November 1938	Portland, OR	<i>Oregonian</i> , p. 7, col. 2-3	Homemaker's Market List. From Portland Retail Markets. .. Fish. ... Small Supply, High Price Columbia river smelt, 30c to 35c.
30 November 1938	Columbia River, Astoria	<i>Oregonian</i> , p. 8, col. 2	The First Smelt Swim in. Word comes from Astoria that there are a few smelt, or eulachon, in the river—the vanguard of the great run that will attain its maximum a few months from now. It is a small fish, but it is always news, quite as it used to be with the original proprietors of the region. A small fish without peer. By this sign we know, even before it is officially winter, that the year will turn and spring will come, for the smelt run is a sort of harbinger of spring. And our Columbia river smelt also are something to look forward to. The fishermen have been searching for them lately, well knowing there would not be enough to net. The fishermen scarcely can wait, either.
3 December 1938	Portland, OR	<i>Oregonian</i> , p. 6, col. 4-5	Homemaker's Market List. From Portland Retail Markets. .. Fish. ... Moderate Supply and Price. ... Columbia river smelt, pound 25c.
7 December 1938	Portland, OR	<i>Oregonian</i> , p. 11, col. 5-6	Homemaker's Market List. From Portland Retail Markets. .. Fish. ... Moderate Supply and Price. ... Columbia river smelt, pound 20c.
10 December 1938	Portland, OR	<i>Oregonian</i> , p. 6, col. 3-4	Homemaker's Market List. From Portland Retail Markets. .. Fish. ... Moderate Supply and Price. ... Columbia river smelt, pound 20c, 2 pounds 35c.
14 December 1938	Portland, OR	<i>Oregonian</i> , p. 9, col. 3-4	Homemaker's Market List. From Portland Retail Markets. .. Fish. ... Moderate

Date	Place	Source	Quote
			Supply and Price ... Columbia river smelt, pound 15c to 20c, 2 pounds 35c.
15 December 1938	Cowlitz River Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 3	Smelt Enter Cowlitz for Winter Run. Slipping into the Cowlitz river with no advance warning the stream's famous food fish, the smelt, startled local fishermen by their presence Monday night [12 December] when 64 boxes were dipped. Tuesday night the fishermen brought in 90 boxes and last night's catch has not been checked. The fish are from the small winter run of smelt, and came into the river earlier than usual. A few were caught in the lower Columbia by gill-netters recently and the school made rapid progress since then to be in the local stream.
17 December 1938	Portland, OR	<i>Oregonian</i> , p. 6, col. 4-5	Homemaker's Market List. From Portland Retail Markets. .. Fish. ... Moderate Supply and Price ... Columbia river smelt, pound 15c to 20c, 2 pounds 35c.
31 December 1938	Portland, OR	<i>Oregonian</i> , p. 5, col. 3-4	Homemaker's Market List. From Portland Retail Markets. .. Fish. ... Moderate Supply and Price ... Columbia river smelt, pound 15c.
December 1938	1939 Season	<i>Pacific Fisherman</i> 36 (13): 66.	Smelt Are Showing In Columbia River. First real showing of smelt in the Columbia River came in the closing days of November. Catches were limited to a few hundred pounds, and were made principally in the vicinity of Clatskanie. The fish went to Portland where, as is usual with the first deliveries, they commanded a fancy price, the J. E. Lawrence Co. paying Ben Jolma \$1 per pound for the first five pounds landed.
1 January 1939	Portland, OR	<i>Oregonian</i> , p. 5, col. 4	SMELT DUE TUESDAY. Columbia river smelt are expected to be in the market again Tuesday in sufficient quantities for the trade. Arrivals in the past week have been light and many fishermen were idle because of the light run, which is now showing signs of increasing.
7 January 1939	Portland, OR	<i>Oregonian</i> , p. 5, col. 2-3	Homemaker's Market List. From Portland Retail Markets. .. Fish and Poultry. ... Moderate Supply and Price ... Columbia river smelt, pound 15c.
8 January 1939	Portland, OR	<i>Oregonian</i> , p. 5, col. 7	CRABS OUT OF MARKET. ... Columbia river smelt were scarce and the price continued high.
11 January 1939	Portland, OR	<i>Oregonian</i> , p. 4, col. 5-6	Homemaker's Market List. From Portland Retail Markets. .. Fish and Poultry. ... Moderate Supply and Price ... Columbia river smelt, 2 pounds 25c ...
12 January 1939	Grays River	<i>The Kelsonian Tribune</i> , p. 1, col. 7	Grays River Yields Smelt. Larger smelt catches were made in Grays river by dippers last night, but gill netters who were operating in the Columbia river near Oak Point, Cathlamet and Puget Island had little success, making only small catches. Some got only a few pounds. There seem to be quite a few fish in the river but they are badly scattered, according to fishermen.
14 January 1939	Portland, OR	<i>Oregonian</i> , p. 5, col. 3-4	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Moderate Supply and Price ... Columbia river smelt, 2 pounds 25c ...
28 January 1939	Portland, OR	<i>Oregonian</i> , p. 4, col. 3-4	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Moderate Supply and Price ... Columbia river smelt, pound 10c ...
30 January 1939	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 7	Annual Smelt Run Invades Local Streams. 2,000 Boxes Are Dipped Last Night By 50 Boats. The smelt are in the Cowlitz. ... Fifty boats dipped approximately 2,000 boxes near Ostrander last night. The annual main run, expected to be in the river for six weeks,

Date	Place	Source	Quote
			was sighted early yesterday morning at the mouth of the Cowlitz. A short winter run lasted a week before the first of the year. Fishermen report that dippers are making good catches along the river bank near Lexington.
31 January 1939	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 3	Smelt Catches Continue Heavy. Four hundred boxes of smelt were dipped by commercial fishermen from the Cowlitz river last night, according to the Columbia River Smelt company. New schools of the silvery fish are steadily entering the river on the annual run.
1 February 1939	Portland, OR	<i>Oregonian</i> , p. 6, col. 3-4	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Moderate Supply and Price ... Columbia river smelt, pound 10c ...
1 February 1939	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 5	Smelt Run Holds Steady in River. New schools of fine fish are continually joining the annual smelt run into the Cowlitz river, the Columbia River Smelt company reported today. Orders for approximately 500 boxes of the fish were filled by commercial dippers last night. The price was \$3.40 a box yesterday.
4 February 1939	Portland, OR	<i>Oregonian</i> , p. 4, col. 2-3	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Moderate Supply and Price ... Columbia river smelt, pound 10c ...
6 February 1939	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 2	Smelt Dippers Report Run Good. Commercial fishermen each dipped 14 boxes of smelt last night, according to the Columbia River smelt company. Wholesale price remains at \$2.10 a box. The run remains heavy.
8 February 1939	Portland, OR	<i>Oregonian</i> , p. 4, col. 4-5	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Moderate Supply and Price ... Columbia river smelt, pound 10c ...
8 February 1939	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 7	Smelt Boat Owners Form Co-op Group. Nine Local Operators Are Selling Fish Less Union Charge. Unable to do business under the stringent union pro rate system, nine smelt boat owners yesterday announced organization of the Columbia River Smelt Cooperative association, to replace the Columbia River Smelt company. Last night eight Co-op fishermen dipped 150 boxes and still were unable to fill all the orders, Manager R. R. Fisher said today. The union was pro-rated only 11 boxes per man whereas they dipped approximately 60 boxes to the man, he added. One Co-op boat was dipping today. He believes that more fish would be dipped tonight to meet orders. "The new association has no intention of entering into a price war but has balked at the pro rate system. We contend that union fishermen have the right to ship at union prices which we are doing", Fisher declared. The wholesale price of last night's shipment was \$1.85 per box (the union price less a 25 cent handling charge). The union was understood today to have marketed their fish at the lower figure. "Co-op fishermen are dipping 24 hours a day, thus having fresh fish ready for both the night truck hauls and for the outgoing railroad shipment in the morning," according to the manager. "Another problem which had a great deal to do with our decision to market our own fish are the non-union bank fishermen, approximately 116 in number, who place no limit on their daily haul and are marketing their own fish with a huge profit, although under selling, the union price," he added. Charles Olson is president of the association. Other officers are Paul Plebuch,

Date	Place	Source	Quote
			secretary-treasurer; and Paul Unger, V. G. Davis and R.R. Fisher, trustees. Fisher is manager.
11 February 1939	Portland, OR	<i>Oregonian</i> , p. 6, col. 1-2	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Moderate Supply and Price ... Columbia river smelt, pound 10c ...
13 February 1939	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 2	Smelt Dippers Operating Today. Receding waters of the Cowlitz river today saw smelt fishermen again dipping the silvery fish. Debris in the river last night when waters were running high kept many boats tied to the docks. The Columbia River Smelt cooperative association reports less than 100 boxes dipped during the night.
15 February 1939	Portland, OR	<i>Oregonian</i> , p. 6, col. 3-4	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Moderate Supply and Price ... Columbia river smelt, 2 pounds 15c ...
18 February 1939	Portland, OR	<i>Oregonian</i> , p. 4, col. 3-4	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Moderate Supply and Price ... Columbia river smelt, 3 pounds 25c ...
21 February 1939	Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 8	Smelt Catch in Columbia Good. Gillnetters have been taking about 200 boxes of smelt daily from the Columbia river near Eagle Cliff, the Columbia River Smelt Cooperative association reports. The fish are trucked to Kelso for shipment. The gillnet season closes next Tuesday night, March 1. Schools have left the Cowlitz river, only 11 boxes being dipped from the river last night.
22 February 1939	Portland, OR	<i>Oregonian</i> , p. 10, col. 5-6	Homemaker's Market List. From Portland Retail Markets. Fish and Poultry. ... Moderate Supply and Price ... Columbia river smelt, 2 pounds 15c ...
25 February 1939	Portland, OR	<i>Oregonian</i> , p. 6, col. 1-2	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Moderate Supply and Price ... Columbia river smelt, 2 pounds 15c ...
28 February 1939	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 3	Smelt Run In Cowlitz Keeps Dippers Busy. Fickleness of the fish had commercial smelt dippers working at top speed in the Cowlitz river last night, knowing that the run may leave the stream as quickly as it returned from the Columbia river Saturday night. Between 300 and 400 boxes were dipped by seven fishermen affiliated with the local Columbia Smelt Cooperative to fill stacks of orders. The dip was even greater Sunday night with some 1,400 boxes being dipped by all commercial fishermen in the river.
February 1939		<i>Pacific Fisherman</i> 37 (2): 14.	Smelt Gillnetting Good in January. Gillnetting for smelt in the Columbia River was exceptionally good at times during January, some record hauls being made in the vicinity of Clatskanie and Oak Point. Ed Niemela of Clatskanie is reported to have taken 43 boxes of fish----2,150 lbs,----in a single set of his nets, which were in the water only a few minutes. So heavy was the production that a 3-box limit was put on daily catch of each fisherman.
February 1939		<i>Pacific Fisherman</i> 37 (2): 43.	Smelt Hit Cowlitz. Smelt hit the Cowlitz River just at the end of January, a little earlier than usual, and dipnetting rapidly displaced gillnetting in the production of these fish. Before the first of February daily shipments of around 1,000 boxes per day were reported being made from Kelso.
1 March 1939	Portland, OR	<i>Oregonian</i> , p. 7, col. 2-3	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Moderate Supply and Price ... Columbia river smelt, 2 pounds 15c ...

Date	Place	Source	Quote
4 March 1939	Portland, OR	<i>Oregonian</i> , p. 6, col. 3-4	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Moderate Supply and Price ... Columbia river smelt, 2 pounds 15c ...
8 March 1939	Portland, OR	<i>Oregonian</i> , p. 7, col. 5-6	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Moderate Supply and Price ... Columbia river smelt, pounds 5c to 6c ...
8 March 1939	Lewis River	<i>The Kelsonian Tribune</i> , p. 6, col. 3	Heavy Smelt Dip In Lewis River. Commercial smelt fishermen are dipping between 1,200 and 1,400 boxes from the Lewis River nightly, it was reported here today. The run has forsaken the Cowlitz River.
11 March 1939	Portland, OR	<i>Oregonian</i> , p. 6, col. 1-2	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Plentiful and Inexpensive ... Columbia river smelt, pound 5c ...
15 March 1939	Portland, OR	<i>Oregonian</i> , p. 8, col. 3-4	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Plentiful and Inexpensive ... Columbia river smelt, pound 5c ...
25 March 1939	Portland, OR	<i>Oregonian</i> , p. 6, col. 1-2	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Plentiful and Inexpensive ... Columbia river smelt, pound 5c ...
29 March 1939	Portland, OR	<i>Oregonian</i> , p. 7, col. 3-4	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Plentiful and Inexpensive ... Columbia river smelt, pound 5c ...
2 April 1939	Portland, OR	<i>Oregonian</i> , p. 5, col. 4	HALIBUT DUE MONDAY. ... Columbia river smelt were again running after a partial disappearance for several days. ...
1940			
8 December 1939	Portland, OR	<i>Oregonian</i> , p. 10, col. 6-7	Homemaker's Market List. From Portland Retail Market. ... Fish and Poultry. ... Small Supply, High Price ... Columbia river smelt, pound 30c ...
15 December 1939	Portland, OR	<i>Oregonian</i> , p. 26, col. 5	SHOPPING AROUND by Bess Bye. ... Also new in downtown fish markets are Columbia river smelt. ...
19 December 1939	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 5	First Smelt Run Reported Here. The first smelt run of the year was reported in the Cowlitz river over the weekend with scattering catches being made by dippers. The "scout run" is taken as a good indication that the main body of fish will again enter the local stream, promising a busy season for local fishermen.
27 December 1939	Portland, OR	<i>Oregonian</i> , p. 2, col. 7-8	Homemaker's Market List. From Portland Retail Market. ... Fish. ... Plentiful and Inexpensive ... Columbia river smelt, pound 10c ...
29 December 1939	Portland, OR	<i>Oregonian</i> , p. 4, col. 5-6	Homemaker's Market List. From Portland Retail Market. ... Fish. ... Plentiful and Inexpensive ... Columbia river smelt, pound 10c ...
December 1939		<i>Pacific Fisherman</i> 37 (13): 64.	Smelt Men Name Manager for Season. Delmar Birkenfeld, Clatskanie, Ore., was appointed manager of the Columbia River Smelt Association in a meeting Nov. 6. The association acts as a clearing house for disposing of all smelt caught by Columbia River Fishermen's Protective Union members. The smelt marketing plan is practically the same as last year with the maintenance of the \$2.00 per box minimum and the selling of all fish through the central office.
5 January 1940	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	SHOPPING AROUND by Bess Bye. ... One can buy Columbia river smelt, two pounds for 19 cents ...

Date	Place	Source	Quote
6 January 1940	Portland, OR	<i>Oregonian</i> , p. 2, col. 4-5	Homemaker's Market List. From Portland Retail Market. ... Fish. ... Plentiful and Inexpensive ... Columbia river smelt, pound 10c ...
12 January 1940	Portland, OR	<i>Oregonian</i> , p. 6, col. 7	SHOPPING AROUND by Bess Bye. ... Fresh Columbia river smelt are three pounds for a quarter. ...
13 January 1940	Portland, OR	<i>Oregonian</i> , p. 3, col. 4-5	Homemaker's Market List. From Portland Retail Market. ... Fish. ... Plentiful and Inexpensive ... Columbia river smelt, pound 10c ...
19 January 1940	Portland, OR	<i>Oregonian</i> , p. 4, col. 3-4	Homemaker's Market List. From Portland Retail Market. ... Fish. ... Plentiful and Inexpensive ... Columbia river smelt, pound 10c ...
27 January 1940	Portland, OR	<i>Oregonian</i> , p. 2, col. 3-4	Homemaker's Market List. From Portland Retail Market. ... Fish. ... Plentiful and Inexpensive ... Columbia river smelt, pound 10c ...
January 1940		<i>Pacific Fisherman</i> 38 (1): 58.	Smelt Are Showing In Coast Streams. First real showing of smelt in the Columbia River was made the middle of December with catches being reported in Grays River and off Clatskanie. The Columbia River Smelt Association, an affiliate of the gillnetters union, reported that seven 50-lb. boxes were shipped out of Grays River and 10 boxes out from Clatskanie Dec. 12. The fish sold at 14c per lb. The first smelt run of the year reported in the Cowlitz River over the weekend of Dec. 16 with scattering catches being made by dippers. The "scout" run is taken as a good indication that the main body of fish will again enter the stream.
2 February 1940	Portland, OR	<i>Oregonian</i> , p. 6, col. 6-7	Homemaker's Market List. From Portland Retail Market. ... Fish. ... Plentiful and Inexpensive ... Columbia river smelt, pound 10c ...
2 February 1940,	Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 7	Association Ready For Smelt Run. All was quiet this week around the offices of the Columbia River Smelt Cooperative association, but by February 10 ... might be humming according to Mesdames Edith and Flora Fisher, secretaries of the association. The "run" probably will continue for five days. A few smelt are being caught in the Columbia. Wednesday, it was reported that small catches were being made in the vicinity of Clifton boat landing, lower down the Columbia. The association at the present time has nine members. Last year approximately 10,000 50 pound boxes were shipped out by the association to points as far distant as Minnesota and Nebraska.
6 February 1940	Portland, OR	<i>Oregonian</i> , p. 4, col. 6	Run of Smelt Yields Catches. KELSO, Feb. 5 (Special)—The run of smelt in the Columbia continues and catches are fair, it was reported at the Columbia River Smelt Co-operative here Monday. The fish are expected to enter the Cowlitz river, their native stream, momentarily. A "lost" run of the tiny fish remained in the Naselle river Sunday, where catches were reported good.
10 February 1940	Portland, OR	<i>Oregonian</i> , p. 2, col. 4-5	Homemaker's Market List. From Portland Retail Market. ... Fish. ... Moderate Supply and Price. ... Columbia river smelt, pound 10c ...
13 February 1940	Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 5	Conditions Favorable For Smelt. Experienced observers said yesterday that conditions are favorable for a smelt run in the Cowlitz river. None have been seen so far this year. Observers said the spring freshets which have caused the river to rise markedly in recent days will be an inducement for the smelt to enter from the Columbia. Sizeable catches

Date	Place	Source	Quote
			are being made along the Columbia at points twenty miles from here, but the smelt have not been running heavy enough to be caught in the dipping nets, according to those informed along the river front.
20 February 1940		<i>The Kelsonian Tribune</i> , p. 1, col. 2	Maybe It Was Only Another Fish Yarn. Quite a dither rose yesterday morning in the office of the Columbia River Smelt Cooperative association. Someone phoned in to say that a big school of smelt was in the Columbia where the Cowlitz empties. The man who did the telephoning said that he came to this conclusion because of the fact that a lot of gulls were wheeling around the site. Mrs. Dora Fisher, secretary of the association, excited by the news, put on her coat, got in a car and went down to check up. But the seagulls had gone, and the fish as yet are non-existent in the Cowlitz.
23 February 1940	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 6	Substantial Quantity of Smelt Taken. Up to Thursday, commercial fishermen had caught in the Cowlitz, approximately 1500 boxes of smelt, according to an estimate provided by Archie Wyard, state fisheries inspector who lives in Kelso. The inspector cautioned everyone to observe the 36-hour period during which the river will be closed to smelt fishing. The period began at 8 a.m. this morning and ends tomorrow, Saturday, at 8 p.m. Individual fishermen are allowed twenty pounds each. As in past years, the closing period is ordered to give the smelt an opportunity to reach higher levels of the river for spawning. No license is required for those observing the 20-pound limit. Commercial prices for the smelt are most unstable this year. While a price of \$2.40 per box to the wholesaler had been fixed at the beginning of the season, it is reported that the smelt are being sold in Portland for prices as low as one dollar a box, wholesale.
February 1940		<i>Pacific Fisherman</i> 38 (3): 50.	Heavy Smelt Run On Naselle River. With few smelt being taken on the Columbia, Cowlitz or Grays Rivers in late January, it remained for the Naselle River, which empties into Willapa Bay, Wash., to provide the market with the fish. The first run of commercial quantity in the river's history was discovered late in January and for several weeks heavy catches were made by commercial and non-commercial dipnetters.
1 March 1940	Portland, OR	<i>Oregonian</i> , p. 5, col. 3	SHOPPING AROUND by Bess Bye. ... Fish for Lent is always of interest and in this line Columbia river smelt is priced five pounds for 15 cents. ...
1 March 1940		<i>The Kelsonian Tribune</i> , p. 1, col. 4	Seek To Up Smelt Price. Fishermen of the river this week have been mustering their political strength in an effort to stabilize the price of smelt. Mainly, this effort has taken the direction of trying to have the federal surplus commodities corporation purchase a quantity of the fish. This, fishermen feel, will have a great stabilizing effect on the market. Prices in the wholesale market have dropped recently to as low as 65 cents for a 50-pound box. The effort to increase and stabilize prices has been under the local leadership of the Columbia River Fishermen's Protective union. A quantity of letters and telegrams has been sent out calling attention to [s]melt market conditions.
2 March 1940	Portland, OR	<i>Oregonian</i> , p. 2, col. 4-5	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Plentiful and Inexpensive ... Columbia river smelt, 6 pounds 25c; cleaned, 2 pounds 25c.
5 March 1940	Cowlitz River	<i>The Kelsonian Tribune</i> ,	Men, women and children turned out last week to get the 20 pounds of silvery fish

Date	Place	Source	Quote
		p. 1 photo caption	permitted each per individual. This group, snapped in rain, uses nets to scoop up fish. The run started late this year.
5 March 1940	Cowlitz River Lewis River	<i>The Kelsonian Tribune</i> , p. 1, col. 6	News Reel Records Cowlitz Smelt Run. As four news reel cameramen ground away, hundreds of smelt fishermen, some from Oregon, some from distant Washington points and a few from scattered states, lined the banks of the Cowlitz river Sunday dipping the silvery schools bucking the swift waters upstream to spawning grounds. At one point a giant frying pan, 14-feet across, was placed over a fire and here Junior Chamber of Commerce members of Longview staged a smelt feed of Gargantuan proportions. The smelt run in the Cowlitz is thinning, although the run in the Lewis river is fairly good.
16 March 1940	Portland, OR	<i>Oregonian</i> , p. 2, col. 4-5	Homemaker's Market List. From Portland Retail Markets. ... Fish and Poultry. ... Plentiful and Inexpensive ... Columbia river smelt, 6 pound 25c; cleaned, pound 10c. ...
March 1940		<i>Pacific Fisherman</i> 38 (4): 53.	Heavy Smelt Runs Cause Price Collapse. Smelt fishing in the Cowlitz River in southwestern Washington was at its height late last month and, with heavy catches and a glutted market, prices dropped to the lowest point in recent years. Smelt docks were quoting 50-lb. boxes for 65c per box. Strong competition among dealers was held responsible for the drop from the \$1.50 price of a week previous. A price of \$2.40 per box to the wholesaler had been fixed at the beginning of the season. Smelt catches were also reported heavy in the Lewis and Columbia Rivers. Earlier in the month an unprecedented smelt run yielded more than 4,000 boxes from the Naselle River by commercial dipnetters in addition to that taken by hundreds of amateur fishermen.
April 1940		<i>Pacific Fisherman</i> 38 (5): 73.	1940 Smelt Catch Heavy. Estimating that 3,000,00 lbs. of smelt will be the catch for 1940 in the Columbia River and its tributaries, the Washington State Fisheries Department announced last month that the season's catch was the biggest on record. It is estimated 2,000,000 lbs. of the small fish have been taken for commercial use and an additional 1,000,000 lbs. by private fishermen.
		Brennan (1940, p. 16)	Smelt. Production of Columbia River smelt has averaged over two million pounds for the last six years. Only one year, 1937, was below the two million pound mark. Strict fishing regulations have been enforced and it is evident that they are sufficient to guarantee the permanent abundance of this species under normal environmental conditions. Although no figures are available on the amount of fish taken by the public, it is conservatively believed that it is between 30 per cent and 50 per cent of the commercial production.
1941			
10 December 1940	Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 3	Smelt Due In Cowlitz Soon. Smelt should be wriggling up the Cowlitz River in small numbers at any time, according to the old rivermen. A small early run of the fish comes into the Cowlitz almost every year before Christmas and dippers can catch fish for several days before the run disperses or moves up the stream to the spawning grounds. A few smelt have been taken by gill netters in the lower Columbia recently, but the gill-netters are having troubles of their own this winter in their quest for smelt because of

Date	Place	Source	Quote
			fungus pollution. So much fungus is floating in the big river that it accumulates on the smelt gillnets, filling the small meshes so badly that smelt can see the approaching nets and avoid them, according to Henry Niemela, secretary of the Columbia River Fishermen's Union. With a few fish being reported from the lower river the winter run is probably headed up the Columbia for the Cowlitz. Why that run of fish should come up the river so much earlier than the main run has never been satisfactorily explained. Some fishermen believe they are scouts and that they return down the Columbia and report the water conditions, but the general opinion is that they are the descendants of smelt that for some reason started spawning at an earlier period than those in the main run and that the desire to spawn earlier is an inherited characteristic of the early run fish. The main run of smelt does not usually enter the Cowlitz until late in January or early in February.
December 1940	1941 season	<i>Pacific Fisherman</i> 38 (14): 63.	Smelt Fishing Opens. Isaac Jolma, smelt buyer at Clatskanie, Ore., reported that the first smelt of the 1940 fall run in the Columbia were caught during the first week of November. No considerable catches are expected before Thanksgiving. All smelt in the Columbia River are taken in close-meshed gillnets while the early run in Grays River is taken with dipnets. In the fall of 1939 a large run of smelt showed up in Deep River. Henry Niemela, secretary of the Columbia River Fishermen's Protective union, announced that Clatskanie smelt gillnetters would dispose of their catches through the clearing house operated by the Columbia River Smelt Fishermen's Association, whose members are affiliated with Niemela's organization. Although an A. F. of L. gillnetters' union has been established on the Columbia River with headquarters at Kelso, this union has not indicated that it would organize the smelt fishery on the Columbia. John Gizdavich of Clifton, who has been employed as a fish buyer by the Columbia River Packers Association, will have charge of the clearing house. He has held this position in the past, but in 1939 he was busy on the Oregon coast when the pool was arranged.
7 January 1941	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 5	Smelt Harder To Catch. Fishermen are still dipping smelt from the Cowlitz River, although the fish are much more elusive and harder to catch than when the winter run of smelt first came up the river last week. The Columbia River Smelt Company said today that its fishermen are getting enough fish to fill their orders.
12 January 1941	Portland, OR	<i>Oregonian</i> , p. 7, col. 7	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 12½c pound.
19 January 1941	Portland, OR	<i>Oregonian</i> , p. 7, col. 7	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 12½c pound.
21 January 1941	Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 5	Smelt Are Elusive. Gill net fishermen caught few smelt in the Columbia River yesterday. They have been taking the fish in front of Barlow Point, a short distance below the Weyerhaeuser mills, but last night the fish proved too elusive. Fishermen are looking for the main run to appear in the Cowlitz River at any time. The small winter run which came up the Cowlitz several weeks ago was quickly fished out and scattered.
22 January 1941	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 12½c pound.
26 January 1941	Portland, OR	<i>Oregonian</i> , p. 7, col. 3	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 12½c pound.
28 January 1941	Naselle River	<i>The Kelsonian Tribune</i> ,	Smelt Enter Naselle River for Second Year. For the second year in succession the

Date	Place	Source	Quote
	Columbia River	p. 1, col. 4	famed Columbia River smelt have deserted the stream of their birth and gone astray into Willapa Harbor and up the Naselle River which flows into that bay. Fishermen discovered the tiny fish in the Pacific County stream over the week end, and are reaping a harvest, as the fish are very abundant and can be caught easily in the small stream. Last year was the first time that the smelt had ever gone into the Naselle River. They remained there for a week or so before disappearing and it is possible a permanent run of the fish may be established into the Naselle. Gill net fishermen of the Lower Columbia are getting some smelt, but now that the fish are in the Naselle most of the markets will get their fish from that district. Trucks were bringing smelt here from Pacific county yesterday and last night. How soon the main run of the fish will enter the Cowlitz from the Columbia is problematical.
31 January 1941	Portland, OR	<i>Oregonian</i> , p. 5	SAFEWAY. ... Columbia River Smelt 3 lbs. 25c ...
31 January 1941	Cowlitz River Naselle River	<i>The Kelsonian Tribune</i> , p. 1, col. 5	Run of Smelt In Cowlitz. A good-sized run of smelt came into the Cowlitz River this week and fishermen have been making excellent catches the past few days. The little fish moved up the river rapidly and are now well above the bridge here. Because of the heavy run of fish that came into the Naselle river in Pacific County last week end the price dropped somewhat. The fishing ceased at 8:00 0'clock this morning for the regular week end closed period and cannot be resumed until 8:00 p.m. tomorrow night. The closed period applies to amateur fishermen as well as commercial ones and those who violate it will be subject to arrest, fisheries inspectors warn.
January 1941		<i>Pacific Fisherman</i> 39 (1): 54.	Grays River Smelt Run. The first smelt in commercial quantities were caught in Grays River near Rosburg early in December. An early catch was reported by Clatskanie gillnetters, but only a few pounds were landed. During the holiday period Clatskanie fishermen refrained from fishing in order not to glut the market. There is some rear that the close mesh of the smelt nets may be weighed down by a prevalent fungus growth in the Columbia River. The fish is taken in dipnets in Grays River.
2 February 1941	Portland, OR	<i>Oregonian</i> , p. 7, col. 6	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 10c pound.
4 February 1941	Cowlitz	<i>The Kelsonian Tribune</i> , p. 1, col. 2	Many Caught Smelt Sunday. Amateur smelt fishers were numerous along the Cowlitz river Sunday when they had their first good opportunity to dip the fish from the local stream, following the arrival of a big run last week. Most of the fishermen had dip nets of one kind or another, but a few used baskets, gunny sacks fastened onto poles and other similar contrivances to garner a supply of the toothsome fish. The good weather attracted many motorists to the banks of the Cowlitz from all sections of Western Washington and Oregon. Private fishermen are allowed to catch up to 20 pounds of smelt without a license. Commercial fishermen are making fair catches of choice fish and report that the demand is good.
7 February 1941	Nemah River	Richard T. Smith February 11, 1941	<u>Note on 1941 Nemah River Smelt Run.</u> A small smelt run was noted in the north fork of the Nemah River on February 7, 1941. The fish ascended the Nemah River as far as the mouth of Williams Creek which stream they entered for a distance of about one hundred

Date	Place	Source	Quote
			yards. Local people had been capturing them for several days, but they were not abundant enough for commercial fishing so the entire catch was consumed locally. An old resident of the community reported that this was the first smelt run that had occurred during his 48 years in the section. Another local man said, however, that the remains of old Indian smelt traps could still be seen on the lower river which shows that the stream did have a smelt run some years ago. The local people report that the smelt captured were spawned out which indicates that spawning had taken place in the Nemah. Richard T. Smith, February 11, 1941.
8 February 1941	Portland, OR	<i>Oregonian</i> , p. 8, col. 2	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 10c pound.
14 February 1941		<i>The Kelsonian Tribune</i> , p. 5, col. 6	Experimenting With Smelt Hatching. New equipment had to be devised for an experiment in smelt hatching being conducted at the state fish hatchery on the Kalama river by two fisheries school students from the University of Washington to determine if smelt can be successfully propagated under artificial conditions, as is done with salmon and other larger fish. One of the principal difficulties encountered is the microscopic size of the smelt eggs and the threadlike size of the baby smelt which are so small they can hardly be seen in the water with the naked eye. Special jars, screens and troughs had to be provided. It is believed to be the first such experiment. Several times the state fisheries department sought to establish runs of smelt in other streams by taking a quantity of live smelt from the Cowlitz to the other stream. Such plantings were made in the Nisqually river for several years but no run developed. ...
21 February 1941	Portland, OR	<i>Oregonian</i> , p. 10, col. 7	Local Market Quotations. ... FISH. ... SMELT—Columbia river, \$1.75 per box.
28 February 1941	Portland, OR	<i>Oregonian</i> , p. 12, col. 2	Local Market Quotations. ... FISH. ... SMELT—Columbia river, \$2 per box.
28 February 1941	Grays River Cowlitz River	<i>The Kelsonian Tribune</i> , p. 5, col. 7	Smelt Appear In Grays River. A smelt run appeared in Grays River this week. The run is comprised principally of males and the fish are of unusually high quality. Meanwhile local fishermen have been making good catches of smelt from a new run that came into the Cowlitz recently.
February 1941		<i>Pacific Fisherman</i> 39 (3): 67.	Naselle River Smelt Appear for Second Year. The smelt appeared for the second year in the Naselle River, in Pacific County, Wash., late in January and catches were reported at 1,000 boxes per day. The prolific run appeared for the first time in commercial quantities last year. Local No. 42, International Fishermen and Allied Workers of America, C.I.O. affiliate, was organized to control catching and marketing the Naselle catch. Frank Gatens is president of the local. Prices in late January were quoted at \$2.55 to \$2.65 per box of 50 lbs at the weighing and boxing station.
February 1941		<i>Pacific Fisherman</i> 39 (3): 68.	Few Smelt in Cowlitz. About 700 boxes of smelt were taken in the Cowlitz River late in December during a “scout” run of the fish, but the main run had not yet appeared by late January. Gillnet catches in the Columbia have been slight. For a time fishermen complained that their gear was weighed down with a strange fungus-like growth, which has been reported in the river by salmon fishermen for several years. This condition disappeared early in the year.

Date	Place	Source	Quote
9 March 1941	Portland, OR	<i>Oregonian</i> , p. 7, col. 3	Local Market Quotations. ... FISH. ... SMELT—Columbia river, \$1.75 per box.
11 March 1941		<i>The Kelsonian Tribune</i> , p. 1, col. 1	Smelt Disappear From Cowlitz. The smelt faded out from the Cowlitz river last week and no trace of a new run could be found by fishermen Sunday night. It is unusual for the fish to disappear from their native stream so early in the year. The late season run which usually comes into the Lewis river hasn't shown up either and the fishermen are marking time until a new run develops.
14 March 1941		<i>The Kelsonian Tribune</i> , p. 8, col. 3	Lewis River Run Of Smelt Expected. Fishermen of the Lewis river district anticipate a run of smelt into that stream about March 15th, according to Frank Swick, state food fisheries inspector. With the fish deserting the Cowlitz river this week those familiar with their habits believe the late run that goes into the Lewis river is soon due. After that there may be a smelt run up the Sandy river near Portland, to which they returned last year after an absence of two seasons.
18 March 1941	Sandy River	<i>The Kelsonian Tribune</i> , p. 1, col. 1	Smelt Go To Sandy River. The smelt appeared in the Sandy river near Portland Friday [14 March] and the week-end saw a host of amateurs dipping the fish from that small stream. The run was a heavy one and big catches were made by everyone.
20 March 1941	Sandy River	<i>Oregonian</i> , p. 10, col. 1-2	Marco Polo Was Right. ... The fish could not have been the eulachon—our Columbia river smelt or northern candlefish—for this is a species peculiar to our northern Pacific shores. ... And the stream ... must have been such another river as our own familiar Sandy, where now the smelt are at their destination in incalculable numbers. ... They have arisen from the sea, where nobody knows their fathom or their habit, and in two vast silver companies, male and female, they have swum the mighty Columbia to its tributary and have swerved into the flow of the Sandy, with the gulls screaming above them. ...
22 March 1941	Portland, OR	<i>Oregonian</i> , p. 8, col. 2	Local Market Quotations. ... FISH. ... SMELT—Columbia river, \$1.75 per box.
March 1941		<i>Pacific Fisherman</i> 39 (4): 45.	Columbia River Smelt Run Disappointing. John Gizdavich, manager of the Columbia River Fishermen's Protective Union smelt clearing house at Clatskanie for several seasons, assumed charge of disposing of smelt at Kelso when the Columbia River run failed to materialize this year. Two runs appeared in the Cowlitz River, the early scout hordes and the main run late in January and early February. For a time more than 1,000 boxes of smelt were dipped on the Naselle River, where smelt appeared for the second year in commercial quantities. Gillnet smelt catches in the Columbia River were very disappointing. Some were delivered at Clatskanie and some at Pillar Rock. Gizdavich is a regular fish buyer for the Columbia River Packers Association. He was at Winchester Bay during the 1940 coast season as well as at other points.
1 April 1941	Portland, OR	<i>Oregonian</i> , p. 12, col. 5	Local Market Quotations. ... FISH. ... SMELT—Columbia river, \$1.50 per box.
12 April 1941	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	Local Market Quotations. ... FISH. ... SMELT—Columbia river, \$1.50 per box.
17 April 1941	Portland, OR	<i>Oregonian</i> , p. 16, col. 2	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 6c per pound.
19 April 1941	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 6c per pound.
2 May 1941	Portland, OR	<i>Oregonian</i> , p. 12, col. 7	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 6c per pound.

Date	Place	Source	Quote
10 May 1941	Portland, OR	<i>Oregonian</i> , p. 3, col. 2	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 6c per pound.
		Foster (1941, p. 14)	Smelt. Total commercial production exceeded the two million pound mark in 1940 with the Cowlitz River producing the bulk of the fish. Lewis River production normally very erratic was only 227,250 pounds as compared with 1,341,250 pounds in 1939. All data collected to date on the life history of the Columbia River indicate, however, that Cowlitz produced fish may spawn in the Lewis and vice versa. As long as the total production is above 1,750,000 pounds the total population may be said to be in good condition.
1942			
27 November 1941	Columbia River at Clatskanie	<i>Oregonian</i> , p. 12, col. 2	The Smelt Are at Clatskanie. Although they are priced at fifty cents a pound, and a great many people won't buy them until they become more plentiful and cheaper, there is the usual feeling of gratification on reading that the season's first Columbia river smelt have been gillnetted near Clatskanie. It sort of makes one feel that nature looks out for her own, and has a dependable purpose, when we know that the silvery small eulachon have kept their appointment again. And, good heavens, what a fish it is—isn't it?—this diminutive cousin of the regal salmon. It is of such excellence, sir, that if it were any better it would be altogether too good—take our word for it. It isn't a very prepossessing fish, we will grant you, though it is far from being ill favored. Perhaps it does not astound the eye because it chooses, instead, to adopt a not unbecoming aspect of humble modesty. But the pan is the proof. It is in the pan that our own smelt of smelts goes to town, as you might say, and demonstrates beyond all dispute that adornment and girth have little to do with true merit. It is right that these minor fish should sell at a relatively high price when they are scarce—they deserve to; and it is proper we should rejoice in their cyclic return from the sea—since if we did not rejoice we should not deserve them.
28 November 1941	Columbia River at Clatskanie	<i>The Kelsonian Tribune</i> , p. 1, col. 3	Early Smelt Run Due Soon. The early winter run of smelt into the Cowlitz river is expected soon by local fishermen. The fish usually appear in the local stream early in December, when there is dipping for a few days until the smelt disappear. The main run of fish does not come up the Cowlitz as a rule until January or February. A few smelt were caught from the Columbia in the Clatskanie, Oregon district the first of the week when the initial shipment of the season was made to Portland. The early run of the fish generally moves up the river more rapidly than the big run.
19 December 1941	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 7	Early Smelt Run In Cowlitz. The early winter run of Columbia river smelt came up the Cowlitz in force early in the week, the fishermen dipping approximately 300 boxes the first night the fish were in their native stream. The smelt moved up the river rapidly and were soon above the Weyerhaeuser bridge and Rocky Point. The Cowlitz river was several feet above a normal stage and the swift water made dipping difficult. In late November gill netters in the Clatskanie region were getting fish from this run in the Columbia river. The smelt are of fine quality and good size. Fisheries inspectors warn that all smelt fishing, both commercial, and for home use is prohibited from 8 a.m.

Date	Place	Source	Quote
			Fridays to 8 p.m. Saturdays. Persons without commercial fishing licenses are limited to 20 pounds of smelt daily. No license is required except for commercial fishing. The principal run of the fish does not arrive in the Cowlitz ordinarily until January of February.
December 1941	1942 season	<i>Pacific Fisherman</i> 39 (14): 75.	Isaac Jolma Again Lands First Smelt. Only once since 1911 has Isaac Jolma, Clatskanie, Ore., gillnet fisherman and for the past 20 years fish receiver for the Point Adams Packing Co. at Clatskanie, failed in what is now considered his duty to catch the first smelt in the Columbia River every season. He again fulfilled his obligation late in November when on a scouting drift he caught 7 lbs. of smelt. These sold for 50c per lb. on the Portland fresh fish market, just half the price Jolma has received for several years. In 1938, Jolma was taken by surprise by an early catch of several pounds of smelt by his brother, Benjamin Jolma, also a Clatskanie gillnetter. The younger brother had an invaluable tip from a large white sturgeon he caught in his salmon net. Instead of being full of caviar, the sturgeon was stuffed with a grand mess of smelt. Without saying a word, Brother Ben slipped out with his smelt net and landed the season's first catch of the fish. For ten years before buying fish for Point Adams Packing Co., Isaac Jolma was receiver for the Union Fishermen's Cooperative Packing Co. Jolma reported that the union smelt pool will again be managed by John Gizdavich of Clifton, veteran fish buyer for the Columbia River Packers Association, Inc., who is now buying at Cushman, Ore. The pool will begin operating by Dec. 15. A similar pool will be organized on Grays River and Deep River when smelt appear in these streams. In 1940 the run was disappointing in the Columbia, but good in several of its tributaries.
8 January 1942	Columbia River at Skamokawa and Cathlamet	<i>The Kelsonian Tribune</i> , p. 8, col. 6	Smelt Caught In Columbia River Again. No smelt have been caught in the Cowlitz river since the initial run moved up the stream to the spawning grounds under the protection of the recent flood. Lower Columbia gillnet fishermen are making good catches of smelt in the vicinity of Skamokawa and Cathlamet. F. E. White, state food fisheries inspector, expects the run to move up the Columbia and enter the Cowlitz shortly after the cold weather moderates. White also cites the regulations covering the taking of smelt in the waters of the state and the closed hours. Fishermen who do not have commercial licenses to catch smelt are limited to 20 pounds of fish daily. The state regulation follows: Section 27—Order No. 75. It shall be unlawful to take or fish for smelt or eulachon in the waters of any river in the state of Washington except with a hand dip net and between the hours of 8 o'clock p. m. Saturday and 8 o'clock a.m. the next following Friday of each week; and it shall be unlawful to take or fish for smelt or eulachon at any time or in any manner or by any means whatsoever in the waters of Cowlitz river above the point where the east and west section line between sections 26 and 35, township 9 north, range 2 west, W M., crosses said Cowlitz river and marked by suitable markers, said line being near Sandy Bend.
11 January 1942	Portland, OR	<i>Oregonian</i> , p. 7, col. 7	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 15c.

Date	Place	Source	Quote
15 January 1942	Portland, OR	<i>Oregonian</i> , p. 15, col. 5	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 15c.
18 January 1942	Portland, OR	<i>Oregonian</i> , p. 7, col. 7	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 15c.
22 January 1942	Portland, OR	<i>Oregonian</i> , p. 3, col. 7	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 13c.
27 January 1942	Portland, OR	<i>Oregonian</i> , Sect. 2, p. 1 col. 4	Adventures in Marketing by Marie Hornbeck, Director of Women's Activities for The Oregonian. ... Columbia river smelt and [sic] two pounds for 29 cents, that will make an inexpensive and delicious dinner. We like them best broiled, and say, here's a tip, try squeezing a little lemon juice over each fish before broiling. ...
29 January 1942	Cowlitz River Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 6	Smelt Run In Cowlitz Again; Good Catches Made. The smelt came back into the Cowlitz River again Tuesday night after an absence of more than a month, and although the fish were scattered, good-sized catches were reported by the commercial fishermen. The fish moved up the river rapidly and the head of the run was soon above Rocky Point. It is believed the main run of smelt is now in the river. Good catches were made for several days in December until high water ended the fishing. The cold weather followed. Gill netters have been taking the fish in the Columbia River for several weeks. ...
January 1942		<i>Pacific Fisherman</i> 40 (1): 50.	Columbia River Smelt Run Starts. Columbia River fishermen reported a steady run of smelt early this month. Clatskanie gillnetters were getting 300 to 400 boxes daily, with a 50-lb. box selling at \$3. Fishermen anticipated a drop in prices, however, when the huge Cowlitz River run gets under way.
January 1942		<i>Pacific Fisherman</i> 40 (1): 57.	Smelt Run Lags. High water in the tributaries of the Columbia, brought on by heavy rainfall late in December, was blamed by fishermen for failure of smelt to show up in any volume. Minor catches were made at Mayger and Pillar Rock. The fish did not appear during the month in Grays River and the Cowlitz. Early in December some light receipts were reported in the Cowlitz, but no run developed.
3 February 1942	Portland, OR	<i>Oregonian</i> , p. 3, col. 5	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 13c.
5 February 1942	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 6	Smelt Are More Elusive Now. Good catches of smelt are being made in the Cowlitz River although some fishermen have difficulty in locating the run. Enough fish are being taken to fill the market demand, according to dealers, who are shipping the fish to all parts of the west. The price to the fishermen is being maintained at \$3.25 for a 50-pound box. ...
6 February 1942	Portland, OR	<i>Oregonian</i> , p. 3, col. 7	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 13c.
8 February 1942	Portland, OR	<i>Oregonian</i> , p. 7, col. 7	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 10c.
19 February 1942	Portland, OR	<i>Oregonian</i> , p. 17, col. 5	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 10c.
27 February 1942	Portland, OR	<i>Oregonian</i> , p. 14, col. 7	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 10c.
February 1942		<i>Pacific Fisherman</i> 40 (3): 49.	Smelt Appear In Cowlitz, Grays Rivers. Columbia River gillnet smelt fishermen suspended fishing late in January when the fish appeared for the first time this winter in considerable volume in the Cowlitz and Grays rivers in Washington, where they are caught in dipnets. As in the past, the price dropped as soon as increased receipts from these dipnet streams entered the market. Gillnet fishermen, by limiting catches, maintained a good price throughout the early part of the season. The average net return to

Date	Place	Source	Quote
			gillnetters was \$3 a box of 50 lbs. They sold all their fish through the pool operated at Clatskanie. John Gizdavich of Clifton, fish buyer on the Oregon coast for the Columbia River Packers Association, Inc., managed the sale of the fish for the Columbia River Smelt Fishermen's Association. Late in 1941. a small scout run showed up in the Cowlitz at a time when the fish were scarce in gillnet drifts. No smelt were reported at Grays River, where sales were handled by the Smelt Fishermen's Association, until late in January. Receipts on the Columbia River, which experienced a poor year in 1941, turned out fairly well during January. Petering out of the run in the Cowlitz, which is the best smelt tributary of the Columbia, will revive gillnetting.
February 1942		<i>Pacific Fisherman</i> 40 (3): 53.	Smelt at Clatskanie. Biggest of the sporadic and shortlived runs of smelt in the Columbia River was reported in mid-January by gillnetters at Clatskanie, Wash. High boats caught as much as 1,000 lbs., but the average at the time was reported at about five boxes. These fishermen have been disposing of their catch through the Smelt Fishermen's Union pool, of which John Gizdavich of Clifton is manager. Near the first of the year a fair run showed up in the Cowlitz River, but it did not last long. Light catches have been made on other smelt streams.
5 March 1942	Portland, OR	<i>Oregonian</i> , p. 12, col. 7	Local Market Quotations. ... FISH. ... SMELT—Columbia river, 10c.
5 March 1942		<i>The Kelsonian Tribune</i> , p. 5, col. 7	Can Feed Smelt On Fur Farms. Sale of smelt to fur farmers to be fed to fur bearing animals has been approved by the state fisheries department under a permit system. The permits will be issued by the department to both the fur farmer and to the fish wholesaler from whom the purchase is made. The abundance of smelt this year permits use of some of the fish for feed. Catches were good this week with a fair demand. The price to the dippers is being maintained at \$1.75 for a 50-lb. box.
19 March 1942	Cowlitz River Kalama River	<i>The Kelsonian Tribune</i> , p. 1, col. 4	Smelt Run In Kalama River This Week. The Cowlitz River smelt run moved above the Sandy Bend deadline of the state fisheries department early this week, and the commercial fishermen transferred their operations to the Kalama River when a small run of fish appeared in that stream. Fishing is more difficult in the Kalama than in the Cowlitz and ordinarily the smelt do not stay in that stream very long. Fishermen are watching the Lewis River in the hope that a run may develop in that stream or that another run will come up the Cowlitz.
21 March 1942	Portland, OR	<i>Oregonian</i> , p. 3, col. 7	Local Market Quotations. ... FISH. ... SMELT—Columbia river, \$3 per box.
25 March 1942	Portland, OR	<i>Oregonian</i> , p. 12, col. 5	Local Market Quotations. ... FISH. ... SMELT—Columbia river, \$1.90 per box.
26 March 1942	Cowlitz River Sandy River Lewis River Kalama River	<i>The Kelsonian Tribune</i> , p. 8, col. 6	More Smelt Enter Cowlitz. Another run of smelt came into the Cowlitz River this week and commercial fishermen have been making good catches here, although the Sandy River near Portland, which the smelt entered last week, has been getting most of the headlines. Last week the commercial fishermen had to get their fish from a run that was in the lower Kalama River, but the fish soon withdrew from that stream and a small run went up the Lewis River.
28 March 1942	Portland, OR	<i>Oregonian</i> , p. 3, col. 7	Local Market Quotations. ... FISH. ... SMELT—Columbia river, \$1.90 per box.

Date	Place	Source	Quote
		Foster (1942, p. 15)	Smelt. Production control as a means of price stabilization lowered the production of Columbia River Smelt during the 1942 season. Actually an exceptional run appeared in the Cowlitz River and well over 2,000,000 pounds could have been produced if fishing intensity had been normal. The run to the Lewis River was light but the run to this stream has always been very erratic.
March 1942		<i>Pacific Fisherman</i> 40 (4): 47.	Columbia River Smelt Fishing Ends. While gillnet smelt fishermen enjoyed a good season in the Columbia River, dipnetters did not make their usually heavy catches in the Cowlitz River, and the run in Grays River was disappointing. Other streams in Pacific County, Wash., had no commercial runs of the fish, in contrast to the 1941 season. Smelt fishing suspended on the Columbia early in February after the fish showed up in some volume in the Cowlitz. On the Columbia, the Smelt Fishermen's Association was able to pay fishermen \$3 a box, 50 lbs, to the box, throughout the latter part of the season, following a higher price at the start. More than 80 smelt gillnetters fished in the drifts near Clatskanie, Oakpoint and Skamokawa. Fishermen at Pillar Rock had a fair season.
1943			
7 January 1943	Cowlitz River Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 3	Smelt Scattered By High Water. The light, early winter run of smelt which came into the Cowlitz River about on schedule the latter part of the week was scattered by the high water of the past few days. A few of the smelt were dipped prior to closed season, which runs from 8:00 A.M. Friday to 8:00 P.M. Saturday. Some of the fish had been caught by Columbia River gill-netters previously.
24 January 1943		<i>Sunday Oregonian</i> , p. 4, col. 1	Rods, Ripples, Rifles. By Herbert S. Lampman Staff Writer, The Oregonian. The scientific name of the fish is <i>Thaleichthys pacificus</i> . Around Portland it is known as the Sandy river smelt. The Indians call it "Eulachon," and elsewhere it is known as candlefish. Generally speaking, it is known as the Columbia river smelt because it is up this river that the vast migration begins in early December, and it is around Clatskanie, on the lower river, that fishermen begin to seek it. The intricacies of catching these migrants when they first leave the sea has been partly explained to this column by Johnny Gizdavich, who is secretary, general manager and chief worrier for a group of commercial fishermen at a dozen river towns in the vicinity. His main receiving dock is on Wallace island, a scant three miles below Clatskanie, and his main ambition in life is to tell the world that the Columbia river smelt is a panfish second to none when it is freshly caught and properly marketed with all due respect to its prima donna whims and succulence of flavor. Fish Not Dipped. Small, nervous and quick, he really worries about his smelt, although in his own right he manages a big station on the Siuslaw river and only comes to the lower Columbia river region during the smelt run. He is prone to agree with Jordan and Evermann, the late noted Pacific coast ichthyologists, who said: "The smelt is an excellent panfish, unsurpassed by any fish, whatsoever in delicacy of flesh, which is far superior to that of any trout." Johnny complains that their excellent tribute really doesn't exceed his ambitions. And so it was that this column learned to

Date	Place	Source	Quote
			respect the first smelt of the year. In the first place, they aren't dipped from the tributary streams of the Columbia, into which they turn when they are ripe and ready to spawn. These first smelt are taken from the depths of the Columbia itself, and they should command respect even from persons who misguidedly pass them by in favor of another fish. Equipment Expensive. The gear that is used to take them is expensive. The nets vary from "floaters" or cork-bouyed nets to "sinkers," which fish deep along the bottom. The length of an average gillnet—for these webs actually gill every fish—ranges from 200 fathoms to nearly 400. The web contains a 1½- inch mesh and is made of tough twine that closely resembles shoemaker's thread. The men who fish them in their tough, trim, neat Columbia river gillnet craft are inordinately broad of shoulder, blue of eye, ham-handed, grinning and polite. Almost without exception, their accents are redolent of Finland, Sweden, Denmark or Norway. They wear a veritable uniform: heavy boots with the hip fastening straps cut off to avoid tangling them in the heavy webbing and being swept overboard, blue woolen shirts, woolen long underwear that peeks out at the throat and oilskins. Two Methods Used. On this particular occasion they were cursing the weather amiably. They had brought their boats in from the big river and had discharged their fish. The matter of discharging gillnetted smelt isn't as simple as all that. The fish are caught inextricably in the webbing and two methods are used to release them. One is to stretch a fathom or two out on a barge floor and shake the net as a housewife shakes a rug. The other is to draw a fathom or two from the boat and pick the silver fish out by hand. The latter method is said to be preferable. This day the weather was something more than boreal—it was sub-mercurial. Most of the boats came in with fish-laden nets frozen into a compact mass of fish and webbing. One boat, piloted by a grinning man in his early 70s, brought in an unfrozen net, which had been kept in that condition by pouring water on the pile and keeping it covered. The craft drew alongside the covered barge and tied up. Two young men aboard climbed easily from the ice-coated bow deck and affixed a roller across the entrance to assist in pulling the net inside for picking. The "Old Man," as they called him, went aloft to saw steaks from a frozen roast and get diner. Work Worth Wages. The two started the net over the roller and brought in about 30 feet of it easily. Before either had picked more than half a dozen wriggling fish from the webbing the net was frozen stiff as the oft-mentioned board and a few seconds later the fish were frozen in the very actions of wriggling. It is true that some of these men, in a good week, may make as much as \$200, but it is the opinion of this column that they are woefully underpaid when the weather is born of the polar regions. They pick these nets bare-handed and don't seem to mind it. That is to say, they don't mind it very much. They had one complaint voiced by the "Old Man" who piloted the craft through the final drift of the net. Said he: "It was cold. Even the wine froze all to hell."
13 February 1943	Columbia River	<i>Oregonian</i> , p. 1, col. 3	Smelt Fishermen Expect Huge Run. LONGVIEW, Wash., Feb. 13 (UP)—Smelt fishermen busied themselves Friday in preparation for what they believed would be their

Date	Place	Source	Quote
			biggest catch in the history of the annual runs in the Cowlitz river. They were encouraged by the catch of dipnetters who Thursday snagged 5000 pounds of smelt, the heaviest vanguard in years.
16 February 1943	Cowlitz River	<i>Oregonian</i> , p. 6, col. 3	Smelt Run Fails To Materialize. LONGVIEW, Feb. 15 (Special)—Amateur and commercial fishermen alike had little luck in seeking smelt in the Cowlitz river Sunday, as the expected heavy run failed to materialize. Fair catches were made by commercial dippers on three nights last week, and the heavy run was expected to arrive over the week end. Fishermen still are waiting.
18 February 1943	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 4	Smelt Caught In Cowlitz River Again. Run Located On Tuesday Night [16 February]; Sunday Visitors Could Not Locate Fish. Smelt dippers located the run of fish in the lower Cowlitz Tuesday night after several days of searching and fair catches are now being made. Last week a few boxes were dipped prior to the closed season, which extends from 8:00 A.M., Fridays until 8:00 P. M. Saturdays. No fish could be located Saturday night or Sunday and many visitors who came from all sections of the Northwest to catch fish Sunday were disappointed. Fisheries inspectors point out that the ban on smelt fishing on Fridays and Saturdays applies to both commercial fishermen and those who want smelt for their own use, and that the limit for non commercial fishers is 20 pounds a day.
21 February 1943	Cowlitz River	<i>Sunday Oregonian</i> , p. 3, col. 1	Rods, Ripples, Rifles. By Herbert S. Lampman Staff Writer, The Oregonian. As regular as the Sandy river smelt run, which is about this time of the year, people begin to call newspaper offices for advance data. What they want to know—those residents of the immediate area—is “when do the smelt start running in the Sandy river?” ... Already in Cowlitz. ... Several weeks ago fishermen of the state of Washington saw the first vanguard of smelt enter the Cowlitz river. This is the first stream they enter after traveling up the Columbia river from the sea. Normally, one might expect them in the Sandy river a month later. The commercial fishermen of the Cowlitz river immediately predicted a record run that would smash the totals of previous years for a decade back. Then the run failed. It dwindled to a vague shadow and finally vanished altogether. Run Collapses. Nothing more was heard from the Cowlitz river fishermen. A brief item followed from the vicinage indicating that the heralded run had not only collapsed but gave no indication of reappearing. A day or so later a fellow wandered into this office with the information that the commercial gillnet fishermen were still operating their intricate and expensive gear in the main Columbia river and were taking smelt. That made sense. Those boys don’t venture out on the river and spread 2000 feet of inch-and-a-half mesh net for the fun of it. It was those same boys who told this column more than a month ago that smelt are funny fish. As Disko Troop remarked about cod: “you’ve got to think like one” to know anything about them. Cold Weather Cause. It will be remembered that the Cowlitz run of smelt began during a warm spell of rain and south wind. The relief from cold was only temporary. Boreal breaths of winter again swept

Date	Place	Source	Quote
			across the Columbia valley and instantly the smelt run dwindled and vanished in the Cowlitz—first tributary to be visited by the migrants. There might be something in what Johnny Gizdavich and his hearty Clatskanie fishermen crew told: that the Columbia smelt halts migration during cold snaps. These gillnet fishermen who take the first and choicest smelt hold that the fish will not travel in freezing or near-freezing temperatures. They say that the run “bunches up” and seeks out deep water in the Columbia river floor—a hundred feet or more—and remains stationary until warmer weather comes. They have proved this, they say, by seeking out such deep holes and making sizeable catches of fish day after day, while experimental nets set both above and below such pockets have failed to yield more than a handful of fish. Perhaps that is what halted the Cowlitz river smelt run. The commercial men say that smelt are abundant in the Columbia, and they even went to extremes and predicted record runs in the Cowlitz and the Sandy rivers—if the weather is favorable.
23 February 1943	Portland, OR	<i>Oregonian</i> , p. 3 advert	SAFEGWAY Homemaker’s Guide. ... Fresh Columbia River SMELT 3 lbs 29c.
25 February 1943	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 6-7	Freezing Of Smelt Increases Market For Cowlitz Fish. One Million Pounds Already Caught; Fishermen Are Receiving \$1.25 For Each 50 Pound Box; Freezing Smelt In Small Packages At Several Points. More than 100,000 pounds of smelt have been dipped from the Cowlitz River daily since the main run was located in the stream last week, and the total to date is nearing the million pound mark, fishermen estimate. A considerable part of the catch is being made by fishermen who are members of the Dipnet Smelt Fishermen’s Association, with which most of the dealers place their orders. The fishermen are receiving \$1.25 for a 50 pound box, which is under the 1942 price, but the lower figure was set to make possible the freezing of large quantities of the smelt. The Evans freezer in Longview and plants at Astoria and Portland are freezing smelt this year in small size containers of from one to several pounds. It is anticipated a considerable market can be developed for the frozen fish. Fishermen Limited. Members of the dipnet association are limiting themselves to about 35 boxes daily, catching only enough fish to take care of the demand. A number of independent fishermen are operating on the river. Dr. Wayne Windermute, district fisheries inspector, estimated the catch the first four days at an excess of 500,000 pounds, for which the fishermen received \$12,500. Non commercial fishermen had relatively poor success Sunday because the smelt run is staying away from the banks most of the time and is deep in the water. The fish consist mostly of males and are of unusually good quality.
4 March 1943	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 6-7	Smelt Catch For Week May Reach One Million Pounds. Fishermen Can Sell All They Catch Due To Unprecedented Demand Resulting From Meat Shortages. The smelt fishing that ends Friday morning at 8:00 o’clock will be the best and most profitable in the history of the Cowlitz River industry if the final two nights of fishing furnish the quantities of smelt that were taken the last few days. The shortage of meat and other varieties of fish has resulted in the greatest demand ever known for the little

Date	Place	Source	Quote
			fish that made the Cowlitz River famous. Wholesale distributors are taking all that can be dipped and several plants are freezing them for shipment to distant markets. Dip More Than Ton. Many fishermen dipped from 40 to 80 boxes, which is from one to two tons of smelt, daily since the fishing resumed Saturday night following last week's closed period, which at \$1.25 net per box to the dippers meant \$50 to \$100 per day, less the expense of operating the boat. It is estimated nearly one million pounds of smelt will be caught this week by approximately 100 fishermen. Amateur fishermen also made good catches last week and are expected in greater numbers the coming Sunday. ...
9 March 1943	Portland, OR	<i>Oregonian</i> , p. 3 advert	SAFEWAY Homemaker's Guide. ... Fresh Columbia River SMELT 3 lbs 29c.
11 March 1943	Cowlitz River Lewis River	<i>The Kelsonian Tribune</i> , p. 1, col. 4-5	Smelt Catch Falls Off As Markets Clamor For Fish. Dippers Encounter Spotty Fishing As Run Moves Up River; Catch Only One-Third Of Quantity Needed To Fill Shipping and Freezing Orders. With the best market for smelt in the history of the industry, the Cowlitz River catch dropped off sharply this week. Approximately one-third as many fish were obtained this week as were wanted by dealers and freezing plants. Fishing was spotted [sic] because the run had gone so far up the river. The fishing is near Sandy Bend at present. Some boats made limit catches while other fishermen could not find many fish. The nightly catch ran from 1200 to 1600 boxes. The Astoria and Portland Freezing plants were taking 1,000 boxes of fish or more daily, and the Evans freezing plant in Longview is freezing from three to five tons daily. They are packed in small containers after being cleaned, and frozen for the Sn Juan and Portland Fish companies. About 35 persons are employed. Fishermen are hoping a new run of smelt will come into the Cowlitz before the new fishing week starts Saturday night. The Lewis River, which also is visited by smelt frequently, also is being watched closely for a new run.
18 March 1943	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 4	Smelt Catch Drops Lower. The Cowlitz River smelt catch almost dropped to the vanishing point this week. Catches have been about 200 boxes daily, compared to 20 times that many fish dipped daily several weeks ago. Fishermen are hopeful another run will appear in the Cowlitz or Lewis River. If no more fish arrive in one of the local streams, the smelt season will go down in the records as one of the shortest ever experienced.
26 March 1943	Sandy River	<i>Oregonian</i> , p. 1, col. 1-3	Famed Sandy River Smelt Run Arrives; Silvery Horde a Bit Late But Plentiful. By Bonnie Wiley, Staff Writer, The Oregonian. "The smelt are in the Sandy!" And with that cry Thursday [25 March] morning usually complacent Troutdale, going about its war-time business of counting ration points and watching aluminum grow in the nearby plant, sprang into action. Troutdale had been anxiously awaiting the annual run, long overdue, for several weeks and old-timers had "allowed as how mebbe the fish weren't coming up to spawn at all this year." With the first report from Troutdale, Oregon state game commission officials rushed to the scene with licenses—50 cents for the season—and did an immediate land office business. First of the run, which usually arrives early in March

Date	Place	Source	Quote
			and was the latest this season since 1936 when the run started on March 27, was sighted by R. L. Jackson, a guard on the railroad bridge, at 8:30 A. M. He watched the silver horde for a half hour “to make sure it wasn’t a false alarm” and then rushed to Troutdale with the tidings. Mrs. H. C. Pennell, Sandy river lodge, was first to sight them at the Troutdale bridge at 10:30 A. M. and grabbing her net, scooped up the first of the season’s “take.” Honors for catching the first of the smelt last year also went to Mrs. Pennell, who keeps a watchful eye riverward for the swimming visitors. “Looks like a good run,” Tad Johnson, Troutdale, authority on smelt, announced from his look-out post on the Troutdale bridge. “Nobody can say, of course, how long or how big the run can be, but it looks pretty good.” Professionals on Hand. Game officials, who served as a reception committee for the fish, were Charles Lockwood, assistant state supervisor; F. C. Baker, controller, and W. F. Ryckman, field man, whose job it is to see that no over-enthusiastic fisherman takes more than the 100-pound-per-person limit. Commercial fishermen were on hand, too, for the opening day, and for their \$5 licenses, plus poundage tax, can remove an unlimited amount from the Sandy and have, in past years, taken as many as 40 tons in a 24-hour period. Troutdale merchants and on-the-river restaurateurs hoped this year’s run would come up to last year’s when the fish swam under the bridges for 12 days steady and licenses, according to the game commission officials, netted \$3800 to the state. Although the 100-pound limit still holds this season, a bill, passed at the recent session of the state legislature, will make 50 pounds the maximum “take” after June 9, officials said. The new bill also sets the upper “deadline” for catching at the bridge at Viking park.
27 March 1943	Sandy River	<i>Oregonian</i> , p. 4, col. 1-2	Smelt Are in the Sandy. ... Which is by way of preface to remarking that the smelt are in the Sandy again, and Troutdale’s war industry is taking second place in public interest, while Milt Fox at his Troutdale store recalls the runs that have been and the men who fished them—who saw those smelt runs first, and how, and where, and when. For the smelt are in the Sandy and they are, for the time being, Troutdale’s pride. Joe Pungle will be out there dipping smelt, and grimly, for in these days of rationing a hefty gunny sack of smelt is never to be sneezed at. It is Joe Pungle’s economic holiday, when a bountiful providence demonstrates what it can do for a deserving taxpayer—and we surely hope that Joe, balanced precariously on a black rock above the hastening river, doesn’t fall in. For somebody always does. The Sandy river run of smelt was a little late this year and, some said that it wasn’t going to come at all. Sometimes the eulachon do not turn in. And this was late, indeed, as the recordings proved. No, sir. The smelt were going to shun the Sandy this time. Then the word came. The smelt are in the Sandy! ... And it was late when they did come. But still it is remembered that one year, long ago, the smelt did not enter the Sandy until the first week in April. It was a good migration, and the fish were in most worthy condition, quite as they are this time.
28 March 1943	Sandy River	<i>Oregonian</i> , p. 3, col. 6	Smelt in Sandy Still Plentiful. Smelt by the millions continued Sunday their steady

Date	Place	Source	Quote
			migration up the Sandy river, and meat-rationed humans by the hundreds lined the banks of the river to harvest the wriggling fish. Commercial fishermen were reported continuing to take large hauls, though some amateur dippers were disappointed because the fish were running deep, the river was running high, and some of the improvised equipment was inadequate for the necessary reach. The sheriff's office said highway traffic between Portland and Troutdale was unusually heavy.
30 March 1943	Sandy River	<i>Oregonian</i> , p. 11, col. 2	Sandy Still Carries Smelt. The smelt still were running in the Sandy river Monday, and Troutdale residents reported that "there are plenty of the fish to be had." The water, which was high Sunday and impeded dipping operations, was dropping Monday, and fishermen said that dipping conditions would be good Tuesday, unless there is a heavy rain in the interim.
31 March 1943	Sandy River	<i>Oregonian</i> , p. 1, col. 3	Smelt Swim Low, Dodge Netters. Yields of smelt from the Sandy river continue light for amateur netters according to word Tuesday from Troutdale. Fish are swimming deep in their upstream trek to the spawning grounds, and the river remains high, although the water level has dropped some in the past 24 hours, it was reported. Commercial fishermen are operating in mid-stream and are making relatively heavy catches. ...
March 1943		<i>Pacific Fisherman</i> 41 (4): 64.	Freezing of Smelt Due For Sharp Increase. Acute scarcity of frozen fish, plus the fact that principal shippers on this coast had no adverse March, 1942, ceiling on frozen Columbia or Cowlitz River smelt, led to the freezing of a substantial quantity of these little fish late in February, and going into March the practice was continuing as the run in the Cowlitz reached its peak. These smelt are considered by epicures as one of the finest of all fish, despite their cheapness. Their lack of wider popularity has resulted from their softness and the difficulty of shipping them to any distance and of preserving them by freezing. Substantial progress has been made in overcoming the technical difficulties which have plagued the preservation of these fish by freezing. The production of smelt during the last week of February was at the rate of about 2,000 boxes daily, each box holding 50 lbs. net. Dip-netters were limiting themselves to 35 boxes each day in order not to exceed capacity of fish-handling facilities. The fishermen netted \$1.25 per box, before taxes, which were paid by the buyer. Cost of the fish laid down in Seattle was \$2.50 per box to the quantity buyer.
1 April 1943	Sandy River	<i>Oregonian</i> , p. 6, col. 5	Smelt Running But Catch Poor. The bird cage battalion of amateur smelt fishermen are out of luck unless the Sandy river recedes shortly, state game department officers reported Wednesday. The fish are still running quite heavily in the stream, they said, but a flood crest has made amateur dipping from the banks quite impossible and even the commercial fishermen are having difficulty in reaching the schools with an additional eight feet of water running in midstream. Tuesday night only a few boxes were taken by the commercial men and no smelt were taken from the bank at all. W. F. Ryckman, state game representative stationed at the Troutdale highway bridge, said that there is no appreciable diminishing of the run and that the major share of the migrant fish are males.

Date	Place	Source	Quote
			This, he said, indicated a heavy run as soon as the river returns to normal and bank dipping will again be possible.
4 April 1943	Sandy River	<i>Sunday Oregonian</i> , p. 10, col. 4	Female Smelt Absence Eyed. The question is: Where are all the feminine smelt this year? It's a bothersome riddle that is causing the Oregon state game commission no end of perplexity and probably is creating considerable consternation among the smelt, themselves. Especially if all the feminine smelt have gotten themselves lost way out in the ocean somewhere. For the first time in the memory of the state game commission there's a possibility that the Sandy river may this year have two smelt runs, instead of only one, like it usually does. They Don't Show Up. Annually, the male smelt come swimming up the river first, but right on their heels, in season's past have come the feminine smelt. This year the feminine smelt, except for a very few, haven't showed up at all. During many smelt runs in the past, according to the smelt authorities, the males have come up one side of the river and the females up the other, barely giving the boys time to arrive at their destination, set up housekeeping and be ready to greet the girls when they came swimming home. Second Run Expected. Old-timers in Troutdale, smelt capital of the state, agree with the state game commission that there may be a second run this season. The first run, which started at 8:30 A. M., March 25, and consisted almost entirely of male smelt, was polished off Saturday morning with only the stragglers, and mighty few of them, swimming up to the spawning grounds. This year's run, from the amateur's standpoint, was probably the most disappointing in history because the fish swam in the center of the rain-swollen stream, making themselves accessible only to commercial fishermen, who set up their professional equipment in midstream. In past seasons smelt-hungry Portlanders have scooped the silvery fish from the river with everything from paper bags to bird cages.
7 April 1943	Sandy River	<i>Oregonian</i> , p. 12, col. 2	Gone With a Handsomer Eulachon. It is romantically revealed that the recent and disappointing smelt run in the Sandy river came to its conclusion—in a welter of high water—with the disappointment by no means restricted to fishermen, commercial or otherwise. There in the silt-laden flow of the Sandy were innumerable individuals who were decidedly put out about it, too. For the bulk of the smelt run, and by far the greater proportion, was of male fish. It seems that the females failed to meet with their silvery swains at the appointed trysting place. ... A sort of semi-sadness descended upon Troutdale by the Sandy when it was realized that the she-smelt weren't ever coming upriver—at least not this spring. The forum which convened in Milt Fox's store to discuss the piscatorial problem was presently adjourned without doing anything about it. It had been agreed that it is the habit of the little eulachon, in their mating migrations, to enter the river in schools, on the one hand, of male fish, and, on the other, female fish. And usually the male fish come first, being naturally eager to get there. Then the she-fish come pouring into the Sandy, and they may be a little late now and then, but never before did they utterly abandon their appointment. There must have been a prodigious number

Date	Place	Source	Quote
			of broken hearts out there in the curvetting current. And there isn't any way to account for the sad phenomenon except by that wan theory which found considerable support in Troutdale discussion. There must somewhere have been, when the migration turned home from the sea, a mate for every last smelt of them all, and more likely several—little polyandrists and polygamists that they are, But the she-smelt this time were more fickle than is usual, for they didn't follow the male fish into the river. Then they must have gone up another stream, somewhere, with other male fish. Yes, gone with a handsomer eulachon.
April 1943		<i>Pacific Fisherman</i> 41 (5): 35.	Cowlitz Smelt Catch at All-Time High of Three Million Pounds. Largest catch of smelt on record for the Cowlitz River fishery was made in the season which terminated in March with the passing of the run. The catch approximated 3,000,000 lbs., as compared with the previous record take of about 2,500,000 lbs. The average flush run in the Cowlitz produces around 2,000,000 lbs. The 1943 take was not made because of increased effort, but because the run was large. Most of the fish were taken near the deadline, which made it evident that a satisfactory escapement must have passed into the closed area. The 3,000,000-lb. figure covers catches in the Cowlitz River only and does not include gillnet fish taken from the main Columbia before the run struck-in at the Cowlitz. The Lewis River, next smelt stream above the Cowlitz, had only a few fish. A Heavy run hit-in at the Sandy River in Oregon March 24, and served to augment the supply to a marked degree. Estimates indicated that approximately half of the catch was frozen, the great majority being put up round. Moreover, there were some exceptionally attractive packs of dressed smelt frozen, giving some reason to anticipate material increase in this form of processing in the future.
		Foster (1943, p. 33)	Smelt. Smelt landings in the Columbia River reached a new production figure when over three million pounds of this species were taken by the commercial fishery alone. This record catch was attained because of increased fishing intensity to supply the demand for this food fish to the armed services and because of the magnitude of the large run that appeared in the Cowlitz River. This stream produced 88.2 per cent of the total catch. Lewis River landings amounted to 8.0 per cent of the total with the remainder of the catch taken in Grays River and the main Columbia.
1944			
9 December 1943	Portland, OR	<i>Oregonian</i> , Sect 2, p. 1, col. 1	Ground Beef Valued Staple For Any Meal. ... Fish. ... A few markets are showing fresh Columbia river smelt at 45 cents a pound ...
7 January 1944	Portland, OR	<i>Oregonian</i> , p. 8, col. 4	Rabbit Meat Gains Favor As Main Dish. ... Fish. ... The first smelt are being shown at 35 cents a pound. ...
14 January 1944	Portland, OR	<i>Oregonian</i> , p. 8, col. 4	Food Shopper 'Reminded' of Basic Seven. Fish. ... Columbia river smelt is still 35 cents a pound ...
20 January 1944	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 5	Smelt Taken In Cowlitz Early Run Of. Several Hundred Boxes Dipped In Lower River; Scatter Quickly. Three hundred boxes of smelt were dipped in the lower Cowlitz

Date	Place	Source	Quote
			River Monday and Tuesday nights but relatively few fish were taken since because little fishing was done as the markets are well supplied. Dippers report the fish apparently are coming into the stream from the Columbia on the tide and fishing is difficult as they scatter quickly after the dippers locate the schools of fish. Gill-netting in the Columbia continues poor. There are fish in all parts of the river, but the nets take only light catches as the smelt are scattered. The OPA is setting the price of smelt this year. This week the ceiling price to the fishermen is \$7.70 for a 50-lb. box, which is the gillnet price. Starting Saturday night the price to the fishermen will drop to \$4.00 for a 50-lb. box. When the main run comes into the Cowlitz later the OPA will set the price again. The main run entered the Cowlitz in January last year and the fish that are in the ... [article ends here]
27 January 1944	Cowlitz River Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 3	Smelt Run Leaves Cowlitz; Catches Poor In Columbia. The run of smelt which appeared in the Cowlitz River last week was gone by Saturday night when the weekly closed season ended. Gillnet fishermen made their best hauls of the season in the Columbia Sunday night when they caught about 500 boxes, but since then they have had poor success. The price to the fishermen, set by the OPA, dropped to \$4.00 for a 50 lb. box Saturday night.
28 January 1944	Portland, OR	<i>Oregonian</i> , p. 8, col. 4	Weatherman Still Says Soup Useful. ... Fish. Columbia river smelt is cheaper this week at 25 cents a pound ...
9 February 1944	Portland, OR	<i>Oregonian</i> , p. 9 advert	SAFEWAY. ... Fresh Columbia River Smelt lb. 23c
11 February 1944	Cowlitz, Naselle, Grays rivers	<i>Oregonian</i> , Sect 2 p. 1, col. 3	Smelt Expected In Cowlitz River. ASTORIA, Feb. 10 (Special). The large annual run of smelt in the Cowlitz river where dip-net fishermen take the largest catch for commercial processing was expected this week or early next. Records of the smelt's first appearance in the Cowlitz during the last 10 years show them appearing first about February 12. There have been some smelt runs in Naselle and Grays rivers and some taken by gillnetters in the Columbia river working largely on the north shore and up from Oak Point. Judging from the volume of smelt taken thus far this season, most of which has gone into the fresh market, a very heavy run is not expected, even in the Cowlitz.
15 February 1944	Cowlitz River	<i>Oregonian</i> , p. 1, col. 6	Smelt Run Begins In Cowlitz River. KELSO, Feb. 15 (Special)—The smelt are back in the Cowlitz river, local dipnet fishermen reported Monday. Light catches Sunday night and Monday morning indicated the main run of the fish may be on its way into the stream, where heavy catches are made annually. The scout run of fish was in the river late in December and early January, then the fish disappeared entirely. Dippers expect the main run to get in the river late this week.
17 February 1944	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 2	Smelt Catch Falls Off Wed. Night. [16 February]. Only about 300 boxes of smelt were caught by the fishermen Wednesday night, and some of them were taken in the Columbia off the mouth of the Cowlitz. The previous night the Cowlitz River dippers brought in about 1,000 boxes of the fish, which have proven very elusive, and Monday night 300 boxes were taken. Even Tuesday night the fishing was very spotty. Good catches were made at two relatively small locations, and most of the other fishermen had

Date	Place	Source	Quote
			to do a great deal of dipping for relatively small hauls of smelt. The fishing last night extended all the way from the mouth of the river to Clark's bar above Kelso.
19 February 1944	Cowlitz River Kalama River	<i>Oregonian</i> , p. 6, col. 2	The Eulachon Are in the River. Our eulachon, the Columbia river smelt, which so delighted the original discoverers and explorers of the great river and its lower region, are in the river and on the market again. These first smelt always are comparatively high in price, for they are not ladled out prodigally in dipnets but are gleaned instead from the open river in gillnets, thus being, as one might say, hand-picked. But they are the choicest of all the run, for it is their fate to be taken first, while yet they are in possession of all the natural oils and essences which were theirs when they ascended from the sea. It is always an event when the first smelt are taken. Later on the catch becomes commonplace, and the fish retail for little more than the song of proverb, and fine smelt go a-begging for traffickers. If you are newly come to these parts, and like fish, you owe it to yourself to investigate a dozen Columbia river smelt, properly fried, with a minimum of delay. Itself a marvel of the piscatorial world, for its incalculable numbers and the constancy of its anadromous habit, the eulachon surely ranks well to the fore among the most superior and delicate of all the food fishes of the planet. A little fish more bland to the discriminating palate, of sweeter flesh or finer flavor, surely never was skillfully turned by a cook at the fractional moment when its one side was browned. Nor is this fish of the Columbia to be confused with other smelt of different species, each of which, however excellent, is greatly inferior to it. In the lower Columbia, where the gulls hover the river to scream and descend, the great migration waits its appointed time for entering the spawning streams. Chief of these favored tributaries is the Cowlitz on the Washington side, where annually a tremendous catch is dipped. A thousand or more boxes already have been taken from the Cowlitz, and a few from the Kalama—but there is no evidence of the run being on in earnest. The next fortnight or so should witness the full return of the eulachon to the Cowlitz, to endure for a season of a few weeks or so. Within a month after the Cowlitz run is at its height, the smelt should appear in our own Oregon river, the Sandy—a fairly predictable event, although it is true that now and then the fish fail to keep their presumed appointment. But whether the smelt run in the Sandy this season, or slight it, the time surely approaches when quite nobody need be smeltless. For the dark woman of the land and the sea reckoned in multiple billions, until the best efforts of our national planners and spenders seem paltry, when she determined the magnitude of this seasonal manifestation.
24 February 1944	Columbia River Kalama River	<i>The Kelsonian Tribune</i> , p. 1, col. 5	Smelt Fade; Few Caught In Columbia. Lack Of Fish Has Veterans Of Industry Puzzled. The smelt disappeared completely from the Cowlitz River over the week end, and what few fish have been available for markets this week were caught by Columbia River gillnetters and in the Kalama River. No fish could be found in the Kalama River the last two nights, and there are no large schools of the fish in the Columbia so far as the gillnetters can find, as they have not been able to make any sizeable catches. The

Date	Place	Source	Quote
			behavior of the fish has the veteran fishermen puzzled. They cannot recall any year in which large quantities of smelt could not be found either in the Cowlitz or Columbia River this late in February.
February 1944		<i>Pacific Fisherman</i> 42 (3): 58.	Cowlitz Smelt Appear Early and In Volume. The "scout run" of smelt slipped into the Cowlitz River from the Columbia early in December, disappearing after a few days. This was exceptionally early for even this advance appearance but by mid-January the little fish were in the Cowlitz in increasing volume and with quality excellent. Retail price on the Seattle market was 30c per lb., probably an all-time high for the fish.
2 March 1944	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 5-6	Smelt Return To Cowlitz River Wednesday Night [1 March]. Large Catches Made; Fish Solve Price Mixup Which Brought OPA Hearing. The smelt came back into the Cowlitz River with an old fashioned rush Wednesday night and heavy catches were made by the dippers for the first time in ten days. The return of the smelt not only solved the marketing problem, but also the price situation, which resulted in an OPA hearing at the courthouse Monday night. With the fish back in the Cowlitz the OPA price to the fishermen will be \$1.75 for a 50 pound box and other prices will be based on that figure. After the fish disappeared from the Cowlitz recently gillnetters complained they could not fish at the \$1.75 price and part of the gillnet catch was being sold at higher prices. W. H. McCargar of Portland, price specialist in the food section, conducted the hearing, which was attended by about 50 fishermen. Following the hearing he recommended to the regional OPA in San Francisco that the gillnet fish price be restored to \$4.00 for 50 pounds. Wednesday night's catch exceeded 3,000 boxes, totaling more than 150,000 pounds.
3 March 1944	Cowlitz River	<i>Oregonian</i> , p. 11, col. 6	Smelt Reappear In Cowlitz Run. KELSO, Wash., March 3 (AP). The seagulls and the commercial smelt fishermen were happy Thursday with the sudden reappearance of millions of smelt in the Cowlitz river after nearly a two-week absence. Dipnetters, working hard, reported catches totaling 50 tons of the tasty fish, for which a fine market is reported. State fisheries inspectors report the smelt are in the main channel, however, and bank dipping by amateurs is not yet possible. The regular week end closed period will begin at 8 A. M. Friday, with no dipping being allowed again until 8 P. M. Saturday.
7 March 1944	Cowlitz River	<i>Oregonian</i> , p. 2, col. 6	Smelt Seen Past Peak. KELSO, March 6 (Special)—State fisheries inspectors predicted Monday that the annual smelt run in the Cowlitz river has passed its peak as the catches by commercial operators are dropping off.
9 March 1944	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 2	Smelt Catch Falls Off This Week. Fishermen Can't Get Enough To Supply Demands For Markets, Freezing. After several nights of good fishing last week the smelt scattered and the dippers have not been able to catch sufficient fish the past few nights to nearly meet the demands for the fresh market and for freezing. Catches have been 1,800 boxes a night or less. Fishing this week has been very spotty with a few boats finding small areas where good catches could be made but most of the fishermen getting relatively few fish. Most of the smelt have been dipped in the vicinity of Petersen's Eddy

Date	Place	Source	Quote
			which is the limit for fishing. Last Thursday night was the banner one to date this year. Approximately 5,500 boxes of smelt or 275,000 pounds were dipped that night. Queen Finds Few Smelt. Ruby Alexander, Lower Columbia Junior College freshman, who was chosen 1944 queen of the eulachons (smelt) by the student body, and her court of princesses ... went out looking for smelt Sunday but could find only a few. Bank fishing was poor Sunday and only a few amateurs were out for smelt. The Evans Canning Co. which has installed a quick freezing plant in the former Western Gas Company building near the Cowlitz River in Longview, is freezing smelt at the plant. It will pack at least 200,000 pounds if they can be secured. About 100 women and girls are employed. Last year the firm froze 90,000 pounds. Fish were a little more plentiful Wednesday night when more than 1,500 boxes were taken. Some new fish have entered the Cowlitz, according to the fishermen.
10 March 1944	Portland, OR	<i>Oregonian</i> , p. 10, col. 4	Pork Products Thrifty Buys In These Days. ... Fish. ... Columbia river smelt is cheaper at 20 cents a pound. ...
16 March 1944	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 6	Smelt Disappear From Cowlitz River. The smelt fishing season is over in the Cowlitz River unless a fresh run should appear. The fish disappeared from the stream early this week. About 1,000 boxes were taken Saturday night and only half that quantity the following night. Since then few have been caught. The run that came into the river several weeks ago was fished out, except for those that reached the spawning grounds above the deadline. The season has been one of the poorest on record both for gillnet and dip fishermen.
30 March 1944	Lewis River	<i>The Kelsonian Tribune</i> , p. 1, col. 3	Big Smelt Catches In Lewis River. After an interval of about two weeks since the smelt run disappeared from the Cowlitz River a big run of the fish entered the Lewis River the last of the week. Several hundred boxes of smelt were taken Saturday night and 3,000 boxes of 75 tons were dipped Sunday night with good catches continuing. It is said to be the biggest run into the Lewis River in a number of years. Most of the fish are going to freezing plants. Some of the fishermen transferred their attention to commercial salmon fishing April 21. The salmon season ends Friday night,
31 March 1944	Lewis River	<i>Oregonian</i> , p. 2, col. 4	Lewis Smelt Run Continues Heavy. WOODLAND, March 30 (Special)—The smelt run in the Lewis river, described as the heaviest in years, continued Wednesday and Thursday, according to reports from dipnet fishermen. The catch for the past three nights was estimated at 6000 boxes, or 300,000 pounds. Bank dipping also is attracting many local people to the stream.
March 1944		<i>Pacific Fisherman</i> 42 (4): 62.	Smelt Run Late In Hitting Cowlitz. Columbia and Cowlitz River smelt production, which in 1943 was at its all-time high, had not been impressive at presstime for this issue, and some observers felt the season might prove disappointing. However, the large majority of the 1943 catch was made after the end of February, so it appears possible that this year's take may be fair. To Washington's Birthday virtually all catches had been made by gillnetting in the Columbia. The Cowlitz River dippers had found but few fish.

Date	Place	Source	Quote
			The armed services found dressed, quick-frozen smelt excellent last year and preparations had been made for packing substantial quantities in this style for the forces this spring.
1 April 1944	Lewis River	<i>Oregonian</i> , p. 4 picture	WOODLAND, WASH. Scores of boats and dipnet fishermen have been attracted by a Lewis river smelt run. Glen Johns shows a batch caught in his nets. ...
20 April 1944	Sandy River	<i>Oregonian</i> , p. 1, col. 6	Smelt Horde Misses Sandy. It begins to look as though there will be no smelt run up the Sandy river this year. Thousands of fish dippers who have in times past aided the family larders by gathering in as abundance of the silver fishes in the spring, eating them fresh and canning and smoking them for use later on, have given up hope that the eulachon will pay a visit to Oregon in 1944. Game commission records show that the latest date a run of smelt in the Sandy has ever been noted is April 9. Several weeks ago a small number of smelt swam into the Cowlitz river estuary on the Washington side of the Columbia, but the run was insignificant and the fish were netted by commercial anglers in a few days. Nobody knows the reason why the fish have failed to make their annual spawning trip to the Sandy. The disappointed housewife's guess is as good as the expert's.
21 April 1944		<i>Oregonian</i> , p. 10, col.1-2	Diminished Migration of Smelt. What happened to the Columbia river's great annual smelt run? The smelt haven't entered the Sandy river this spring, nor e they likely to—for the time is far past their season. The catch in the Cowlitz river was perhaps 15 per cent of last year's take, and the Cowlitz has been the main source of commercial supply. The run in the Lewis was light, and the run in the Kalama was too minor for consideration. It has been an off year for the finest little food fish of any water in all the world. But we decline to be agitated, for certainly over-fishing does not account for the phenomenon of sudden comparative scarcity. As for the Sandy, this is not the first spring that the smelt have failed to appear there. The catch in the Cowlitz was lighter than it might have been, and this for a curious reason. Approximately 175 boats were engaged in dipping, whereas in a normal year there have been sixty or seventy. The result of crowded, competitive fishing was to scatter the fish so effectually that the greater number of boats took far fewer fish than half the number would have captured. But nevertheless, though comparisons are difficult to make—since in previous years smelt have been dipped for market capacity only, while now the intent is to obtain all that the fishermen can—it is all too evident that the 1944 migration will go down as one of the smallest of record. This fact is not necessarily alarming, unless it could be attributed to over-fishing, as it cannot be on the evidence. An observer of the Washington department of fisheries believes he has a partial answer to the riddle. It is his opinion, backed by visual evidence, that far more smelt are spawning on the sand bars of the Columbia river than ever before. In a word, the fish are abandoning their habit of many centuries, and utilizing as a nursery the great stream that heretofore was their highway from the sea to its favored tributaries. One trusts that a majority of future runs will not spawn in the Columbia,

Date	Place	Source	Quote
			where they cannot be dipped—for early smelt in the great river are taken by gillnets and are expensive at retail.
April 1944		<i>Pacific Fisherman</i> 42 (5): 60.	Cowlitz Smelt Run Disappointing. Smelt run to the Cowlitz River and other tributaries of the Columbia was slack to late March, where there appeared little possibility of late fishing redeeming the situation. Producers and packers had hoped for a repetition of the all-time record catch of last year in order to meet as fully as possible the virtually unlimited requirements of the Army for the little fish. On the Columbia River and Puget Sound as well preparations had been made for the packing of a large quantity of these fish dressed and frozen in blocks, but the quantity secured was disappointingly small. The run of smelt was marked in February and at the first of March by a few spurts which, had they been sustained, would have redeemed the situation. The periods of abundance were very brief, although there were a few nights of fishing which produced around 150,000 lbs. each. Price to the fishermen during the major part of the season was \$1.75 per box of 50 lbs. OPA officials recommended restoration of the earlier \$4 price for gillnet fish, but this increase was suspended when the fish entered the Cowlitz in somewhat improved volume. Practice of dressing the smelt and freezing them in blocks, pioneered so successfully last season after many years of indifferent success in freezing the little fish, was employed widely this season in packing the comparatively limited quantity of fish available.
		Moore (1944, p. 41)	Smelt. The 1944 production of smelt showed a decline of 43 per cent from the record landings of 1943. It is believed that the drop in production was caused by fewer fish in the runs rather than because of the lack of fishing effort or fishing intensity. The number of licenses issued and the number of boats fishing is increasing each year. This is particularly noticeable for the fishery in the tributary streams, such as the Cowlitz and Lewis Rivers. In those tributaries it is the practice of the fishery to intercept the runs as they enter the river and fish on them as they progress upstream. In 1944 the runs in the Cowlitz were fished so intensively that few fish escaped to those spawning areas located above the limits of the commercial fishery. All spawning occurred on grounds located below the fishing boundary. Over one million pounds of smelt were taken from the Cowlitz, which represents 58 per cent of total production. It appears that, should fishing intensity continue to increase in the Cowlitz and other tributaries it may be necessary to apply additional regulatory measures in order to maintain the runs at a high level of abundance.
1945			
18 January 1945	Columbia River Cowlitz River Grays River	<i>The Kelsonian Tribune</i> , p. 1, col. 4	Gillnetters Make Large Smelt Catches In Columbia. Higher Water Halts Dip Netters In Cowlitz, Where Small Run Appeared Last Week. The main run of smelt was found in the Columbia river over the week-end by gillnetters who have been making good catches in the Cathlamet, Skamokawa and Clatskanie, Ore., area the past few nights. Some of the fish appeared in Grays river where a considerable quantity was

Date	Place	Source	Quote
			dipped Monday [15 January] night. The fish made their first appearance of the winter in the Cowlitz river last week when a few boxes were taken by dipnetters nightly for several nights. Higher water in the river interrupted the fishing, however, and renewal of fishing in the Cowlitz will await the entrance of the main run in the stream.
19 January 1945	Portland, OR	<i>Oregonian</i> , p. 9 advert	SAFEWAY. ... COLUMBIA RIVER SMELT, fresh Lb. 19c
23 January 1945	Portland, OR	<i>Oregonian</i> , p. 7 advert	SAFEWAY. ... FRESH SMELT, Col. River 2 lbs. 37c
25 January 1945	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	Smelt Stay Away From Cowlitz. KELSO, Jan. 24 (Special)—Local dipnet fishermen are getting a little “jittery” over the prospects of a smelt run in the Cowlitz river this year. The main run of fish has been staying in the Columbia river for over a week without entering any of the tributaries, fishermen report. Gillnet operators are making heavy catches in the Columbia, but they are not bringing in a sufficient volume of fish to meet the market demands.
27 January 1945	Columbia, Grays rivers	<i>Oregonian</i> , p. 2, col. 7	Smelt Start Run In Columbia. LONGVIEW, Jan. 26 (Special)—The elusive smelt are on the move in the Columbia river again, with gillnetters reporting that they have been having difficulty keeping track of the run. This indicated the possibility that runs may develop in either the Cowlitz or Lewis rivers before the end of the week. Only dipnet operations at present are on Grays river in western Wahkiakum county, where catches have been made each night for the past week.
31 January 1945	Cowlitz River	<i>Oregonian</i> , p. 9, col. 7	Cowlitz River Smelt Run On. LONGVIEW, Jan. 30 (AP). The eagerly awaited run of smelt entered the Cowlitz river in great numbers Monday, with fishermen taking more than 350,000 pounds in the first 24 hours. The catch meant approximately \$28,000 to the 120 dippers working in 60 boats, for the price per 50-pound box is now \$4. Amateur dippers also are getting plenty of fish along the banks.
1 February 1945	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 7-8	Huge Smelt Run Now In Cowlitz. Largest Take For Many Years Reported; Docks Taxed To Capacity and Shippers Ask For Help. Spreading as fast as fire in dry grass, news that the wily smelt had at last entered the Cowlitz in voluminous quantities spread through Kelso Monday afternoon and caused fishermen to go on “the double” after their equipment and get to dipping. Old timers of 35 years or so experience declare that the run is the largest they have witnessed and more than 7,000 boxes, or some 350,000 pounds went through local marketing agencies the first 24 hours. Catches continued good Tuesday and Wednesday nights, with another 6,000 pounds being caught each night, according to state fishing inspectors. The OPA ceiling price of \$4 for a 50-pound box, limited to the first 4,000 caught this week, netted some \$20,000. However, by Thursday the price to the fishermen had dropped to \$1.75, with the wholesale price at \$2.75 to \$3.75 after they were boxed, and including taxes. Price to the consumer is quoted today at \$5 per 50-pound box. Reports are that about 85 per cent of the catch now is being sent to Astoria or Kalama for freezing, as the demand on the fresh market is supplied by the remaining 15 per cent. Fishermen therefore are being limited to 40 boxes per man per day, which they are having no difficulty catching. Length of the run is anybody’s guess,

Date	Place	Source	Quote
			but the fish inspectors report that in previous good years 70,000 pounds was the extent of the catch, so they estimate the run cannot last much longer. Some 100 commercial fishermen, with about 80 boats, are now “scooping them up.” Monday night the fish had progressed as far as Rocky Point, but were continuing further up the stream as the days went by. In addition to the commercial fishermen with their big nets, that capture the tiny fish by the boxes, each smelt run sees amateurs using home-made contrivances of all kinds, from bird cages and gunny sacks on poles to large pans. ...
2 February 1945	Portland, OR	<i>Oregonian</i> , p. 8, col. 1	Points Bar Choice Cuts. ... FISH. ... Fresh Columbia river smelt, in quantity are new. They are priced at 20 cents a pound. ...
2 February 1945	Portland, OR	<i>Oregonian</i> , p. 9 advert	SAFEWAY. ... Fresh Smelt 2 Lbs. 25c.
5 February 1945		<i>Oregonian</i> , p. 4, col. 2	Nobody Knows About Smelt. Where myriad smelt have spawned, as they now are spawning in the Cowlitz river, the millet-seed eggs must lie in drifts on the river bottom—for were you to take a small trout from that water it would be sway-bellied with the almost microscopic loot. There, on the floor of the stream, in the central channel, the bodies of the spawned smelt disintegrate, to nurture the life of the river, since the flesh of the smelt is too soft to retain the gases of decomposition. Incalculable numbers of infant smelt emerge from the eggs—small fishes so minor that, beside them, mosquito larvae would seem ponderous. Surely there must be astronomical masses of these infants—but who has seen them? They are swept at once, we assume, down to the sea, and still in mid-river. This is the fish that has not been studied, and whose cycle is yet nine parts of mystery. For we have not observed the vast, midge-like schools of fry, in the spawning streams, and the development and habits of the smelt in the sea are hidden from us. The smelt, like the herring, is one of those fishes intended by nature to transform the minute sea-life, the “soup” of the ocean, into flesh for the greater predators. It is to the economy of the sea what the small rodents and the rabbit are to the land. The tuna is its hawk. The salmon its gray wolf. For these it was spawned in the Cowlitz. But there is little or no report of the smelt save when they ascend the rivers to deposit their eggs. At all other times they are lost to ken in the ocean. Sometimes a salmon, ascending the Columbia at the time of the smelt migration, will be found with these fish in its stomach. Salmon with smelt newly swallowed have been taken as far upstream as St. Helens— although ordinarily the salmon do not feed after quitting salt water. But of the tonnage of salmon that are eager for prey, the salmon taken at sea by the trollers, we have yet to hear report of a single fish with so much as one smelt in its stomach. The same is true of the tuna. Where are the smelt in the reaches of the sea? While it may be true that lack of report, as to the stomach contents of salmon and tuna, is due to the inattention or inability of the fishermen, we might reasonably expect at least an occasional identification. The fishermen tell us when their catches have been feeding upon pilchards, anchovies and herring—but they have no word of the enormous smelt schools. Where are the numberless eulachon in the sea, the fish we call smelt? These speculative paragraphs are

Date	Place	Source	Quote
			written in the hope that their major conclusions may be contradicted by testimony of practical fishermen, who have something more than theory to offer. It is a mystery that has challenged a great many laymen, whose work is not offshore. Perhaps there are answers that are not in the books—where, in fact, none are to be found. The two-volume book of the smelt has been but slightly opened, in the first book, the book of the smelt in the river. But the book of the smelt in the sea, all its pages are yet uncut.
8 February 1945	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 4-5	Smelt Fishing Halted By Higher Water In Cowlitz. Amateur Fishermen Fared Poorly Sunday; Many Smelt Frozen. Rising water in the Cowlitz river prevented smelt dippers from taking any fish Wednesday night. The catches had fallen off the first of the week from the record dipping last week when more than 700 tons of smelt were taken. The first of the week fishermen were getting from 1,000 to 1,500 boxes a night, but Tuesday night's take was very small, and apparently the heavy run of fish had passed up the river beyond the fishing limit before the freshet started. A considerable part of the smelt taken were frozen for the government. The Evans Canning Co. had a crew of 65 workers processing about 10 tons of smelt daily at its Cowlitz river freezing plant, the New England Fish Company was freezing smelt at its Kalama plant, and others were frozen in Astoria and Portland plants. Large numbers were attracted here Sunday from Portland, Lewis County and other northwest points by reports of the heavy run of fish, but the amateur dippers had relatively poor success as the smelt were hard to find and catch that day.
8 February 1945	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, photo caption	Cowlitz Yields Huge Smelt Catches. Smelt fishermen broke all records for dipping smelt from the Cowlitz river last week which marked the peak of the 1945 season to date, when they caught more than 700 tons of fish. ...
15 February 1945		<i>The Kelsonian Tribune</i> , p. 1, col. 3	Smelt Reported In Stella Area. Another run of smelt was in the Columbia River near Stella Wednesday where gillnetters were getting some fish. No smelt have been dipped in the Cowlitz River since early last week when high water interrupted fishing. Dippers are hoping the new run will enter the local stream soon.
22 February 1945	Cowlitz, Columbia rivers	<i>Oregonian</i> , p. 11, col. 6	Cowlitz Fish On Increase. LONGVIEW, Feb. 21 (Special)—The possibility of a new smelt run in the Cowlitz river appeared Tuesday after it was reported that approximately 125 boxes of fish were taken by dipnet operators Monday night. Fishermen have reported for several days that a run of undetermined size has been in the Columbia river, off the mouth of the Cowlitz, but had not given any indication of what direction it might take. Gillnetters had been making light catches in the Columbia. But Monday night a small run was located moving into the lower Cowlitz, with dippers making light catches.
22 February 1945	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 2-3	Plan Shorter Weekly Smelt Season To Conserve Fish. Fishing Deadline Will Be Moved about Three Miles Down Cowlitz River. Decreasing runs of smelt in the Columbia and Cowlitz Rivers in recent years resulted in a decision Monday by Milo Moore, state fisheries director, to lengthen the weekly closed season on fishing for smelt by 24 hours and to protect more of the river's bed for spawning of the fish. The proposals

Date	Place	Source	Quote
			were discussed by fishermen and fisheries department representatives at a meeting in the Columbia River Smelt Co. building. Moore said the dwindling runs of fish clearly showed that the smelt need additional protection, and that not enough of the smelt are able to spawn. The new regulations setting the closed season from 8 A.M. Thursday to 8 P.M. Saturday instead of 8 A.M. Friday until Saturday night will go into effect as soon as an official order can be prepared, Moore said. The deadline for smelt fishing will be established between Nelson's Eddy and Petersen's Eddy, which is about three miles below the existing deadline at Sandy Bend. No deadline is needed in the Lewis River, it was decided, as the shorter fishing season will give protection to fish there. River pollution was discussed also. A number of the fishermen declared it is seriously affecting the fishing and destroying many fish. Clarence Anderson, assistant director of fisheries, said the pollution problem should be taken up with the legislature. Others who accompanied Moore here were Joe Craig, department biologist, and Arnie Suomela, assistant biologist.
22 February 1945	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 3	New Smelt Run Found In Cowlitz. 2,000 Boxes Taken by Dipnetters Tuesday Night. Smelt fishermen caught approximately 2,000 boxes of fish in the Cowlitz River Tuesday night, according to Wayne Wintermute, state fisheries inspector. The new run was first found Monday night when about 150 boxes were dipped. About 250 licensed fishermen are now engaged in fishing in the river, which is by far the largest number in the history of the industry. The fishing Tuesday night was in the vicinity of Rocky Point. Most of the fish are going to the freezing plants for the military forces. Fishermen said they were getting \$3.00 a box for the fish for freezing. Catches were good again Wednesday night with most of the boats getting their limit, set by the fishermen, of 50 boxes.
1 March 1945	Cowlitz River Kalama River	<i>The Kelsonian Tribune</i> , p. 1, col. 3	Smelt Play Hide and Seek With Dippers. Catches Light This Week; Fish In Columbia Above Kalama River. The smelt have been playing hide and seek with fishermen the past few days. Good catches were made several nights last week and about 2,000 boxes were taken Saturday night when fishing was resumed [after] the 36 hour closed period. Sunday night fish were scarce and after light catches Monday night the fish had almost disappeared from the Cowlitz Tuesday night when only about 100 boxes were taken. There was good fishing in the Kalama River one day last week but the smelt disappeared from that stream. Fish are reported in the Columbia River above Kalama, and fishermen hope a run will enter the Lewis River.
4 March 1945	Sandy River	<i>Sunday Oregonian</i> , p. 17, col. 8 extra data	Smelt Run Due In Sandy River. The bucket brigade can get ready anytime now. If the smelt visit Sandy river this year they're just as likely to drop in next week as not, says Mike Hoy, master fish warden of Oregon. The earliest run of smelt in the Sandy on the official records of the fish commission crossed the bar out of the Columbia at the mouth of the Sandy March 4 at 9 A. M. in 1934. Records from 1929, when they were started by the commission, showing dates when the eulachon made their first appearance in the Sandy, are as follows: 1929, April 9; 1930, March 18; 1931, no run; 1932, March 26;

Date	Place	Source	Quote
			1933, no run; 1934, March 4; 1935, no run; 1936, March 27; 1937, 1938 and 1939, no run; 1940, March 6; 1941, March 14; 1942, March 19; 1943, March 25; 1944, no run.
15 March 1945	Columbia River at Stella	<i>The Kelsonian Tribune</i> , p. 1, col. 5	Catching Smelt In Columbia Again. Gillnet fishermen are taking smelt in the Columbia River below Stella, after a period of about two weeks during which no smelt were caught. The progress of the run is being followed with interest by fishermen who hope the fish may come into the Cowlitz. The run may also move on up the Columbia to the Lewis river or to the Sandy near Portland, where there is usually a late season run.
16 March 1945	Portland, OR	<i>Oregonian</i> , p. 9, col. 2	Early Shopping Only Hope To Get Choice Market Food. ... Meats and Fish. ... There is Columbia river smelt at 25 cents a pound.
23 March 1945	Portland, OR	<i>Oregonian</i> , p. 10, col. 4	Vegetables Help Scarce Meat Dishes. ... Meat and Fish. ... Columbia river smelt may be had for about 25 cents a pound ...
March 1945		<i>Pacific Fisherman</i> 43 (4): 67.	Cowlitz Smelt—Law of Supply, Demand Recognized. Effect of available volume upon price—the old and inexorable Law of Supply and Demand—was accorded a measure of recognition recently by OPA Region VIII when it set up a graduated price schedule for Columbia River smelt, based upon the quantity caught during the preceding week. The principle accepted by OPA is sound, although the amendment actually put into force has a couple of sour spots which impair its effectiveness. Of these, we'll say more later. The amendment provides that the volume of the landings during each week ending Friday noon shall determine the price to be paid during the seven days starting the following Monday. When the catch for a week ending Friday is not over 1,500 lbs., the price to the fishermen for the week opening the following Monday has a ceiling of 20c per lb., round and in bulk. From 1,501 to 3,000 lbs. the price declines to 15c. When from 3,001 to 200,000 lbs. are taken Friday-to-Friday, the price in the following week is 8c. Above 200,000 lbs., the price becomes 3½c. Now about those sour spots: To let the landings of one week set the price at which the deliveries of a later week are to be sold is of course fraught with danger. However, the prices are ceilings, and if the condition becomes intolerable the buyers are permitted to reduce their offerings, or to withdraw from the market. The other fault of the program is its tendency to limit production to a top of 200,000 lbs.- per week. The 8c price is extended over such a range from 3 to 200 thousand pounds, and then is broken down so sharply to 3½c, that there is an inevitable tendency on the part of the fishermen to keep the catch within the 200,000-lb. top. This might be all very well in a fishery where the run is comparatively constant, but in one where abundance varies as widely as with the eulachon it is certain that OPA policy again will react to limit the production of food. There was some excellent fishing on the Cowlitz right at the end of January. However, it lasted but a week, for some heavy rains produced freshets which checked the movement of smelt and cut subsequent fishing to the middle of February to barely fresh market requirements. If the smelt are available in volume this year it is evident that a very large quantity will be frozen for Army account. The Quartermaster Corps is again in the market for dressed smelt frozen in

Date	Place	Source	Quote
			cartons and the fish were being put up in that style in Seattle as well as on the Columbia River, where the scissor-pack was developed during the 1943 season.
2 April 1945	Sandy River	<i>Oregonian</i> , p. 2, col. 5	Smelt Run Due In Sandy River. The run of smelt in the Sandy river is expected to begin Monday, according to a report from Harris Quade at Sun Dial beach, located at the mouth of the river where it empties into the Columbia. Quade reported Sunday that millions of the fish were in the Columbia near the mouth of the Sandy, and that they probably would start up the latter river Monday. The spring run of smelt in the Sandy usually starts in March.
3 April 1945	Sandy River	<i>Oregonian</i> , p. 1, col. 7	Tardy Smelt Run in Sandy. By James H. McCool, Staff Writer, The Oregonian. Hundreds of fishermen who have never had a fly rod in their hands and wouldn't know a royal coachman from a blue upright started a hegira for the Sandy river, 18 miles from Portland, Monday and not one of these enthusiastic anglers had a hook or line. Instead they carried nets, buckets, dishpans, gunny sacks, flour sacks sugar sacks or anything handy they could filch from kitchens, basements, woodsheds or attics. With these crude implements they will bring back to Portland a good many tons of smelt, but not until Tuesday. The law said they couldn't fish for smelt Monday. Vanguard of the smelt appeared in the Sandy river Sunday and by noon Monday were pouring in from the Columbia in numbers estimated into the millions. New Laws Effective. Smelt fishing is a sport that recognizes no sunrise or sunset. The silvery fish may be taken at any time of the day or night, except between midnight Sunday and midnight Monday. This restriction was adopted by the state legislature two years ago, its object being to give some of the finny migrants and opportunity to escape to upriver spawning grounds. As there was no run of smelt last year this will be the first time the new state law will be applicable. Because of the change in the law early arrivals at the Sandy Monday were greatly disappointed, but scores said they would camp right there till midnight and start fishing at the deadline lift. Old timers on the river say the present run of eulachon is one of the largest in history. More on page 3, section 2.
3 April 1945	Sandy River	<i>Oregonian</i> , p. 2, col. 8	Smelt Win Day's Respite. (See Story on Page 1, Also). Belated entrance of the smelt into the Sandy river Sunday night [1 April] on their periodic spawning journey was the signal for activity on the part of an army of fishermen and spectators which is expected to reach well over 100,000 before the end of the week. Hundreds who did not know the glistening nomads from the sea were immune from capture for 24 hours starting Sunday at midnight traveled to Troutdale Monday only to learn they'd have to wait. Licenses to catch smelt are issued to sports fishermen for 50 cents. The state game commission announces that licenses may be purchased at the commission offices in Portland, at Viking park on the Sandy, at the mouth of the Sandy and at either end of the Troutdale bridge. Amateurs Get Share. Actual angles constitute only a small part of the numbers of those who go to home river of the eulachon when the silver hordes perform their propagation pilgrimage. In years past hundreds of thousands have visited the Sandy to

Date	Place	Source	Quote
			witness the unique spectacle. With the run only a few hours old at noon Monday, men, women and children lined both banks of the river as the smelt swam past in ever increasing volume. Millions of the fish, it was estimated, had passed upstream under the Troutdale bridge by 1 o'clock. 50 Pounds Limit. A sports fishing license for smelt entitles the holder to catch 50 pounds of fish in a day. In former years the limit was 100 pounds. The license provides that the fishermen may take 50 pounds every day of he chooses. The license fee for commercial fishermen is \$5, and there is no limit on the amount of fish. Commercial fishermen are restricted to taking smelt between the mouth of the Sandy and the Troutdale bridge. Sports fishermen can take them anywhere on the river. Smelt runs on the Sandy last from a week to ten days. In 1942 the run started March 19 and ended April 1. In 1943 it started March 25 and ended April 1. The little fish skipped the river last year. Commercial smelt licenses, the state fish commission announces, may be obtained at the commission offices in the Oregon building or at the Troutdale bridge.
4 April 1945	Sandy River	<i>Oregonian</i> , p. 1, col. 4	Smelt Dipper Falls, Drowns. ... More than 5000 persons went to the Troutdale area Tuesday to dip smelt from the Sandy, creating a traffic problem on the Columbia River highway. Virtually every rock was occupied by fishermen.
4 April 1945	Sandy River	<i>Oregonian</i> , p. 8, col. 2	The Return of the Smelt. The return of the eulachon, or Columbia river smelt, to the Sandy river is distinctly reassuring to those pessimists whose doleful prediction had been that the runs were deserting the tributary. Last spring the smelt neglected the Sandy. There is an occasional year when they do, and, for that matter—as recently related in these columns—there once was a fourteen-year period when the Sandy was smeltless as a scrubbed fish stall. Unlike their remote cousins, the vast salmon, the smelt are not strictly dependable as anadromous fishes. Especially is this true of the Sandy river migrations, and obviously because in some seasons the smelt run funnels itself exclusively into the Cowlitz, farther down the Columbia, and has no reserves for the lesser tributary. But in the main, at least of late years, the Sandy river run seems a good bet. A eulachon migration is one of the mathematical marvels of nature. Bear in mind that the portion which enters the Sandy is but a minor fraction of the main migration in the Columbia, for the tale which follows pertains to the Sandy alone. Some year ago, at the time of a heavy eulachon run in the Sandy, an authority with a gift for figures estimated that from the mouth of the river to the farthest advance of the migration, perhaps three miles upstream, there were sufficient smelt to provide every human being in the world with a dinner of four smelt to the person. Now consider that the population of the world is about 2,169,868,000. “The crest of the run is here,” observed the volunteer savant, and threw away his stub lead pencil. But for nearly two weeks thereafter the volume of smelt ascending the Sandy was far greater than it had been when that awesome estimate was made. The world would have had enough smelt to put a few down for winter.

Date	Place	Source	Quote
4 April 1945	Sandy River	<i>Oregonian</i> , p. 13, col. 1-2	Columbia Highway Jammed By 5000 Smelt Fishermen. Drowning of a smelt fishermen, who slipped off a rock below the Troutdale bridge, climaxed worries of state and county police who Tuesday afternoon battled one of the worst traffic jams ever known on the Columbia River highway in the vicinity of Troutdale. Chief traffic officer Albert L. Love of Multnomah county estimated the crowd of anglers along the banks of the Sandy above and below the highway bridge at more than 5000. He said every rock was occupied. 4000 Permits Issued. Automobiles were parked on both sides of the highway for half a mile on the east side of the bridge and into the center of Troutdale on the west side. Every parking area in and around Troutdale was filled with cars. The state game commission reported more than 4000 special smelt licenses were sold during the day, with hundreds still clamoring for permits at sundown. A dozen license clerks were on the job at the bridge approach and in the town. The fish commission sold more than 100 commercial licenses at the same time. Officials said the number of both types of licenses sold established an all-time record for a single day. Washington Has Run. A run of smelt, described by fisheries inspectors at twice as big as that in the Sandy river near Portland, is now in the Lewis river near Woodland, Wash. Commercial dippers took more than 100,000 pounds of the fish Monday night. Appearance of the smelt at this late date was a surprise to the commercial dippers. Late Tuesday a tremendous run was reported in the mouth of Tanner Creek just below Bonneville dam. News spread and before 6 o'clock nearly 100 fishermen had gathered on the banks of the stream, which flows through the Bonneville hatchery grounds of the state game commission. Albert K. Weisendanger, Columbia gorge forest ranger, telephoned that some of the little fish were seen swimming up the Columbia beyond Tanner creek and it was expected they might try to climb the fish ladder at the dam. If they do it will be for the first time. No smelt runs have been reported above the dam since it was built.
5 April 1945	Sandy River	<i>Oregonian</i> , p. 9, col. 6	Smelt Larger On Third Day. Catches Averaging Two Inches Longer. Not only are the smelt still pouring into the Sandy river, but they are "bigger and better," state police reported Wednesday. Females of the species appeared to predominate the run of the silver fish Monday and Tuesday, but Wednesday's swarms were conspicuous for the large number of big bucks. The average length of the fish passing under Troutdale bridge now is two inches more than that for the earlier runs, wardens of the state fish and game commissions say. Fishermen swarmed on the banks of the Sandy in about the same number as on Monday and Tuesday, but congestion was not quite so noticeable. Master Fish Warden Mike Hoy said police kept the anglers moving in and out and the task was not so difficult, as it took only ten of [sic] 15 minutes for each smelt dipper to catch the limit of 50 pounds.
5 April 1945	Sandy River Lewis River	<i>The Kelsonian Tribune</i> , p. 1, col. 6	Late Smelt Runs Appear In Lewis, Sandy Rivers. The smelt run which was found in the Columbia River last week when gillnetters made good catches in the Clatskanie and Cathlamet areas, entered the Lewis River near Woodland, and the Sandy River near

Date	Place	Source	Quote
			Portland in volume over the week-end. Commercial fishermen made big catches in the Lewis. Under Oregon regulations no fishing was permitted in the Sandy until midnight Monday. Large numbers of residents of the Portland district are reported to be scooping smelt from the shallow Sandy. That stream had no smelt run last year. The run in the Lewis River is the heaviest to visit that stream in many years, and is much bigger than any of those into the Cowlitz this season. Fishermen have dipped more than a million pounds of fish from that stream this week.
6 April 1945	Columbia River	<i>Oregonian</i> , p. 1, col. 7	Smelt Defeat Power Dam. Columbia river smelt somehow have passed Bonneville dam. Lt. Col. Ralph A. Tudor of the United States army engineers Thursday reported seeing some of the little migrant fish in the pool above the dam, though how they got there he could only guess. A conjecture—and Col. Tudor said it was no more than that—was that the smelt had passed around the dam through the Tanner creek by-pass, built to enable fingerling salmon to escape downstream. It was the first time smelt had been reported above Bonneville dam since 1938, when they passed through an opening left before the dam went into final operation. Millions of smelt Thursday were battling their way upstream through the Bonneville fish ladder on the Washington side of the river, engineers reported, but the vanguard there was only about one-third of the way through the ladder. Engineers reduced the flow of water to give them a better chance. The run in the Sandy river continued undiminished Thursday, Frank Wire, state game supervisor, said. More than 12,000 special smelt licenses had been sold by the commission up to noon. This is nearly twice as many as were sold in any preceding year. The fish commission reported three times as many commercial licenses sold as in any previous year.
6 April 1945	Portland, OR	<i>Oregonian</i> , p. 11, col. 2	Abundant Fish Supplies Offset Meat Shortages. ... FISH AND MEAT. ... Shiny, silvery Sandy river smelt are here in abundance, selling at 15 cents a pound. ...
8 April 1945	Sandy River	<i>Sunday Oregonian</i> , p. 1, col. 3	Smelt Beckon Record Throng. Millions of smelt continued Saturday to run the hazards of eager smelt-dippers along the Sandy river and the state game department predicted a record throng of fishermen and spectators Sunday if the run continues and the weather breaks. Frank B. Wire, state game supervisor, said the game commission has assigned all its available men to the Sandy to sell licenses and watch for violations of the 50-pound catch limit. Wire said there is no way of predicting how long the run will last and that it might end at any time as suddenly as it began last Sunday.
8 April 1945	Sandy River	<i>Sunday Oregonian</i> , p. 3, col. 7	Woman Catches Gigantic Smelt. The Sandy river, teeming with millions of comparatively tiny smelt, yielded one whopper Saturday afternoon to Mrs. George Hess, 1626 S. E. 7th avenue. The fish, she reported, was ten inches long and weighed “perhaps a quarter of a pound.” Along with the big one, Mrs. Hess said she caught the limit just below the highway bridge over the Sandy, the entire “fishing” operation taking only a few minutes.
8 April 1945	Sandy River	<i>Sunday Oregonian</i> , p.	Smelt Run Awed Midwest Novice. Knack Needed In Net Lift. Long Handle Poses

Date	Place	Source	Quote
		17, col. 1	Leverage Problem. ... Because it was a scientific expedition, this first scoop was counted—the net contained 179 fish. This is not a claim to a record, and no interest will be shown in how many smelt anybody else got in one scoop. ... Three sweeps, it has been demonstrated will bring in all the smelt that a metropolitan newspaper staff can be inveigled and coerced into carrying home. State Imposes Limit. That, briefly, is the actual operation of smelt fishing. Smelt fishermen get themselves a tasty, point-free meal or so, make themselves no end of nuisance to people who have already been given more smelt than they can eat, and it is claimed by some, contribute their share toward development of the famous Portland rose. It is to prevent the widespread use of smelt for fertilizer that a 50-pound limit is placed on the catch. Up and down the river bank at Troutdale the observer's attention is divided between the fish and the fishermen. The best way to realize the unnumbered millions of the former is to view them in the shadow of the bridge. Here a small patch of quiet water shows a minute section of the steady, close-packed parade that is going on all across the river. Look steadily at this small expanse of water. The illusion of the fish ascending from dark depths to the light exemplifies the whole mystery of their life at sea, and the compelling urge which sends them upstream to spawn and die, completing the life cycle that began when their parents made this same trip up the Sandy. ... [The smelt] cares nothing about food, and he comes in the uncountable millions that encourage the treatment once given the forests, the buffalo and the carrier pigeon. The banks of the Sandy are littered with smelt. Few people ever stoop to pick one up. It is easier to get more of the finny propagators from the river than it is to wash the sand from one that has fallen to the beach. This offers a “so's your old man” opportunity to hydroelectric people who are criticized for damaging scenery and destroying salmon runs, and foresters who are “denuding the Oregon hills.” People who set the limits probably know what they are doing, but Sandy smelt fishers will need more conservation preaching than the general run. Renting Business Good. Smelt-fishing has more than a little significance to Troutdale economy. Five stands last week were renting nets at 50 cents an hour, in addition to selling licenses at 50 cents for the season of a week or ten days. Thousands upon thousands of fishermen and sight-seers added up to big business for cafes and filling stations. ...
10 April 1945	Lewis River, Bonneville Dam	<i>Oregonian</i> , p. 7, col. 4	Smelt Season Tops Records. More than 16,000 noncommercial smelt licenses have been sold by the state game commission since the run of eulachon was reported on the Sandy river a week ago Sunday night. This is nearly three times the number of such licenses ever sold before, Frank Wire, state game supervisor, reports. The spawning migration of the silvery fish continued Monday without diminution, state police said. H. T. Hoy, master fish warden of Oregon, believes the 1945 run will establish an all-time record in point of numbers, although there will be no way to check its volume from the commercial catch. Portland Market Glutted. Reason is that the commercial fishermen have been idle since Thursday night because there is no Portland market for the fish.

Date	Place	Source	Quote
			Thousands of tons of smelt have been caught in the Lewis river on the Washington side of the Columbia and Seattle dealers have been buying from fishermen there. With no Portland market in sight and thousands of noncommercial fishermen dipping in the Sandy, the Oregon men who earn their livelihood be selling fish are rather despondent, says Hoy. Smelt Seek New Fields. Reports have come in to the state fish and game commission from persons who have seen smelt running in Columbia river tributaries which had never been visited by the smelt in the past, so far as the records show. One such stream was Scappoose creek on the lower Columbia highway. Some of the smelt which tackled the fish ladder on the Washington shore at Bonneville dam have made their way “over the top,” according to Capt. R. B. Cochrane, resident engineer at the dam, who said he had seen the fish in the river beyond the dam, but would not hazard a guess at how many.
12 April 1945	Portland, OR	<i>Oregonian</i> , p. 1, col. 1	Smelt Plentiful, But Slowing Up. Smelt are still plentiful in the Sandy river, but the phenomenal run of the past ten days has begun to subside, Chief Field Warden Walt Ryckman, of the state game commission, reported Wednesday. Special smelt licenses have been sold by the commission to 16,600 persons. Most ever sold in a previous year was a little more than 6000.
13 April 1945	Sandy River	<i>Oregonian</i> , p. 11, col. 4	Long Smelt Run Light in 12th Day. One of the longest runs of spawning smelt ever recorded in the Sandy river was going into its 12th day Thursday, but it had tapered off noticeably at noon and continued to dwindle all afternoon. Crowds of fishermen and spectators which had congregated daily on the river banks near Troutdale also had diminished to a few stragglers. Commercial fishermen in boats were still trying to dip a few more tons of the silver fish for market, but they were not having the luck which attended their efforts earlier in the week, when a single dip of a long-handled net often brought up from ten to 12 pounds of the eulachon.
13 April 1945	Portland, OR	<i>Oregonian</i> , p. 13 advert	SAFEWAY point-saver EVENT. ... fresh Columbia River smelt 2 lbs. 23c ...
17 April 1945	Sandy River	<i>Oregonian</i> , p. 1, col. 5	Smelt Run Ends; New Record Set. The smelt vanished from the Sandy river Sunday, after one of the longest and heaviest spawning migrations on record. More than 17,400 persons bought special licenses to fish for the eulachon. This was almost three times as many as had ever taken such licenses before. Game commission employees and state police estimate that during the two weeks of the run 200,000 men, women and children visited the Sandy merely to watch others net the fish.
	Lewis River Cowlitz River	Moore (1945, p. 37-38)	SMELT. A record catch of smelt was landed in 1945. The take of 3,891,463 pounds exceeded by over 500,000 pounds that of the previous record year, 1943. Though excellent catches were made in the Cowlitz River, the main stay of the commercial smelt fishery, the increased landings were mainly due to the million and a half pounds which were caught in the erratic Lewis River. Such a poundage was greater by more than a million pounds than any landing from the Lewis River since 1940. At present no reason for the irregularity of the runs in this stream is known. The magnitude of the fishing

Date	Place	Source	Quote
			intensity, which has been steadily on the increase since the start of the war, is directly correlated with the unprecedented market provided by the demand for the armed forces. Again all the spawning which occurred in the Cowlitz River was within the limits of the dip-net commercial fishery. Hence, it appears that unless further protection can be afforded the species on the spawning grounds, a serious depletion in the runs may result.
1946			
11 January 1946	Portland, OR	Oregonian p. 13, col. 2	Food Market Well Supplied Except in Butter, Cheese. ... MEATS AND FISH. ... Fresh Columbia river smelt had dropped from 38 cents to 32 cents within the few days it has been available this season ...
17 January 1946	Columbia River at Clatskanie Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 8	Heavy Catches Of Smelt Made In Columbia. Heavy catches of smelt have been made by gillnetters in the Columbia River in Clatskanie district the past few days. About 800 boxes (40,000 pounds) were caught Wednesday following equally good takes other days this week, state fisheries inspectors report. The fish are being landed in Oregon instead of along the Ocean Beach Highway near Eagle Cliff because of an order to fishermen, they reported, by State Highway Department employees to refrain from landing the fish along the highway. The order is costing this state about \$80 in tax daily, which goes to Oregon instead of Washington when the fish are taken ashore there. Loading of the fish would not have obstructed traffic on the highway, fishermen claim. The small run of smelt that was in the Cowlitz River last week disappeared and no more have been found in the local stream. The run in the Columbia is expected to move up that river and into the Cowlitz soon.
18 January 1946	Portland, OR	<i>Oregonian</i> , p. 11, col. 1	Poultry Offers Market Buy; Fish, Fruits, Lettuce Gain. ... MEAT AND FISH. ... Columbia river smelt is still available for 23 cents a pound. ...
21 January 1946	Cowlitz River	<i>Oregonian</i> , p. 3, col. 6	Smelt Taken From Cowlitz. LONGVIEW, Jan. 20 (Special) Dipnet fishermen went into action Saturday night and Sunday morning as the initial run of smelt moved into the Cowlitz river, with catches being made in the lower stretched of the river. Only previous evidence of the tiny fish was a so-called "scout run" that was in the stream several weeks ago. Dipnetters have been expecting the main run for about a week.
24 January 1946	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 5	Large Smelt Run Heading For Cowlitz. The run of smelt which came into the Cowlitz River and gave the dipnet fishermen good catches last week end has disappeared from the lower river and apparently was another scout run. Only a few boxes were taken Tuesday night. Approximately 1,600 boxes or 80,000 pounds of the fish, were caught Saturday and Sunday nights. The river is closed from Wednesday mornings at 8 o'clock until 8 p.m. Saturdays under the regulations in effect this year. There is a large run of the fish in the Columbia River, and fisheries inspectors believe it may be in the Cowlitz by the time fishing is resumed Saturday night. Lower Columbia Junior College students Thursday named Vera Ruth of Kalama as "Queen of the Eulachon," to preside over the fete which is staged annually by the college students during the eulachon (smelt) season. ...

Date	Place	Source	Quote
25 January 1946	Portland, OR	<i>Oregonian</i> , p. 11, advert	SAFEWAY. ... Fresh Smelt Columbia River lb. 19c ...
30 January 1946	Cowlitz River	<i>Oregonian</i> , p. 14, col. 1	River Bank Fishing Set. Smelt Dipping Area Plan For Cowlitz. CASTLE ROCK, Jan. 29 (Special)—A half mile of the Cowlitz river waterfront in the vicinity of Castle Rock will be opened to bank dipping for smelt within a few days, State Fisheries Director Milo Moore announced here Tuesday, following a conference with Castle Rock civic leaders. The Castel Rock Chamber of Commerce and Sunnyside grange had protested an order closing the stream above Peterson's eddy to all dipping. "We will open the river as soon as necessary technicalities are ironed out," Moore said. "The stretch to be opened will be from approximately a quarter mile below the Castle Rock bridge to a quarter of a mile above the span. It will be open to amateur dipping only." Moore disclosed a biologist from his department is making studies to obtain additional information concerning spawning habits, enemies of the smelt and other factors. It was reported that a substantial smelt run has entered the lower river and that the volume of fish taken by commercial operators should pick up during the next few days. Comparatively light catches have been reported so far this season by commercial dippers.
31 January 1946	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 6-7	5,000 Boxes of Smelt Dipped From River in 5-Day Period. In excess of 5,000 boxes, or 125 tons, of smelt were dipped from the Cowlitz River the past five days by fishermen. State fisheries inspectors reported 1,700 boxes were obtained Saturday night, 418½ boxes Sunday, 888 boxes Monday when a large new run of fish came into the lower river, 1,185½ boxes Tuesday and another large catch Wednesday. Fishermen were dipping about opposite the South Kelso city line Wednesday night. There was very little bank fishing for amateurs due to the stage of the water. Fishing is closed to both commercial operators and amateurs from 8 a.m. Thursdays until 8 p.m. Saturdays. State Fisheries Director Milo Moore met with Castle Rock Chamber of Commerce representatives and others there Monday and agreed to the opening of half a mile of the Cowlitz River at Castle Rock to amateur fishing. Protests had been made by the Castle Rock Chamber and others against closing the river above Petersen's Eddy at Sandy Bend to all amateur as well as commercial fishing. A stretch of the Cowlitz from a point about a quarter mile below the Castle Rock bridge to a quarter of a mile above will be opened to amateur fishing for smelt as soon as the survey can be made and necessary technicalities taken care of, Moore said. About 300 fishermen are now licensed to dip smelt. As a result of the closing of the river above Petersen's Eddy to fishing, large numbers of smelt have been spawning in the protected areas, fisheries inspectors report.
January 1946		<i>Pacific Fisherman</i> 44 (1): 69.	First Smelt Catch Made by H. Hurula. The first commercial catch of smelt made in the Columbia River was caught by Hans Hurula, Clatskanie. Ore., gillnet fisherman, after Ben Jolma, another Clatskanie fisherman, had found the first smelt of the season after making a test drift almost a month earlier. Thus far no run has developed, indicating that smelt are somewhat late in entering the Columbia River. As usual, the J. E. Lawrence company of Portland, Ore., paid \$1 a pound for the first 10 pounds delivered from the

Date	Place	Source	Quote
			catch of Hurula.
8 February 1946	Portland, OR	<i>Oregonian</i> , p. 13 advert	SAFEWAY. ... Smelt Fresh Columbia River 2 lbs. 25c ...
14 February 1946	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 4-5	Smelt Market Low, Catches Continue Small In Cowlitz. With the demand for smelt off, fishermen are struggling with the problem of what to do with the fish they catch. Complicating the situation is the fact that the runs into the Cowlitz have been so small thus far that the fish have not gotten much above Rocky Point and most of them have been dipped out, threatening the future of the industry. The Columbia River Fishermen's Protective Union at a meeting here Tuesday considered ways of improving the market and of keeping part time and "fly-by-night" fishermen from dumping fish on the market at low prices. They charge that those who are not regular smelt fishermen are destroying the industry by dipping in areas where the female smelt are spawning. It has always been the practice of the regular fishermen to dip in the center of the stream where the catch is predominantly males. A group of the fishermen asked Milo Moore, state fisheries director, to close the stream to all smelt fishing of the rest of the season so that the smelt can spawn. A department biologist recently made a study of the river and found very little smelt spawn. Moore advised the fishermen they must solve their own marketing problems. A number of ex-servicemen and other independent fishermen are reported from Seattle to have complained to federal authorities that the organized operators were "squeezing" them out of the markets in violation of an order issued last October by the federal trade commission. About 3,000 boxes were caught Saturday night, but catches were smaller the other nights this week. Only a few boats were out Wednesday night.
21 February 1946	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 3	Large Run of Smelt in Cowlitz. By far the largest run of smelt of the year came into the Cowlitz River last week and bank fishing was good in the vicinity of beacon Hill and along the booms Sunday and the past few days. The run has now progressed almost as far as Castle Rock and state fisheries inspectors believe there will be fish in the river at Castle Rock next week end for bank fishermen. A mile stretch of the river is open to amateur fishing there when fishing is permitted, but not from 8 a.m. Thursdays until 8 p.m. Sundays. More than 3,000 boxes of fish were dipped Sunday night and the fishermen have been taking as many smelt as needed to fill their orders this week. The smelt are of good quality.
25 February 1946	Cowlitz River	<i>Oregonian</i> , p. 13, col. 5	Dredging Halted. KELSO, Feb. 24 (Special)—The United States Army engineers have temporarily halted channel dredging operations in the Cowlitz river north of Kelso to prevent possible damage to smelt spawning areas, it was reported here. Tests taken by state fisheries biologists disclosed possibility of damage.
28 February 1946	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 6	Largest Smelt Run In Years In Cowlitz River. The heaviest run of smelt that has been in the Cowlitz River for a number of years is now in the stream, assuring a good spawn, according to state fisheries inspectors. Due to the limited market, fishermen have reduced their catches and approximately 4,000 boxes were dipped this week. The heavy run of smelt is well above Castle Rock and bank fishing has been good both in the lower river

Date	Place	Source	Quote
			and at the open area at Castle Rock. The U.S. engineers who were staring channel dredging operations co-operated with the fishing industry by discontinuing the dredging in the vicinity of the spawning grounds until after the season is over. A group of fishermen asked Milo Moore, director of fisheries, this week to close the Cowlitz to smelt fishing to prevent the use of fish as mink feed. It was reported that smelt are being purchased by Oregon fur farmers at \$1.35 a box as feed for their animals. Such feeding is prohibited in Washington, but not in Oregon. Moore says the fishing will not be closed. Oregon Fisheries Department trucks moved fish from the Cowlitz to the Sandy River in Oregon this week for planting there.
1 March 1946		<i>Oregonian</i> , p. 12, col. 4	Extra Smelt Goal in Sandy. Earlier Spawners Sent From Cowlitz. Experimental transplanting of 7500 smelt from the Cowlitz river in Washington to the Sandy river in Oregon, designed to produce a full extra run for Oregon's commercial and sports fishermen, will be completed Monday and if successful probably will double the annual yield in the Oregon stream. The first transplanting of 3600 smelt was accomplished Wednesday night, and the remaining 3900 will be moved Monday, it was revealed by A. J. Suomela, master fish warden for the Oregon Commission. Cowlitz Smelt Spawn Earlier. The experiment will be completed with the co-operation of Milo Moore, director of fisheries for Washington. Cowlitz river smelt are earlier spawners than those in the Sandy, and if the newcomers return home to their new habitat in the transplanting the first run should appear late in February next year, Suomela explained. The "Cowlitz" run then would be followed by the regular Sandy river run, which in recent years with only few exceptions has occurred on or after the middle of March. Suomela said the Cowlitz smelt were selected because of their consistent record. There never has been a failure of the late February run in that stream, while the Sandy river run has been intermittent. In the 13-year period from 1933 to 1945 there were six years when smelt failed to appear in the Sandy. Economic benefits to the state will be tremendous if the experiment succeeds, Suomela pointed out. Last year's commercial catch in the Sandy totaled 1,400,000 pounds, largest ever recorded. Suomela estimated sports fishermen dipped another 1,500,000 pounds for a total of almost 3,000,000 pounds. The smelt brought a market price of from \$1.75 to \$3 per box of 50 pounds. The annual average catch from 1940 through 1943, however, was 285,000 pounds. Regular Harvest Expected. Transplanting of the Cowlitz species is hoped to produce a regular harvest for the Sandy each year. The Cowlitz experienced an early run a month ago, when commercial fishermen netted as much as 3000 boxes, 150,000 pounds, with a value of about \$15,000, on a single Sunday. Last year's record Sandy run of the eulachon overshadowed any previous spectacle of its type, both in point of yield and number of fishermen. More than 17,400 persons bought licenses and the game commission estimated that 200,000 men, women and children visited the Sandy merely to watch others net the fish in the two-week run.

Date	Place	Source	Quote
1 March 1946	Portland, OR	<i>Oregonian</i> , p. 18, col. 4	Food Market Hunt Rewards. ... MEATS AND FISH. ... For the Lenten season of fish cookery there are ... quantities of Columbia river smelt for only 10 cents a pound ...
3 March 1946		<i>Oregonian</i> , p. 26, col. 2	Will Smelt Return? It will be occasion for rejoicing if the progeny of the smelt now being transplanted from the Cowlitz river to the Sandy river return to the Sandy and establish an early and regular run of this fine food fish. Yet those who rejoice prematurely may be disappointed. It has been tried before, and without success. The unpredictable eulachon have declined to co-operate. The silvered distant kin of the salmon enter the lower Columbia river as early as December and are taken by nets for the market. The smelt run of Washington's Cowlitz and Lewis river customarily occurs in February, with dependable regularity. The Sandy run is later, usually in March, sometimes—as last year—in April, and is not dependable. In six of the last thirteen years watchers waited in vain, though it may be that some small runs escaped observation in the tawny flood waters. The desirability of establishing a dependable run in the Sandy and other Oregon streams has long been evident. In 1924 the game and fish commission transported several loads of Cowlitz smelt to the Sandy where, presumably, they deposited their pale millet-seed eggs in loose windrows in midstream. If there were minute fry drifting in midstream to the sea a few weeks later, as the parent fish disintegrated on the bottom of the Sandy, none knows. If any of the Cowlitz descendants returned to the Sandy, none has observed them. The late Matt Ryckman of the game department repeated the experiment a decade later, without success. A failure, too, was his effort to establish a smelt run in the Clackamas river, into which he introduced eulachon from the Sandy. And none of these instances in which the wandering smelt blundered into strange streams to spawn—Scappoose creek, courses above the Sandy, even Devil's lake on the Lincoln coast—has been succeeded by regular runs. The evidence is inconclusive, for so little is known of the life cycle of the smelt, but it would appear that the parent stream intuition is not highly developed in the Columbia river eulachon. Water and silt conditions of the streams they frequent seem to govern the return. The Sandy and the Cowlitz, it will be noted, are silt-bottomed streams well adapted to anchor the buoyant eggs deposited conglomerately in the middle of the rivers and to protect the drifts of eggs as they mature. In this matter of transplanting a run, an interchange between the Cowlitz and the Sandy should have the best chance of success, since each stream has been approved by the smelt. But water temperature and flow, as well as many imponderable factors, may exert their influence. We wish Master Fish Warden A. J. Suomela well in his experiment, but restrain our optimism.
5 March 1946		<i>Oregonian</i> , p. 10 pictures	Cowlitz Fish Put in Sandy. Early Run of Smelt Object of Test. Oregon fish commission's first leg of a four-year plan to provide another complete but earlier run of smelt in the Sandy river was completed Monday with the transplanting of almost 4000 of the silvery eulachon from the Cowlitz river in Washington. Monday's shipment from the Cowlitz was the second in the experiment and brought the total to 7500 of the earlier-

Date	Place	Source	Quote
			spawning smelt. Further Plantings Possible. Irvine French, in charge of hatcheries for the commission, said still another run may be transplanted from the Lewis river in Washington, a run which occurs between the early February Cowlitz invasion and the late March Sandy run and which, if successful, would provide the Sandy with almost a continuous two-months yield. Transplanting from the Lewis river has not yet been approved, however. The current experimental transplanting was made between buck and Gordon creeks in the upper Sandy, almost 25 miles from Portland. The Cowlitz smelt were selected for the experiment because of their consistency, according to A. J. Suomela, master fish warden for the commission. There never has been a failure of a run in the Cowlitz, whereas there were six interruptions in the Sandy from 1933 to 1945. Because the smelt are the anadromous type, same as salmon and shad, which deposit their eggs in fresh water, retreat to salt water, then return to the same spawning grounds, is the principal reason for the experiment, French explained. The transplanting has been tried twice, 15 years ago and about ten years ago, but failed both times. Four-Year Plan Drafted. Cowlitz smelt will be planted again next year and again in 1948 and 1949, to complete the four-year cycle. When the smelt leave the Sandy they don't return for four years. If the experiment is successful the additional yield is expected to be a tremendous economic boost in both commercial and sports fishermen. Last year's commercial yield from the Sandy totaled 1,400,000 pounds, largest ever recorded, and it was estimated another 1,500,000 pounds were dipped by sports fishermen. The smelt brought a market price of from \$1.75 to \$3 per box of 50 pounds.
7 March 1946	Transplant in Green River	<i>The Kelsonian Tribune</i> , p. 1, col. 3	Eulachon Planting Tests Continue. Milo Moore, state director of fisheries, announced this week that the department is continuing its experiments in the planting of Columbia River smelt or eulachon in the Green River Watershed. Last year approximately 2,500 smelt were planted in Soos Creek, and this year a like amount was placed in the same stream. The stream smelt were transported from Kelso in a large steel planting tank, in which the water was constantly aerated, and were in excellent condition when released.
8 March 1946	Portland, OR	<i>Oregonian</i> , p. 17, advert	SAFEWAY ... Fresh Smelt Columbia River 2 lbs. 19c ...
14 March 1946	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 4, col. 5	Smelt Remain Plentiful But Markets Off. The best run of smelt in many years is continuing in the Cowlitz, but fishermen aren't bothering much about it. While the fish are virtually jamming the river, and new runs are continuing to shape up, commercial boats are passing them up because the market has bogged way down. A few are still being shipped out, but mostly the demand is at a low ebb. More than 900 tons had been taken up to March 1, but since then dipping operations have been light. The run is good as far up as Olequa, it was reported by the state fisheries office.
22 March 1946	Portland, OR	<i>Oregonian</i> , p. 15 advert	SAFEWAY ... Fresh Smelt Columbia River 2 lbs. 19c ...
29 March 1946	Sandy River	<i>Oregonian</i> , p. 1, col. 6-7	Columbia River Smelt Run Makes Annual Sandy Debut. The Columbia river smelt Thursday made their annual debut in the Sandy river. The run started early Thursday [28 March] when the forward line of the small eulachon pioneered the way past the

Date	Place	Source	Quote
			Troutdale bridge toward the spawning ground in the upper Sandy. By noon Thursday the word hadn't been passed far enough for the usual huge crowds, but commercial fishermen were erecting equipment to handle the boxes of fish they expect to take from the stream. The run started on April 7 last year and continued for two weeks. During the two weeks of the run more than 17,400 special licenses were sold to private fishermen. An estimated 200,000 persons visited the river to observe the 1945 run and approximately 3,000,000 pounds of the fish were taken by commercial and private netters. Last year a spectator was drowned when he slipped and fell into the fast-flowing stream. Day's Ban to Aid Fish. If plans of the Oregon fish commission work out, the Sandy will soon be the avenue for two annual spawning runs for smelt. In the latter part of January the commission planted 7500 smelt from the Cowlitz river in the Sandy. The Cowlitz smelt run usually occurs in February, about a month before the Sandy run, and fish commission officials plan to work for a continual "fish harvest" from the stream from the last of February to mid-April. Since 1929 the Sandy run has occurred 11 times. The last failure of the little fish to produce was 1944. Runs have varied from 1 to 18 days. From Sunday midnight to Monday midnight, under state law, no one will be allowed to take smelt, thus allowing escape of enough for spawning. Licenses cost 50 cents and may be purchased from clerks at the bridge.
29 March 1946	Portland, OR	<i>Oregonian</i> , p. 17, col. 4	Wheat-Saving Housewives Eye Spring Fruit Market. ... FISH. ... Columbia river [smelt] for 10 cents a pound ...
30 March 1946	Sandy River	<i>Oregonian</i> , p. 1, col. 1	Smelt Run Lures Throngs to Sandy. More than five thousand people were lining both banks of the Sandy river Friday as the annual smelt run grew in volume, Paul Mumpow[e]r, owner of Tad's restaurant there, estimated. "Everyplace you look, someone is standing with a bucket or a net," said Mumpower. "The cars are parked from the east side of Troutdale to the Viking Park bridge, and everyone is acting as if this were a circus." There have been no reports of any mishaps so far. The smelt run began early Thursday morning and has progressively become heavier and the fish larger, said Mumpow[e]r.
30 March 1946	Cowlitz River	<i>Oregonian</i> , p. 11, col. 8	Cowlitz Run Nears Finish. KELSO, March 29 (Special)—The smelt fishing in the Cowlitz river is about over for the year, it was reported at the state fisheries office here Friday. Less than 200 boxes of fish—10,000 pounds—were taken Wednesday night before the fishing closed for the week. The catch has been dropping steadily all week and unless another run hits the river, the dipping will be ended. During the 10 weeks that the smelt were in the Cowlitz, commercial dippers took approximately 5,385,050 pounds or 10,832 boxes, a recapitulation of state taxes collected on the commercial catches showed.
2 April 1946	Sandy River	<i>Oregonian</i> , p. 10, col. 1	Smelt Rule Foils Netters Monday. Hundreds of would-be fishermen who hadn't heard of the 24-hour ban on smelt dipping were turned away from the banks of the Sandy river Monday by state patrolmen and Multnomah county deputies. From midnight

Date	Place	Source	Quote
			Sunday night until midnight Monday the smelt were being permitted to travel unmolested to their upstream spawning grounds. Although deputy sheriffs reported an apparent slackening in the silvery horde, Paul Mumpower, Troutdale restaurant proprietor and long-time smelt observer, said it is difficult to judge whether the run is lessening until dipping is resumed Tuesday. Mike Hoy of the state fish commission said the last report he had received from the Sandy indicated the run was still “strong.”
3 April 1946	Sandy River	<i>Oregonian</i> , p. 9, col. 5	Smelt Mark 6th Day of Run. The Sandy river’s smelt run continued into its sixth day Tuesday with no indications of ceasing immediately, Paul Mumpower, Troutdale restaurant owner and long-time smelt observer, said. “Although the run slacked off a little during the day, early this morning it was heavy,” related Mumpower. “Most of the smelt taken are still males and the heavy run of females is still to come.” Mumpower cited as another indication of the run’s continuance the absence of sea gulls which, he said, always follow the tail of the run up the river. Tuesday, the gulls were hovering over the mouth of the river, he explained, thus indicating that smelt were still entering the Sandy from the Columbia river. Although Tuesday’s crowd was less than that of Sunday when thousands lined the stream’s banks, Mumpower said there was still a substantial number of dipnet fishermen.
3 April 1946	Lewis River	<i>Oregonian</i> , p. 11, col. 4	Seagulls Also Dip for Smelt. ST HELENS, April 2 (Special)—The Sandy isn’t the only place where smelt are running these days—the Lewis river, just across the Columbia from St. Helens, has the eulachon, too. Expert testimony on presence of smelt in the Lewis, which empties into the Columbia just opposite the Warrior Rock light here, is given by the presence of circling flocks of screaming seagulls.
4 April 1946	Sandy River	<i>Oregonian</i> , p. 1, col. 5	Drop in Sandy Slows Up Smelt. Low water level on the Sandy river was blamed by Troutdale dipnet fishermen Wednesday for a slackening off in the seven-day-old smelt run. Although no fishermen experienced difficulty in taking away the 50-pound limit, observers said the fish were piling up around the mouth of the river. They reported the run was apparently good for several more days, however.
5 April 1946	Sandy River	<i>Oregonian</i> , p. 1, col. 3	Smelt Run Fades at Sandy Mouth. The smelt run in the Sandy river seemed to be dropping off Thursday night, according to Harris Quade, a resident of Sundial Beach, at the mouth of the river. However, Troutdale dipnet fishermen were still getting the limit, according to Paul Mumpower, Troutdale restaurant owner. He said the best fishing was on the east bank of the river below Troutdale bridge.
7 April 1946	Sandy River	<i>Oregonian</i> , p. 1, col. 2	New Smelt Run Revives Dipping. A new and sudden run of smelt entered the Sandy river shortly before 2 P.M. Saturday and fishermen were reported taking limit catches of “nice, big fish.” Paul Mumpower, Sandy resort operator, said netters were getting no fish until the new run started. He reported “quite a few” fishermen out and said the heaviest catches were being made between the railroad bridge and the automobile bridge on the Troutdale highway.
8 April 1946	Sandy River	<i>Oregonian</i> , p. 7, col. 3	Smelt Fewer But Adequate. There were fewer smelt in the Sandy river Sunday than last

Date	Place	Source	Quote
			week end, but the industrious dipnetter was still able to gather a 50-pound limit with a little work. And there were hundreds of them working at it, according to the sheriff's office. Although the volume of smelt has decreased considerably the past week and Sunday's fishermen had to dip vigorously to fill the family washtub, most of them preferred this kind of fishing, according to Paul Mumpower, Sandy resort operator. "Last Sunday a half-dozen good dips would produce the limit, but today the fishermen have to work much longer and they all seem to enjoy it more," he said. The sheriff's office put two extra traffic control men on the highway near Troutdale Sunday morning, but by noon had received a call for more reinforcements, as the Sunday afternoon crowd began to gather. The weather was cool and cloudy, but didn't deter any of the Sandy river bound traffic.
10 April 1946	Sandy River	<i>Oregonian</i> , p. 1, col. 5	Smelt Run Ends; Dipnetters Many. The annual pilgrimage of smelt to the Sandy river is over, deputy sheriffs reported Tuesday. The run started a week ago last Thursday and continued steadily until the latter part of last week. The number of dipnetters was the largest ever to visit the Sandy's banks, the deputies said.
		Moore (1946, p. 50)	Smelt. During 1946 the commercial catch of smelt landed on the Washington shore amounted to 2,700,000 pounds. This poundage compared favorably with the average annual landings for the past ten years. Reduced fishing intensity with the loss of the unlimited wartime market and the complete lack of a smelt migration into the Lewis River were the main causes for the lowered catch this season as compared with the nearly 4,000,000 pounds landed in 1945. Studies have been conducted on the life history of this species to determine reasonable regulation to assure a sustained yield from this increasingly valuable fish. Analysis of present data indicates that existing regulations are apparently effectively protecting present stocks. For the first time in three' years, examination of smelt spawning grounds in the extremely productive Cowlitz River revealed an escapement believed to be satisfactory.
1947			
9 January 1947	Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 7	Some Smelt In Columbia River. Some smelt are being taken by gillnetters in the Columbia River near Cathlamet and Clatskanie. The small early winter run, which usually enters the Cowlitz in December, may have come into the local stream during the flood and been unnoticed, Frank Swick, district state fisheries inspector reports. The Cowlitz is now being posted against smelt fishing between Petersen's Eddy and a half mile below the Castle Rock bridge. Commercial smelt fishing licenses may be obtained from Al Dougherty, Chinook Hotel, Kelso. They cost \$5.
24 January 1947	Portland, OR	<i>Oregonian</i> , p. 15, col. 3	Sausages Found Good Buy And Break in Eating Rut. ... Meats and Fish ... Columbia river smelt have started to run; 40 cents buys a pound. ...
January 1947		<i>Pacific Fisherman</i> 45 (1): 63.	Smelt Fishermen Ready With New Staff. ... A few smelt showed up late in November, but high water has interfered with gillnetting recently.
4 February 1947	Columbia River	<i>Oregonian</i> , p. 6, col. 1	Paging the Smelt. This season's migration of Columbia river smelt is inexplicably tardy,

Date	Place	Source	Quote
			with but a few boxes of the fine little fish having been reported thus far by commercial fishermen at Clatskanie. The fishermen are wondering if the cold snap discouraged the entrance of the eulachon in their usual astronomical numbers, while another theory is that the high water may have interfered with their customary ascent of the river. Last year the smelt were in the Cowlitz soon after the middle of January, and in commercial quantity, thus indicating that they had been in the Columbia for weeks prior to then. Indeed, it is the usual thing for smelt to be taken in profitable numbers at Clatskanie before Christmas, but this season has been the exception. The Clatskanie catch always is gillnetted in the open Columbia, a method of fishing that creates a fairly high price for first smelt on the market. And usually, as has been said, these smelt are offered some time in December. Soon thereafter the smelt enter the Cowlitz, and the price breaks sharply when the dipnets take toll of the massed migration. Thus it is seen that the migration is at least one month late, if, indeed, something calamitous has not befallen the cycle. Sundry of the fishermen and dealers are shaking their heads dolefully. At fish commission headquarters they are rather weary of waiting, and are at a loss for an answer to the problem. But, since obviously there are at least a few smelt in the Columbia, we think it too soon to despair. Within the memory of man, so far as we know, there has not been a failure of smelt migration in the Columbia in any given year. We think the fish will be along. They always have been.
5 February 1947	Columbia River	<i>Oregonian</i> , p. 1, col. 6	Smelt in River; Far Short of Run. ASTORIA, Feb. 5 (Special)—There are some smelt in the Columbia river this week, but catches have been disappointing and commercial fishermen are hesitant to call it a smelt run, they said Tuesday. The total catch so far amounts to fewer than 1000 boxes, and fishermen pointed out that the Clatskanie smelt fishermen sometimes in good years handle as many as 17,000 of these 50-pound boxes of smelt a month. Some disgusted fishermen have given up looking for the long-awaited run and have gone over to salmon fishing, the fishermen's union reported.
6 February 1947	Columbia River	<i>The Kelsonian Tribune</i> , section 2, p. 1, col. 7	Large Smelt Run In Columbia. Heavy catches of smelt have been made the past few days by Columbia River gillnetters and the long awaited run of the fish apparently is moving up that stream toward the Cowlitz. About 800 boxes of the fish are reported to have been taken in the Columbia Monday. The fish have been bringing \$6.70 for a 50-lb. box
13 February 1947	Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 3	Smelt Queen Named; Fish Still Absent. Lower Columbia Junior College students proved their loyalty to tradition Tuesday by electing Miss Bonnie McLean ... Queen of the Eulachon ... Gillnetters are taking smelt in the Columbia and it is anticipated the belated run will come into the Cowlitz before long. On the other hand, they may not be found in the Cowlitz at all this year, Having missed the stream of their nativity for some unknown reason occasionally in the past.
14 February 1947	Portland, OR	<i>Oregonian</i> , p. 15, col. 2	Pink-Tinted Food Fitting For Valentine's Menus. ... Fresh smelt is becoming more plentiful and sells for around 25 cents a pound ...

Date	Place	Source	Quote
20 February 1947	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 4	HEAVY RUN OF SMELT IN COWLITZ. Smelt were in the Cowlitz River in increased numbers Wednesday and fishermen dipped more than 1,000 boxes, or 50,000 pounds of the fish. They believe the main run of the fish is in the stream. The smelt first appeared in the Cowlitz over the week end. About 400 boxes were taken but the run moved up the river rapidly and catches were light until Wednesday. The fish advanced up the Cowlitz to a point above Castle Rock. The deadline for commercial fishing is Petersen's Eddy at Sandy Bend. The stream then is closed to all fishing to a point below Castle Rock, where about a mile of the river is open for amateur fishing. He amateur limit, Fisheries Inspectors Frank Swick and Floyd Howard point out, is 20 pounds a day. No fishing, either commercial or amateur, is allowed from 8:00 A.M. Thursdays until 8:00 P.M. Saturdays.
21 February 1947	Portland, OR	<i>Oregonian</i> , p. 15, col. 6	Supplies of Fish Ample For Lenten Meal Planners. ... Columbia river smelt is a good but at 20 cents. ...
27 February 1947	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 6	Smelt Bring Throngs To River's Banks. Smelt catches have been good in the Cowlitz River this week. Commercial fishermen dipped 2400 fifty pound boxes of the fish Tuesday and 1800 boxes Wednesday after making equally large catches over the week end. The heavy run of fish and the beautiful weather attracted a throng of amateur fishermen to the banks of the river Sunday. The large turnout congested traffic on the Pacific Highway and the West Side road and kept both state patrolmen and fisheries department inspectors busy. ... Amateur fishermen are not permitted to fish above the deadline for commercial fishermen at Sandy bend except for a distance of about a mile along the river bank at Castle Rock. Bank fishing was poor Sunday but amateurs who had boats made good catches.
28 February 1947	Portland, OR	<i>Oregonian</i> , p. 23, col. 7-8 advert	Schwary's Complete Shopping Center. Smelt Columbia River lb. 9c ...
6 March 1947	Portland, OR	<i>Oregonian</i> , p. 15, col. 1	Behind the Mike with William Moyes. ... Fifty feet from the spot where smelt are being dipped out of the river at Kelso, fishermen are retailing them to passerby for 15 cents a pound. Fifty miles away—on Division st., Portland—the same smelt are selling for 11 cents a pound. (That ends the tail of the two kinds of fish—the smelt and the suckers).
6 March 1947	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 2, col. 6	Smelt Are More Elusive; Catches Light This Week. Smelt were harder to get in the Cowlitz River this week. The fish were scattered, according to the commercial dippers. Monday night only 400 boxes were taken, while the Tuesday night catch mounted to 12 boxes, but the catch per box was small. ... Great throngs of amateur fishermen gathered along the Cowlitz Sunday, but found bank fishing poor. ...
7 March 1947	Portland, OR	<i>Oregonian</i> , p. 17, advert	Kienow's Food Stores. ... Fresh Columbia River Smelt 2 pounds .. 21c ...
13 March 1947	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 2, col. 3	Smelt Catch Heavy Wed. After Lull. Smelt fishermen made their first good catches of the week Wednesday when as many as sixty boxes were dipped per boat. Other days the catch was limited to four or five boxes to the boat as the dippers sought vainly to locate smelt in any quantities. Fishermen forced the price back up to \$3.00 of a 50-pound box

Date	Place	Source	Quote
			last week end when they refused to make deliveries until the price was boosted \$1.00 and \$1.50.
14 March 1947		<i>Oregonian</i> , p. 17, col. 1	Fish Prices Down Some, First Strawberries Come. ... Prices on smelt are fluctuating, this week, being from 19 to 20 cents a pound, higher than last week. ...
16 March 1947		<i>Oregonian</i> , p. 26, col. 1-2	None For the Roses ... Of late years the limit per fisherman has been fifty pounds. Now it is proposed in the legislature to decrease this by half, and surely twenty-five pounds of smelt is enough per net for any one person in any single day. Twenty-five pounds was the limit, Mr. Brockman recalls, in 1929, when a limit was first set. Later it was lifted to fifty pounds, then to 100, and then dropped back to fifty. The old days of dipping smelt to fertilize gardens are done, we dare say, but still twenty-five pounds are enough at a time. Perhaps we are weighing our smelt before they are caught. The eulachons do not always ascend the Sandy. Sometimes they skip a year. But Sandy river Ed says the water says the water is just right for the homecoming. The fish swarm up the Sandy when the temperature of the water is not less than 42 degrees, according to Mr. Brockman's tables. These last few days it has been 43 degrees.
28 March 1947		<i>Oregonian</i> , p. 11, col. 7-8	Smelt Watch Set on Sandy. A year ago Friday the smelt made their spring visitation to the Sandy river, to the great delight of thousands of dipnet wielders and the businessmen of Troutdale. But so far in 1947 the cry "Smelt in the Sandy" hasn't sounded to send householders scurrying to the attic for nets, old birdcages, or anything that will serve to scoop out the silvery fish bound for upstream spawning grounds. In gleeful anticipation of the astronomical amounts of gasoline, hamburgers and milkshakes they can sell to smelt fishermen, proprietors of small enterprises along the Columbia river highway near the Troutdale bridge have been keeping sharp watch for the migrating eulachon. They don't turn up every year. Records kept by Edward E. Brockman, Portland printer and amateur ichthyologist, show the smelt run has occurred but 11 times since 1929. If the first smelt doesn't enter the Sandy Friday, he still won't be overdue. Two years ago the fish didn't appear until April 7. The run lasted a phenomenal four weeks, and 17,753 persons plunked down 50 cents apiece for special smelt licenses. The total catch was estimated at 3,000,000 pounds. Last year the run lasted only 11 days, but the license sale passed the 18,000 mark to break all records.
March 1947		<i>Pacific Fisherman</i> 45 (4): 67.	Columbia-Cowlitz Smelt Production Disappointing. Gillnet fishermen at Clatskanie, Ore., and dipnetters on the Cowlitz river at Kelso both report a disappointing season. Slow in appearing, the smelt have not shown up in any strength. The Clatskanie Smelt Fishermen's cooperative maintained a price of \$6.70 per box of 50 pounds, fob Clatskanie. As yet the fish have not appeared in the Lewis and Sandy rivers which have substantial runs.
27 April 1947		<i>Oregonian</i> , p. 1, col. 4	Sandy Smelt Run Out This Year. Apparently there is to be no smelt run in the Sandy river this year, experts agreed Saturday. Records since 1929 show the latest date at which the small but tasty smelt have entered the river was April 9, with runs usually coming in

Date	Place	Source	Quote
			March. Last year they appeared March 28. There have been no runs in 1931, 1933, 1935, 1937, 1938, 1939 and 1944.
April 1947		<i>Pacific Fisherman</i> 45 (5): 49.	Columbia Smelt Catch Shows Some Increase. Smelt gillnetters in the Clatskanie, Ore., vicinity landed 6,472 boxes of smelt during the 1947 season. The catch was somewhat greater than for the previous year. By stations receipts were: Clifton, 872 boxes; Wallace, 2437; Puget Island, 914; Mayger, 1011; Cathlamet, 453; Skamokawa, 91; and Kelso, 695. The Kelso landings were by gillnet fishermen operating in the Columbia river. Some 60 active fishermen caught the bulk of the fish. Their Smelt Fishermen's Association, organized as a cooperative, distributed the fish.
		Moore (1947, p. 117)	Smelt. Coming as it did, following the peak landings of wartime years, the 1947 smelt catch was discouraging. Throughout the Columbia River district, smelt were landed only by gill net in the main Columbia and by dip net from the Cowlitz River. The Lewis, Kalama and Grays rivers in Washington and the Sandy River in Oregon, all of which periodically have smelt in season, failed to produce these valuable fish in this year. Furthermore, catches in the Columbia and Cowlitz rivers were much below those of the past few years. The run was not only below normal but nearly a month later in arriving than usual. Commonly, market conditions regulate the commercial catch of smelt when the run is at peak. However, in 1947 insufficient numbers of fish were landed to take care of orders on hand at fish receiving stations. Consequently, requests were presented to the Fisheries Department to allow fishing above a commercial deadline on the Cowlitz River. After careful study of escapement to the protected spawning grounds above the present deadline, the requests were turned down in the interest of fish preservation. Biological studies of this species were continued for the purpose of future proper management of the fishery to consistently allow adequate catches and satisfactory escapement.
1948			
2 January 1948	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 5	Smelt Fishing is Actually Starting. The smelt season has not yet started in earnest but the silver fish are appearing on the mar[ket] and the tables of local people as well as in the cities. The first fish on the local market retailed for 50c but the first part of this week were priced at 32c per pound. On Monday, [December 29], several fishermen were out with their nets and the largest catch of smelt for the season was brought in. It is thought that the run will soon appear and that it is probable that fishing will start on Sunday night of this week. ...
16 January 1948	Portland, OR	<i>Oregonian</i> , p. 20, col. 3	Health Found In Vegetables. ... Smelt Run Begins. Columbia river smelt, now 30 cents a pound, are anticipated by many and the run is just beginning. ...
30 January 1948	Portland, OR	<i>Oregonian</i> , p. 21, col. 2	Fresh Fish From Alaska Appears in Mart ... Local fish on the market include Columbia river smelt at 30 cents ...
30 January 1948	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 2	Cold Weather has been Holding Smelt Back. The smelt are still in the Columbia river although it was thought earlier in the week that they might go into the Cowlitz. At one

Date	Place	Source	Quote
			time they were up the river as far as the Longview-Rainier bridge but were reported on Wednesday to have dropped back down the river and it was in the vicinity of Puget Island that most of the catches were being made. The catches are not plentiful and enough smelt have not been caught to the demand orders. The season is reported as fair and the cold water is probably the cause of the smaller catches and the reason why the smelt have dropped back in the river to the deeper holes.
3 February 1948	Portland, OR	<i>Oregonian</i> , p. 13, col. 4	Wholesale Fish. Portland wholesale quotations Friday: ... Columbia river smelt , 80-lb box ... \$8.20 ...
6 February 1948	Portland, OR	<i>Oregonian</i> , p. 16, col. 1	Citrus Fruits now Plentiful. ... Columbia river smelt are still running and are priced at 2 pounds for 35 cents. ...
12 February 1948		<i>The Kelsonian Tribune</i> , p. 1, col. 4	Smelt Queen To Be Crowned Fri. Unless a sudden run of smelt comes into the Cowlitz River Miss Donna Huggins, Castle Rock, who was chosen last Friday as the 1948 “Queen of the Eulachon” of Lower Columbia Junior College and her royal court will have to reign over the annual Eulachon ball Friday night sans any eulachons from the Cowlitz River.
25 February 1948	Cowlitz River	<i>Oregonian</i> , p. 1, col. 1	Smelt Start Up Cowlitz River. KELSO, Wash., Feb. 25 (Special)—The annual smelt run has entered the Cowlitz river, it was reported on the waterfront Tuesday, but catches were light because the stream was at a high level, making dipnet fishing difficult. The fish catch was made near the mouth of the river during the morning and commercial operators began plans for a full force of fishermen on the stream later in an effort to get a substantial catch ready for a favorable early season market. Gillnetters have been making light catches in the Columbia river for several weeks.
26 February 1948	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 2	Some Smelt Dipped In Cowlitz River. Fishermen Hope For Large Catches Coming Week End [sic]. Smelt fishermen dipped a few fish from the Cowlitz River Wednesday night, but the main run of the fish, if it is in the river, eluded the dippers until 8:00 A. M. Thursday when the weekly closed period started. About 15 boxes of the fish were taken, according to reports along the river front where fishermen are awaiting the big run. Some of the fish were dipped last week end but the muddy condition of the stream due to the heavy rains has prevented any effective search of the river for them. Fishermen are hopeful that the water will be clearer by the coming week end and that the smelt will be in the river in large numbers. Fishing can be resumed at 8:00 P. M. Friday.
27 February 1948	Cowlitz River	<i>Oregonian</i> , p. 12, col. 1	Smelt in the Cowlitz. The smelt are in the Cowlitz, the fishermen say, but the water is high and the catches are light. Time will remedy it, and the Cowlitz undoubtedly will prove as prodigal as ever in this fishery. That’s good. Providence never designed a better small fish than the admirable eulachon. Moreover the supply of these fish is so generous that what might have been a rich man’s delicacy, a gourmet’s delight, is a poor man’s fare. It is devoutly to be hoped that the smelt will ascend the Sandy—nearby to our town—this season. There was no Sandy river run last year; at any rate it wasn’t large enough to qualify as a migratory return. This page dismisses as idle fantasy the theory

Date	Place	Source	Quote
			that when Milt Fox, the storekeeper, went away from Troutdale, traditional smelt fishing headquarters, the sensitive little fishes stopped using the Sandy. If you ask Ed Brockmann, sometimes called “Sandy River Ed” for the fidelity with which he has championed the smelt run and toiled as its historian, he will tell you that the smelt will be in the Sandy when and if they arrive. “Quana! Quana!” the escort of gulls will be crying as the myriad of fishes turns into the flow of the snow water. And, naturally enough, somebody always is first to discover them. You are an old-timer now if you remember, as few do, when a burly small boy, Linn Richardson, ran breathlessly up from the river, shouting “Smelt are in the Sandy!” It was then the function of Merchant Fox to phone this newspaper. Journalism dusted off the birdcage joke and was ready for an annual epic. Usually the farthest upstream migration of the smelt on the Oregon shore is the mouth of the Sandy river, but there have been seasons when the fish traveled farther. They used to go as far as Cascade locks, or present Bonneville, and it was there that the game commission once netted a lot of them for trout hatchery food. In the Sandy itself the eulachon have pursued their bridal adventure as far upstream as Gordon creek, but customarily the vanguard goes no farther than Viking park, if so far. The astronomical numbers of those eggs—incalculable— with an average of 25,000 per she fish—but why are the fry never seen? These are fishes as minute as the point of a cambric needle. They cannot be seen unless taken in plankton nets. In their time they swarm downstream, and that first mother, the sea, she receives them. Will you call us when the smelt are in the Sandy, as of old days?
27 February 1948	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 6	Smelt Look, then Shy from Cowlitz. The silvery little smelt may be toying with the Cowlitz but commercial gillnetting operations are continuing in the Columbia by local fishermen and good catches are being made with the prospects that the local season will top all seasons since records have been kept. Advices from Longview are that the first smelt to enter the river this year were spotted in small numbers in the river Monday [23 February] afternoon but the waters were high and it was practically impossible to locate the fish in any numbers. However, it seems they then withdrew from the Cowlitz and are back again in the Columbia. The season is now over two weeks later than the usual time when they enter the Cowlitz and the gillnetting operations season on the Columbia ends and the smelt center shifts from Clatskanie to Kelso.
2 March 1948	Cowlitz River	<i>Oregonian</i> , p. 4, col. 1	Smelt Fishing Proves Fair. KELSO, Wash., March 1 (Special)—Smelt fishing was reported fair along the Cowlitz river Sunday, with commercial fishermen making substantial catches from the swift waters between the Kelso bridge and Lexington. The main attraction, however, was the hundreds of bank dippers who flocked here from all over western Washington and northern Oregon to try their luck at dipping their limit of 20 pounds of the tiny fish. The West Side highway, which follows the banks of the river north from Kelso, was jammed with traffic throughout the day.
4 March 1948	Cowlitz River	<i>The Kelsonian Tribune</i> ,	Smelt Elusive As Water Is High. High water conditions and continuous rainy weather

Date	Place	Source	Quote
		p. 1, col. 6	have not been conducive to smelt dipping, according to commercial fishermen and others who have been dipping smelt in the Cowlitz waters near Kelso. With the subsiding of the rain, it is expected that the smelt run will reach its full force. [sic] ... early take as extremely light. ...
4 March 1948	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, picture caption	Smelt Are In. Although a great many of them went home disappointed, there were smelt fishermen aplenty on the banks of the Cowlitz Sunday as word got around that the long overdue smelt run was here. The rumor was only partly correct—for the run was small and consisted of females, which fishermen say means that the fish remain scattered and are hard to dip—but that did not damage the ardor of the hundreds who swarmed the banks from early Sunday morning to late that night. ...
11 March 1948	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 6-7	Smelt Run At Record Peak, Nightly Catches 3,000 Boxes. With the heaviest run of smelt in many years in the Cowlitz River there are no arguments over Kelso's claim to being the smelt capital of the world. More than 3,000 50-lb. boxes of smelt have been dipped each night this week, according to the state fisheries inspectors, who have not been able to keep their records up to date because there have been so many fish to check and so much other work to do. The Cowlitz is jammed with fish from its mouth to the deadline at Petersen's Eddy and more fish are pouring into the stream from the Columbia, it was reported Thursday. Fishermen are catching their limit of 70 boxes of fish a day for which they are now receiving \$1.50 net. The nightly catch has been running from 150,000 to 200,000 pounds, it is estimated. A large portion of the smelt are being frozen for storage. Amateur fishermen have also been having good success. ... Another huge throng of visiting fishermen is expected next Sunday.
12 March 1948	Portland, OR	<i>Oregonian</i> , p. 19, col. 1	Vegetable, Fruit, Meat Prices Unaltered; ... Prices of fresh vegetables, fruits and meats seem to be biding their time the past few days, but one favorite Lenten food, Columbia river smelt, has enjoyed a substantial drop of 10 cents to the present retail price of 20 cents a pound. Whether fried, baked, with crumbs or broiled, they are delicious. Newport smelt, larger in size, are 30 cents a pound. Still, another member of this family Osmeridae, found locally, is the tiny silver smelt from Puget sound, also 30 cents, considered a delicacy by those who have the patience to clean them.
12 March 1948	Cowlitz River	<i>Oregonian</i> , p. 26, col. 5	Smelt Sag Nets Of Bank Dippers. KELSO, Wash., March 10 (AP) The run of smelt in the Cowlitz river, in its third week Thursday, is so heavy amateur bank dippers near Lexington had trouble lifting their nets from the water. Commercial dippers made arrangements for a local quick freeze plant to begin packing and freezing smelt.
16 March 1948		<i>Oregonian</i> , p. 4, col. 2	Sandy River Smelt Planted. A third year of experimental planting was finished Monday by Irvine French, director of hatcheries for the state fish commission, when he transplanted 18,000 smelt from the Cowlitz river in Washington to the Sandy river in Oregon. Previously the hatchery director had transplanted 8000 smelt from the Cowlitz to the Sandy in 1946 and 2000 in 1947. Purpose of the experiments, said French, is to establish an additional run of the silvery food fishes in the Sandy. The populations of

Date	Place	Source	Quote
			smelt in the Cowlitz are earlier spawners than those which run the Sandy, French said, and it is hoped that if the resultant broods from the transplanted fish come back to the Sandy where they are hatched, an earlier run in the Oregon stream will be established. Smelt Expected Soon. Smelt have not made their spawning trip to the Sandy this year, although the fish commission is hoping to hear that the vanguard of the spawners will appear in the Sandy any day now. Milo D. Moore, director of fisheries for the state of Washington, has been co-operative in the Sandy experiment by authorizing transfers of eulachon from the Washington stream.
18 March 1948	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 5	Smelt Catches Continue At 3,000 Boxes. Smelt catches continued heavy this week with all fishermen taking their limits of 70 boxes or more daily, and the catch running around 3,000 boxes a day. Bank dippers have also been making good catches. Many of the fish are being frozen. Mansfield's Food Products, West Kelso, and Ecco Frozen Foods, Longview, are both freezing smelt and large shipments of the fish are going to freezing plants elsewhere in the Northwest.
18 March 1948		<i>The Kelsonian Tribune</i> , p. 1, col. picture caption	Truman Gets The Smelt. President Truman receives gift of smelt from the Kelso American Legion, Congressman Russel V. Mack, left, and Senator Harry Cain, right, making the presentation. (United Press Photo)
18 March 1948	Transplant to Sandy River	<i>The Kelsonian Tribune</i> , p. 4, col. 2	Cowlitz Smelt Planted In Sandy River. Eighteen thousand pounds of live Cowlitz River smelt were taken from the local stream the past few days by Irvine French, director of hatcheries for the state of Oregon, and planted in the Sandy River near Portland. Purpose of the experiments, said French, is to establish an additional run of the silvery food fishes in the Sandy. The Cowlitz smelt are earlier spawners than those which run the Sandy, French said, and it is hoped that if the resultant broods from the transplanted fish come back to the Sandy where they are hatched, an earlier run in the Oregon stream will be established. Smelt have not made their spawning trip to the Sandy this year, although the fish commission is hoping to hear that the vanguard of the fish will appear in the Sandy any day now. Last year, 2,000 lbs. of smelt were transferred from the Cowlitz to the Sandy and in 1946 8,000 lbs. of the fish were transplanted.
19 March 1948	Portland, OR	<i>Oregonian</i> , p. 19, col. 3	Specials in Vegetables ... Smelt from the Columbia are still going down in price. Cleaned smelt are 36 cents a pound and whole smelt are 15 cents. ...
24 March 1948		<i>Oregonian</i> , p. 10, col. 4	Run of Smelt Die in Sandy. Fans Keep Eye On Little Fish. Thousands of Oregonians who have dipped smelt out of the Sandy river in other years, are hoping to hear that the silvery fish are on their way again this spring to their traditional spawning grounds. Mike Hoy, secretary of the state fish commission, reported Tuesday. Large schools of the eulachon have been seen off the mouth of Lewis river 40 miles down the Columbia from Vancouver and there has been a large run in the Cowlitz during the past few weeks. It's getting close to the deadline when the smelt can be expected to come farther up the Columbia and turn into the Sandy. The migration from the sea arrived in the Sandy April 1, in 1945, and March 28, in 1946. They didn't come in at all last year.

Date	Place	Source	Quote
28 March 1948	Sandy River	<i>Sunday Oregonian</i> , p. 1, col. 4	Sandy River Smelt Return To Old Haunt. Pictures on Page 27. TROUTDALE, March 28 (Special)—Smelt began a heavy run up the Sandy river Saturday evening [27 March] and this little community, traditionally the center of one of Oregon's great fish spectacles, made ready to play host Sunday to the usual throngs of dipnetters. Officials of the state game commission moved swiftly to set up license stands to accommodate the public. The fee is 50 cents and the smelt fisherman is limited to 25 pounds a day and restricted to use of a dipnet or similar device. By state law no smelt fishing can be done in the Sandy between the hours of midnight of any Sunday and midnight of the following Monday, giving the spawning smelt a 24-hour free pass upstream. First Seen at 2 O'clock. The first silvery eulachons of the season were spotted about 2 P. M. by Harris Quade, operator of the Sundial beach resort, in the Columbia river by the bar at the mouth of the Sandy. He described the run as "unusually heavy." Notified of the arrival of the little fish, State Patrolman D. A. Petrie, who also acts as state game warden for the area, supervised the dipnetting of a small area to establish the run. In about five minutes Quade raised the legal 25-pound daily limit of smelt and established to the satisfaction of all that the run was in full force. "I'd say that the fish are larger than in recent years," Quade said. "It's a cinch there are more of them than in 1946."
29 March 1948	Sandy River	<i>Oregonian</i> , p. 1, col. 3-4	Big First-Day Run Slated To Increase, Experts Hold. By Pat Frizzell, Staff Writer, The Oregonian. A silvery horde of smelt thronged the Sandy river Sunday, and thousands of eager fishermen and would-be fishermen descended on Troutdale and vicinity, brandishing dipnets of every size, shape and variety. It was a happy Easter for the smelt-seeking citizens. The famed eulachons were so numerous many dipnetters collected the daily limit of 25 pounds within half an hour. Consensus of old-timers was that the present run, first in the Sandy for two years, compared favorably with storied smelt sprees of the past, numerically at least. Some thought the fish were smaller than in other years, however. A few recalled the "good old days" when "you could just scoop 'em up by the handful without a net or anything." Experts View Amateurs. Commercial fishermen, who couldn't do anything but watch the amateurs Sunday, said it was a big run. "There are as many or more smelt than at any time in my 22 years here, for the first day," declared Steven Splawn, Gresham, veteran commercial fisherman. "They may not be quite as large as sometimes, but they should get bigger later on." Paul Mumpower, Troutdale, who was engaged in a booming net-selling business, said it was the heaviest first-day run he had seen in 20 years. He pointed out the run usually reached its peak about the third day. For commercial fishermen in general, the run got off to a frustrating start. Because there were no smelt last year, many did not purchase new licenses. When the run began, it was Saturday afternoon—and commercial licenses couldn't be bought between Saturday noon and Monday morning. State Law Governs. By state law no smelt fishing may be done in the Sandy between the hours of midnight of any Sunday and midnight of the following Monday. Thus many of the commercial fishermen, who do

Date	Place	Source	Quote
			most of their work at night, won't get a chance at the smelt until the early hours of Tuesday. Whether the smelt run was greater or lesser than in past peak years, it seemed fairly certain the crowd which swarmed into Troutdale and environs for an Easter attack on the silvery invaders established an all-time one-day record. There was no way to tell, for sure. By midafternoon however, approximately 7000 amateur licenses had been sold, at 50 cents each, according to G. H. Phillips, state game commission employe[e]. Estimates Range High. Some estimates of the number of persons who visited the vicinity ran as high as 30,000. It seemed apparent there were at least 15,000. Many went to watch, not to fish. Almost every available rock was occupied as the dipnetters sought out the smelt. The ambitious "fishermen" brought washtubs, buckets, sacks and boxes, and whole families filled them in short order. State police weighed the hauls, and some were found too heavy. The extras were confiscated. One man came up with a 90- pound catch, all by himself—and no license—State Patrolman Ellsworth Herder reported. By 10 A. M. automobiles were packed solidly, two abreast, on roads all around Troutdale. For a while, one-way traffic was the rule. At 4 P. M., cars were packed solidly, some in double lines, for more than 3 miles west of Troutdale on the Columbia River highway.
30 March 1948	Sandy River	<i>Oregonian</i> , p. 1, col. 6-7	Spoiled Smelt Spurs Study Of 'Normal' Fungus Complaint. Announcement that one Portland major food retailer has stopped selling smelt because of a suspected bacterial or fungus condition which causes rapid spoilage sent Oregon state game commission biologists hurrying to the Sandy river Monday to net specimens of the little fish for laboratory examination. Spokesmen for a food store chain said smelt from the Cowlitz and Lewis rivers are spoiling before they can be put in the frying pan, despite the firm's best efforts to expedite delivery from commercial fishermen to retail outlets. Fungus Condition Normal. Commercial fishermen, however, said the situation is not unusual. During the final days of every smelt run, they pointed out, fishermen have noticed fish bearing the characteristic black-spots on their backs and sides known to the trade as "smelt fungus." This condition, they said, causes fish to spoil quickly after removal from the water and is usually the signal to halt commercial fishing. Dr. Paul Needham, chief biologist for the state game commission, said his office didn't expect to find anything abnormal with the Sandy smelt. "Smelt normally lose 'condition' rapidly when entering fresh water on their spawning migration. This year's Sandy river run is late, and it may be the deteriorative process already took place while the smelt were in the Columbia river." Run Started Saturday. A laboratory report on condition of the sample smelt taken from the river should be ready Tuesday, Dr. Needham said. Both he and Arnie J. Suomela, master fish warden for the state fish commission, emphasized that presence of fungus would not mean the smelt were diseased or unfit to eat. The only effect of the condition would be the keeping qualities of the fish, they said. Smelt began running heavily in the Sandy Saturday night. The fish commission reported sale of 23 licenses at

Date	Place	Source	Quote
			\$5 each to commercial fishermen, each of whom had to pay an additional \$5 for a special license to dip. The licenses expire annually at midnight March 31, so commercial fishermen who want to take smelt from the Sandy must pungle up another \$10 Thursday morning.
31 March 1948	Sandy River	<i>Oregonian</i> , p. 1, col. 1-3	Sandy Smelt Ruled Toothsome as Ever; Nothing Wrong, Official Biologists Say. The state game commission and the state fish commission moved Tuesday to squelch rumors that smelt from the Sandy river are infected with fungus and unfit for eating. Action of a Portland food chain which Monday discontinued sale of smelt when fungus spores were found on fish from the Cowlitz river precipitated the “scare.” “Sandy river smelt are in prime condition—the slight presence of fungus is only normal—fungus is not poisonous and does not make fish inedible”—were the official words from game and fish commission officials following tests by their biologists Monday afternoon and Tuesday morning. Two Officials on Job. The spreading rumors flooded newspaper, fish and game commission offices with telephone calls, but had no effect on migration of the fish, pouring up the Sandy in what one observer said was one of the greatest runs in 36 years. Neither did they affect the gathering of thousands of commercial and sport fishermen on the Sandy early Tuesday as fishing was resumed after a statutory 24-hour “truce” to permit smelt to move unmolested upstream. Arnie J. Suomela, master fish warden for the state fish commission, said Donald McKernan, director of research, sampled many smelt Tuesday morning during routine research always conducted during smelt runs. Few smelt were found with fungus spots. McKernan estimated these fish at less than one tenth of 1 per cent, a proportion about normal. Suomela pointed out that some smelt, like salmon, are bruised in upriver spawning migration and that fungus spores begin to grow when the fish enter warmer waters of the spawning streams. Fungus becomes more prevalent as the time of the spawning run extends and is easily distinguishable by presence of black spots on the fish. Commercial fishermen usually halt seining at this time. Smelt began running in the Sandy river Saturday afternoon. The fish have been in the Cowlitz river more than a month. Officials said they felt the “fungus scare” was unfortunate and probably resulted in needless wastage of many smelt. Scare Seen Unfortunate. “There is nothing wrong with them. They are fine and healthy, and there is no reason for any person to have any fear about eating them,” said Dr. Paul Needham, chief biologist for the commission. Dr. H. J. Rayner, chief biologist in charge of disease and nutrition work, made a thorough study at the Sandy Monday and Tuesday. Observers along the Sandy said the run may set a record. Al Raab, who has watched runs for 36 years, said it is one of the heaviest he has ever seen. He watched the fish from the Columbia River highway bridge near Troutdale for 45 minutes Tuesday morning and said he saw no break in the millions of smelt moving upstream. Dr. Needham said the fish average about 12 to the pound and that 300 smelt will weigh about 25 pounds, the daily limit. Some arrests were being made for violation of the limit and failure of fishermen to purchase the 50-cent

Date	Place	Source	Quote
			licenses sold at the river by game enforcement officers.
31 March 1948	Portland, OR	<i>Oregonian</i> , p. 16 advert	Holgate Farms. ... Fresh Smelt 3 lbs. 25c
1 April 1948	Sandy River	<i>Oregonian</i> , p. 1, col. 2	Smelt in Sandy Getting Scarcer. The Sandy river smelt run is tapering off, streamside observers reported Wednesday. Commercial fishermen made good catches at Troutdale Tuesday night, but many amateur dippers Wednesday found it difficult to take their daily limit of 25 pounds. Ed Brockmann, Portland printer and a student of smelt habits for many years, said he believed the major run is over but that stragglers probably will continue to come in from the Columbia river for several days more.
2 April 1948	Portland, OR	<i>Oregonian</i> , p. 21, col. 3	Variety of Herbs, etc. ... Market Offers Smelt. For those who didn't have the fun of dragging their own nets for Sandy river smelt, the markets are offering them at 10 cents a pound or two for 25 cents. ...
3 April 1948	Sandy River	<i>Oregonian</i> , p. 1, col. 3	Smelt Fill Sandy With New Run. TROUTDALE, April 3 (Special)—Smelt fishing in the Sandy river took a spurt Friday with the arrival of a large new school of the silvery eulachons from the Columbia river. Milo Coons, veteran river observer, reported the new run to the state fish commission in Portland early in the day. He said the fish apparently entered the Sandy after midnight and by dawn were filling the river bank to bank at the highway bridge. The run of smelt has fluctuated in the past two days, a fish commission spokesman said, and at one time appeared to have only a matter of hours to go. The sporadic nature of the present run is not unusual, it was stated, as in past years rearguard schools often have made their appearance after the crest was reached. License sales passed the 22,000 mark at noon Friday, the state game commission reported, and this is an all-time record, surpassing the previous record of 19,800 in 1946. The licenses are 50 cents each, the funds going to the treasury of the game commission.
4 April 1948	Sandy, Columbia rivers	<i>Oregonian</i> , p. 1, col. 7	Smelt Found Far Up River. Smelt were still being dipped from the Sandy river late Saturday, and also from the Columbia river on the Washington side just below Bonneville dam. The fish had been sighted on the Oregon side below the dam, but nobody dipped there Saturday, according to Multnomah county sheriff's office. Capt. Ard Pratt of the sheriff's staff, who has been on the smelt detail for 22 years, declared the smelt being taken from the Sandy were fish that remained in the lower reaches of the stream to spawn. No more fish were coming into the river, Pratt said, but dippers were still getting the limit, a fish or two per dip, with frequent misses. Schools Spread Out. Presence of the little fish as far up the Columbia as Bonneville is a novelty, but it has happened before, according to Edward E. Brockmann, who has been studying the fish as a hobby for many years. He explained that when the run is heavy, the schools tend to spread out and some of them pass the main spawning streams. There were smelt at Bonneville in 1945 and 1946, according to Brockmann, and in 1930 smelt were found in no less than 11 streams on the Washington side of the Columbia. They are too light, he said, to ascend the Bonneville fish ladder. Brockmann pointed out that if the smelt should ascend Tanner creek into the fish hatchery pond a rare opportunity would be provided to

Date	Place	Source	Quote
			observe their spawning.
6 April 1948	Sandy River	<i>Oregonian</i> , p. 1, col. 4	New Smelt Run In Sandy River. A new run of smelt is in the Sandy river. The new run is as large or larger than the first run, according to Multnomah county deputy sheriffs and Paul Mumpower, commercial dipper. The second invasion entered the river late Monday afternoon at a time when veteran observers were forecasting the 1948 run, in its ninth day, was virtually ended.
7 April 1948	Sandy River	<i>Oregonian</i> , p. 1, col. 2	Smelt Continue In Sandy River. Smelt were still in the Sandy river Tuesday and people were dipping them out. But the dippers had dwindled to a mere scattering according to the sheriff's office. The new run reported by several observers Monday night was extremely short-lived, if it was a run, an investigator for the sheriff's office said.
7 April 1948	Portland, OR	<i>Oregonian</i> , p. 22 advert	Holgate Farms. Fresh Smelt ... 3 lbs. 25c
8 April 1948	Sandy River	<i>Oregonian</i> , p. 1, col. 4	Smelt Run Over, Deputies Report. The smelt run in the Sandy, one of the most abundant in years, is definitely ended, the Multnomah county sheriff's office reported Wednesday. Only about 50 fishermen turned out Wednesday to dip for the slippery eulachons, and they were finding virtually nothing but a few dead fish floating down river after spawning, sheriff's deputies reported. More than 32,000 dipping licenses at 50 cents each have been sold to date, 12,000 more than the previous all-time record of 19,800 sold in 1946, the state game commission reported late Wednesday.
9 April 1948	Portland, OR	<i>Oregonian</i> , p. 21, col. 3	Crisp Greens, etc. ... filled to the gills with Sandy smelt, either by net or by neighbor, or by 15 cents a pound, something different is desirable for Friday fare ...
10 April 1948		<i>Oregonian</i> , p. 3, col. 2	Continued From Page 1. ... in excess of 32,000 smelt licenses have been sold this year at 50 cents apiece and that the sale continues, although the present run of the eulachons has dwindled to a trickle. Highest number of licenses sold in any previous year was 19,800 in 1946. ...
11 April 1948	Sandy River	<i>Oregonian</i> , p. 16 picture	Nets Still Getting Sandy Smelt. [photo caption]. Bob Emra, Gresham, shows net full of smelt dipped Saturday from the life [sic] trap on his barge to demonstrate that the 1948 smelt run in the Sandy river at Troutdale is still continuing. The small fish could be observed Saturday in the water, still going upstream to spawn. Commercial fishermen said best catches were at night and early morning.
April 1948		<i>Pacific Fisherman</i> 46 (5): 83.	Cowlitz Smelt Late But They Came Heavily. The 1948 run of smelt did not strike-into the Cowlitz River until so late in the season that rivermen were wondering if a failure wasn't to be experienced; but— When they hit it was with a whirl which saw a heavy catch made in a week. Under the impact of landings almost without limit, quantity buyers of smelt got them for \$1.50 per box, net, at Kelso. Substantial quantities of the little fish were frozen at Astoria, notably by the New England Fish Co. and Paragon Packing Co. Most of the smelt were frozen round, cello-wrapped in 5-lb. cartons; but those ordered for the California market were put-up in the dressed pack developed for Army buying during the war.
		Anderson (1948, p. 37)	Smelt. Once again the smelt run was nearly a month late in arriving to the Columbia

Date	Place	Source	Quote
			River and its main smelt tributary, the Cowlitz. However, the unprecedented numbers of fish which finally were available to commercial dippers and gill netters brought about a catch of over 3,000,000 pounds. This poundage was exceeded only in two years of the past thirteen, according to the statistics of this Department. An exceptional run occurred in the Cowlitz River and Lewis River in Washington, though of short duration in the latter. Also a good run entered the extremely unpredictable Sandy River in Oregon. One spawning ground survey made by rubber boat during the peak of the season on the Cowlitz River revealed that spawning smelt were so thick in places they were crowding each other clear to the banks of the river. No estimate of the sport take of smelt is possible to obtain at present, but there is no question that it reaches many hundreds of thousands of pounds. Since adequate numbers of spawning individuals were able to migrate beyond the fishing deadlines in both the Cowlitz and Lewis rivers, it is believed that present regulations governing closed seasons and areas are sufficiently protecting the stock.
1949			
24 December 1948	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 1	First Smelt of the Season are Netted. Ray Jolma and Hans Hurula received the laurels this year for bringing out of the waters of the Columbia the first smelt. Both fellows got the little silver fish Monday [20 December] afternoon. Jolma counted 50 and Hans Hurula 24. They ate them.
27 December 1948	Columbia River	<i>Oregonian</i> , p. 9, col. 6	SMELT IN COLUMBIA. LONGVIEW, Wash., Dec. 27 (INS)—Appearance of the first smelt was a Christmas gift to gillnetters in the Columbia river and a marketable number of the fish is expected to appear soon.
27 December 1948	Columbia River	<i>Eugene Register-Guard</i> , p. 1, col. 7	FIRST SMELT SEEN. LONGVIEW, Wash.—(U.P.)—First smelt of the season have entered the Columbia River, fishermen reported Monday. Gil[l]netters Bay Jolma and Hans Hurla of Clatskanie, Ore., took some of the fish and said they expected marketable numbers soon.
13 January 1949		<i>The Kelsonian Tribune</i> , p. 3, col. 3	Many Want Information About Smelt. Many inquiries regarding the date when the smelt will be in the Cowlitz River have been received by the Kelso Chamber of Commerce ... The main run of the fish usually shows up in the Cowlitz in February, with the 9th of that month the average date, but sometimes they are later or earlier. As a rule a “scout” or early small run of smelt comes into the Cowlitz in December, but they were not detected, though the presence of a considerable number of seagulls in the area last month may have resulted from the smelt being in the stream without being found. ...
19 January 1949	Columbia River	<i>Eugene Register-Guard</i> , p. 2, col. 4	Smelt Running? Netters Waiting. PORTLAND — (AP) — Smelt may be running in the Columbia River but gillnetters are waiting for the ice to get out of the way. A few smelt showed up just before the freeze. When chunks of ice began drifting down the river and nets began freezing, the 100 or more gillnetters who market through the smelt fisherman’s exchange of Clatskanie found the work too difficult, and postponed their fishing.

Date	Place	Source	Quote
10 February 1949	Cowlitz River Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 5	Some Smelt Were Seen In Cowlitz. Some smelt were in the Cowlitz River the weekend of January 28, but it was during the closed period and none were dipped by commercial fishermen. In fact, they were so scattered that dipping would not have been profitable, it is said. A few of the smelt were taken, according to Paul Plebuch, veteran local smelt fisherman. Some smelt are also reported in the Lower Columbia and now that the cold weather is over it is thought the fish may move up the Columbia rapidly. ...
18 February 1949	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 3	Smelt are in the Columbia. The smelt are in the river. They appeared in marketable numbers Wednesday [17 February]. Thursday morning's weighing at the Smelt Fishermen's Association receiving station was 100 pounds of the little silver smelt, for the Wednesday afternoon and evening catch. Prior to that time a few smelt had been caught but had not been sent to the market, the largest amount to the Wednesday catch was Tuesday night when fishermen got between 40 and 50 smelt per drift and this indicated that the run might be approaching. Weather conditions made large scale gillnetting operations impossible. Commercial fishermen at Longview reported Wednesday that the smelt were beginning to appear in the Columbia near Puget Island and Stella. There would be no fishing Thursday night according to the law but the fishermen are expected to go out Friday night. The smelt some years appear in late December and usually January and February are good fishing months for them. Predictions are varied as to what the weather conditions effect will be on the catches for the season.
3 March 1949	Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 1	Smelt Feed Pleases Legislators. River Trip, Banquet Advertise Kelso's Smelt Industry. ... the smelt, more than a month behind schedule, were still loitering some 20 miles down the Columbia River [from the Cowlitz River].
10 March 1949	Cowlitz River (Walla-Walla, WA)	<i>Walla-Walla Union Bulletin</i> , p. 5, col. 5	Longview-Kelso 'Birdcage Brigade' Discouraged as Smelt Fail to Appear. KELSO, (AP)—The Longview-Kelso "birdcage brigade" is getting discouraged. Here it is March 9, and there still are no smelt in the Cowlitz river. The annual run has not materialized. The amateur and commercial dippers alike are wondering if it ever will. Usually the smelt are in the river far before this time. On rare occasions they have not appeared at all, so there is a possibility that 1949 will be a year of darkness and disappointment to the thousands of smelt fanciers of the Cowlitz region. Even the seagulls appear disconsolate. They have been in the community for the past month, apparently on the watch for the toothsome eulachon on which they feed in tremendous numbers. But if they want smelt, they must do as the commercial fishermen do. Seek them in the Columbia river. Where the smelt will go from the Columbia is anybody's guess. The biologists of the state fisheries department insist they have to go someplace to spawn.
16 March 1949	Portland, OR	<i>Oregonian</i> , p. 12, col. 5	Wholesale Fish. Portland market quotations ... Columbia river smelt ... 15 and 17c ...
17 March 1949		<i>The Kelsonian Tribune</i> , p. 1, col. 2	Wily Smelt Stay Away From Cowlitz. Hundreds of fishermen and thousands of would be spectators still wait for the smelt to enter the Cowlitz River, but are about to "give up the ship." Some fish are playing about the mouth of the Lewis River today, and old time

Date	Place	Source	Quote
			fishermen expect they will be getting them in that stream within a few days.
18 March 1949	Portland, OR	<i>Oregonian</i> , p. 6, col. 5	Market Wise. ... Fish is another protein food of interest now. Little smelt, fresh from the Columbia, sell from 15 to 25 cents a pound and 38 cents a pound, cleaned. ...
18 March 1949	Columbia River	<i>Oregonian</i> , p. 14, col. 3	Smelt Catch Gluts Market. ASTORIA, March 17 (Special). The heaviest run of smelt in many years has overloaded the fresh fish market, plunging the price for 50 pounds from \$5 down to \$3.50 within a few days. As a result, the smelt fishermen's exchange at Clatskanie Wednesday announced it was closing operations for the season and letting each gillnetter "fish for himself." The record size of the catch has resulted in the dumping in of more smelt than the consumer market normally can absorb. Ordinarily the market is not glutted until the silvery fish move into the tributaries of the Columbia where dipnetters swing into action. Run Moves Upstream. Less than half of the available gillnetter fleet could easily supply the current fresh fish market needs, according to veterans. In recent years all smelt caught by the gillnetters has gone to the Clatskanie fishermen's exchange which managed heretofore to maintain the price at a steady figure. By Thursday the current run of smelt in the Columbia was reported to have moved upstream from the Clatskanie region and into the neighborhood of Kalama. No runs have been reported in any of the tributary streams, however. The smelt fishing season at Clatskanie lasted later than usual this year because the run was later than usual in arriving.
18 March 1949	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 4	Smelt Season is Ended in the Columbia. The Clatskanie Smelt Fishermen's association closed its books for the 1949 season on March 10th, although member fishermen and independents are still gillnetting the little silvery fish and doing their own marketing. The season officially started this year on February 16 although some were caught before that date and the season has been termed very good considering its length. Prices received for the smelt were the same as last year, 10c a pound to the fishermen after the first week when they received 20c per lb. Owing to the lateness of the season and the fact that the smelt cannot be shipped so great a distance, the association closed its doors. The independent fishermen state that the catches are still good, however, but that the run is farther up the river now. The smelt have not entered the Cowlitz or any other Columbia river tributaries as yet this year.
19 March 1949	Lewis River	<i>Oregonian</i> , p. 1, col. 4	Big Run of Smelt Brings Price Skid. Wholesale smelt prices in Portland dropped 4 to 5 cents a pound Friday as the heavy Columbia river run continued and the small fish moved into the Lewis river at Woodland. The 1949 smelt run apparently bypassed the Cowlitz river as the fish moved up the Columbia and into the Lewis. This is the first tributary stream entered by the silvery eulachons. Ordinarily, three weeks elapse between the beginning of the Lewis run and the time the smelt enter the Sandy river. Fisheries Inspector Frank Swick warned that no fishing for smelt would be permitted until 8 p. m. Saturday because of the weekly closed period in Washington. Gillnetters reported good catches were being made in the Columbia off the Lewis river. Wholesalers quoted \$4.50

Date	Place	Source	Quote
			to \$5 a 50-pound box to Portland retailers Friday. The retail price was 15 cents a pound in some markets.
20 March 1949	Lewis River	<i>Oregonian</i> , p. 32, col. 3	River Ramblings. By Lawrence Barber, Marine Editor, The Oregonian. ... Smelt Run in Lewis. A light smelt run started Friday in the Lewis river, but Washington law prohibits the netting of these fish Friday and Saturday. Sunday will be the first day catches will be permitted. The limit is 20 pounds per person, and no license is required in Washington.
21 March 1949	Lewis River	<i>Oregonian</i> , p. 1, col. 4	Smelt Run Draws Dipnetter Horde. WOODLAND, Wash., March 21 (Special)—Smelt-hungry dipnetters had a field day here Sunday as a heavy run of smelt swam up the Lewis river. John Youngman, a Woodland sporting goods store proprietor, said first smelt entered the river Friday morning. Washington law requires closure of netting for smelt from 8 p. m. Saturday each week during runs. Thus the first crack the netters had at the run came Saturday night. Youngman said about 50 commercial fishermen worked through the night, but he had no estimate of the weight of fish taken. After daybreak Sunday hundreds of dipnetters began moving along the river's bank. Many of them took the 20-pound limit, although netting conditions were poor with the river high and water clear. Youngman said the smelt were "a little wild" which also hampered netting. Better dipping conditions will exist Monday, he predicted. In the Lewis the smelt have only 17 miles in which to move after they leave the Columbia. Ariel dam, owned by Pacific Power & Light company, is 17 miles from the river's mouth. Smelt were in the Lewis three weeks in 1948, Youngman said.
22 March 1949	Lewis River	<i>Oregonian</i> , p. 17 picture caption	Smelt Arrive in Lewis River, and So Do Fishermen. A strong run of Columbia river smelt turned into Lewis river Friday and moved up the north fork, bringing out a horde of fishermen, who dipped for them from boats and banks Sunday near Woodland, following a 36-hour closed period Friday and Saturday. Many dippers took the legal limit of 20 pounds each. Two score commercial fishing boats also were there starting work at 8 p. m. Saturday, the end of the closed period. Woodland authorities said they thought the run would continue several days, if not two or three weeks. Still 40 miles from Sandy river, run is not expected there for several weeks.
25 March 1949	Sandy River	<i>Oregonian</i> , p. 1, col. 7	Smelt Hordes Reach Sandy. It's finally happened. After the usual seasonal false alarms the smelt have actually begun to run in the Sandy, Harris Quade, unofficial oracle of the Sandy, announced at 7:32 p. m. Thursday [24 March]. That's when he dipped the first full net of smelt from the mouth of the river, he said. Later he dipped more of the eager eulachons from the float at Sun Dial beach, which he operates, Quade said. The sheriff's office, official keepers of the smelt, were notified and confirmed the run, which was just getting under way Thursday night. The run started March 26 last year and March 28 in 1946, Quade said. Last year 32,170 smelt dipping licenses were sold for 50 cents each, a new record. State law prohibits snaring the silver snacks from midnight of any Sunday to midnight of the following Monday and limits the catch to 25 pounds per day per person. Otherwise no holds are barred.

Date	Place	Source	Quote
25 March 1949	Portland, OR	<i>Oregonian</i> , p. 7, col. 5	Market Wise. ... Not very often does the housewife get the opportunity to buy 3 pounds of fish for 29 cents as delicious as Columbia river smelt. ...
25 March 1949	Portland, OR	<i>Oregonian</i> , p. 12, col. 8	Wholesale Fish. Portland market quotations. ... Columbia river smelt ... 6 and 8c
26 March 1949	Sandy River	<i>Oregonian</i> , p. 1	Dipnets in Action as Smelt Make Sandy River Debut. [Picture caption] Troutdale became a fishermen's Mecca Friday morning when the magic news spread that the smelt were running in the Sandy river. Photographer Frank Starrett aimed his camera upstream from the Columbia River highway bridge to catch this view of eager dipnetters lining the river banks. Everybody was catching fish, but the luckiest fishermen were those who found standing room on rafts or rocks out from the shore. Advance scouts of the finny horde hugged the sandy bottom of the stream, and dipnets armed with extra-long handled nets found they could bring up a dozen or more smelt at a time. By Al McCready, Staff Writer, The Oregonian. TROUTDALE, March 26 (Special)—“Smelt are in the Sandy!” This magnetic report early Friday attracted an opening-day crowd of several hundred dipnetters to the Sandy river to try to snare the limit of 25 pounds apiece. The silvery procession entered the mouth of the river Thursday night, and by day-break Friday the advance guard of male fish reached the Columbia River highway bridge at Troutdale. Two Oregon state game commission trailers arrived on the scene at 6 a. m. so early birds could plank down 50 cents each for special smelt licenses. Tags also were on sale in Troutdale and at dipnet-renting stands along the highway. Commercial fishermen said the run looks like a good one. First fish hugged the sand on the river bottom, but fishermen with ling handled nets were bringing them out a dozen at a time. From jutting rocks along the shore amateur dipnetters speedily filled dishpans, wash boilers and paper-lined apple-boxes with the toothsome visitors. Troutdale took on a carnival aspect as word of the smelt run spread. Hastily-painted signs appeared offering dipnets for rent for 50 cents and gunny-sacks for a dime. Hot dog and coffee vendors arrived almost as soon as the first eulachon, and the consensus was that business will be brisk Saturday and Sunday. State police were on hand to check licenses and weigh fish, and 12 Multnomah county sheriff's officers kept busy directing traffic. State law provides a moratorium on smelt fishing from midnight Sunday to midnight Monday during each year's run. This gives the finny invaders a 24-hour chance to proceed to their upriver spawning grounds unmolested by probing nets, it was explained.
27 March 1949	Sandy River	<i>Oregonian</i> , p. 1, col. 3	Fish and Fishers in Sandy River. There were “plenty of fish and plenty of fishermen” at Troutdale Saturday as the Sandy river smelt run went into its second day, the Multnomah county sheriff's office reported. Deputies directing traffic in the vicinity of the Columbia River highway bridge, the favorite dipping spot, said the expected week-end rush was on, with cars lined up on the highway all the way from Troutdale to the bridge as eager fishermen sought (1) places to park and (2) places to wet their long-handled nets. Most dippers had little difficulty snaring their legal 25 pounds of smelt, officers said. Sunday is expected to be another busy day, both for traffic and game

Date	Place	Source	Quote
			enforcement officers and for dispensers of the special 50-cent smelt licenses every dipper must carry. All smelt fishing in the Sandy must cease for 24 hours beginning at midnight Sunday. The regular Monday moratorium on dipnetting is enforced during each year's run to give spawning smelt a chance to proceed upriver unmolested.
28 March 1949	Sandy River	<i>Oregonian</i> , p. 12, col. 6	Smelt Beckon Sandy Throng. TROUTDALE, March 27 (Special)—An army of smelt fishermen swarmed along the banks of the Sandy river Sunday as the big run of spawning eulachon continued unchecked for the third day. Harassed Multnomah county deputy sheriffs managed to keep traffic moving, but frequently at caterpillar speed, as more and more week-end dipnetters appeared to try their luck. Net wielders were so numerous at favorite spots along the shore that late comers found it difficult to find a place to fish. Fish were plentiful and easy to catch, observers reported. Concessions Busy. An estimated 2000 people were fishing at noon at the Columbia River highway bridge, and thousands more were trying their luck in the vicinity of the railroad bridge down stream. Proprietors of riverside restaurants and newly-arrived hot-dog stands reported business rushing. No dipping will be allowed from midnight Sunday to midnight Monday to give the smelt a chance to reach spawning sands upstream.
29 March 1949	Sandy River	<i>Oregonian</i> , p. 28 picture caption	Police Arrest 50 Dipnetters. Smelt came high for approximately 50 dipnetters in the Sandy river. ... Old-timers said the run appeared to be increasing and few persons were having any difficulty in getting the limit. The Sandy river smelt run brought out a record crowd Saturday and Sunday, and the game commission was hard pressed to keep up with the demand for smelt dipper's licenses, C. A. Lockwood, state game supervisor, reported Monday. By 2 p. m. Sunday, 30,000 licenses had been sold and supplies exhausted at the license stations along the river. More license blanks were ordered, but heavy traffic prevented delivery before 4 p. m., when sales were resumed.
30 March 1949	Sandy River	<i>Oregonian</i> , p. 1, col. 1	Smelt Continue To Climb Sandy. The smelt run in the Sandy river continued in "heavy" volume Tuesday as commercial and sports dippers returned to the river following a statutory 24-hour "holiday" from midnight Sunday to midnight Monday. Advance detachments of the little silver fish, which entered the river Friday, were reported above the Viking Park bridge Tuesday morning. The game commission said sale of the 50-cent licenses to sports dippers was continuing in large numbers, but had no totals because permits are sold at several points along the river.
31 March 1949	Sandy River Lewis River	<i>Oregonian</i> , p. 1, col. 7	Sandy Smelt Run Still On. Some reports Wednesday that the smelt run in the Sandy river, in progress since Friday, had diminished and even halted were erroneous, according to state police and fishermen at the river who said the stream of silver fish was continuing unabated up the river. State police said about six officers were still on duty at the river Wednesday night and had reported the run was still strong. Wilbur J. Spaulding, fireman at Twelve Mile Corner, said he was at the stream until evening and saw no halt in the surging multitude of smelt. "It seemed it got a little heavier later in the day," Spaulding said. However, sheriff's deputies at Gresham said they didn't want to state

Date	Place	Source	Quote
			how the run was because “too many people say we’re wrong.” The game commission Wednesday had reports the smelt run still was in progress in the Lewis river.
March 1949		<i>Pacific Fisherman</i> 47 (3): 1.	First Catches of Smelt. First commercial catches of Columbia River smelt were reported Feb. 17—unusually late.
1 April 1949	Portland, OR	<i>Oregonian</i> , p. 16, col. 4	Wholesale Fish. Portland market quotations. ... Columbia river smelt ... 6 and 8c
2 April 1949	Sandy River	<i>Oregonian</i> , p. 1, col. 6	Sandy Smelt Run Becomes Spotty. The week-old smelt run in the Sandy river was getting “pretty spotty” Friday, the Oregon state game commission reported. Dippers were still taking fish, but decrease in the volume migrating upstream slowed down catches considerably. A few smelt were reported still entering the Sandy from the Columbia river. The spawning migration of the small silver fish began in the Sandy river Friday, March 25.
3 April 1949	Sandy River	<i>Oregonian</i> , p. 1, col. 4	SMELT RUN ‘SLOW.’ The Sandy river smelt run was “slow” Saturday, sheriff’s deputies said, with the stream low and few fish entering. But dipnetters were taking some fish from the pool at the Troutdale bridge. The run started the night of March 24.
4 April 1949	Sandy River	<i>Oregonian</i> , p. 6, col. 2	Sandy Smelt Run Down to Trickle. The smelt run in the Sandy river apparently was near the end Sunday with, several hundred fishermen getting them only a few at a time, according to a report from the river’s edge. Sheriff’s officers reported traffic a “trifle above normal Sunday” and other observers said some were getting the 25-pound limit. An influx of the silvery fish late Saturday night gave netters the limit in short time. However, deputies said, the number coming up the river soon returned to the normal few.
5 April 1949	Sandy River	<i>Oregonian</i> , p. 15, col. 6	Smelt Reappear In Sandy River. The Sandy river smelt run appeared to have gained its second wind Monday, with one observer reporting the little fish coming in “thicker than ever.” Commercial and amateur fishermen were barred from the river for the regular 24-hour period set aside by law to give the spawning fish a chance to move upstream unhampered, but several market dippers reported sizeable catches just before the Sunday midnight deadline.
7 April 1949	Sandy River	<i>Oregonian</i> , p. 11, col. 2-3	Renewed Sandy Smelt Run Finds Public ‘Fed Up.’ The smelt appeared to be winning the annual battle of the Sandy river Wednesday. Fresh waves of the small silver fish, millions strong, poured into the Sandy from the Columbia river and moved upstream in their spawning migration. Along the banks only a handful of sports dippers interfered with their progress. Observers from the Oregon state game commission, surprised by lack of public interest in the run the past few days, reasoned most people who like smelt already have all they want for this season. More than 40,000 sports licenses, at 50 cents each for the season, have been sold since the run started March 25. On some days dippers could get their daily 25-pound limits in a short time, and on most other days they could get it by persevering. Smelt Take Estimated. On the basis that each of the 40,000 license holders took but one 25-pound limit the yield of the Sandy river to amateur dippers alone would total 1,000,000 pounds to date. Smelt run about ten fish to the pound, which would make a total of 10,000,000 fish. Actually the figures will run much

Date	Place	Source	Quote
			higher, for many of the dippers returned to the river time after time to take a daily limit. Commercial dippers, who pay \$5 license fees and mostly conduct their operations at night, have taken far heavier toll. Despite these losses in the smelt population the run continued Wednesday if anything stronger than ever, the game commission said.
10 April 1949	Sandy River	<i>Oregonian</i> , p. 22, col. 4	Salmon Appear; Smelt Run Over. The smelt run in the Sandy river, in progress in varying volume since March 25, was about exhausted Saturday. Multnomah county deputy sheriff's who have patrolled the area daily said only a few of the small silver fish were in the river, and sport and commercial dippers had virtually abandoned it to the remaining fish. ...
16 April 1949	Portland, OR	<i>Oregonian</i> , p. 4, col. 7	Wholesale Fish. Portland market quotations. .. Columbia river smelt ... 6 and 8c
22 April 1949	Portland, OR	<i>Oregonian</i> , p. 12, col. 8	Wholesale Fish. Portland market quotations. .. Columbia river smelt ... 6 and 8c
		Anderson (1949, p. 162)	Smelt. The total Washington landings of this species in 1949 were approximately 2,000,000 pounds. The fact that this catch was below the average for the past six years can be blamed on the failure of the Cowlitz river run to materialize. Extremely cold water in the Cowlitz may have been the condition which upset this normally reliable smelt-producing stream. Somewhat offsetting the Cowlitz river failure was a remarkably good catch in the erratic Lewis river. Approximately 1,750,000 pounds were commercially landed here in addition to a substantial but unreported sport take. Because of the lack in recent years of a smelt run in November and December, commercial fishermen have requested the Department of Fisheries to restrict gill netting until after January 5, and dip netting until after February 15 to protect the remnants of the former early runs. If it cannot be shown that inclement water conditions are the regulatory factors in the arrival time of smelt, the above proposals appear reasonable. Consideration is being given to the suggested restrictions for the 1951 season.
1950			
2 December 1949	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 6	Two Smelt Netted; Fish Season Ends. Bill Anundi had the honors of the first smelt of the 1949-50 season when he netted just two silver stragglers this week. ... Smelt fishing will be next and some fishermen are operating to find them when the run starts. ...
16 December 1949	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 3	First Smelt are Sold in Clatskanie. The first smelt to be in the market were sold in Clatskanie on Tuesday morning of this week when nine pounds were put on the counter. Fifty cents a pound was the retail price. The smelt were caught by Ben Jolma. The first smelt to be taken from the river was about two weeks ago when William Anundi caught a few. In previous years the first smelt were sent to the Portland market but this year the people of Clatskanie had the chance for the first taste. A small quantity of the little silver fish were caught again on Wednesday.
12 January 1950	Columbia River	<i>Oregonian</i> , p. 9, col. 2	Lower Columbia Reports Smelt. The annual Columbia river smelt run was getting under way Wednesday. Nick Beglerles, manager of the Clatskanie Smelt association, said his boats checked in Wednesday with five or six 50-pound boxes. "It looks like the start of the real run," Beglerles said. The association had a dozen "Scout boats" out

Date	Place	Source	Quote
			seeking the advance guard of the run. The association secretary said fresh smelt would be on the Portland market by the first of next week, and later in the month would be available in sufficient quantities to take care of the expected burgeoning demand.
13 January 1950	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 6	Smelt Run has Begun. The 1950 smelt fishery season really opened Saturday with 68 pounds weighing in at the cooperative association's docks, altho[ugh] a few of the silver delicacies have been caught occasionally for almost a month. Four boats were out last Saturday. Hans Hurula had the first highest catch of 92 pounds on Tuesday. Melvin Niemela's catch for the same night was 91 pounds. Wayne Inget was high man for Wednesday's smelt fishing with 102 pounds. Total pounds weighed in and the total boats fishing for the past few days as given by Nick Begleris, manager of the Clatskanie Smelt Fishermen's association are as follows: January 7, 4 boats fishing, 68 pounds; January 8, 13 boats fishing, 398 pounds; January 9, 10 boats fishing, 281 pounds; January 10, 7 boats fishing, 189 pounds; January 11, 12 boats fishing, 649 pounds. The first smelt shipped by the association this year, five boxes went to Portland Wednesday. The remainder was sold locally and in Astoria. The local smelt association is attempting to inform Portland consumers that smelt they have been purchasing recently at 23 cents a pound from their markets is frozen fish. Portland papers carried this announcement this week. All smelt going from Clatskanie carries the coop's brand, "Columbia River Gillnet Smelt," bearing the stamp, "Oregon Fish Commission Tax Verified."
14 January 1950	Columbia River	<i>Oregonian</i> , p. 4, col. 8	Cold Weather Hits Smelt Fishermen. ASTORIA, Jan. 13 (Special)—Only scanty deliveries of smelt are being made by fishermen because extreme cold weather has prevented arrival of the main smelt run in the Columbia, Mrs. Edna Bradley of the Smelt Fishermen's association at Clatskanie said Thursday. Mrs. Bradley said the "advance scouts" of the smelt run have arrived in the Columbia, but that cold weather keeps the fish in deep water, where netters have a hard time getting them. Fishermen are being paid 45 cents a pound for their catch, slightly above the opening price of the 1949 season.
26 January 1950	Columbia River	<i>The Kelsonian Tribune</i> , Cowlitz County Log Supplement, p. 1, col. 6	1950 Smelt Run Is Still Unpredictable. The 1950 Cowlitz river smelt run was still in the "unpredictable" stage today. Commercial fishermen, packers and game observers have thus far failed to spot the migratory fish in great numbers, either in the Columbia or its tributaries. Cold weather which for two weeks has stymied all fishing is also believed to be delaying the annual run. If schools of smelt have entered the Columbia they are lying in deep holes where they are difficult to catch, according to a representative of the Columbia River Smelt association, Kelso. "During cold weather like this, they tend to remain stationary in deep water. At this point, it's hard to tell whether they'll run in large numbers or not," he said. The association is waiting for word from "spotters" situated down toward the mouth of the Columbia. Telephone lines to Clatskanie, 20 miles west, are down so contact with that point has been lost, it was reported. Small catches were reported during an early run several weeks ago. These were made, largely, in the vicinity of Stella. However, the big run has failed to materialize yet. No catches have been made

Date	Place	Source	Quote
			at Cathlamet, according to Game Supervisor William O. Hall of Longview. Hall said a gamer protector at Cathlamet told him that no catches on the Columbia in that area have been reported. Commercial fishermen are not giving up, but are waiting for warmer weather. "They are likely to come up any time now, as soon as the weather breaks," a spokesman said.
3 February 1950	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 6	Season Opened but No Fishing. ... Smelt boats also are tied up. The smelt are in the river but are too deep down on account of the cold. Nets are impossible to handle in the freezing temperatures and are damaged by the ice in the river when laid out. ...
16 February 1950	Columbia River	<i>The Kelsonian Tribune</i> , Cowlitz County Log Supplement, p. 1, col. 3-4	Smelt Run Finally Sighted; Catches Taken By Fishermen. Columbia river commercial fishermen finally caught up with the long-missing smelt run this week. Good catches were reported by several fishing fleets at various points on the river below Puget Island. An estimated 65 to 70 boats converged on productive "holes" in that area. The smelt were reported lying deep. Movement of the schools was slight. Observers said the fish are milling around in wait of warmer water in the lower tributaries. No smelt has been sighted in the Cowlitz river yet. Ole Soleim, spokesman for Central Smelt company of Kelso, said the firm packed 500 boxes of smelt Monday, the best catch of the year. Large catches also were made on Sunday night. One-hundred boxes were packed Tuesday. The catch slackened on Wednesday, but fishermen were looking forward to increasing results as new pack move upriver from Astoria. "There are lots of smelt down below," Soleim said. "We hear of large schools off the mouth of Grays River. They should be heading this way soon." This year's run is moderate ³ in comparison with those of former years, although it compares favorably with results last year. The first large run last year started on Feb. 24, a little behind the present run.
17 February 1950	Portland, OR	<i>Oregonian</i> , p. 12, col. 2	Return of the Eulachon. The retail pound price of Columbia smelt, now 30 to 35 cents, isn't much when the superlative excellence of this delectable fish is considered, as well as the chill and arduous work required to capture the advance guard in wintertime in the open river. Indeed, the price was little enough at four bits per pound when the migration first scouted the lower Columbia. The decrease means that the gillnetters, who must take each diminutive smelt as though it were a salmon, now are operating in plenty of fish. If ever you have eaten this finest of small fishes, the mere headlines of its recurring advent are provocative. And now the time dwindles toward the eulachon's appearance in its spawning streams—of which our Sandy river usually is one. Some regions regard the return of the swallows as a sign of recrudescence spring, but the homecoming of the Columbia smelt serves us as well. This newspaper would be recreant to its trust were it to neglect the pleasant formality of an annual welcome to the eulachon. As Walton praised the strawberry among fruits, so may we praise the smelt—our very own smelt—among fishes. Doubtless God could have made a better fish than the eulachon, but doubtless God never did. Among our sendings from the bountiful sea, and these are several, including the regal salmon and the vast sturgeon, the smelt by no means is least in the

Date	Place	Source	Quote
			skillet.
23 February 1950	Columbia River	<i>The Kelsonian Tribune</i> , Cowlitz County Log Supplement, p. 1, col. 4	Smelt Fishery On Up Grade. Smelt fishing in the Columbia river improved steadily during the early part of the week, but slacked off lightly Wednesday, according to late reports received from local commercial fishing companies. Best fishing spots were between Stella and Skamokawa on the Columbia. Largest catches are still being made in deep holes, although the fish are showing signs of moving after several weeks of inactivity. No sign of the run had been spotted in the Cowlitz or other lower Columbia tributaries Wednesday. One-thousand boxes were packed by Central Smelt company of Kelso on the best day this week, according to Ole Soleim, manager. The company has about 160 boats in the river. Warmer water will probably put the 1950 run “on the move” again and send it up the spawning streams, fishermen believe.
24 February 1950	Portland, OR	<i>Oregonian</i> , p. 6, col. 5	Market Wise. ... Columbia river smelt, 28 cents.
1 March 1950	Portland, OR	<i>Oregonian</i> , p. 4, ad.	Safeway. ... Fresh Caught COLUMBIA RIVER SMELT lb. 23c.
3 March 1950	Portland, OR	<i>Oregonian</i> , p. 2, col. 4	Market Wise. ... Or to save the food budget, serve prawns one night and Columbia river smelt the next, 28 cents a pound, high for smelt, but mighty good for an early taste.
3 March 1950	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 6	Smelt Season is Called Exceptional. An exceptionally fine smelt season is being enjoyed this year by the Smelt Fishermen’s association, according to Nick Begleries, from his Clatskanie headquarters. Not only are there great numbers of the silver little fish in the river but the price is holding up well and the fishermen are cooperating wonderfully with the association, he stated yesterday. One hundred seventy fishermen are on the river and while the boats have been limited in their catches, the market has called for as high as 2,000 boxes per day. Seven hundred boxes were caught and delivered at the Wallace fish station alone last Saturday. Receiving stations are being maintained at Puget Island, Clifton, Cathlamet and Mayger as well as Wallace. The fishermen from the Grays River area are marketing their catches through the local association. Veteran smelt fishermen believe that the season will hold up exceptionally well for them this year with the fish in the Columbia only until the end of next week, at least. When the smelt enter the smaller streams they are taken by dipnets and the net fishing on the Columbia ceases. However, the finest of the smelt are the firm fish which are taken from the Columbia.
9 March 1950	Columbia River	<i>Oregonian</i> , p. 1, col. 4	Smelt Avoiding Favored Streams. SEATTLE, March 9 (AP)—Main southwest Washington tributaries of the Columbia haven’t had a smelt of smelt this year, State Fisheries Director Alvin Anderson lamented Wednesday. The annual Columbia river run, Anderson said, is approaching its normal deadline and nary a fish has been caught in either the Cowlitz or Lewis rivers. The run usually appears in those streams between January 15 and March 15. Gill-netters have reported catches in the main Columbia channel.
10 March 1950	Portland, OR	<i>Oregonian</i> , p. 7, col. 5	Fish on Market Economical ... Columbia river smelt are still holding at 2 pounds for 55 cents. It may be three weeks before they reach the Sandy river. One reason for the

Date	Place	Source	Quote
			high price is the fact that fishermen must gill net them, rather than scoop them up in hand nets, when they are so far down the river.
12 March 1950		<i>Oregonian</i> , p. 6, col. 5-6	RIVER RAMBLINGS: Boaters Awaiting Smelt. By Lawrence Barber, Marine Editor, The Oregonian. Not a few of the Columbia river pleasure boat ramblers are patiently awaiting the report that smelt have arrived in the Lewis, Cowlitz or Sandy rivers. ... The Cowlitz and Lewis river smelt are considered somewhat better table fish than are the Sandy river variety because they have more fat and firmer flesh. For that reason, they are more sought by boaters able to get to them. Washington does not require a license for non-commercial dipping for food fish. The favorite method of dipping for these fish in the lower stretch of the Lewis is to anchor over their “line of march” and scoop them with long-handled dip nets, using a half-inch mesh. ...
12 March 1950		<i>Oregonian</i> , p. 6, col. 5	Angler Seeks Closed Period. LONGVIEW, Wash., March 11 (Special)—A charge that gillnetting of smelt in the Columbia river, combined with industrial pollution, is keeping the eulachon out of the Cowlitz and other tributary streams was made Saturday by Jerry Hann, Longview commercial fisherman. He added that lower river gillnetters are stirring agitation for closing the Cowlitz to dipping to protect their own interests. Using nets which are 200 yards long, the gillnetters take large amounts of smelt traveling to the spawning grounds and cause a heavy mortality of the tiny fish, he added. He explained each smelt is caught in the small mesh and they are shaken out. “You should see the fish fly when they are shaken out,” he said. “They go in all directions. Many have their heads torn off and they reach the market in poor condition.” Female Fish Taken. He also contended too many female fish are being taken by the gillnetters, cutting down on the spawn. The fisherman advocated a compulsory closed period for gillnetters, just as dipping in tributary streams is closed from 8 a. m. each Thursday to 8 p. m. each Saturday. He also advocated curtailment by means of limitations on the nets. The smelt run has been near Walker’s island in the Columbia river, below Longview. Some dipnet fishermen have been making catches along the sand bars, reporting a take of as high as 20 boxes a day. But the major catches so far have been made by the gillnetters.
16 March 1950	Columbia River	<i>Oregonian</i> , p. 6, col. 1	Smelt Leave Lower River. ASTORIA, March 15 (Special). The smelt fishermen’s exchange on the lower Columbia river has folded up for the season since the smelt run passed upstream, Mrs. Edna Bradley, Clatskanie secretary of the exchange, said Tuesday. The exchange is operated by gillnetters who catch smelt in the Columbia below the mouth of the Cowlitz river. Mrs. Bradley said the season was good, despite a lack of fish early in the season due to ice in the Columbia river. The smelt run has gone upstream past the Clatskanie area, Mrs. Bradley said.
16 March 1950	Columbia River	<i>The Kelsonian Tribune</i> , Cowlitz County Log Supplement, p. 1, col. 7	Main Smelt Body Passes By Cowlitz. The Cowlitz river was still being snubbed by the finicky eulachon (smelt to you) at midweek. With the main body of the run in the Columbia reported near Martin’s Bluff, downstream from Woodland, Wednesday, the fish were reported to have disappeared from the big river at the mouth of the Cowlitz. It

Date	Place	Source	Quote
			was expected that the run would enter the Lewis river sometime this weekend. Officials of the Cowlitz Smelt Co. said it is still too early to tell whether any smelt will come up the Cowlitz or not. Gil[l]-netters are still delivering smelt to local wholesalers in good quantities. The market is reported firm, with fishermen netting \$5 a box and wholesalers receiving \$8. The gill-netter's association, which operates both in Oregon and Washington, reports its members have delivered between 16,000 and 17,000 boxes so far this year.
17 March 1950	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 3	Smelt Fishermen Union Suspends 1949 Operations. ... The season for smelt was considered good this year. The ice in the river caused a poor condition at the beginning of the season, however. The smelt were up around Ra[i]nier and Kelso early in the week but veteran fishermen were having their doubts if the fish would go into the Cowlitz. They by-passed that river in the '49 season as well.
18 March 1950	Cowlitz River	<i>Oregonian</i> , p. 1, col. 3	Closed Season Picked by Smelt. KELSO, Wash., March 18 (INS)—The silvery smelt is no sucker. Hordes of the small succulent fish picked Washington's weekly "no fishing" period to launch their annual run up the Cowlitz river Friday. Frank Swick, state fisheries inspector, will hold the eager fishermen in check until the closed period ends at 8 p. m. Saturday. After that the bars are down for free fish. No one needs a license to fish smelt in Washington. Limit is 20 pounds per person. The smelt run is behind schedule this year.
19 March 1950	Lewis River	<i>Sunday Oregonian</i> , p. 1, col. 6	First 1950 Smelt Appear in Lewis. Smelt entered the Lewis river at Woodland, Wash., Saturday, bolstering hopes that the silvery eulachons will visit the Sandy river this year after all. Ordinarily, three weeks elapse between the beginning of the Lewis run and the time the smelt enter the Sandy river. At Woodland, when the ban on dipping was lifted at 8 p. m., netters quickly got their limit, indicating a heavy run. When the smelt do hit the Sandy, netters will be required to plank down 50 cents for special licenses, which will be sold by the Oregon state game commission.
20 March 1950	Lewis River	<i>Oregonian</i> , p. 1, col. 2	Smelt Seekers Jam Woodland. The town of Woodland, Wash., was jammed with approximately 5000 cars Sunday, all bearing eager smelt dippers to the banks of the Lewis river. The silvery fish started their annual Lewis river run Saturday. Frank Swick, Washington state fisheries inspector, said Sunday it looked like a heavy run. He said every dipper came away with his 20 pound quota. Commercial fishermen, Swick said, did unusually well Sunday, despite all the amateur competition which at times was something of a headache to state patrolmen. Smelt usually reach the Sandy river about three weeks after the start of the Lewis river run. Oregon dippers are required to buy a 50 cent license fee.
20 March 1950	Cowlitz River	<i>Oregonian</i> , p. 12, col. 2	Smelt in the Cowlitz. The advent of our Columbia river smelt, the frosted-silver eulachon, in the Cowlitz, is most assuring. For the salt water migrants are said to have entered this chiefest of their natal streams in astronomical numbers, and alongshore, so to speak, we need worry no more. The confession is that when the migration seems

Date	Place	Source	Quote
			hesitant, or dubious, as lately, we of the region begin to mistrust the stars in their courses, or the rising and setting of the sun. Now that the smelt again are in the Cowlitz our faith and equanimity are restored, and we perhaps smile to think that ever we doubted the processes of natural law. Behold, the smelt once more are in the Cowlitz! ...
23 March 1950	Lewis River	<i>Oregonian</i> , p. 10, col. 4	Lewis River Run Ended. Smelt Catches Dwindle Away. Smelt dipping was literally stopped in the Lewis river Wednesday as the run dwindled to practically nothing. Fishing will be stopped Thursday at 8 a. m. by law. Frank Swick, Washington state fisheries inspector, Wednesday night said bank dipping was now hopeless[s] adding that it was the poorest season he could remember in the Lewis river for the bank netters. He predicted the amateur fishermen were finished unless there was another surge of the silvery fish at week's end. Washington law prohibits smelt dipping from 8 a. m. Thursday until 8 p. m. Saturday. Few in Deep Holes. A few commercial fishermen Wednesday were still getting a few from deep holes. Swick said he did not have an accurate count on the catch of the commercial netters but that he knew it was not as many as last year. As an indication of the poor bank dipping, Swick said only 22 persons were cited to court in the patrolling from Saturday night until Wednesday. In a good year, he stated, many non-commercial dippers are cited to court for netting more than the 20 pounds permitted.
23 March 1950	Lewis River Columbia River	<i>The Kelsonian Tribune</i> , Cowlitz County Log Supplement, p. 1, col. 3	NETTERS AWAIT RENEWED SMELT RUN. Professional fishermen and literally thousands of amateur dipnetters waited in vain Wednesday for a renewed smelt run up the Lewis river. Fishing was closed at 8 a.m. Thursday morning. Hope was still extended, however, for another surge on the Lewis and the beginning of the annual run on the Sandy river. Smelt were reported "all over the Columbia," although gillnetters had largely withdrawn from the big stream as soon as the runs were sighted in the tributaries. After a brisk weekend at Woodland, fishermen had poor luck on Tuesday and Wednesday. Only a small run was reported in the Cowlitz and this stream, usually the biggest drawing card, attracted only a few casual fishermen this week. But Sunday was a different story. Mayor Bryant of Woodland said over 5000 were jammed along the banks of the lower Lewis river, between the highway bridge and the mouth. Thousands of fishermen, bearing long nets, buckets, sacks and containers of all kinds, lined the banks to try their luck. Many got their limits in a matter of a few hours. "There were more cars in Woodland that day than I've ever seen before," Mayor Bryant said. Commercial fishermen entered the stream in boats and netted one of the largest smelt packs of the season, it was reported today. Fishermen are also keeping an eye on the Sandy river at Troutdale, near Portland, where the annual run is scheduled to begin in a few days.
23 March 1950	Lewis River	<i>The Kelsonian Tribune</i> , Cowlitz County Log Supplement, p. 1, picture caption	Smelters Helter Skelter. It was never like this, even at tulip time, in Woodland. Smelt fishermen by the thousands converged on this city at the mouth of the Lewis river Sunday, when the first heavy run headed upstream. The constant milling of automobiles seeking advantageous fishing spots sorely taxed Woodland's traffic system. Amateur fishermen, bearing long dipnets, lined the banks, elbow to elbow, as shown above.

Date	Place	Source	Quote
			(Kelsonian photo)
24 March 1950	Portland, OR	<i>Oregonian</i> , p. 3, col. 8	Market Wise. ... Indications are that smelt in the Sandy are still two weeks away. The supplies from down the Columbia tend to irregularity, but prices have dropped to 20 cents a pound from last week's 2 pounds for 55 cents. ...
28 March 1950	Lewis River	<i>Oregonian</i> , p. 4, col. 3	Smelt Fishing Poor in Lewis. WOODLAND, Wash., March 27 (Special)—The dippers almost outnumbered the smelt along the Lewis river Sunday. Throngs of would-be smelt dippers lined the banks of the river south of here throughout the day Sunday. However, state fisheries inspectors reported few made catches of the tiny fish. Commercial dippers, operating from power boats, took about 5000 pounds of fish during the period from 8 p. m. Saturday until 8 a. m. Monday.
31 March 1950	Portland, OR	<i>Oregonian</i> , p. 6, col. 4	Cheese Mart Variety Great ... Smelt Still Scarce ... Smelt are scarce around town, and the report is they will be until the Sandy run begins, possibly within a week. ...
9 April 1950	Lewis, Cowlitz, Sandy rivers	<i>Sunday Oregonian</i> , p. 1, col. 5-7	Lateness of Sandy Smelt Run Worries; Little Fish Sometimes Fail to Appear. Where are the silver smelt? The Oregon state game commission would like to know. It has new comfort stations waiting on the banks of Sandy river near Troutdale, erected for convenience of the thousands of people who greet the little fish on their spring spawning runs up the river. Commercial dip netters also would like to know. They reap a rich and quick harvest when the millions of little fish fill the Sandy, bank to bank, during the upstream migration. Commercial and sports fishermen have watched the mouth of the river at Sundial beach, in vain. No one has seen the smelt hordes, although, they were in Washington's Lewis river within the past ten days, and are assumed to be still in the Columbia. It will be nothing unusual if they do not enter the Sandy this spring, for they have passed up the river many years in the past. But, if they come in any time after 3:30 p. m. Sunday they will set a 21-year record for tardiness. Since the systematic keeping of records was begun in 1929, the smelt have avoided the Sandy eight years. These years in which there were no runs were 1931, 1933, 1935, 1937, 1938, 1939, 1944 and 1947. They entered the river during March 11 times. Only twice during the 21 years were they as late as April, and the April 9, 1929, arrival at 3:30 p. m. was the latest officially recorded. Runs Late, Light. This has been a late year and a poor year for smelt runs into streams tributary to the Columbia. The migration entered the Cowlitz river March 17 and the Lewis river a day later, both far behind normal schedule. The runs were of brief duration. Usually, about three weeks elapse between the time the fish enter the Cowlitz and their arrival in the Sandy. Since the run dwindled in the Lewis river ten days ago whereabouts of the smelt has been a mystery. Reports of gillnetters, who take them in large numbers in the main stream of the Columbia, are most reliable in tracing progress of the runs, but this source of information has failed since the gillnetters quit taking the fish. Habits of the smelt are not so well known as those of salmon and some other more important food fish. They do not have the pronounced homing instincts that impel salmon to seek for their spawning beds the same spot and stream of their birth. It is

Date	Place	Source	Quote
			believed they spawn in the main stream of the Columbia when their migration into the Sandy or other tributary is prevented by temperature or other condition of water, or some unknown factor. The 1948 smelt run in the Sandy extended from March 27 to April 11, the 1949 run from March 24 to April 9. Last year more than 40,000 licenses were sold under state law permitting sports dippers to take 25 pounds of smelt daily for a 50-cent seasonal fee. It was estimated amateur dippers took at least 1,000,000 pounds, which would total around 10,000,000 fish. The "take" probably was much greater, for many returned several times. Commercial dippers took far heavier toll. By the time the run ended, the market had long been surfeited, prices forced to an unprofitable rock bottom, a service station gave away a ton and a half of fish for advertising purposes, and everybody was glad to forget about smelt for another year. The state game commission will keep its new comfort stations and the trailer houses installed on the Sandy for sale of licenses for a little longer on the chance the fish may get into the river after all this year.
13 April 1950	Sandy River	<i>Oregonian</i> , p. 6, col. 4	Run Doubted For Sandy. Biologists Check Records on Smelt. Biologists of the state fish and game commission have just about given up hope that the smelt will come into the Sandy river this year. There's still a slim chance the eulachon will enter the river to spawn, says Charles J. Campbell, chief of river basin investigation for the game commission, but he is not optimistic. Records since 1929 show the latest spawning visit of the eulachon was made on the 9th of April. Earliest appearance of the little silver fishes during that period was March 4. Campbell discovered though, that the smelt came into the Sandy as late as April 24 one year. He found this out by looking over the files of <i>The Oregonian</i> . The year of this belated appearance was 1920. It is not unusual for smelt to skip the Sandy. They bypassed the stream nine times in the past 30 years the records show.
1951			
15 December 1950	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 4	Mess of Smelt! How about a fine mess of smelt! Clatskanie's early fishermen of the silvery little delicacies are now getting their taste of them but none for the market yet. While the first smelt, a lone one, was caught November 9th and brought into town from Mayger to Ben Davis at the Colvin Pool Hall, the first real messes were caught last week and this by Ray Jolma and Verle Anundi. They have been averaging about 20 fish per drift and are getting enough for themselves and close friends. Half the smelt caught so far are females while usually the first run is almost entirely males.
22 December 1950	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 3	Smelt Fishermen are Preparing for Run. Still no smelt, but the Smelt Fishermen's association has been making preliminary plans and arrangements for the run when it does enter the river. ... Fishermen have the past week like the two previous week, been getting small catches but none have gone on the market.
28 December 1950	Columbia River	<i>The Kelsonian Tribune</i> , p. 3, col. 5-7	Smelt Buyers Must Stamp Containers. ... Smelt have appeared in the lower Columbia river in small quantities but the main run usually does not appear until late January of February. Heaviest catches occur in the Lewis and Cowlitz rivers and in the Longview-

Date	Place	Source	Quote
			Cathlamet sector of the main Columbia.
29 December 1950	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 4	First Smelt on Market. Residents of Clatskanie had the first opportunity of enjoying the little silver fish, the smelt, this season. The first smelt sold in the markets was on Wednesday [27 December] morning. Four and a half boxes were taken from the nets of local fishermen at that time. Undoubtedly it is the advance of the smelt run and the Clatskanie Smelt Fishermen's association is all set to take care of the smelt business as soon as the fish appear to warrant it.
4 January 1951	Columbia River	<i>Oregonian</i> , p. 1, col. 3	First of Smelt Taken in River. ASTORIA, Jan. 4 (Special)—Commercial fishermen are getting their first smelt of the season. Ike Jolma, Clatskanie smelt fisherman, reported he had made his first catch Wednesday and has taken 2½ 50-pound boxes so far. Several boxes of smelt have appeared on retail markets here. The fish are being taken by gillnetters in the Columbia river from Astoria as far up as Clatskanie. Some fishermen complained that their nets were being clogged by pollution in the water which they said was waste from pulp mills upstream. The retail price here was 55 cents a pound, about 10 cents under last season's prices.
5 January 1951	Columbia River	<i>Oregonian</i> , p. 10, col. 2	Advance Guard of Smelt. ... Retail quotation of the initial catch at Clatskanie this year is 55 cents a pound ... If the weather continues to behave as it has recently, being rather mild for the time of year, the incalculable smelt migration may be expected to swim steadily up the Columbia to the spawning tributaries—of which our nearby Sandy river usually is one. Last season, however, the migration “skipped” the Sandy—with neither explanation nor apology—to the exceeding disappointment of the dipnetters.
21 January 1951		<i>Oregonian</i> , p. 15, col. 4-5	Fish Taste Like Stove Oil, Tanker Oleum Gets Blame. ASTORIA, Jan. 20 (AP)—Fishermen and storekeepers Saturday blamed the leaking tanker Oleum for causing fish to taste like stove oil. Smelt eaters said the fish looked all right until cooked. “Boy, did they taste awful,” said Pete Thompson, sea-foods market operator. The tanker cracked open in heavy seas while entering the mouth of the Columbia river January 11 and leaked stove oil into the river all the way to Portland. Thompson said he expected the new catch of smelt to taste all right, now that the oil has been carried away by the current. Fishermen, incidentally, reported poor smelt catches this week.
25 January 1951		<i>Oregonian</i> , p. 1, col. 5-6	Smelt Dippers Quit River; Fish Taste of Spilled Oil. ASTORIA, Jan. 25 (Special). Smelt fishermen abandoned the Columbia river here and in Clatskanie Wednesday, declaring their season had been ruined because the fish have been impregnated with oil. They blamed the Union oil tanker Oleum, which leaked oil all the way from the Columbia river entrance to Portland January 11 after a wave had cracked the ship while entering the river. Dr. Edward J. Harvey, director of the state seafood laboratory, reported that samples of smelt caught near Clatskanie had been found unfit for eating in tests made at the laboratory. He said the skins were impregnated with oil which was penetrating the bodies of the fish. Samples will be sent to a California laboratory for further testing to identify the kind of oil. Dr. Harvey said apparently oil still lingers in

Date	Place	Source	Quote
			some quiet stretches of the Columbia, but predicted it would all be dissipated before commercial salmon fishing resumes the end of this month. He said he could not tell if the oil was harmful to fish life. The oil-impregnated smelt he tested seemed in good physical condition. One hundred and fifty fishermen here and in Clatskanie were reported to have quit the river.
26 January 1951	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 7	Smelt Season is Halted by Oil in River. Much concern is felt for the smelt fishing industry for the remainder of the season in the Columbia river, since oil that is in the river has caused damage to the taste of the little silver fish. The Clatskanie Smelt Fishermen's cooperative halted operations the latter part of last week because the fish were permeated with oil, which is thought to be fuel oil lost by the tanker Oleum two weeks ago. The Oleum broke entering the Columbia river on January 11, but proce[e]ded on to Portland and an estimated 20,000 gallons of oil was spilt in the water. Trial catches are being made at various times by the fishermen but to this date no fish have been put on the market since the oil was detected. Fish are being cooked to test them and while some are all right, some in the same group have the oil taste. Another test will be made Saturday by the smelt fishermen to make a check if the fish still have the oil. It is feared, however, that the commercial season has been ruined. The heavy smelt run has not started but if the fish are in the lower part of the river it is feared they will have been penetrated by the oil. In last year's business in round figures some \$80,000 worth of smelt were handled through the association. Some 150 smelt fishermen are standing by waiting to see the results. ... Apparently, the fish in the spots where the oil is confined are the smelt that are affected as far as is known the smelt seem to be in a healthy condition.
27 January 1951		<i>Oregonian</i> , p. 5, col. 1	Smelt Now Free From Oil Taint. Smelt fishing was being resumed in the lower Columbia late Friday when new tests showed no further oil contamination, Nic Begleris, manager of the Clatskanie Smelt association, announced. Fishing was suspended Thursday when fishermen complained of oil tainting the smelt. Samples of smelt taken at Clatskanie, Mayger, Clifton and Puget Island were examined by Dr. Edward J. Harvey, director of the state sea foods laboratory, and found free of oil, Begleris reported. The oil, believed from the tanker Oleum, which cracked two weeks ago is thought to have cleared up. The smelt run has just started, Begleris reported. Smelt are being taken as far up the river as Clatskanie but no further at present.
2 February 1951	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 6	Smelt are again Netted but Scarce. Smelt fishing has resumed in the Columbia river with the announcement last week end that laboratory examination had shown the little fish were free from oil, left in the river by a leaking tanker. Fishing began again last Saturday morning but on account of the cold weather, which is causing nets to freeze, and the fact that during the cold weather, the smelt are deeper in the water, the catches have been small. Now only about 20 boxes per day are being taken while the average for this time of year is around 500 boxes, it is estimated. Usually, for this time of the year,

Date	Place	Source	Quote
			the catch will be about 20 boxes per day, per fishermen, now the average is probably three of the 50-lb. boxes. The demand for the fish is strong and the supply cannot come near keeping up to it. Fishermen are getting \$6 for a 50-lb. box from the Co-op. To date and since the first of January when the smelt fishing began, the catch has totaled approximately 50,000 lbs. The close down of the week, on account of the “oily” fish, when the catches were heavy, had cut down the total greatly.
21 February 1951		<i>Oregonian</i> , p. 2, col. 2	Fisheries Order Closure on Smelt. SEATTLE, Feb. 20 (AP)—A conservation closure of smelt fishing on the Columbia river from noon Thursdays to noon Saturdays was announced Tuesday by the state department of fisheries. The action coincides with similar closure by the Oregon state department. The order includes tributaries of the Columbia, which will affect the heavily fished Cowlitz and Lewis rivers.
22 February 1951		<i>Oregonian</i> , p. 10, col. 6-7	State Board Reduces Days For Taking Columbia Smelt. The state fish commission has promulgated an order designed to conserve future runs of smelt in the Columbia river. The order closes the stream to commercial fishing for smelt from Thursday noon of every week to the following Saturday noon. The closure order will become effective this Thursday and continue in effect for the rest of the year. Heretofore there has been no official closed period on smelt in the Columbia, although commercial fishermen have attempted to give the eulachons respite by adoption of a “gentlemen’s agreement.” ...
22 February 1951	Columbia River	<i>The Kelsonian Tribune</i> , second section, p. 2, col. 4	Smelt Fishery Gets Week-End Closure. A week-end conservation closure in the Columbia river smelt fishery will go into effect this week concurrent with a similar Oregon regulation, the department of fisheries announced today. Commercial fishing for smelt will close for 48 hours a week from 12 noon Thursday to 12 noon Saturday of each week in the Columbia and its tributaries. In Washington, a majority of the tributary fishing is done in the Cowlitz and Lewis rivers. The annual run of smelt has moved upstream to the Cowlitz sector but has not yet entered the side streams, where heavy catches normally are made in February and early March. ...
23 February 1951	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 7	Closing Period For Smelt Observed. Columbia river smelt fishermen are observing the smelt fishing closure period each week from Thursday noon until Saturday noon. The closure had been observed voluntarily by the association for some time but now the states of Oregon and Washington have imposed the week end closure on commercial smelt fishing on the Columbia. The smelt are still in the Clatskanie area. The catches are erratic. The first of the week, fairly heavy, the middle of the week, lighter.
1 March 1951	Columbia River	<i>The Kelsonian Tribune</i> , p. 1, col. 5	Smelt Hold Spot In Lower Columbia. The \$64 question—will there be a smelt run in the Cowlitz this year?—remained unanswered this week as the main body of the Columbia river run stayed generally downstream from Stella. Smelt were being taken from the Columbia in increasing quantities, and the appearance of swarms of new fish led to speculation that the main body might start moving upriver at a faster pace. With the smelt fleet out in full strength, fish were being taken at many places—Clifton, Puget Island, Clatskanie and Stella. Receipts had been poor up to this week, but were picking

Date	Place	Source	Quote
			up fast. The Columbia will be closed to commercial fishing from noon Thursday to noon Saturday.
2 March 1951	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 3	Smelt Run Increases as Salmon Season Closes. Smelt have been in more abundance this past week when a substantial increase has been noted and they are all along the river but the Clatskanie Smelt association officials are not able to say if the big run has hit the river as yet or not. ... Twenty-five hundred boxes of smelt have been taken from the river during the past fishing week. The smelt week starts on noon of Saturdays and ends at noon on Thursdays. Last Sunday proved to be the biggest day for catches in the smelt season so far this year. At that time 1000 boxes were caught. Catches for Monday and Tuesday brought in about 700 boxes of the little silver fish. Each box contains 50 pounds of fish. Thirty-five boxes has been the biggest individual catch during the past week. Two fishermen held that record on Tuesday. The smelt are being handled through the Clatskanie Smelt Fishermen's coop and most of them are going to outlying areas around Portland and into Washington. Nick Beglaris is the manager of the association and estimates that some 140 smelt fishing boats are out. Runs at all four stations were reported as pretty good. The smelt have not started to enter the Cowlitz river yet. When they enter the tributaries the commercial fishing stops. Six dollars a box is the price to the fishermen from the coop. The smelt are in excellent condition and are of fine quality.
4 March 1951	Columbia River	<i>Sunday Oregonian</i> , p. 16, col. 2-3	N. W. River Ramblings With Pleasure Craftsmen. By Lawrence Barber, Marine Editor, The Oregonian. Smelt lovers are watching for the annual entry of the silver horde into the Cowlitz and Lewis rivers, where the choicest ones show up every March. During the past two years they appeared in the Lewis river March 18 and hundreds of boaters went after them with long handled dip nets. Ed Brockman, sage of the Sandy, a student of the silvery eulachon many years, counted 87,200 eggs in one 7½-inch long female which he caught in the Sandy river three years ago. By allowing the roe to separate in cold water over night, he spread the film of eggs on glass. The mass filled an area of 72 square inches. Ed counted 35 eggs to one lineal inch, or 1225 to a square inch. Cold water in the Columbia and its tributary streams is holding back the smelt run, which last was reported below Longview, according to Brockman.
8 March 1951		<i>The Kelsonian Tribune</i> , p. 1, col. 5-6	Lack of Smelt Runs in Cowlitz Due For Study by Chamber Committee. A study of conditions governing the Cowlitz smelt runs, and recommendations for improving or restoring runs, is the assignment given a committee of the Kelso Chamber of Commerce ... the runs have been wholly lacking for two years and may pass up the Cowlitz again this year. ...
15 March 1951	Columbia River, Skamokawa	<i>Oregonian</i> , p. 21, col. 3	Smelt Likely To Skip River. Local Fish Buyers Complain of Price. Failure of smelt run in the tributaries of the Columbia river received a worried frown Wednesday from the Washington state department of fisheries. At the same time Portland fish buyers complained that price of the eulachon is too high. A Clatskanie smelt fishermen's co-operative official said in Astoria, however, that it is still the cheapest fish food on the

Date	Place	Source	Quote
			market. The Olympia fisheries department said the Cowlitz river smelt run is in danger of failing for the third successive year. The Lewis river run as yet has failed to develop. There have been none of the little fishes reported in the Sandy river, most important and interesting of the runs to Portland residents. Pollution Study Planned. The Cowlitz run normally begins in February, but so far good commercial catches were being made only in the Columbia river and Skamokawa, according to the fisheries department. As a result, preparations were under way to study the effects of pollution on the fishery near Longview, a department announcement said. Reports of mill pollution on the lower Cowlitz will be investigated this week. Portland buyers have declared the Astoria co-op has set such a high price on the fish it isn't profitable for freezing. This Year's Run Light. The co-op official, Wayne Sudi, said the smelt are not sold for freezing until they enter tributaries of the Columbia, where a heavy catch by dipnetters deflates the market. Sudi said the run this year, though light, was one of the longest on record in the Columbia. He said the price of \$7.85 for a 50-pound box would be asked as long as they stay in the Columbia. Portland buyers also complained the co-op had set a quota on gillnet fishermen. Sudi said the quota was set at 120 fishing boats when it became apparent that the market would not be able to handle all the fish caught.
15 March 1951		<i>The Kelsonian Tribune</i> , p. 1, col. 7-8	State Groups to Check Smelt Run Monday. Facts of Smelt Decline Sought By Kelso C of C. Top men of the state fisheries department will be in Cowlitz county Monday to make an on-the-spot check of conditions affecting the smelt run. ... Preliminary discussion has developed four possible cases for absence of the smelt runs in the Cowlitz during the past three seasons. Those are mill wastes, netting of the "scout runs" in the Columbia, the sandbar at the mouth of the Cowlitz, and low river temperatures during the smelt period. "The Cowlitz river smelt run normally represents a \$200,000-a-year industry for Kelso," one committee spokesman said. ... Smelt catches in the Columbia this week were reported to have been poor. The main body of the smelt got up the river about as far as the Reynolds Metals Co. plant and then dropped back downstream. Some commercial fishermen believe the smelt are now spawning in the Columbia, instead of continuing up their normal spawning streams, the Cowlitz, the Lewis and the Sandy rivers. With commercial fishing closed down Thursday noon, there was some hope the smelt would move upstream in the next two or three days.
16 March 1951	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 3	Smelt Season Sets Record in Length. Smelt catches are remaining much the same this week and to date they have not entered the tributaries but are still in the Columbia river and are being fished by the commercial fishermen. Local people as well as those served in communities where smelt are sold are finding them the cheapest eating as compared to other foods. The cost to the buyers from the coop is \$7.85 for a 50 pound box and as far as is known now that price will remain while the smelt run in the Columbia. The smelt run has been the longest in years, the fishermen say, but the catches are not considered heavy and have been running in recent days between five and seven boxes per boat.

Date	Place	Source	Quote
21 March 1951	Lewis River	<i>Oregonian</i> , p. 1, col. 1	Smelt Start Run In Lewis River. WOODLAND, Wash., March 21 (Special)—Smelt began their 1951 run in the Lewis river Tuesday. E. L. Allen, Woodland, said he and friends went to the river's mouth Tuesday afternoon with dipnets and pulled in about 30 to 40 pounds of the small fish. Allen said he believed the run would be heavier than last year's short and small appearance. At Clatskanie, an official of the Columbia River Smelt association said the commercial season has ended.
22 March 1951	Not Lewis River	<i>Oregonian</i> , p. 1, col. 2	Rumor of Smelt In Lewis Error. WOODLAND, Wash., March 22 (AP)—A rumor that the 1951 smelt run had entered the Lewis river Wednesday morning sent scores of amateur dipnetters into the Woodland area. But commercial fishermen of the Central Smelt company in Kelso say "It just ain't so." Ole Soleim said commercial fishermen from the Kelso company headed for the Lewis river as soon as the report that the smelt were in reached Kelso. They returned without having found a sign of the tiny eulachon. Original reports from Woodland said the fish appeared at the mouth of the Lewis river Tuesday. So far the smelt have not put in an appearance at the Cowlitz river at Kelso—one of the favorite spawning grounds in years past. Neither have they been reported farther down river in tributaries such as the Grays and Naselle rivers. Commercial smelt fishermen on the Columbia called a halt to their work Tuesday after one of the longest commercial seasons in history.
22 March 1951		<i>The Kelsonian Tribune</i> , p. 1, col. 7-8	Scientific Surveys Of Smelt Launched. First steps in a scientific study of smelt runs in the Cowlitz were taken here Monday. The study will cover all known and suspected factors governing the behavior of smelt—pollution, physical obstructions, netting and dipping, water temperature, spawning requirements. ... A report on Wednesday that the smelt had started running in the Lewis river was quickly branded as untrue by local fisheries representatives. The smelt have not come further up the Columbia than the power-line crossing below the Weyerhaeuser plant.
22 March 1951		<i>The Kelsonian Tribune</i> , p. 1, col. 7	Smelt Facts Told By Fish Expert. Why is a smelt? Several "facts of life" about this elusive anadromous fish were revealed by Wendell Smith, state fisheries biologist, during the course of Monday's inspection tour. The smelt which returns to spawn in the Columbia and its tributaries are almost all three and four-year-old fish. Age can be determined by counting the growth rings in a certain bone in the smelt's ear. The four-year-olds are much bigger and meatier than their younger relatives. Smelt apparently believe in free love. They do not mate, but engage in the practice of mass spawning, milling around in large numbers with the male secretion contacting the eggs by chance. The fertilized eggs sink to the bottom of the river and attach themselves to rocks. Some 28 days later the eggs hatch. The smelt fry, or young, are extremely small and frail, and lack swimming power. They virtually drift with the current until they reach salt water, where their real growth begins. While much of this spawning normally occurs up tributaries including the Cowlitz, the Lewis and the Sandy, there is usually a good deal of spawning in the Columbia itself. Once the smelt has spawned, it dies quickly. These

Date	Place	Source	Quote
			spawned-out smelt rise to the surface, and on the Columbia they attract droves of sea-gulls, which gives rise to a common impression that the fish have been killed by pollution or some other factor. Smelt do not necessarily return to the stream of their origin to spawn. Smith said the Sandy has been missed, in the past, four years in a row, which would eliminate future runs if the spawning-in-same-stream theory held up. However, the smelt have returned to the Sandy. "It is likely that once they are in the river—in this case, the Columbia—they will go up any suitable river to spawn," Smith said. The Cowlitz, the Lewis and the Sandy have historically been the only rivers in this area with important smelt runs, and the Cowlitz, until recently, has been the best of the three. All these rivers are glacier-fed, and all have long areas of clear rock bottom which the fish favor for spawning. Smith added that there is practically nothing in fisheries literature about the smelt, and that most of his study of the problem will have to be based on first-hand observation.
23 March 1951	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 3	Association Stops Smelt Fishing. The Clatskanie Smelt Fishermen's Cooperative voluntarily ceased fishing for smelt in the Columbia river Tuesday in order to save future runs. ... The smelt have not entered any of the tributaries of the Columbia as yet this year altho[ugh] a report was broadcast that they were entering the Lewis river. Fishermen say that the smelt are now spawning in the Columbia. This is the longest commercial gillnetting season the fishermen have ever experienced since that type of fishing was started in 1911 by Isaac Jolma and Fred Niemela. This year gillnetting started January 2nd and the run has at no time been great but it has been fairly consistent. All in all, it has been a good season for the fishermen. The price charged by the cooperative this year has been \$7.85 for a 50-lb box and the retail price has been generally 35c per lb. The fishermen are paid \$6 per box. With the end of the season by the cooperative, it is thought some individual fishermen may continue fishing although a move has been made to force the price down to \$4 per box.
March 1951		<i>Pacific Fisherman</i> 49 (4): 59.	Smelt Smelt and Tasted of Oil. Columbia River smelt fishing operations were suspended for a time late in January as a result of leakage of oil from a tanker which had been damaged at sea. Naturally an oily fish, the smelt proved a bit too oily—or at least oily in the wrong way. They definitely smelt and tasted of something beside smelt oil. Dr. E. W. Harvey, director of the Oregon Seafoods Laboratory at Astoria, studied the phenomenon and was of the opinion that the smelt had not taken the oil internally, but that the flavor resulted from external contact. On the other hand, some Steelheads caught at the same time were reported to have mineral oil in their digestive tract.
5 April 1951		<i>The Kelsonian Tribune</i> , p. 1, col. 4	Cowlitz Smelt Problem Aired At Meetings. ... Waste from lumber mills along the river and other industries and sewer outlets have created a dirty water blanket extending for about 30 miles along the Washington shore. This blanket does not kill the fish, but does discourage them and diverts them toward the Oregon shore. This, plus dispersal of the smelt by gill netters, has made smelt continue on upstream. Another factor is the

Date	Place	Source	Quote
			shifting sand bar which is constantly changing the mouth of the Cowlitz.
6 April 1951	Sandy River	<i>Oregonian</i> , p. 1, col. 7	Sandy Smelt Here at Last. The smelt are in the Sandy. The run was discovered about 7 p. m. by a woman trolling for salmon near the mouth of the river. She snagged one. Quickly switching from salmon spinner to dipnet, she and her husband got a mess, then hurried ashore to give the news to H. E. Quade, Sun Dial beach, who is usually the first to discover the run. Quade wet his own net to confirm the report, snared a dozen or so then rushed to his telephone to spread the word. Traffic Jams Forecast. Sheriff Terry Schrunk commented, “Oh, oh, there goes my poor budget” and started planning to handle traffic jams. Commercial fishermen had moved to the mouth of the river in “droves” reported Capt. Early Stanley of the county police at midnight. The slender fish at the time were milling around the river mouth, he reported. Dipnetters working in the river reported first arrivals were fairly deep — about four feet, but the run was sufficient to yield about a dozen fish for each dip. Stanley said he expected the run would be up to Troutdale bridge by daylight Friday. This is the second latest run in the Sandy on record. In 1929, the little fish didn’t reach the river until April 9.
7 April 1951	Sandy River	<i>Oregonian</i> , p. 1, col. 2-4	Dipnetters Throng Sandy. A sizeable run of smelt swarmed into the Sandy—and into waiting dip nets—Friday. Fishermen worked all night at Sundial beach dipping the slim eulachon after the vanguard entered the mouth of the Sandy about 7 p. m. Thursday. Big crowds of fishermen thronged to the river banks early Friday, but sheriff’s deputies who were directing traffic, said they did not expect the real rush until the week end. Some experts predicted a run of fairly short duration, pointing out that most of the fish had spawned before getting out of the Columbia. At the Troutdale bridge fishermen were getting up to half-full nets with each dip. The run was more sporadic in the Columbia at Sundial beach, but good catches also were being made there. Harris Quade, beach operator, said one fisherman got his limit in four dips. Two trailer booths were set up by the state game commission on the river’s banks to handle license sales. Sports license fees of 50 cents, applicable to fishermen of all ages, nonresidents as well as residents, entitle dippers to 25 pounds of fish per day. Fishing is permitted from the mouth of the river to Viking park bridge. Commercial Crews Busy. Meantime, commercial fishing license applicants swamped state fish commission offices in the Governor building. They are required to pay \$7.50 for personal licenses and \$7.50 for dip net licenses, but no catch limits are imposed. Both sports and commercial fishermen are permitted to fish around the clock during the run, except from midnight Sunday to midnight Monday. Ten field deputies were assigned by the game commission to check anglers. Traffic is being handled by the sheriff’s office. A game commission spokesman said it had erected a dozen comfort stations along the stream for the public. The run was the second latest record in the Sandy. In 1929 the smelt did not reach the river until April 9. Friday night sheriff’s deputies said gillnetters were along the banks of the river “as thick as flies.” The smelt run was continuing, but was reported to be “not too heavy,” they said.

Date	Place	Source	Quote
8 April 1951	Sandy River	<i>Sunday Oregonian</i> , p. 1, col. 6-7	Sandy Fish Run Picking Up After Poor Dipping Period. Things started looking up for smelt dippers along the Sandy river about 9:30 p. m. Saturday after a dull afternoon. Sheriff's deputies at the Gresham precinct, back from the banks of the bustling stream, said the run picked up after dark and before 10 p. m. was fairly heavy. This was in contrast to the afternoon dipping, which dwindled to next to nothing. The run started Thursday night. Unconfirmed reports that huge schools of the slim fish were holding forth in the Columbia river off the mouth of the Sandy buoyed up the hopes of many dippers. Despite the poor dipping during the afternoon, the customary stream of cars bearing prospective fishermen poured into the area, and the traffic control problem increased hourly. Late Saturday, county police reported "good crowds" but no serious traffic jams, although auto movement in the area was slowed down. The state game commission was operating two mobile license sales offices—silver-colored house trailers—at the old upper and lower bridges, and advising visitors that anyone who "walks, crawls or creeps and handles a net" must have a license. A license, which sells for 50 cents, entitles a dipper to 25 pounds of fish a day. It is applicable to each fisherman, nonresident or resident, regardless of age. Fishing is permitted from the mouth of the river to Viking park bridge, and netters may operate around the clock except from midnight Sunday to midnight Monday, when the law prohibits netting to give some smelt a chance to reach spawning grounds.
10 April 1951	Sandy River	<i>Oregonian</i> , p. 1, col. 3	Spotters Report Smelt in Sandy. Smelt, at least enough to be seen from the Troutdale bridge, were coming up the Sandy river Monday before dark and observers thought the run would continue into Tuesday. But there was no way to gauge the flow up the stream as dipnetters were barred from catching smelt until midnight. A big school was reported Monday morning, but this had faded out in the afternoon. Sheriff's deputies in the late afternoon reported smelt between the two bridges and not many fish coming up.
12 April 1951		<i>Oregonian</i> , p. 5, col. 2	Calls on Smelt Edge Out Mac. Gen. Douglas MacArthur, whose firing was subject of hundreds of calls received in The Oregonian news room Tuesday night, lost out to the smelt Wednesday. Slightly more callers inquired about whether the smelt were running than to express indignation over MacArthur's removal on Wednesday. P. S.: The smelt were not running.
19 April 1951		<i>The Kelsonian Tribune</i> , p. 1, col. 3-6	Editorial: Let's Keep Our Rivers Clean. Above is illustrated proof of the smelt runs of the past that brought hundreds of fishermen and thousands of dollars to Kelso every Spring. This year and the previous two years there has been no such scene. ...
Season of 1952	Cowlitz River	Schoettler (1951, p. 43)	Smelt Studies. Studies of smelt were directed towards two considerations. In view of reduction of commercial catches of smelt in recent years, a two-day closed season each week was imposed upon gillnet fishing during the 1951 season. The problem of serious pollution was also considered, since the Cowlitz, always the largest in production of smelt, failed in 1949, 1950 and 1951. A coordinated program of research with the State Pollution Control commission was begun and will be continued during 1951 and 1952.

Date	Place	Source	Quote
1952			
18 January 1952	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 7	First Smelt of Season are Put on Market Tuesday. Fishermen of the Clatskanie Smelt association put the first of the silver delicacies on the markets early this week but Thursday [17 January] were still awaiting the full run of the small but delicious fish. A half box of smelt went on the market Tuesday in Clatskanie and the still scarce fish sold at 50 cents a pound then. The fish were caught Monday night. Tuesday night's fishing brought 3½ boxes, part of which were shipped to Astoria and the rest were sold in Clatskanie markets. None have been shipped to Portland as yet. Wednesday night only half a box was reported taken. Four boasts went out Wednesday and two had returned early Thursday with little results. Some fishermen have been catching smelt enough for individual tables since December 7 but the run apparently still has not arrived in commercially important numbers. First reports of smelt catches came early in December when Verl Anundi got a few for his home use. Fishermen Thursday speculated that the cold weather may be holding up the annual run that makes Clatskanie the smelt fishing capital early in each year and catches so far are from the "scout" run that enters the river before the main body of smelt. Fishermen have also reported seeing an abnormal number of seals in the river for this time of the year.
1 February 1952	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 2	Gillnetters Find Salmon Missing. ... Smelt fishing in the Clatskanie [sic] river continued to be slow. Some fish were on the local markets but no large catches were reported by the Smelt Association.
5 February 1952	Portland, OR	<i>Oregonian</i> , p. 1, col. 7	Smelt Deliveries Reach Market. First smelt of the season arrived on the Portland market Monday, about two weeks later than usual. Dealers received a shipment of 15 50-pound boxes from the lower Columbia. Initial prices was \$25 a box—50 cents a pound—to retailers. Smelt fishermen blamed coldness of the water for lateness of the run. They looked for warmer weather to bring an immediate increase, with prospects the smelt would show up in the Columbia river tributaries soon.
6 February 1952	Portland, OR	<i>Oregonian</i> , p. 10, col. 2	Smelt to Decline, Says Fish Trade. Increasing supplies will bring wholesale smelt prices down a dime or so Wednesday from the high opening level of 50 cents a pound, Portland fish dealers said Tuesday. Lower Columbia river fishermen were quoting \$15 a 50-pound box to local wholesale dealers for Wednesday's deliveries, a drop of \$5 from Monday's price. A price to retailers of 38 to 40 cents a pound was indicated.
8 February 1952	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 1	Smelt Catches Swing Upward. Smelt catches made by members of the Clatskanie smelt association took a sharp upswing during the past week and since last Thursday 165 boxes of the silver delicacies have been marketed through the association channels. Although the take during the week doesn't approach mid-season catches of previous years the improved results led association officials to believe that at last the main body of the run had reached the Clatskanie area. About 30 local fishermen shared in the take during the past week and most of the smelt went into local markets. Some fish went to Astoria and Portland but not in large numbers. In peak runs of past years the 165 boxes taken during

Date	Place	Source	Quote
			the past week would mean just a single truckload for the Portland market in a day, one of the association officials said.
17 February 1952	Columbia River	<i>Sunday Oregonian</i> , p. 28, col. 1	Northwest River Ramblings. By Lawrence Barber. Marine Editor, The Oregonian. A run of eulachon, or Columbia river smelt, is on its way up the river and nearing Longview, according to reports from the Cowlitz country. A drift net fisherman last week reported taking a handful between the Cowlitz and Longview bridge, but most of the commercial catch is coming from gill-netters working below Mayger and Stella, reports Gordon Bruce, manager of Portland Fish company. Within a few weeks the runs should appear at the Cowlitz and Lewis rivers where sports dippers can reach them.
19 February 1952	Cowlitz River	<i>Oregonian</i> , p. 1, col. 2	Cowlitz Netters Dip First Smelt. KELSO, Wash., Feb. 19 (INS). The first trace of the 1952 smelt run reached the Cowlitz river near Kelso early Monday. Commercial fishermen caught about six tons and filled 250 boxes with the silvery little fish before they scattered. Such early excursions are considered forerunners of the yearly smelt runs, which fill streams with fish.
21 February 1952	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 5	Smelt Run Dwindles Away To Nothing. A small run of smelt started in the lower reaches of the Cowlitz Monday morning shortly after midnight Sunday, then tapered off each day, according to reports from local commercial fishermen. Two hundred seventy-five boxes of the little fish were netted below Kelso Monday morning. Most of the catch of 125 boxes taken Tuesday were from a point opposite the Longview Pipe and Concrete Company. Fishing halted yesterday shortly after daylight with a catch of only 35 boxes of smelt. The fish have been scattering shortly after dipping begins and operations stopped shortly after daylight. Commercial dipnetters have been scouting the upper river but have met with no success.
22 February 1952	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 3	Smelt Nose In and Out of Cowlitz. Clatskanie Smelt association fishermen found fishing good during the past week averaging 500 to 600 boxes a night a spokesman for the organization announced Thursday. Appearance of a small run of smelt in the Cowlitz river appeared to have little effect on the activities of the association fishermen. Catches of the fish during the past week have supplied local markets and have been shipped to Portland, Astoria and other points usually supplied by the association, officials said. The appearance of smelt in the Cowlitz river Sunday night marked the first time in three years that the fish have entered that stream. Commercial fishermen worked the Cowlitz and on the first night landed 250 boxes. Catches dwindled on successive nights of fishing and Tuesday night only 35 boxes of the fish were caught in the Cowlitz leading residents of that area to believe that only a small run of fish had entered the area there. Commercial fishermen were scouting the upper area of the Cowlitz but had not found any of the fish through Wednesday. Local fishermen were out Wednesday night in the Columbia river and then closed operations until Saturday night, as is their usual policy.
24 February 1952	Cowlitz River	<i>Oregonian</i> , p. 19, col. 8	Ramblings Along the River ... With Pleasure Craftsmen. By Lawrence Barber, Marine Editor, The Oregonian. Smelt were reported in the Cowlitz river two days last

Date	Place	Source	Quote
			week, but the run disappeared Thursday. Boaters are watching for them to arrive in the Lewis river this week end or in the very near future. Smelt dipping ordinarily is done on the north fork of Lewis river, above the forks, and usually must be done from boats, because the runs stay too far from shore to be reached by long-handled dip nets. Nets usually have handles eight to ten feet long, and the mesh is one-half-inch size. Dealers handle made-up nets and web, but many dippers prefer to make their own.
29 February 1952	Portland, OR	<i>Oregonian</i> , p. 4, col. 4-5	Market Wise ... OTHER FINE FISH—considerably less expensive—offers good eating on any budget. Fresh Columbia river smelt are 33 cents a pound...
29 February 1952	Portland, OR	<i>Oregonian</i> , p. 16 advert	Northwest Stores. ... Fresh Columbia River Smelt lb. 33c
7 March 1952	Portland, OR	<i>Oregonian</i> , Sect 2, p. 1, col. 1	Market Wise. ... delicious Columbia river smelt at 29 cents a pound. ...
14 March 1952	Portland, OR	<i>Oregonian</i> , Sect 2, p. 2 advert	Fred Meyer ... Fresh Columbia River Smelt Budget Meal 29c lb. ...
15 March 1952		<i>Oregonian</i> , p. 4, col. 1	Fishers Deny Huge Hauls. ASTORIA, March 14 (AP)—Commercial smelt fishermen Friday denied they were responsible for diminished smelt runs on the Cowlitz river. Ocea Niemi of Longview charged that gillnetters had tons of smelt in cold storage because catches were so large they couldn't dispose of the fish on the market. But Nick Begleries, manager of the Clatskanie Smelt Fishermen's Co-operative, said that gillnetters fished only for the fresh market and had no smelt in storage. He said Oregon fish commission figures show that dipnetters along the Cowlitz have taken more smelt than commercial fishermen in every one of the past five years except 1950. Begleries blamed the diminished Cowlitz runs on excessive dipnetting and stream pollution.
19 March 1952	Cowlitz River	<i>Oregonian</i> , p. 1, col.	Smelt Reappear In Cowlitz River. LONGVIEW, Wash., March 19. (AP)—The elusive smelt returned to the Cowlitz river Monday night and commercial fishermen dipped nearly 13 tons of the tiny food fish in a short time. It was the second time this year the fish have appeared in the river. The first run was only hours long.
20 March 1952	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 3	Smelt Come Back To Cowlitz Fishermen. Millions of tiny silver fish are finding their way into the fishermen's boats as the smelt come up the Cowlitz in the biggest run since 1948. Two thousand boxes of smelt, approximately 100,000 pounds were taken from the Cowlitz river Tuesday and Wednesday morning. Catches of this size are more like those of the years through 1948 than the two preceding ones when runs were extremely light. In 1949 the fish went into the Lewis river and missed the Cowlitz entirely. The smelt had proceeded above Ostrander Wednesday from the Cowlitz river bridge where the run centered Tuesday. Forty to fifty commercial boats worked the river Tuesday night. Many residents took advantage of the large run and lined the banks. Seagulls circling over the river and around the Cowlitz river bridge, gave first evidence that the smelt were in the river. Both commercial and private fishermen responded to the call. The small fry have not yet formed the usual line of largest fish in front possibly due to the weaker current in the lower river. The fish should get into line when they hit stronger current. It is believed

Date	Place	Source	Quote
			that a number of them are reaching the spawning grounds in the Castle Rock area. The commercial season is closed between 8 a.m. Thursday and 8 p.m. Saturday by the state to protect the smelt spawning runs.
21 March 1952	Cowlitz River Kalama River	<i>Oregonian</i> , p. 1, col. 2	Cowlitz Closed To Smelt Fishing. Smelt fishing in the Cowlitz river, which is enjoying its first heavy run since 1948, was closed down at 8 a. m. Thursday for a 60-hour period, permit escapement of a spawning run. Smelt are also making their way up the Columbia. Some have been netted at Kalama, and a few have been sighted in the Kalama river. A possible break in smelt prices was indicated Thursday when one large buyer offered \$3.50 a box for fish for freezing. Fresh market buyers continued to pay \$7, however. Trade reports indicated about 1000 boxes of smelt from the Cowlitz run were received on the Portland market Thursday. Dealers said that size of the catch when fishing is resumed Saturday night will determine the price situation. The 2½-day closure of the Cowlitz will affect both commercial and amateur dipping and netting operations. The catch for the season to date has passed the 200,000-pound mark.
21 March 1952	Columbia River Cowlitz River Kalama River	<i>The Clatskanie Chief</i> , p. 1, col. 2	Smelt Catch 850,000 lbs by Netters. The Clatskanie Smelt association closed its operations for the year Tuesday after smelt entered the Cowlitz river in large numbers. Smelt association officials said that the local association which fishes only for the fresh market on an order basis had a good year after a slow start. Total take this year by the Clatskanie gillnetters was 850,000 pounds, considerably below the 1,178,608 taken for the fresh market by association fishermen last year. The association does not participate in the dip netting activities in the Cowlitz. Major reason for the decline in total catch this year was the late date at which the smelt began to run this year. Where good runs are usually in the river in the early part of January, it wasn't until the first part of February that Association fishermen found smelt in profitable numbers in the river off Clatskanie. During the season, Washington Fish Commission biologists have conducted two tests to determine the effect of stream pollution on the activities of smelt. By setting up two troughs, one filled with polluted water, and the other with fresh, the scientists have observed the activities of smelt planted there. In almost 100 percent of the cases the smelt have veered away from the polluted area and entered the fresh trough. Entrance of smelt in large numbers in the Cowlitz brought a flurry of activity there. Reports from Longview said dipnet fishermen, both commercial and private were out in force Wednesday [19 March] on the Cowlitz as the first big smelt run in four years brought rich rewards. Five smelt companies in the Longview-Kelso area reported catching 50 tons of fish during the night and early morning hours. The latest catch brought the dipnet total in the Cowlitz so far this year to 75 tons. Throngs of Cowlitz county residents were reported lining the banks of the river north of Kelso Wednesday, hauling the fish out with their dipnets. At Astoria, the New England fish company called packing crews to work for the first time this year to handle 500 boxes of smelt it had received from the Cowlitz river. Due to the heavy run, the company decided to freeze and package the fish

Date	Place	Source	Quote
			for the frozen market, company spokesmen said. Late reports from the Cowlitz Thursday morning said the smelt had left the river at least temporarily and were apparently hanging outside on the sand bars near the mouth of the Cowlitz. Some fish were also reported in the Kalama river.
22 March 1952	Cowlitz River	<i>Oregonian</i> , p. 1, col. 4	Cowlitz Smelt Run Continues. The smelt are running full blast—or full fin—in the Cowlitz, but local dippers aren’t going to be able to do anything about it until 8 p. m. Saturday. At that time, the smelting will reopen after a 60-uour closure. However, the closure isn’t bothering the seagulls any, They are hovering around the mouth of the Cowlitz by the hundreds, and some are following the smelt run up the Columbia toward the Lewis river. No smelt had been observed in the Lewis river by Friday night, however.
23 March 1952	Cowlitz River Kalama River	<i>Sunday Oregonian</i> , p. 1, col. 5	Smelt Dipping Outlook Good. Prospects for smelt dipping in the Cowlitz river near Kelso, Wash., were described as “good” Saturday by Frank Swick, state fisheries department inspector, a few hours before the weekly fishing closure ended at 8 p. m. A few smelt were reported in the Kalama river. Meanwhile, Multnomah county deputies reported no smelt had appeared in the Sandy river and some local smelt forecasters had told deputies it might be two weeks before the Sandy run begins. Daily Limit Set. The smelt came in the Cowlitz only 1½ days before the closure began at 8 a. m. Thursday. The weekly closures during the run will continue from 8 a. m. Thursdays to 8 p. m. Saturdays. No license is required on the Cowlitz for private fishermen, who are limited to a daily catch of 20 pounds for their own use. About 110 licenses have been issued this season to commercial dipnet fishermen, Swick said. Smelt fishing on the Cowlitz is legal only from the mouth to a point five miles upstream and on a one-mile stretch of open water at Castle Rock.
24 March 1952	Cowlitz River	<i>Oregonian</i> , p. 1, col. 8	Dipper Hordes Pursue Smelt. Many hundreds of smelt dippers lined the banks of the Cowlitz river near Kelso, Wash., Sunday, after the end of a three-day closure, but no one was reported to have dipped the 20-pound daily limit. Frank Swick, state fisheries department inspector, said the elusive little fish had moved to the middle of the stream. Numerous small craft were working in deep water, but Swick said they scarcely got enough to take of one family’s needs. There are indications that smelt are beginning to move farther up the Columbia river and might reach the Lewis river in a couple of days, Swick reported. A few smelt are in the Kalama river, but clear water makes dipping difficult there. “There was a big crowd out there. The highway was a real traffic jam,” Swick said. Oregon smelt forecasters have predicted it might be two weeks before the smelt run in the Sandy begins, county deputies reported. The weekly closures on the Cowlitz will continue during the run from 8 a. m. Thursdays to 8 p. m. Saturdays.
26 March 1952	Cowlitz River	<i>Oregonian</i> , p. 4, col. 4	Smelt Fishers Win Pay Raise. LONGVIEW, Wash., March 25 (Special)—... Hauls in the Cowlitz Monday night were reported to be around 250 boxes, while about an equal number of boxes were taken from the Kalama river. These hauls were regarded as very light. ...

Date	Place	Source	Quote
27 March 1952		<i>Oregonian</i> , p. 4, col. 6	Sandy Ready For Smelters. ... The run of the small fish, which comes from the ocean in spawning migration is unpredictable. In 11 of the past 30 years, including 1949 and 1950, they did not appear in the Sandy. Old reports say they did not enter the river during a 14-year period in the 1880s and 90s. Duration and size of the migration also cannot be forecast, and the date of their arrival in the Sandy river may vary more than a month. Last year's run, which appeared April 5 was described as a "token run." The smelt have appeared as early as March 4 (in 1934) and as late as April 11 (in 1922). Most of the runs have appeared about the last week of March.
28 March 1952	Portland, OR	<i>Oregonian</i> p. 2, advert	Fred Meyer. ... Fresh Columbia River Smelt. 18c lb.
28 March 1952	Cowlitz River Kalama River	<i>Oregonian</i> , p. 11, col. 5-6	Smelt Price Edges Higher. Tapering off of the Cowlitz river smelt run and appearance of the fish in the Kalama was accompanied Thursday by a price advance of \$1.50 a 50-pound box. Meanwhile, all dipping operations, both commercial and otherwise, was halted in the Washington tributaries at 8 a. m. Thursday for the usual 60-hour closure to permit escapement of a spawning run. Night's Catch Estimated. The previous night's catch was estimated at around 200 boxes in the Kalama and 45 boxes in the Cowlitz. Price to fishermen advanced to \$5.50 a box, making a delivered cost to Portland wholesalers of around \$7 a box. The fish were described as "milling around" in the Columbia, and only coming into the Kalama with the tide. Dealers here speculated that reopening of fishing Saturday might find the run in the Lewis river, or they might skip that tributary entirely to show up next in the Sandy.
31 March 1952		<i>Oregonian</i> , p. 17, col. 1	Smelt Lacking. Reports were made to police Sunday of smelt in the Sandy and Lewis rivers, but officers who checked the streams could not spot any of the silver fish. Washington state patrolmen checked the Lewis river, while Multnomah county deputies from Gresham searched the Sandy. Deputies said the elusive fish have been sliding past the mouth of the Sandy at Sun Dial beach for several days.
8 April 1952		<i>Oregonian</i> , p. 1, col. 4	Smelt Milling For Sandy Run. Smelt, lots of them, hovered off the mouth of the Sandy river in the Columbia early Tuesday, preparatory to a possible run upriver. Sheriff's Deputies Bill Clendenning and Leonard Klaw, who stood by during the night, reported the game commission test dippers filled an apple box with smelt off Sun Dial beach in the Columbia before midnight. This, they said, indicates the run up the Sandy might be good. The smelt were expected to head up the river sometime before 7 a. m. Tuesday. Licenses to Go on Sale. Meantime Troutdale girded itself for the human invasion that follows the Sandy smelt run. Twenty-two business firms have been authorized to sell the 50-cent licenses that entitle a dipper to 25 pounds of smelt. The game commission also has built six comfort stations, which will be set up as a public service near the Troutdale Rod and Gun club. Last year's run, described by the game commission as a "token run," began April 6. The latest run was in 1929, when the smelt headed up the Sandy April 9. Usually the smelt make the Sandy run the last week in March.

Date	Place	Source	Quote
9 April 1952		<i>Oregonian</i> , p. 1, col. 4-6	Smelt Shun Cold Waters of Sandy River, Stall Around at Mouth Awaiting Warmup. Temperature Climb May Result in Run. They kept the fires burning and the lamps lit for the smelt Tuesday night and as long as need to be into Wednesday morning. All along the Sandy river from its mouth to a half mile or so above the old bridge at Troutdale the campfires burned. It was a fine night for a vigil. The moon, a little misty, had a halo and the fragrance of the blossoms mingled with the woodsmoke and talk and laughter carried across the water. People were picnicking as if there were never such a thing as smelt. Smelt Still Downriver. The smelt were downriver, somewhere near the mouth, and the experts of the game commission and the amateur experts like Ed Brockman said the water upriver had to be a mite warmer before they came in numbers. Along the banks now and then someone would probe with a light and find a single smelt wiggling away from the glare. But smelt aren't smelt unless they come in droves and myriads. Around the Troutdale bridge at 10 p. m. Tuesday there were more people anticipating smelt than there were smelt. They came with their long-handled dip nets, ready to be the first to haul the 25-pound limit from the stream. Some bought the 50-cent licenses, but most were cautious enough to wait and see whether the mysterious little fish will swarm. Ed Brockman went to bed early, as he always does, and guessed the fish would come upstream sometime early Wednesday. In Troutdale, where 22 merchants are dispensers of smelt licenses, the taverns had dusted off and hung up their old signs; "Cold Smelt Bait to Go." Tuesday night the cold smelt bait was going by the case and half case.
10 April 1952		<i>Oregonian</i> , p. 1, col. 6	Smelt Elude Dipper's Nets. Smelt dippers were seeking the answer to a new mystery Wednesday night—just where are the slippery little fish? Dippers at Sun Dial ranch at the mouth of the Sandy river reported the schools of smelt had disappeared. For two days they ranged into the mouth of the Sandy river and then out again. Capt. Earl Stanley of the sheriff's office said, "Everything has disappeared." One report indicated the smelt were moving up the Columbia river and were at Rooster rock on the Washington side. A sturgeon fisherman said he hooked a smelt in his line at Tanner creek near Bonneville dam. Cycle's Repeat Theorized. From this, one theory developed that the cycle could be completing itself and those that spawned three years ago in Tanner creek could be returning. The smelt dippers, some of whom had spent long hours waiting, were nearly as scarce as the fish themselves. Captain Stanley said he hadn't much hope that the smelt would come into the Sandy Thursday and was going to give his deputies some time off. Stanley had held over his deputies when it appeared a full force would be needed to direct traffic in the dipping area. In 23 years of record smelt have never entered the Sandy later than 3:30 p. m. April 9. Commercial fishermen at Sun Dial beach said the few smelt that were caught Wednesday appeared to be spawned out. This, they said, could mean the run would disappear. Smelt, like salmon, die after spawning.
11 April 1952		<i>Oregonian</i> , p. 1, col. 8	Fish Do Fadeout At Sandy Mouth. Smelt have disappeared from the mouth of the

Date	Place	Source	Quote
			Sandy river, sheriff's deputies on duty at the Gresham precinct said Thursday. "They're gone," said one deputy. "There is a rumor they were seen up the river (the Columbia) on the Washington side, but nobody has been able to pin that down." The smelt appeared Tuesday off the mouth of the Sandy and it appeared they probably would start upstream immediately. But instead the large school of the small fish faded away.
12 April 1952		<i>Oregonian</i> , p. 8, col. 2	Smelt Went Whichaway? Why did the smelt fail to appear in the Sandy river this week after gathering at the mouth of that popular spawning stream? And where did they go? No one knows, not even Ed Brockmann who has made the Sandy river and smelt a hobby for years. To him it seems likely that temperatures of the water in the Sandy and Columbia may have had something [to] do with it, though these last Tuesday were 45 and 28 degrees, respectively, which "Sandy River Ed" has found in his studies to be proper for smelt spawning. "But there was frost on my car Tuesday morning," said Ed Brockmann. Perhaps the smelt some way had detected a chill in the current of the Sandy, where it enters the Columbia, that did not register on Ed's thermometer, and veered away to deposit their eggs elsewhere. Unfortunately men know so little about the eulachon, one of the finest food fishes in the world. Men know chiefly that in the spring of the year the smelt swim in great hordes from the sea to lay their eggs in the streams, perhaps where they themselves were spawned, and the coming if the smelt makes a holiday for fishermen on such rivers as the Sandy. Mr. Brockmann believes the life cycle of the smelt is two years, though some think it is three. In 1948, he pointed out, the great flood disturbed the spawning and growing of the young smelt in the Sandy. In 1950, two years later, there was no run there and now, two years later again, they failed to appear. Also he cites increased catches of smelt by gill-netting in the Columbia as a possible reason for depletion of the Sandy river run. More than a million pounds were taken by Oregon and Washington netters in the Columbia river last year. But the fact remains there were smelt at the mouth of the Sandy last Tuesday and eager fishermen sat by bonfires into the wee hours of Wednesday waiting for them to get within range of their long-handled nets. The best answer for the failure of the run appears to be that smelt are "temperaturemental."
Season of 1952	Cowlitz River	Schoettler (1953, p. 53-54)	COLUMBIA RIVER SMELT. Since 1951 was the third consecutive year that smelt failed to migrate into the Cowlitz river on the normal spawning run, studies were undertaken during the March run in 1952 to determine causes for the change. In both 1951 and 1952 the market demand for smelt was adequately met during most of the season by gillnet fishing in the main Columbia river. Catches by gillnet have not shown a decline, and the intensity of fishing has increased considerably. A slight recovery occurred on the Cowlitz river in 1952, when the catch was 337,000 pounds. ...
		Smith <i>et al.</i> (1952)	SMELT AVERSION EXPERIMENT. During the month of March 1952 Messrs. Smith and Saalfeld conducted studies destined to aid in the determination of causes for apparent change in the migratory habits of and possible decline in numbers of the Columbia River

Date	Place	Source	Quote
			smelt, <i>Thaleichthys pacificus</i>. Essentially, the study was directed toward two objectives: first, the apparent effects of the fishery and second, the possible effects of pollution, respectively, on the stocks of smelt under consideration. Further consideration of the smelt exploitation by the fishery is necessary to adequately assess the effects that this places upon the normal habits of the fish. cursory studies indicate that two possible deleterious effects may result. (1) The bottom net fishery may break up the normal upstream migration of the smelt and thereby hold the fish downstream below spawning grounds used formerly. (2) Again, the bottom net fishery may, by scraping the river bottom in the Columbia, be dislodging serious numbers of developing smelt eggs. Either of the above two considerations may be significant in recent years because of the fact that the number of fishermen actively engaged in gill-netting for smelt has increased enormously. However, it is necessary to state that the smelt through most of the season were sufficiently abundant to far more than satisfy the demands of the market. Throughout the season the fishery was operated on a quota basis which was directly determined by the market. The effects of pollution upon the upstream migration of adult smelt were measured by an experiment which might be labeled; "Smelt Aversion Tests." Briefly, a trough was used which was open at the upstream end and fastened to a live box at the lower extremity. A partition was constructed at the middle of the trough extending one-third the distance back from the upper end. Pure river water was introduced into one side of the partition and river water mixed with varied calculated dilutions of industrial waste materials was introduced on the other side. The smelt were released from the live box and allowed to migrate upstream through the trough to freedom by choosing the side of the partition without further interference. The results of the experiments have been lumped according to the amount of effluent used and are shown by percentages of total fish involved on the enclosed table and graph. Clearly, the fish chose to avoid the more concentrated solutions of effluent. The effluents utilized were taken from the pipes conducting waste materials into the Columbia River at Longview, Washington. Represented in the experiment were such materials provided by the Longview Fibre Company, discharging primarily a sulphate-base effluent; the Weyerhaeuser Timber Company pulp division, discharging a mixed effluent containing both sulphate and sulphite wastes; and the Reynolds Aluminum Company, which discharges a waste with a relatively high concentration of flouride materials. These were kindly provided for the experiment by the management of the firms. Throughout the experiment the dilutions used were estimated as accurately as possible by the personnel concerned, Corrections were made later by the Washington State Pollution Commission, who were able to accurately [sic] determine the dilutions below 400:1. Corrections by the Pollution Commission were not undertaken on a few of the 100:1 estimated dilutions nor on that estimated at 50:1. Essentially, it appears likely that smelt avoid pulp wastes, at least up to dilutions of 500:1 or greater. A continuation of the study with accompanying greater

Date	Place	Source	Quote
			precision is anticipated during the 1953 season.
1953			
6 January 1953	Columbia River	<i>Oregonian</i> , p. 1, col. 8	Smelt Run Fills Columbia River. CLATSKANIE, Jan. 6 (Special)—Smelt in commercial quantities appeared in the Columbia river here Sunday night, nearly two months ahead of schedule. Nick Begleris, manager of the Clatskanie Smelt Fishermen's association, said 20 boats swarmed into the river following discovery of the silvery little fish, and by Monday morning had collected around 20 boxes. The boxes contain 50 to 60 pounds of smelt each. A portion of Sunday night's catch will be in the Portland markets Tuesday, Begleris said. The past two seasons, Begleris recalled, the unpredictable smelt failed to show up until late February, but in previous years they have appeared in January. He said fishing in the area will continue until the fish move upstream to enter the Cowlitz river and other spawning streams, usually in March.
7 January 1953	Columbia River	<i>Oregonian</i> , p. 8, col. 2	Smelt Continue Columbia Safari. CLATSKANIE, Jan. 6 (Special)—Smelt were running in the Columbia river Tuesday in somewhat fewer number than on Monday, but 20 boats from the Clatskanie Smelt Fishermen's association brought in 30 to 35 boxes of 50 pounds each, Nick Begleris, manager, reported. Begleris said most of the smelt still are at the mouth of the river, where they are "spread out." They begin to school when they reach here. Begleris said the smelt usually stay here for a month or so and then proceed upstream to the small streams. "The fish are the best I have seen—big and firm," Begleris said. He reported some 27 boxes had been sent to Portland brokers and more probably would be on the way Tuesday. In Portland wholesale dealers got 40 cents a pound for the initial shipment of the smelt.
8 January 1953	Cowlitz River	<i>Oregonian</i> , p. 1, col. 8	Smelt Start Run In Cowlitz River. LONGVIEW, Wash., Jan. 8 (AP)—An early smelt run has arrived in the Cowlitz river. Three boats made hauls of the silvery little fish Tuesday night [6 January] t, and the fresh smelt hit the market here Wednesday.
9 January 1953	Columbia River Cowlitz River Grays River	<i>The Clatskanie Chief</i> , p. 1, col. 7	Smelt Come, Scouts Go Exploring. Heaviest season's opening delivery of smelt in the Clatskanie area for the past several years was reported this week by officials of the Clatskanie Smelt Fishermen's association. Initial catches were made Saturday [3 January] and first deliveries to the Clatskanie Smelt association receiving station were made Sunday. First delivery made to the association was one of 339 pounds made Sunday by Elmer Hurula, president of the association. Early entry of smelt into the Cowlitz and Grays river was reported Wednesday [7 January] but Nick Begleris, association manager said he believed the entry of the fish into the tributaries was just a scout run and the main run would remain in the river for some time yet. Monday [5 January] about 50 boxes of smelt were delivered to fresh markets in scattered points by the association and catches fell slightly below that point Tuesday. Rough weather made fishing difficult on the Columbia river off Clatskanie Wednesday night and kept most gill netting activities at a standstill. Dipnetters, however, dipped in the Cowlitz and Grays rivers and delivered about 140 boxes in the last two days from that source. The dipnetted

Date	Place	Source	Quote
			fish were delivered to the association. Dip netting ceased because of the weekly closure of dipnetting in the tributaries at 8 a.m. Thursday morning and the closure remains in effect until Saturday night. Association officials said that the dipped smelt were believed to be a scout run in the tributaries and that there would be very little dipping activity in the future until the main run of the silver delicacies leaves the river. The scout run will probably escape upriver during the weekly closure and fishing will be limited to the Columbia for some time after this week end, association officials said. The association usually closes its operations after the main body of smelt enter the tributaries. Early week fishing was conducted by about 20 of the association's approximately 180 fishermen and the number of fishermen is expected to increase as the run progresses. This week's opening catches were far above the opening catches of last year and the run is almost a month and a half ahead of the run last year when marketable catches were not made until mid February. Snow and ice in the first of the year cold spell last year was believed partially responsible for the lateness of the run last year. The current season is the first in four years that has seen good smelt catches made this early in the year although previous to that time late December and early January catches were not unusual. Operating the first part of this week were receiving stations at Puget Island, Clatskanie and Clifton and stations at Stella and Mayger are expected to begin operations when catches begin in the upper river. Attendants at the receiving stations were shipping the freshly caught fish out almost as soon as they were received at the station to markets.
10 January 1953	Cowlitz River	<i>Oregonian</i> , p. 5, col. 5	Cowlitz Smelt Declared Fewer. KELSO, Wash., Jan. 9 (Special)—The Cowlitz river's first "scout" run of smelt tapered off Thursday, Frank Swick of the state fisheries department reported. He said catches of approximately 75 boxes were made Tuesday and Wednesday nights by commercial dippers. Swick said more smelt are in the Columbia river and may move into the Cowlitz at any time. Fishing is closed from 8 a. m. Thursday to 8 p. m. Saturday each week.
16 January 1953	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 2	Main Smelt Run Thought in River. Clatskanie Smelt Association catches dwindled during the past week after high opening season catches but Thursday [15 January] morning catches indicated the main body of the smelt may now be entering the river. Nick Begleris, manager of the association said Thursday morning that catches of the past week were low and daily deliveries averaged around the 200 box mark for association fishermen as a whole. Some of the fish the last week were taken in the Cowlitz and Grays rivers and some in the Columbia but no large takes in any area were available. Thursday morning reports showed that catches during the night Wednesday and Thursday morning had taken a strong upswing at the lower river stations. The Clifton and Puget Island stations were busiest and few catches were being made above those points. Stella and Clatskanie receiving stations were also operating this week and the Mayger station is expected to start operating soon. About 75 boats are now out in quest of the smelt and more are expected if the lower river run develops into the main body of the

Date	Place	Source	Quote
			smelt. Association officials think that the high catches at the season's opening were the result of locating the scout run of smelt. These smelt then entered the Cowlitz and Grays rivers where they were also taken and then the catches fell off sharply. The fish now located in the lower river are believed to be the first of the main run and association officials expect smelt to be plentiful next week. The weekly closure on smelt fishing went into effect at noon Thursday and continues through noon Saturday when the fishermen again set their nets.
23 January 1953	Portland, OR	<i>Oregonian</i> , p. 2 advert	Fred Meyer. ... Fresh Columbia River Smelt ... 29c lb.
29 January 1953	Columbia River	<i>Oregonian</i> , p. 1, col. 7	Gillnetters Dip Smelt in River. ASTORIA, Jan. 29 (Special) Smelt are running again in the Columbia river between Clifton and Clatskanie and gillnetters took 1600 50-pound boxes Sunday and Monday, the smelt fishermen's cooperative reported Tuesday. All the catch is going to Portland fresh fish markets, the association said.
30 January 1953	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 7	Salmon and Smelt Choice of Netters. Clatskanie area gillnetters will have a two-fold target for the coming few weeks as a result of the opening of the winter salmon season at noon Thursday and the continuation of a good smelt run in the Columbia river. Nick Begleris, manager of the Clatskanie smelt association, said Thursday [29 January] that the smelt run was holding up well during the past week. A total of 700 boxes of the small but popular fish was [sic] taken Wednesday and catches somewhat larger than that were reported the first of the week. All five of the association's receiving stations at Clatskanie, Mayger, Puget Island, Clifton and Stella were in operation this week. Smelt catches were all made in the Columbia river during the past week as smelt have disappeared in the Cowlitz where earlier catches were reported. ...
6 February 1953	Portland, OR	<i>Oregonian</i> , p. 2 advert	Fred Meyer. ... Columbia River Smelt Fresh, lb. 29c
6 February 1953	Quinalt River Queets River	<i>Oregonian</i> , p. 8, col. 2	Smelt Run Hits. ABERDEEN, Wash., Feb. 6 (INS)—A surprise run of smelt in the Quinalt and Queets rivers caught Quinalt Indians with their dip nets down Thursday. It has been 12 years since smelt appeared in the Quinalt Indian reservation streams along the northwest Washington coast.
6 February 1953	Portland, OR	<i>Oregonian</i> , p. 12, col. 1-2	Market Wise. ... Columbia river smelt just 29 cents a pound ...
9 February 1953	Cowlitz River	<i>Oregonian</i> , p. 2, col. 2	Smelt Reported In Cowlitz River. LONGVIEW, Feb. 8 (Special). A good run of smelt entered the Cowlitz river Sunday morning, according to Frank Swick of the Washington department of fisheries at Kelso. Swick said the fish were of good quality. Bank dipping however, is poor, he reported, because the Cowlitz is still high. A limit of 20 pounds per person is set on smelt. Families fishing together must have separate containers. The river is closed to smelt fishermen weekly from 8 a. m. Thursday until 8 p. m. Saturday.
17 February 1953		<i>Oregonian</i> , p. 4, col. 3	Smelt Wear Rubber Tags. Narrow strips of rubber cut from colored toy balloons are being used to tag smelt in the Columbia river to determine the migration route, time of passage through the river, and destination of various segments of the runs. Approximately 1000 smelt are tagged every other day near Cathlamet, Wash., by

Date	Place	Source	Quote
			biologists of the Oregon fish commission and the Washington state department of fisheries. This is the first time smelt tagging has been undertaken. "Because tags like those used in salmon and other sturdy species are not satisfactory for the relatively weak and small eulachon," said Arnie J. Suomela, Oregon fisheries director, "a new and unique tag was devised. It consists of a narrow band cut from the neck of the balloon. This is slipped over the tail to rest on the narrow section of the body just forward of the tail. "The upper lobe of the tail is clipped when the band is put on the fish, in order to assist biologists in recognizing fish which may happen to lose the tags." Fisheries experts have had no way previously to know the magnitude of the annual smelt run in the Columbia, but they have hazarded estimates that several hundred million of the prized food fish enter the main river during an average year. "Because so few tagged fish are likely to be caught," Suomela said, "each tag recovery will be of considerable value to the research. Biologists ask that anyone who finds a smelt tagged with a bright-colored band around the tail forward the band either to the Washington state department of fisheries, 2704 E. 7th, Vancouver, Wash., or the Oregon fish commission, route 1, box 31A, Clackamas, with information regarding the time and place of capture."
19 February 1953	Kalama River	<i>Oregonian</i> , p. 1, col. 7	Smelt Start Run In Kalama River. The smelt starting running in the Kalama river Wednesday afternoon, Frank Swick of the Washington department of fisheries reported. The little fish coming up to spawn were "quite a good run," he said, reminding would-be dippers they are allowed only 20 pounds per person, and each person must have his separate container.
20 February 1953	Portland, OR	<i>Oregonian</i> , p. 10 advert	IGA ... Fresh Dip'd Cowlitz Riv. Smelt lb. 19c ..
20 February 1953	Portland, OR	<i>Oregonian</i> , p. 14, col. 1-2	Market Wise ... Smelt are about the least expensive. These are fresh—some from the Columbia, some from the Cowlitz. They're about 29 cents a pound ...
23 February 1953	Portland, OR	<i>Oregonian</i> , p. 3 advert	SAFEWAY ... Fresh Smelt Columbia River A Northwest treat! Lb. 19c ...
27 February 1953	Portland, OR	<i>Oregonian</i> , Sect 2, p. 1, col. 1-2	Market Wise ... In The Budget Department, there are smelt at 19 cents a pound
6 March 1953	Portland, OR	<i>Oregonian</i> , p. 2 advert	Fred Meyer ... Fresh Smelt Columbia River 19c lb.
18 March 1953		<i>Oregonian</i> , p. 5, col. 1	Right Tides Bring Smelt. Favorable tides may yet bring a run of smelt into the Sandy river, but the silvery little food fishes have thus far migrated no farther up the Columbia than the mouth of the Kalama river. This was the comment made by Fred C. Cleaver, research biologist, at the monthly meeting of the state fish commission Tuesday. Cleaver made a progress report on the co-operative study being made by Washington and Oregon biologists on smelt migrations in the Columbia. He said to date about 3500 of the fish have been tagged and that from 50 to 100 are still being tagged daily. The eulachon are tagged by slipping over their tails circular bands cut from toy balloons. Shad Count Low. Recoveries of a hundred tagged fish reveal that it takes a smelt about ten days to travel from Cathlamet to the Cowlitz river. Among the objectives of the study is to learn how widely spawning areas on the Columbia and tributary streams are distributed and

Date	Place	Source	Quote
			how much damage is done to spawning beds by passing dip nets over the bottom of a stream. ...
9 April 1953		<i>The Kelsonian Tribune</i> , p. 1, col. 3	Cowlitz River Top Producer Of Smelt During Winter Run. The Cowlitz River with the bulk of the fishing originating in Kelso produced the largest yield of smelt during the winter run as the smelt production exceeded 1,000,000 pounds for the first time in four years. Production for the state was 20 per cent ahead of 1952, according to records of the State Department of Fisheries. The Cowlitz catch total 784,000 pounds, more than two-thirds of the total 1,001,000 pounds landed. The Cowlitz catch for the previous year was 377,000 pounds. Gill net fishermen in the Columbia caught 204,000 pounds, and another 13,000 pounds were taken from the Grays River. Value to the fishermen was \$140,000 at an average of 14 cents a pound. In addition, 232,000 pounds were delivered on the Oregon side by main river gillnetters, according to the Fisheries Department release. No figures are available on the Oregon take of smelt in the Sandy river. The combined smelt catch in 1952 was 1,228,000 pounds of which 796,300 were landed on the Washington side. [Sandy River not included in these figures]
10 April 1953		<i>Oregonian</i> , p. 10, col. 3	Tardy Smelt Shy at Sandy. Run Off Cowlitz Lures Seagulls. If the Sandy river is to get a smelt run this year, it is probably in the large group of fish now in the Columbia off the Cowlitz river, Wendell Smith, biologist in charge of Columbia river studies for the Washington fisheries department, said in Vancouver Thursday. He said that his department has observed a large school in the area between Cathlamet and the Cowlitz, but that they didn't really know how far the little fish may have come on up river. A large group of seagulls, which customarily follow the runs are now pretty well toward the Cowlitz, he said. Fish tagged at Cathlamet have taken as short a time as two days to swim the 25 miles to the Cowlitz, he said. It is about 50 miles from the Cowlitz to the Sandy. None had neared the Sandy Thursday night, according to sheriff's deputies who checked at Sun Dial beach.
19 April 1953		<i>Oregonian</i> , p. 26, col. 6	River Smelt Prove Rare. Two fishermen trolling for salmon in the Columbia at the mouth of the Willamette river Saturday snagged a smelt on a wobbler. And, Lou Howitt and Bill Hahn reported to The Oregonian, they saw other smelt in the river, heading upstream. But smelt never have entered the Sandy river this late. Latest date of record is April 9. Last year the fish appeared at the mouth of the Sandy April 8 but disappeared after two days without entering the river. The experts said then the water was too cold.
20 April 1953		<i>Oregonian</i> , p. 10, col. 2	Smelt Reach Sandy Mouth. Smelt had reached the mouth of the Sandy river Sunday night, but—as was the case last year—they had not entered the stream. Harris Quade of Sun Dial beach reported the arrival of the fish. Deputy sheriffs warned eager fishermen, however, to defer any smelt-fishing plans until the fish are positively reported in the Sandy. The smelt made rapid progress up the Columbia river Sunday, having been reported in the vicinity of Government island in the afternoon.
21 April 1953	Sandy River	<i>Oregonian</i> , p. 1, col. 1-2	Smelt Enter Sandy River On Latest Date of Record. The smelt came back into the

Date	Place	Source	Quote
			Sandy river Monday [20 April], after nearly everyone had decided they would skip the river this year, but they chose a 24-hour King's X period during which they were safe from dipper's nets. No fishing in the Sandy, either sports or commercial, until a minute past midnight Tuesday morning, ruled the Oregon state game commission, making the traditional 24-hour closure period which gives the little silver fish a rest period once a week when they are in the river. The run, described as heavy, entered the Sandy late Sunday after milling off the river mouth in the Columbia during the afternoon. At 5:45 a. m. Monday the upstream migration was reported by observers at the Columbia river expressway bridge below the town of Troutdale. The fish had reached the Troutdale bridge on the old highway before noon. Multnomah county sheriff's deputies comprising an augmented crew out of the Gresham precinct, under command of Capt. J. F. Stanley, were on the river at daylight to handle expected heavy traffic while the run is in the river. The April 20 arrival of the smelt is the latest in 24 years of record on the Sandy. Latest date in that period was April 9, 1929. Last year the smelt milled off the mouth of the river early in April but did not enter the river. Word of the run of smelt started a run of dipnetters from Portland. The highways were full of cars loaded with dipnetters and their gear. Game commission representatives set up license stands along fishing beaches. Licenses were selling, as usual, for 50 cents each. The limit was 25 pounds of smelt per fisherman.
21 April 1953	Sandy River	<i>Oregonian</i> , p. 14, col. 2	Arrival of the Eulachon. Never before, so far as the record shows, have the smelt come to the Sandy so late as this year. Either they have not come at all or they have appeared before this date. The latest previous beginning of a Sandy smelt run was April 9—in 1929. Last year the smelt assembled at the mouth of the Sandy on April 8, but they failed to ascend the stream. Fishermen, who sat all night by bonfires to be on hand when the flood of fish got within range of the long-handled dipnets, were disappointed and mystified to discover next morning that the run had disappeared before it had begun. It may have been that the river was too cold then for spawning. Ed Brockmann, who has made a study of smelt over a period of years, believes the temperature of the Sandy has much to do with the runs in that stream. If this is true, could it be that the late arrival of warm weather this spring was responsible for the also late arrival of the eulachon? The smelt picked a good day—for egg-laying purposes, that is—to enter the Sandy this year. Mondays are closed to fishing. This must have permitted many to escape the frying pan for the spawning grounds. If the smelt are still on hand today—it would be unwise to make a prediction in light of the species' record for fickleness—the harvest should be as tremendous and spectacular as ever. We welcome the eulachon to the Sandy. A year is not quite normal in which the smelt give our close-by stream the go-by.
22 April 1953	Sandy River	<i>Oregonian</i> , p. 1, col. 3-4 picture	Dippers Find Smelt Plentiful as 'Heaviest Run' Hits Sandy River. Net Wielders Line Banks As Thousands Snare Fish. A smelt run which many commercial fishermen said was the "heaviest ever" swarmed up the Sandy river Tuesday into the waiting nets

Date	Place	Source	Quote
			of thousands of amateur dippers. Banks of the river were lined with net-wielding men, women and children. Virtually every dip yielded all the fish that could be lifted from the water. Commercial operators had boats so heavily laden they were almost awash. Because of the heavy automobile traffic in the area, sheriff's officers announced one-way traffic would be put in effect on three thoroughfares beginning at 2 p. m. Wednesday. From Fairview boulevard to the Sandy river, the one-way control will be in effect on Halsey street, Sandy boulevard and Stark street. Start Beats Fishers. Veteran fishermen said the hordes of smelt were "mostly males" and were running just under the surface of the water. The run, latest of record, actually entered the river Monday, but chose the one day of the week during which no dipping, amateur or commercial, was allowed. Fishing started at 12:01 a. m. Tuesday and fish dealers said the heavy commercial catch during early morning hours virtually saturated the local market. Wholesale prices started off at \$4 to \$5 per 50-pound box, but before long the fish were being offered at \$2.50 a box. Portland Fish company has started freezing operations and, as one official said, is "up to the ears in smelt." The firm is paying \$1.50 a box.
22 April 1953		<i>Oregonian</i> , p. 15, col. 3	Fish Commission Pushes Hatchery Plan for Metolius. ... The smelt tagging project of the commission in the Columbia has, after several years, now reached a point where much valuable data will be in the hands of the biologists. "We have tagged 22,000 of the small fish," said Cleaver, the research biologist in charge of the work, "and in another season we will know more about the migratory habits of smelt than we have known in the entire previous history of the species."
23 April 1953	Tanner Creek Bonneville locks	<i>Oregonian</i> , p. 1, col. 6	Smelt Stream Total Grows. Tanner Creek and Bonneville navigation locks were added Wednesday to the streams having smelt runs this season. Ivan Donaldson, biologist for the corps of engineers, reported smelt showed up at Tanner creek, a mile below Bonneville dam, Tuesday night and numbers of them were dipped by residents of the reservation. They were large, in good condition and mostly females. Next they appeared in the navigation lock at Bonneville Wednesday afternoon apparently headed upstream. Donaldson said they might show up in Eagle creek also. Smelt have been recorded in quantity at Bonneville in 1936 and 1945, and in small numbers at other times, Donaldson said. He added that before Bonneville dam was erected, smelt runs were reported in the Columbia river as far east as Cascade rapids, but they seemed not to get beyond that point. The sheriff's office Wednesday night said the heavy Sandy river smelt run had tapered off a little since Tuesday, but was still very good. Sheriff's deputies directed one-way traffic on the main thoroughfares along the Sandy river Wednesday afternoon.
24 April 1953	Portland, OR	<i>Oregonian</i> , Sect 2, p. 1, col. 1-2	Market Wise. ... For those not ambitious enough to catch their own smelt or lucky enough to have some given to them, smelt can be had for 3 pounds for 25 cents.
24 April 1953	Sandy River	<i>Oregonian</i> , p. 1, col. 7	Smelt Run Keeps Going. The smelt were still running and so were the people at midnight Thursday. Multnomah county sheriff's office reported that after a slight a falloff in the run early, it picked up again and fish by undiminished millions were going

Date	Place	Source	Quote
			up the Sandy at noontime. The number of dippers and watchers along the lower reaches of the river was estimated at 2500.
25 April 1953	Sandy River	<i>Oregonian</i> , p. 1, col. 2	Run of Smelt Remains Heavy. The smelt run in the Sandy river seemed in sufficient abundance Friday night for successful week-end dipping. Multnomah county sheriff's office reported dippers were still getting the limit and the run continued heavy above the Troutdale bridge. The number seeking the silvery fish had dropped off, officers stated.
25 April 1953		<i>Oregonian</i> , p. 5, col. 4	Zoo Residents Will Get Smelt. The Sandy river smelt run proved a boon to the Portland zoo. The bureau of parks was able to buy a ton and a half of smelt—a full year's fish requirement for the menu of the zoo animals and birds—at a quarter of the price it has been paying for scrap fish. Deep freezes at the zoo are adequate to keep the fish until needed. "Bears particularly, are very fond of smelt," commented Harry Buckley, parks superintendent.
26 April 1953	Sandy River	<i>Oregonian</i> , p. 1, col. 4	Run of Smelt Slows Slightly. The Sandy river's smelt run Saturday had "slacked off a little, but dipnetters are getting their limit without any trouble," the Multnomah county sheriff's office reported. Deputies said fishermen were not too numerous Saturday morning, but picked up in the afternoon. They added that from all indications, the run will "hold out over the week end." Under state regulations, the stream will be closed to fishing for 24 hours beginning at midnight Sunday.
29 April 1953	Sandy River	<i>Oregonian</i> , p. 1, col. 2	Sandy Smelt Run Drops Sharply. The smelt run in the Sandy river dropped off sharply Tuesday, sheriff's deputies reported. They said a few smelt were still struggling upstream at the end of a week-long run, but fishermen were "not having much success dipping for them."
29 April 1953	Portland, OR	<i>Oregonian</i> , p. 14, col. 3	Smelt Cause Dip in Meat Trade. Slow retail meat trade last week end as a result of the smelt run in the Sandy river curtailed wholesale deliveries of meat here Tuesday, according to Ted Swenson, federal market news reporter. ...
		Schoettler (1954, p. 40)	Columbia River Smelt. A substantial run of smelt occurred in the Columbia River during early 1953, and large numbers of the fish migrated into the Cowlitz and Sandy rivers. Lesser runs appeared in the Kalama and Grays rivers. Only the Lewis River failed to support a run. The commercial fishery adequately supplied the market demand for smelt from the opening fishing date, January 3, until the cessation of the run in late April. Tagging studies, initiated for the first time in 1953 by the Oregon and Washington research staffs, indicated that the upstream migration of fish was relatively rapid. Some smelt migrated over 30 miles in less than 48 hours. Of the 20,000 fish tagged about 100 were recovered by the commercial and sports fisheries. The low tag recovery indicates that the total abundance of fish was far in excess of that taken by the fishery. Despite an intense gill net fishery below the mouth of the Cowlitz River, heavy schools of smelt migrated into this tributary and entered the dip net fishing grounds. The Columbia River fishery evidently exerted little delaying influence on the migration of the fish. Recent studies indicate a correlation between the upstream and tributary migration of smelt with

Date	Place	Source	Quote
			water temperatures. Smelt fail to migrate upstream as far as the Cowlitz River until Columbia River temperatures have warmed to approximately 40° F. at Bonneville. In 1953, during a mild winter when water temperatures remained above 40° F. throughout, smelt were present in the Cowlitz River when the commercial season opened on January 3. In other years this appearance has been delayed until as late as March or has not occurred at all. Since no methods are available to determine the numbers of smelt which escape the fishery to spawn, it is difficult to measure the spawning success each year. In 1953, however, large numbers of fish migrated above the commercial deadlines in both the Cowlitz and Sandy rivers. In addition, large stocks spawned unmolested in the Columbia River following the cessation of the gill net fishery at about mid-February. Only a small fishery fished the stocks which in late April migrated in tremendous numbers upstream as far as Bonneville Dam.
		Smith <i>et al.</i> (1953)	1953 SMELT INVESTIGATIONS January through April, 1953. <u>Introduction</u> . During the 1953 Columbia River smelt (<i>Thaleichthys pacificus</i>) season the Washington Department of Fisheries and the Oregon Fish Commission jointly studied the problems relating to the annual run of the species and the fishery dependent thereon. The above investigations were instigated to determine, for the standpoint of fishery management, the following: 1. The effect or the fishery upon the migration and normal production of smelt. 2. The size of the run in numbers of fish. 3. The speed and pattern of migration of smelt. 4. The need, if there be one, for changes or adjustments in the regulations presently concerned with smelt. The recent history of the annual smelt runs in the Columbia River (particularly following the 1948 season) has been cause for alarm among the public and those interested in the fish. The normal pattern for the smelt run is to be available in the early part of the season for a sizable gill net fishery in the Columbia River. Shortly thereafter, tributary migrations (particularly to the Grays, Cowlitz, and Lewis Rivers in Washington and the Sandy River in Oregon) have presented accessible fish to heavy commercial and sport dip net fisheries therein. From 1949 through 1952 only sporadic tributary migrations have occurred. Among the reasons propounded for the above disturbing fact were: (1) the run had depleted in an alarming rate; (2) the commercial fishery had taken too many smelt in both the Columbia and its tributaries and had likewise disturbed the normal migratory pattern of the fish; and, (3) pollution was the factor (particularly with reference to the Cowlitz River run) which interrupted tributary runs. Of special concern was the total lack of a Cowlitz River run during the seasons of 1949 through 1951, and only an insignificant migration of smelt therein during 1952. The Cowlitz has always been the leading tributary producer of these fish. Since reliable statistics of the tributary runs exist only from 1936, an effort has been undertaken to determine, through Longview and Kelso newspaper reports prior to that year, whether the Cowlitz had experienced other seasons without smelt. The resultant data, shown below in Table 1, indicates that the lack of a run into the Cowlitz is not a

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			(Longview Daily News: October 6, 1952) An article in this issue stated that in February and March 1865 smelt appeared in the Cowlitz River. These fish were unknown to the early settlers of the area, but Indians declared that smelt had frequented the Cowlitz River before but had absented themselves for 17 years.																																																																										

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			During the 1953 commercial season a smelt association operated, as it had for at least two previous seasons. The association is composed of nearly all fishermen who catch smelt commercially (except in the Sandy River). Its purpose is to prorate the take of fish among the fishermen so that only those smelt will be caught which the market demands. This practice reduces waste and keeps the price to the fishermen at a favorable level. Inasmuch as the market demand is limited, (during war years particularly, no association operated and the demand was insatiable because of armed forces orders) the catch statistics do not reflect true abundance of fish. Throughout the season with few exceptions the fishery easily provided satisfactory catches to meet the orders. Consequently the size of the smelt run and its availability to the fishermen was highly encouraging during 1953. Normally the gill net fishery of smelt in the Columbia River terminates as soon as fish are available to tributary dip net fishermen. During recent years when tributary runs failed to materialize the bulk of the commercial catch was taken by the gill netters. This phenomenon is likewise shown in Figure 1, in that during 1950 through 1952 the near total take was from the main Columbia. In 1953 the drop in the gill net catch was entirely the result of the presence of tributary fish. Smelt were actually abundant in the main Columbia throughout most of the season but for the most part were un-exploited. Figure 2 shows the commercial take from the Cowlitz, Lewis and Sandy Rivers since 1936. Again it should be pointed out that the Cowlitz River in 1953 was subjected to the fishing conditions governed by the smelt association. Consequently the take then does not reflect abundance. During much of the season there [sic], most of the fishermen were able to catch their pro rate of 200 to 300 pounds in less than 30 minutes fishing time. The estimated catch in the Sandy River was taken in the remarkably short period of only a little over seven days. In addition, almost 1½ million pounds were estimated to have been caught by some 60,000 sportsmen during the same short time. At present smelt are protected only by weekly closed fishing periods. Joint regulations of the two states permit no Columbia River smelt fishing between 12:01 AM Thursday and noon Saturday. Tributary regulations in Washington close the fishery between 8:00 AM Thursday and 8:00 PM Saturday each week. In Oregon the tributaries are closed between midnite Sunday and midnight Monday. The above regulations affect both commercial and sport take of fish. <u>The Effect of the Nets on Migration and Spawning of Smelt.</u> In each tributary stream, whether in Oregon or Washington, a deadline has been established above which the taking of smelt is not permitted. The purpose of this, of course, is to allow escapement and un-molested spawning. A quantitative measure of the effects of either gill or dip nets upon smelt has not been possible to measure. That the nets do destroy developing eggs and interrupt spawning migrations is unquestioned. The smelt dip net when scraped lightly along the river bottom, as is done in the normal fishery, frequently brings to the surface developing eggs which purportedly were attached to the particles of material composing the bottom. Though not observed by

Date	Place	Source	Quote
			the authors, fishermen report that the diver net (commonly called go-devil) also dislodges eggs from the bottom of the Columbia River, particularly in the Eagle Cliff area. Various means of studying the losses resulting from the above were considered. In the Eagle Cliff area, located near the Washington shore approximately ten miles below Longview, Washington, the go-devil net is most commonly used. This gear is a short, shallow net, heavily weighted, which scrapes the river bottom during a drift. It is used only during periods of running tide. That the area is used by smelt for spawning is confirmed by the fact that a large percentage of the fish caught here are in a partially spent condition. Because of the depth of the river (75 feet), the strong tide, and the inefficiency of available gear with which to take bottom samples, it was decided to study the gear effects on an experimental basis in the Kalama River hatchery. Admittedly, such a study could result only in an assimilation of actual conditions. Eight female and twenty-seven male smelt were placed in a hatchery trough into which fine gravel had been placed as an artificial spawning ground. The fish were allowed to choose the area upon which to spawn and were not handled artificially throughout. It was assumed that the trough flooring of gravel was equally spread throughout and that no area within was more favorable for spawning than any other. During the experiment five females completely spawned, one partially spawned and the remaining two died without releasing eggs. The eggs were fertilized by the entire male population, all of which were completely spent before dying. Water temperatures during the egg-developing period averaged at approximately 43° F. As shown in the paper, submitted for publication, (Smith and Saalfeld, 1953 - Wash. Dept., of Fisheries) the time needed for hatching would be between 25 and 30 days. On the eighteenth day following egg deposition the trough was divided into three equal sections. The center section was disturbed by dragging a small hand dip net with pressure over the gravel and eggs. In so doing, much of the gravel therein was overturned. The remaining two sections were left undisturbed. Five days later an equal sample of the gravel with eggs attached was taken from each section. Eggs were counted from each sample, the results being as follows: upper section in trough - undisturbed - 2,604 eggs; center section in trough - disturbed - 2,033 eggs; lower section in trough - undisturbed - 2,381 eggs. These data were analyzed statistically using the hypothesis that the initial distribution of eggs over the gravel in all three sections was uniform. The chi-square test was applied to the egg counts found in the two undisturbed sections. The chi-square value of 9.976 with one degree of freedom at the 5% level indicated that a significant difference in the amount of eggs deposited in the two undisturbed sections existed. Consequently one could not assume that the fewer eggs counted in the disturbed section were entirely the result of the disturbance. That developing eggs are dislodged by scraping nets over the river bottom is unquestioned. In the above experiment eggs were observed washing loose in the trough when the net was dragged over the gravel. Developing eggs have been found adhering to the commercial

Date	Place	Source	Quote
			dip nets used in the Cowlitz River. Without doubt, similar conditions result when the heavily weighted diver gillnet passes over a spawning area. The present fishery, limited as it is by market conditions and quota system catches, has a limited disturbing effect upon the movement and egg-developing phases of the smelt life history. In seasons prior to 1953, it has been the opinion of some that the go-devil net, which fishes during a running tide when the fish are migrating, disturbs the migration, breaks up the schools of fish, and at least delays further upstream movement. The above theory is probably not unfounded. During the war years when an unlimited fishery operated, the upstream migration of smelt through the heavy dip net fishing grounds in the Cowlitz River occurred almost entirely during closed week end periods. However, since the onset of the smelt association with its catch limiting powers, it is doubtful if the intensity is sufficient to substantially affect the migration. Usually the entire gill net fishery supplied the market demand for smelt in less than two hours daily. At the time the gill net fishery began operation on January 3, 1953, smelt were already present in the Cowlitz River. Until Feb. 9, 1953 during which time the Cowlitz catch was insufficient to fill the demand, the gill netters continued fishing. Despite their operation large numbers of smelt passed through the Columbia River fishery and entered the Cowlitz River subsequently. Proof of this will be noted later in the report where it is shown that tagged fish from a single day's tagging were recovered both in the Columbia fishery and later in the Cowlitz. Under its present operation and so long as it continued to operate, the smelt fishermen's association enhances the opportunity for upstream smelt escapement and reduces to almost zero the possibility of fish wastage. <u>Smelt Escapement to Spawning Grounds</u>. Though it is recognized that smelt spawn during the time a fishery is operating and within the legal fishing areas, the escapement to areas closed to fishing was tremendous in 1953. Two surveys taken during the season, above the Cowlitz River fishing deadline located about three miles above Kelso at Petersen's Eddy showed large numbers of fish for at least five miles farther upstream. Studies in previous years have shown that these protected areas are utilized by smelt for spawning. Similar studies by biologists with the Oregon Fish Commission on the Sandy River have shown an equally satisfying escapement there. In addition smelt were present in the Columbia River between Cathlamet and Kalama, Washington nearly two months after the gill net fishery ceased and were presumably spawning therein. Furthermore, the large population of fish which migrated beyond the mouth of the Sandy River to Bonneville Dam were barely touched by the fishery and certainly spawned in unknown locations throughout the area. <u>Smelt Tagging</u>. During 1953, 20,068 smelt were tagged at Cathlamet, Washington, which is approximately 35 miles upstream from the mouth of the Columbia River and 20 miles downstream from the confluence of the Columbia and Cowlitz Rivers. Tagging began on January 27, continued on the 28th and 29th, and was undertaken every second day thereafter (with few exceptions when fish were difficult to obtain) until April 15, 113

Date	Place	Source	Quote
			were returned to the biologists with reasonably good information accompanying the recovery. Tagged fish were taken by the commercial fishery in the Columbia River until about mid-February when that fishery terminated. All other recoveries were taken from both commercial and sport fisheries operating in the Cowlitz River. <u>Tagging Procedure.</u> Smelt were tagged by means of slipping a section from the neck of a colored balloon over the caudal fin of the fish so that it would rest on the peduncle. Six colors were used. In subsequent tagging, so that each days tagging would be unique, the colored strips were marked, by use of a special insoluble ink, with one, two, three, etc. bars. By this means every recovery could be traced back to date of tagging. Since the female smelt were known to be more slippery because of greater discharge of mucous and slime, fears were expressed that tags might more easily slide off this sex than off the males. By mid-February it became obvious during tagging that the tags were slipping off the less abrasive females much more commonly. Consequently a record of males and females was kept thereafter. Subsequent recovery of tags from the marking of 2,776 females and 8,596 males favored the latter 55 to 3. The limiting factor in the daily numbers of fish tagged was the time needed to obtain smelt. A commercial gill net smelt fisherman, Mr. Andrew Kuljis, was employed to catch fish for tagging. When fish were abundant only a short period of the time was necessary to secure 1,000 fish or more. The process of picking smelt out of the gill net with a minimum of harm to the fish was tedious and time consuming. The efforts of Mr. Kiljis [sic] in this regard were most gratifying. The actual tagging progressed at the rate of better than 500 per hour for two men. All tagging was undertaken from a barge located near the Washington shore at Cathlamet. <u>Tag Recoveries.</u> Twenty recoveries were returned from the Columbia River gill net fishery and ninety-three were reported by commercial and sport fishermen who fished in the Cowlitz. Of the twenty Columbia recoveries, three were caught by Mr. Kuljis in his efforts to obtain more fish for tagging; two on the same day and one on the day following tagging. Except to note that tagged fish were entering the gill net fishery, recoveries from this source were of little additional value. Considering the manner by which the fishery operates it was indeed fortunate that any recoveries were made. First, the numbers of fish caught in a single night would always be in excess of a quarter million. Second, the fishery occurs mainly at night when visibility is at a minimum. Third, fish are shaken from the nets and shoveled into boxes in such a manner that obscurity or loss of tags is undoubtedly extremely high. Because adequate landings of smelt were taken in the Cowlitz River by February 14, the gill net fishery ceased on or about that date. An additional problem was confronted in recovering tags from the Cowlitz River in that it was never possible to determine how many of the tagged fish entered the Cowlitz and how many remained to spawn and die in the Columbia River. Again hundreds of thousands of fish were handled daily and the catch was primarily taken at night. In an effort to determine the size of the total population of smelt, tagging proved ineffective.

Date	Place	Source	Quote
			Mr. Charles Junge, mathematician for the fisheries department ruled out any possibility to estimate the numbers of fish in the river for the following reasons: 1. Neither the rate of tagging nor recovery of tags could be maintained at a constant level. 2. The fishery in one area ceased (even though fish were still abundant) when fish became available elsewhere. 3. No measure of natural tag losses was possible. To eliminate errors in computation resulting from loss of tags the adipose fin and upper lobe of the caudal fin of each smelt was removed when the fish was tagged. Despite this measure only one fish that had been tagged was recovered in catch sampling observations of nearly 50,000 fish. From tag recoveries in the Cowlitz River it was found that fish migrated from Cathlamet to the fishing grounds in the latter stream, a distance of approximately 25 miles, and were caught in between 2 and 10 days. The average time out for the 93 recovered fish in the Cowlitz River was 5.83 days. Inasmuch as the tributary fishery is closed between 8:00 AM Thursday morning and 8:00 PM Saturday evening a study was undertaken to determine whether or not the effectiveness of the closed season could be measured by the rate of tag recoveries. Mr. Junge was again asked to assist in the mathematical computations necessary to evaluate the above. Since the largest Cowlitz recovery amounted to only a little over 1% of the original number of fish tagged, Mr. Junge felt that a heavy escapement of fish through the fishery occurred. His reasoning took into account the extremely high losses of tags which consistently occurred prior to possible recovery. As previously mentioned, the spawning escapement of smelt above the fishing deadline on the Cowlitz River was found to be most satisfactory. Tagging continued at Cathlamet until a scarcity of fish ended the experiment on April 14. Unfortunately a final large school of smelt passed the area on the three days following the cessation of tagging. These fish purportedly mostly migrated into upper Columbia River areas including the Sandy River in Oregon and Bonneville Dam on the main river. Of marked interest is the fact that the arrival into the Sandy River occurred on April 20th, just six days after the school passed Cathlamet. The latter group of fish obviously migrated over 65 miles in only six days. <u>Summary.</u> 1. The 1953 smelt run was exceptionally good. 2. The smelt fishermen's association which pro-rated the catch per man to strict market demands held exploitation at a minimum. For the first time a similar association operating among the dipnet fishermen in the Cowlitz River accomplished a similar result. No overexploitation was evident. 3. Smelt migrated from Cathlamet to Kelso, Washington, a distance of about 25 miles in an average of less than 6 days according to tag recoveries obtained. 4. An adequate escapement of smelt through the fishery was maintained in the Cowlitz and Columbia Rivers. 5. Though data resulting from an experiment conducted at the Kalama hatchery to show the effects of nets upon developing eggs failed to bring significant results, it is obvious that scraping the river bottom with nets destroys some quantities of eggs. 6. To enable the initial Cowlitz River run to become established therein before fishery exploitation takes place, it is

Date	Place	Source	Quote
			recommended that a second deadline in that stream be maintained below which no fishing is permitted. A suggested deadline is the old Kelso-Longview highway bridge. The above will allow unmolested migration and some unhampered spawning in the lower Cowlitz River without markedly affecting the dip-net fishery. 7. No beneficial or deleterious effects upon smelt would result from an adjustment of the closed seasons so that those for the tributaries would conform to those maintained in the Columbia River. 8. Tagging and subsequent recovery has shown that the early and major Columbia River gillnet fishery did not exploit stocks that came in later and migrated farther up the main stem than the Cowlitz.
1954			
17 December 1953	Columbia River	<i>Oregonian</i> , p. 1, col. 1	NETTERS FIND SMELT. CLATSKANIE (Special)—Two hundred smelt have been brought to the Isaac Jolman landing in Wallace slough near here. They were brought in by gillnetters from the Columbia river and were presumed to be vanguard of the winter smelt run.
19 December 1953	Last year's catch	<i>Oregonian</i> , p. 6, col. 3	Sandy Smelt Catch Heavy. A commercial smelt catch of about 500,000 pounds was taken from the Sandy river, east of Portland, this year, making this the third or fourth heaviest annual catch since the state fish commission began keeping a record of Sandy river catches, according to Harry Smith, fish commission statistician. The commission's records show that 449,951 pounds were taken by commercial smelt netters, and it is believed that mink farmers and others who have not yet reported took about 50,000 pounds more. The average catch in past years was 355,000 pounds, with a record of 1,393,098 pounds taken in 1945 and 760,308 pounds in 1942. No catches were reported in 1937, 1938, 1939, 1944, 1947 and 1950. 59,503 Licenses Issued. The state game commission reported 59,503 smelt licenses were sold to sportsmen and it was believed they averaged more than a limit catch of 25 pounds per day each, bringing the total take from the river to about 1,500,000 pounds. Columbia river commercial netters with Oregon licenses caught 232,398 pounds in the vicinity of Clatskanie, Clifton and St. Helens this year. Washington netters were believed to have caught two or three times as much. A record catch of 687,000 pounds was taken on the lower river in 1951.
25 December 1953	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 2	First Smelt are Netted for Season. ... First smelt of the season were caught last week when William Anundi came in with enough for table use and Ray Jolma and Anundi this week caught about 200 of the silvery fish. The early catches, however are not enough for commercial use and the Smelt Fishermen['s] association will not begin its business until the run reaches sufficient size for commercial sales.
5 January 1954	Cowlitz River	<i>Oregonian</i> , p. 4, advert	Fred Meyer ... First of the Season Cowlitz River Fresh Caught Smelt Limited Quantity 43c lb.
5 January 1954	Columbia River Cowlitz River	<i>Oregonian</i> , p. 11, col. 5	Smelt Come Up Columbia River. Smelt, which normally show up about this time of year, are in the Columbia river. Nick Begleris, manager of the Clatskanie Smelt Fishermen's association, reported about 7500 pounds were caught Sunday in the

Date	Place	Source	Quote
			Columbia with a small amount coming from the Cowlitz river. However, the smelt were gone from the Cowlitz Monday and weather conditions cut the Monday catch to only 1500 pounds. Begleris said the fish were too few and the water too high for amateurs. The silvery little fish have not shown up yet in the Kalama, Lewis or Sandy rivers.
7 January 1954	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 8, col. 1	Smelt Return To Columbia As Run Delayed. Like daffodils, smelt reminds local inhabitants that spring is coming. However, the unpredictable fish which showed promise Sunday halted their migration for the time being. The smelt have returned to the Columbia river, fishermen report. Saturday night and Sunday 55 boxes were caught on the lower Cowlitz river, but Tuesday the Cowlitz Fish company, largest fish wholesalers in the area, report piles of orders but no fish. It is believed that the lack of fish is due to high water in the Cowlitz. About 9,000 pounds of smelt were caught during the first run. The first scout run of the small fish of the season were netted a little before Christmas which is earlier than last year. Smelt are retailing at 39 and 38 cents a pound retail this year and 30 cents a pound wholesale, buyers report. This is a few cents under last year's price.
8 January 1954	Portland, OR	<i>Oregonian</i> , p. 6, col. advert	Fred Meyer ... First of the Season Fresh Columbia River Smelt 39c lb. Limited Quantities. Just caught in the cold waters of the Columbia River. There is nothing finer than the first Smelt of the season.
8 January 1954	Portland, OR	<i>Oregonian</i> , p. 10, col. 1-2	Market Wise. ... Hungry for smelt? The first of the Columbia river season may be had now fresh for 39 cents a pound.
15 January 1954	Portland, OR	<i>Oregonian</i> , p. 6, advert	Fred Meyer ... Fresh Columbia River Smelt 39c lb.
19 January 1954	Portland, OR	<i>Oregonian</i> , p. 4, advert	Fred Meyer ... Fresh Columbia River Smelt, 33c lb.
22 January 1954	Portland, OR	<i>Oregonian</i> , p. 7, advert	Fred Meyer ... Fresh Columbia River Smelt 33c lb.
10 February 1954	Columbia River	<i>Oregonian</i> , p. 4, col. 3	Clam Rules May Change ... Smelt Make Appearance. Small runs of smelt are spawning in the main Columbia river, Fred C. Cleaver, chief biologist, told the commission, which was holding its regular monthly meeting. The smelt spawn on the coarse sand, said Cleaver, and some of the eggs have been deposited at a depth of 30 feet or more. ...
16 February 1954	Cowlitz River	<i>Oregonian</i> , p. 1, col. 5	Smelt Starting Run in Cowlitz. KELSO, Wash., (AP)—Smelt have started their annual spawning run up the Cowlitz river. Commercial fishermen reported a "fair sized" run entered the river Sunday morning. They appeared in good numbers Monday.
18 February 1954	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 2	Extra Good Smelt Run Is Predicted. Scores of fishermen began converging on Kelso—long known as the smelt capital of the world—this week as the pilot run of smelt was dipped from the Cowlitz river. A heavy smelt run with fish of above-average quality was predicted by commercial fishermen and sportsmen who took fish from Rocky Point Tuesday and Wednesday. It was expected that the run would be in full swing by this weekend. Predicting smelt, however, is a very dubious task. No dipping is permitted from 8 a.m. Thursday until 8 p.m. Saturday—a state law which permits enough smelt to spawn to provide fish for future runs. No license is necessary for sport fishing of smelt.

Date	Place	Source	Quote
			Bag limit is 20 pounds per day and that isn't difficult to get when the run is in full swing. Thousands of people are expected to come to Kelso Sunday to take the silvery little fish. No runs were reported in the Lewis, the Kalama or the Sandy rivers.
18 February 1954		<i>The Kelsonian Tribune</i> , p. 6 picture	CONGESTED TRAFFIC was found at Rocky Point Tuesday as these fishermen were dipping the first run of smelt. Fishermen predict one of the best runs in years. (Kelsonian-Tribune Photo).
19 February 1954	Cowlitz River	<i>The Daily Chronicle</i> , p. 3, col. 1	Smelt Run Dwindles. KELSO — The smelt run in the Cowlitz River dwindled Tuesday night and apparently no new fish are entering the river, Frank Swick of the Fisheries Department reported Wednesday. Commercial fishermen have taken more than 1,000 boxes of smelt since the present run entered the Cowlitz early Sunday, including about 400 boxes Tuesday night. A box holds about 50 pounds of fish. Swick said the tiny eulachon are running deep in the river, making bank dipping difficult. Most of the fish are in mid-stream, with the largest concentration in the Rocky Point area.
22 February 1954	Cowlitz River	<i>Oregonian</i> , p. 1, col. 5-7	Throngs Stalk Shores of Cowlitz River As 'Wonderful' Run of Smelt Arrives. A smelt run described as "wonderful" started in the Cowlitz river Saturday night and banks were lined with amateur dipnetters Sunday according to reports from the Cowlitz sheriff's office and Washington state fisheries inspectors. Commercial fishermen, working near Kelso, took more than 500 boxes of 60 pounds each during Saturday night, it was said, and the run is continuing unabated. The fish were described as of top quality. Fisheries Inspector Frank Swick, who was patrolling the smelt area Sunday, reported "thousands" of persons working both sides of the Cowlitz from its confluence with the Columbia river up past Kelso. There is no license required for amateur smelt fishing in Washington but the take is limited to 20 pounds per person. Fisheries men have asked that dipnetters provide themselves with individual containers for easier checking of quantities by inspectors. They also emphasized the closed period which is from 8 a. m. Thursdays until 8 p. m. Saturdays. During this period no smelt may be taken by either amateurs or professionals. Swick reported Sunday, the fish had not reached the Lewis or the Sandy rivers yet. The Cowlitz is the main spawning stream for the smelt.
23 February 1954	Portland, OR	<i>Oregonian</i> , p. 5, advert	Fred Meyer ... Fresh-Caught Columbia River Smelt 19c lb. 2 lbs. 35c ...
23 February 1954	Cowlitz River	<i>Oregonian</i> , p. 13, col. 3	Smelt Dipping Continues Good. LONGVIEW, Wash. (Special). Productive smelt dipping continued Monday in the Kelso area. A large run of the silvery fish entered the Cowlitz river during the week end and was continuing to appear in good numbers, local smelt buyers reported. Commercial fishermen took several boxes Sunday. Bank dippers had good luck at locations as far up the stream as Lexington. After rising under the impact of heavy rain showers earlier in the week, the Cowlitz was falling and clearing Monday.
25 February 1954	Cowlitz River	<i>The Kelsonian Tribune</i> , p. 1, col. 6	Smelt Continue In Large Numbers After Slight Lull. Smelt taken from the Cowlitz Wednesday were reported to be the best yet with large quantities turned in by commercial fishermen. The Wednesday run followed a lull Tuesday and Tuesday

Date	Place	Source	Quote
			evening and fishermen are looking forward to better weekend takes when fishing is permitted beginning Saturday at 8 p.m. No dipping is allowed from Thursday at 8 a.m. until Saturday evening in order to give smelt a chance to spawn. Rocky Point has proved the most popular spot so far this year. Hundreds of amateur dippers took their 20-pound limit Sunday and later in the week, but Monday and Tuesday weren't the best days. Cowlitz river is the only Northwest stream where smelt have been taken in large numbers this year. The biggest headache of the run so far this year has been acute traffic congestion. County officers have been busy all week keeping traffic moving on both sides of the Cowlitz.
26 February 1954	Portland, OR	<i>Oregonian</i> , p. 35, advert	SAFEWAY. ... Fresh Columbia River Smelt ... 2 lbs. 35c ...
2 March 1954	Portland, OR	<i>Oregonian</i> , p. 5, advert	Fred Meyer. ... Smelt, fresh 2 lbs. 35c Columbia River ...
12 March 1954	Portland, OR	<i>Oregonian</i> , p. 2, advert	Fred Meyer. ... Columbia River Fresh Smelt, 3 lbs. 50c ...
16 March 1954	Portland, OR	<i>Oregonian</i> , p. 5, advert	Fred Meyer. ... Fresh Columbia River Smelt ... 3 lbs. 49c ...
19 March 1954	Portland, OR	<i>Oregonian</i> , p. 8, col. 1-2	Market Wise. ... there are other fine fish selections—Columbia river smelt—just 49 cents for three pounds ...
21 March 1954	Cowlitz River	<i>Oregonian</i> , p. 10, col. 3	Heavy Smelt Run Forecast. KELSO, Wash. —A substantial run of smelt is believed to be in the Cowlitz river. The tiny fish appeared in commercial quantities Wednesday afternoon but the weekly closure at 8 a. m. Thursday left some doubt about the strength of the run, the second of the season. However, the large number of seagulls and their antics in following the run has convinced veteran smelt men that a heavy run is in the river now. The ban on dipping will be lifted at 8 p. m. Saturday.
25 March 1954		<i>The Kelsonian Tribune</i> , p. 1, col. 7	Smelters Find Fish Running Deep In Cowlitz River. Sportsmen who have been dipping for smelt along the banks of the Cowlitz this week have met with little success, as the fish continue to swim in the deeper water near the middle of the stream. However, large numbers of dipnetters swarmed into the area last Sunday to try their luck. Commercial fishermen, however, are not finding the small fish hard to take, since they can get to the middle of the river in their boats and their nets will go far deeper into the water than the amateur can reach with his net. A fungus-like growth was noted on many of the larger male smelt early this week, but the exact cause of it has not yet been determined. It is nothing new, however, as it has been reported in other years. One theory advanced as to its origin is that the fish have been in fresh water for some time. The exact cause will not be known until a report is received from the University of Washington where several of the affected smelt are being studied. The number of such fish has dwindled greatly within the past few days. Don Gasaway, of the State Fisheries department, pointed out that the commercial value of the fish is not greatly affected by the fungus, since smelt are carefully sorted before being put on the market. Gasaway noted that the demand for smelt had decreased considerably since the first run started, and that the supply of smelt is much larger. The fish are evidently coming in steadily in small amounts, he said, rather than in several large runs as they sometimes do.

Date	Place	Source	Quote
26 March 1954	Portland, OR	<i>Oregonian</i> , p. 3, col. 1-2	Market Wise ... Columbia river smelt a low 39 cents a pound ...
26 March 1954	Portland, OR	<i>Oregonian</i> , p. 10, advert	SAFEWAY ... Fresh Smelt Columbia River 2 lbs. 25c
28 March 1954	Sandy River	<i>Oregonian</i> , Northwest Magazine p. 10-12	The Unpredictable Smelt BY DON HARGER. Northwesterners eagerly watch for the spring runs of these tasty fish, but sometimes they fail to show. With the first cry of smelt, heard usually in late March or April, if at all, comes a steady stream of dip-net laden automobiles into the city of Troutdale, which nestles on the banks of the Sandy river. In the city and along the rocky banks of the river excitement becomes epidemic. Boot-shod persons hurry in all directions, purchase permits, rent dip nets, or jostle their way toward the river. The Sandy river, like some of the Columbia's tributaries on the lower Washington side, is popular with the amateur smelt fishermen, for they have ready access to the water on both banks, and the water is relatively shallow, making dipping easier. The river banks become jammed with happy people. Some are dipping with great enthusiasm, while many are content with their watching. The bridges crossing the Sandy are lined with spectators offering advice. Being above the usually-clear water, the bridge watchers can follow the schools of tiny smelt as they run the gantlet of net-wielding dippers. On occasions they are treated to comedy relief as some over-enthusiastic dipper loses balance and falls into the icy waters. Fisheries experts know very little about the tiny smelt or eulachon of the Pacific Northwest. Only recently have extensive studies been undertaken on the smelt fishery, and the tasty little visitor from the sea is annually pulling a new and mystifying trick from his store. Smelt dippers and biologists alike are nearing a permanent state of frustration. Where will the elusive eulachon appear this year? When will he arrive? Will he arrive at all? These and many other questions are tossed about with the arrival of each new spring. Smelt generally arrive in the Columbia and in some of its southwest Washington tributaries, such as the Cowlitz, quite early, weeks before they hit the Sandy. Records Smashed Last Year. Last spring the dippers waited and waited for the smelt to show in the Sandy. Came May, and the dip nets were put away for another year. The smelt had never come later than this before. Suddenly the smelt appeared. Not only did they set a record for tardiness, but they also came in numbers greater than had been seen for many years. The dippers dug their nets out of the mothballs and had the greatest dip in current years. That the little smelt attracts so many fishermen each year is no mystery in itself. It is one of the tastiest and richest of all the food fishes of the Pacific coast. The oil content is extremely high, making for delicious, golden brown eating. No wonder that during the 1953 run, late as it was, the Oregon game commission sold close to 30,000 of the 50-cent sports permits. Each dipper is allowed 25 pounds in his or her possession for one fishing expedition, and most of them went home last year with the legal limit. Some made no more than one or two dips, the smelt were so numerous. According to Arnie J. Suomela, former master fish warden for the Oregon fish commission and now with the U. S. fish and wildlife service, one can never be certain that they will arrive. Since 1934, separate records have been kept on the

Date	Place	Source	Quote
			Sandy river for the commercial take, and many years since then have been blank. Sometimes They Never Come. The year 1935 was a zero year. So were the years from 1937 to 1939, inclusive. No smelt appeared in 1944, but the following year, 1945, turned in one of the largest commercial catches since the records were kept separately on the Sandy. That year the commercial take was 1,393,098 pounds. The year 1947 scored a zero again. So did 1950 and 1952. The smelt matures at 2 and 3 years of age, ascends from the sea to fresh water and dies after spawning. Their spawning, unlike that of most fishes, is not done in a pairing-off manner. Rather it is a mass performance and occurs mostly at night. Eggs and milt are deposited in the water where the eggs become fertilized and sink to the bottom. By means of a rather sticky substance, the eggs adhere to the small gravel, coarse sand and debris, such as brush and sticks. Depending upon the water temperature, the eggs hatch in from 20 to 35 days. The young are almost invisible to the eye, and it is believed that they are immediately carried by the current to the sea. Wendell E. Smith, biologist for the Washington department of fisheries, reports "the smelt live upon the stored egg yolk material and do not actively feed until they are in the salt water." Previous to the introduction of manufactured candles, and other lighting devices, the eulachon was dried, fitted with a wick, and the oily fish was used as a candle. For this "illuminating" reason the name candlefish was hung on him and is still frequently used. Today's well-equipped sports dipper is well ahead of the early pioneers of the game. Not too many years ago it was a common sight to see dippers using literally everything mentionable that might dip up a few fish. Odd Utensils Mobilized. It is a recognized fact that many of the early-day smelt enthusiasts lined the banks of the Sandy armed with no more than bird cages fastened to lengthy pieces of tree limbs. Others could be seen with buckets of tin pans punched full of tiny holes and fastened to long poles. Bert A. Walker, former captain with the game law enforcement division of the Oregon state police, tells of the time he witnessed an elderly and plumpish woman armed with the rarest of all dipping instruments. She was standing hip deep in the icy water of the Sandy river. Her dress was billowing on the surface of the water as she made periodic lunges into schools of smelt with a silk stocking fastened to a wire frame and supported by a length of 2x2 lumber. Dippers Increase Tenfold. One thing that has not changed with the passing of the years is the enthusiasm of the dipper. Excitement during the smelt runs is contagious. The dippers have increased tenfold during the past 15 years in spite of the fact that the smelt are not nearly so numerous now. More than 20,000 dippers along a two-mile stretch of river paint a picture of buzzing activity and hilarity. It will be a sad day of, and when, the time ever comes to put a halt to the commercial fishing and sports dipping for the elusive eulachon. Until that day arrives, however, each new spring will see thousands of eager persons waiting excitedly for the first cry of: "Smelt!"
29 March 1954	Lewis River	<i>Oregonian</i> , p. 1, col. 2	Big Smelt Run In Lewis River. WOODLAND, Wash. (Special)—A big smelt run entered the north fork of the Lewis river early Sunday, state police reported. A state

Date	Place	Source	Quote
			officer at the mouth of the river, just south of Woodland, said the run was heavy, and that dip netters were getting easy limits.
30 March 1954	Portland, OR	<i>Oregonian</i> , p. 4, col. 2	Supply Lowers Price of Smelt. Smelt prices came down as supplies increased on the Portland wholesale market Monday. Retailers were paying \$4 to \$4.50 a 50-pound box, around 50 cents less than last week. Dipnetters reported limited catches from the Lewis river run.
1 April 1954	Sandy River	<i>Oregonian</i> , p. 1, col. 5	Smelt Poised At Sandy Bar. Smelt were at the mouth of the Sandy river Wednesday but at midnight the silvery fish had not moved into the stream, Multnomah county sheriff's office reported. It was expected the fish would move into the Sandy after nightfall, but a check by deputies and state game commission officers Wednesday night revealed they were staying in the Columbia river. The run was discovered at 3:15 p. m. by "Whitey" Wright, one of a group of men fishing for salmon in the Columbia just below the mouth of the Sandy. At the discovery, salmon fishermen reeled in their lines and took to dipping smelt with landing nets. Within an hour of the discovery the dock at Sundial beach was lined with dippers. The run appeared to be big.
2 April 1954	Sandy River	<i>Oregonian</i> , p. 1, col. 5	Smelt Enter Sandy River. Advance scouts of the spring smelt run appeared in the Sandy river Thursday [1 April] and were enthusiastically greeted by a crowd of fishermen armed with dipnets and hip boots. Schools of the little fish milled about at the mouth of the Sandy near Sundial ranch Wednesday, and some time after midnight they began moving upstream. But the smelt run by Thursday night was still reported as "light" by state policemen and Multnomah county deputies. "There's more fishermen than fish out there," one deputy said. Although some fish were moving up the stream, the bulk of the smelt were reported to be still milling around the mouth of the river Thursday night. Police said lowwater may be causing the fish some difficulty in getting over the bar at the mouth of the river. License Business Brisk. By midmorning, dippers were having good luck as far upstream as the lower highway bridge and the railroad bridge. Smelt were still scarce farther up at the Troutdale bridge. Troutdale merchants did a brisk business selling smelt licenses at 50 cents and renting dipnets as word spread that the tasty eulachon were in the Sandy. Multnomah county sheriff's deputies arrived promptly to untangle traffic jams and handle the parking situation, while state police patrolled the banks to see that every dipper had a license and that nobody tried to cart home more than his allotted 25 pounds. Most of the first smelt were good-sized males, measuring up to nine inches. Female smelt customarily arrive in the river a little later, longtime riverbank residents have noted. Smelt license holders may dip for smelt any hour of the day or night from the mouth of the Sandy upstream as far as Viking park bridge. All smelt dipping is prohibited, however, from midnight Sunday to midnight Monday to allow an escapement of the spawning fish.
3 April 1954	Sandy River	<i>Oregonian</i> , p. 1, col. 8	Fickle Eulachon Slow to Travel. Only a trickle of smelt came up the Sandy river Friday, and dippers who caught their 25-pound limits found they had to wade close to

Date	Place	Source	Quote
			midstream and work for a half hour or more to get them. A big school of smelt still was milling around at the mouth of the river, apparently undecided whether to make the migration to the spawning grounds above the Viking park bridge. The best place for dipping Friday night seemed to be the sandbar just below the railroad bridge. About 300 boxes of smelt were taken commercially Friday night at the sandbar, above the bridge. Most of the smelt were males. Many amateur dippers were buying smelt at Troutdale after their own efforts failed. The going price was 10 cents a pound, or \$4 for a 50-pound box.
4 April 1954	Sandy River	<i>Sunday Oregonian</i> , p. 36, col. 5-7	Deep Water Fishermen Seek Smelt. Smelt starting coming into the Sandy river in increasing numbers at 10:30 p. m. Saturday. A small rise in the river level and accompanying roiliness of the water as a result of the showers Saturday were apparent factors in inducing the females to cross the shallows at the river mouth. In the dirty water a visual check of the size of the run was impossible, but dippers making blind sweeps in the deeper water sometimes would get 25 or 30 fish. There was no way to tell what would happen with the return of daylight and possible clearing water conditions.
5 April 1954	Sandy River	<i>Oregonian</i> , p. 15, col. 5	Smelt Elusive In Muddy River. Smelt dippers early Sunday found plenty of action on the Sandy river, but by later in the day the fish were “few and far between.” Gresham precinct of the Multnomah county sheriff’s office said motor traffic Sunday afternoon was heavy, though mostly comprised of sightseers. Arrests for law violations were few, largely because there weren’t enough fish for overweight catches, officers said. Because of rains, the Sandy was higher—and muddier—and dipping in this year’s run was almost a matter of blind luck. Those caught were said to be “solid and good quality.” Dippers were reminded that smelt fishing is forbidden from midnight Sunday until midnight Monday to allow escapement of spawning fish.
5 April 1954	Portland, OR	<i>Oregonian</i> , p. 5, advert	SAFEWAY ... Fresh Smelt Columbia River 2 pounds 25c
6 April 1954	Sandy River	<i>Oregonian</i> , p. 1, col. 7	Few Eulachons Noted in Sandy. The smelt were still trickling into the Sandy river early Tuesday but the water was high and dangerous. Multnomah county sheriff’s deputies said the river had risen about four feet. They reported very few private fishermen out to try their luck at midnight, end of the 24-hour closed period. There were some commercial fishermen. In this year’s run, the elusive eulachons have shown a habit of swarming into the mouth of the river just after midnight daily, then slacking off during the day, deputies reported. ...
7 April 1954	Sandy River	<i>Oregonian</i> , p. 1, col. 2	Sandy Smelt Run Small, Spotty. A small, spotty run of smelt milled around in the Sandy river at the railroad bridge Tuesday, the state game commission reported. Staff members said in spite of poor dipping, one dipnetter got 18 pounds of smelt in one minute. Sheriff’s deputies said dippers were mostly getting “about two fish per dip.” The game commission report indicated the best run upstream is at night, particularly from midnight to 3 a. m. Fish in the run are mostly males, of a good size.
8 April 1954	Sandy River	<i>Oregonian</i> , p. 1, col. 8	Sandy Catches Low on Smelt. Dipping for smelt in the Sandy river was still a

Date	Place	Source	Quote
			discouraging if not completely futile occupation Wednesday. No smelt were to be seen and the few hardy dippers who went at it blind were finding it difficult to get even a mess.
10 April 1954	Sandy River	<i>Oregonian</i> , p. 1, col. 2	Sandy Deserted By Smelt Horde. The sporadic run of smelt in the Sandy river appeared Friday to have left the stream altogether. No fish had been seen in the Sandy either Thursday or Friday, said Multnomah county police. A heavy run of the small fish had milled about in the Columbia off the mouth of the Sandy several days, but comparatively few fish ascended the smaller stream to the spawning grounds because of extremely low water.
		Schoettler (1956, p. 28)	Columbia River Smelt. The 1954 smelt run was good. Fish were abundant in the main Columbia River from January until early April and good runs were available in the Cowlitz, Lewis and Kalama Rivers. Large numbers of smelt moved upstream in the main Columbia as far as Bonneville Dam but only an insignificant number entered the Sandy River in Oregon. The “triggering” effect of Columbia River water temperatures on upstream movement of smelt was substantiated further in 1954. Without exception, catches were lacking in tributaries upstream from Longview, when main river temperatures dropped below approximately 40 degrees. It also was found that runs into a tributary stopped when the water temperature exceeded approximately 44 degrees. This was clearly shown in the Lewis and Kalama rivers. In the Lewis River smelt were caught between March 26 and April 5 when temperatures stayed below 44 degrees F. After April 5, when the Lewis River temperature rose to 46 degrees, the run ceased. In the Kalama River, however, the water temperature remained under 44 degrees until April 16, and the run in that stream was prolonged until that date.
		Smith <i>et al.</i> (1954)	SMELT STUDIES 1954. John Smith and Edward Preston. During the 1954 smelt season the cooperative studies of the Oregon Fish Commission and Washington Department of Fisheries followed a pattern adopted last year. Biologists from Oregon were primarily concerned with determining areas utilized by smelt for spawning. The Washington staff devoted the bulk of its time in age-length analyses of the catch, the relationship of temperature to the availability of the fish, and laboratory experiments designed to determine the effects upon developing smelt eggs which is exerted by the various types of gear used in the fishery. Sex-Ratio. The sex ratio varied considerably in each sample. The gill net fishery is theoretically non-selective to sex, but since the body surface of the males is rougher than that of the females, this condition is likely to increase the ratio in favor of males. The dipnetters consciously attempt to avoid females due to their lower market value. The data in Table 2 show the effect of their efforts with overall ratios of 10.4 males to one female in the gill net catch, and a ratio of 19.7 males to one female in the dip net catch. Of the two types of fishing gear, the gill nets probably more closely approximate the actual sex-ratio conditions. Length Frequency. Measurements were made by laying the individual fish on graph paper (ruled into millimeter units) and

Date	Place	Source	Quote
			perforating the paper at the fork of the tail with a dissecting needle. The length frequencies were converted to a sample size of 1000, and are shown graphically in Figure 1. The sample with the greatest percent of large smelt was that of January 12, at Eagle Cliff. It shows a similar frequency distribution to the first big catch in the Cowlitz of January 13. It is probable that these groups are composed of the same stock of fish. To check this, the mean length for the January 12 and 13 smelt samples were compared by using a "t" test. A "t" value of 0.538, with 17 degrees of freedom indicates no significant difference at the five percent level. It appears that the gill nets (used in the Columbia) were not selective for large fish, since dip nets (used in the Cowlitz) caught similar sized fish. Large fish were also taken by dipnets in the Sandy River run of April 1. The length frequencies of smelt samples from February 6 to March 28 (Figure 1) represent smaller fish than the very early and very late catches. In 1953 large fish also predominated in early and late catches. Since large fish were taken in both gill nets and dip nets, and since it is true that both types of nets are constructed to most effectively catch available smelt, it is likely that these samples compare favorably with the length frequencies of the smelt population. The varied distribution of the length frequencies are not adequate evidence of racial differences. These variances may be due to age differences, environmental conditions, or other factors. An indirect argument against the presence of different races might be studied next year by studying the length frequency of fish caught in a diver net and the state of maturity of the smelt. Thus, assuming divers fish right on a spawning bed, and that they took spent and unspent fish of the same length frequency, the unspent fish would spawn later, perhaps at same other point, but so far as length determines racial characteristics would not be significantly different. In this regard an ideal study would involve fish caught in both diver and floater nets simultaneously. <u>Age Determination.</u> Otoliths were taken from fish in almost every sample examined. Each fish was measured before the otolith was removed, and otoliths were stored in water filled vials until they could be read. An attempt was made to devise a more objective reading of the otoliths than by counting annuli. With the aid of an ocular micrometer, measurements of the greatest width of the otoliths were taken. It was hoped that the assumption that YOUNGER maturing fish have small otoliths and OLDER maturing fish have large otoliths could be checked by counting the annuli on each otolith measured. Following several hundred such measurements, correlating each with annuli rings, the idea was abandoned. The measurements showed only that SMALL fish had SMALL otoliths, and that LARGE fish had LARGE otoliths, and that smaller fish did not necessarily have fewer annuli. The age-group data are shown as bar graphs in Figure 1, and were constructed on the basis of annuli readings. The majority of these smelt were apparently three and four years old. Three year old fish appeared to predominate in the February 20, March 2, 9, 16 and 28 landings. These five samples were also characterized by having relatively small fish. Otoliths which were difficult to read were listed as questionable. In

Date	Place	Source	Quote
			the March 9 sample, three and four year readings appear almost equally represented. Since the length frequency has a bimodal distribution on that date, it is possible that three year old smelt predominate about the peak of 172 millimeters, while the four year old fish predominate around the peak of 182 millimeters. It became evident as the otolith reading progressed, that more accurate age determinations were desirable. The otoliths examined seldom gave annuli readings which were easily segregated into a particular age group. It would be desirable to investigate some other means of age determination. For example, if the growth per year were known, size limits for each age group might be determined. It has never been shown that smelt have a progressive increase in size each year. This might be accomplished by a study of the marine phase of the smelt life history. Another possibility would be to raise smelt from a known age through successive years. This was unsuccessfully tried at Bowman's Bay in 1951. Perhaps it could be tried in the Fisheries Center salt water aquarium. If measurements of known age smelt are made in the future it might be interesting to compare them with the following data which was obtained this season: 1. Size Class which contained the smallest three year old fish was 130-134 millimeters, with a midpoint of 132 millimeters. 2. Size Class which contained the smallest four year old fish was 140-144 millimeters, with a midpoint of 142 millimeters. 3. Size Class which contained the smallest five year old fish was 145-149 millimeters, with a midpoint of 147 millimeters. <u>Water Temperature and Movement of Smelt.</u> Figure 2 shows the water temperature of the Columbia River and tributaries which had smelt runs in 1954. The dates when smelt entered and left the rivers (as determined by the commercial catch) are marked on the graph. This is somewhat obscured by the weekly closure of fishing. Joint regulations of the two states permit no Columbia River smelt fishing between 12:01 AM Thursday and noon Saturday, while tributary regulations Washington close the fishery between 8:00 AM Thursday and 8:00 PM Saturday each week. In Oregon the tributaries are closed between midnight Sunday and midnight Monday. The data this year follow a previously noted pattern, i.e., that smelt will not move above Eagle Cliff to enter a tributary stream unless the Columbia River water temperature (taken at Bonneville Dam) is 40° F or above. This year's data tend to show an additional pattern, i.e., that smelt runs tended to leave a tributary stream as it warmed, or that new runs ceased to enter such a stream, preferring to remain in the Columbia or to migrate into a cooler tributary. Since the Columbia River gill net fishery ceases to operate when the Cowlitz dip net fishery starts, no measure of the abundance of fish remaining in the Columbia is discernable. That is, smelt may be in the Columbia in large numbers, but they will not be taken due to competition from the Cowlitz fishery. On March 21 the Cowlitz water temperature increased one degree to 44°, and when fishing commenced smelt were present in large numbers. This was likely part of the big run caught in the Columbia during the previous week. On March 26 the water temperature began to rise above 44°, and rose higher

Date	Place	Source	Quote
			during succeeding weeks. The commercial season closed at midnight of March 25, and when it re-opened March 27 no fish were caught in the Cowlitz. It is possible that they all spawned and died, or that they left the Cowlitz. No more large catches of smelt were taken in the Cowlitz in 1954. Both the Cowlitz and Lewis Rivers support dip net fisheries, and if fish are present in either river, or both rivers, the fisheries would indicate the presence of fish. A big run of smelt entered the Lewis River on March 26, and this fishery continued until it terminated on April 6, when no more fish were available. The water temperature from March 26 to April 5 was 44° or below. On April 6 it rose to 46° and remained there for three days. The Kalama River also supports a dip net fishery when fish are present. On April 8, two days after the smelt disappeared from the Lewis River, a big run appeared in the Kalama River. Smelt were dipped there until April 16, which was the last sign of smelt in 1954. As noted in Figure 2, the Kalama River water temperature remained at or below 44° during the whole period. A run of smelt appeared in the Sandy River, Oregon on April 1. The temperature was 42°, at that time, and remained below 44° for the following week. It appears that the 1954 smelt run tended to leave a tributary stream as it warmed. It is possible that new runs ceased to enter a warming stream, preferring to remain in the Columbia, or to migrate into a cooler tributary. Perhaps the smelt in a tributary stream spawned and died, instead of moving out of that tributary. M. Loeffel, of the Oregon Fish Commission, reports that smelt eggs were found in the gravel of all the above mentioned streams. There may be no exact upper temperature to which fish show a thermotropic reaction, but the trend bears watching in future years. <u>Smelt Experiment - Kalama River</u>. The Columbia River smelt (<i>Thaleichthys pacificus</i>) run is harvested annually in the Columbia River and several of its tributaries. The medium of harvest may be generally divided into three categories, a floater or bobber type gill net, the diver or "go-devil" net and the hand dip net. The latter gear is utilized by sportsfishermen and extensively used by the commercial fishermen once the smelt have migrated into the tributary streams. In the past, the presence of developing smelt eggs has been noticed upon the meshes of hand dip nets. This gear, when fishing, is moved along the bottom of the stream in contact with the spawning beds, thus disturbing the gravel and hence the eggs. If these procedures are causing appreciable egg mortalities some attention must be focused upon a possible greater problem, the diver or "go-devil" net. This gear also exploits fish on the spawning beds as indicated by the large percentage of spent fish comprising the catch in the area where this gear predominates (Columbia River Progress Report, Jan. - April, 1953). It is not inconceivable that such disturbances of the bottom topography are instrumental in dislodging and thus destroying developing smelt eggs. It has been impractical to measure quantitatively the effect of these disturbances under field conditions. In lieu of such observations, an experimental study [sic] was initiated in 1953 at the Kalama River hatchery. The same study with some modifications was followed in 1954. The 1953

Date	Place	Source	Quote
			experimental design consisted of one hatchery trough (the bottom covered with gravel to simulate river conditions). An original assumption of homogenous egg deposition throughout the trough appeared to be satisfied. The analysis of the experimental data lost its validity through the absence of a regulated control trough. The 1954 design modifications entailed the use of three troughs set up similarly to the 1953 trough. Virtually all of the spawning occurred in the lower third of each trough and hence it was decided to use only this lower third (discharge end) for the experiment. This third was divided into two equal parts. Hereafter, references to troughs will be applicable to only the lower third of same. The spawning potential achieved in 1954 did not measure up to that of 1953. Most of the specimens died without complete expulsion of spawn. Each fish after death was examined internally to establish its degree of spawning. Arbitrary values of 1 - 4 were assigned each carcass per the following schedule: (1) unspawned; (2) only slightly spawned; (3) reasonably well spent; (4) spent. These values, though not quantitative, do serve a relative function. Every effort was made to duplicate the physical structure of the three experimental troughs (i.e., the amount and size of gravel, equal flows, similar degrees of darkness and the same specimen size). Each day the dead smelt were removed and classified relative to their degree of spawning. Following the expiration date of all specimens the gravel in the upper half of two of the three experimental sections was periodically disturbed with a small net to simulate fishing conditions. The lower end in each of these troughs, as well as the entire area in the control trough, was allowed to remain undisturbed. In April, six bottom samples were taken from each of the two sections in the three troughs. The gravel water eggs and larvae circumvented by the four-inch diameter sampler were transferred to containers for subsequent enumeration. The sample counts of eggs and larvae appear in Table 4. A chi-square analysis of the values in Table 4 was made with the hypothesis that there existed a significant difference in numbers of eggs and larvae between the upper (disturbed) and lower (undisturbed) sections of each trough. At the 5 percent level the resulting value of 1.153 (2 df) requires the rejection of the foregoing hypothesis. On the basis of this analysis it appears that disturbances of the magnitude inflicted upon the artificial spawning beds in this experiment offers no high degree of displacement to attached smelt eggs. <u>Summary and Conclusions.</u> 1. Fear has been expressed that smelt eggs are dislodged from the river bottom by diver gill nets and dip nets. The magnitude of this possible loss is difficult to measure under field conditions and therefore, artificial conditions were set up to duplicate the action of the fishery. A statistical analysis of the egg counts from the troughs indicates no significant variation in numbers of eggs between disturbed and undisturbed areas. 3. It is quite possible that even though the spawn is not prematurely removed by net disturbances, a retarded or decimated development of the embryo may occur. It is suggested that evaluations of this possible condition be initiated in the future.

Date	Place	Source	Quote
1955			
21 December 1954	Columbia River	<i>Oregonian</i> , p. 4, col. 4	Portland Marts Receive Smelt. First Columbia river smelt of the season arrived on the Portland market Monday. Gordon Bruce of Portland Fish company reported a ten-pound shipment from gillnetters in the Cathlamet area. The run, he said, is about “on schedule,” but is not expected to reach commercial proportions for about two weeks.
4 February 1955	Cowlitz River	<i>Oregonian</i> , p. 1, col. 2, photo	Part of some of four tons of smelt taken in the lower Cowlitz river Wednesday night are shown by commercial fishermen ... at Cowlitz Smelt company dock in Kelso. Three men made first catch in Cowlitz river this winter.
4 February 1955	Cowlitz River	<i>Oregonian</i> , p. 10, col. 1-3	Smelt Dipped From Cowlitz. KELSO, Wash. (AP) — First smelt of the season appeared Wednesday night in the lower Cowlitz river, with two commercial fishing boats dipping up about 7500 pounds of the small fish, the Central Smelt company reported Thursday. The small run of smelt was found near the mouth of the Cowlitz, and they returned to the Columbia river with the outgoing tide. The Cowlitz empties into the Columbia. Fishermen said it was too early to tell if the appearance of the smelt in the Cowlitz signaled the start of the annual run. Small quantities of smelt have been taken in the Columbia for the past month.
18 February 1955	Portland, OR	<i>Oregonian</i> , p. 3, col. 4-5	Market Wise ... Another sign of Spring for sure is the appearance of fresh smelt. It is 29 cents the pound. ...
19 February 1955	Columbia River	<i>Oregonian</i> , p. 6, col. 1	Gillnet Group In Dissolution. Smelt Marketing Dispute Blamed. A dispute over marketing methods has resulted in dissolution of the Gillnet Smelt Fishermen’s association at Clatskanie, The <i>Oregonian</i> learned Friday, from fishermen and local wholesale dealers. The result, according to one of the fishermen, W. H. Forsyth of Vancouver, Wash., will be larger supplies and lower retail prices on smelt. Wholesale fish houses here agreed with this prediction. The association, a marketing agency for smelt fishermen, sought to hold prices at relatively high prices through a program of limiting the catch and prorating orders. Independent fishermen favored taking a lower price and selling a greater tonnage. Fish were backing up at the high prices. Issue Decided at Kelso. The issue came to a head at a meeting at Kelso Thursday night. The upshot was a vote to close the association and let members catch all the fish they want and sell for any price they can get. Wholesale fish houses here said the association has been charging \$9.50 a 50-pound box at Clatskanie, or \$10.50 delivered Portland. Retail prices were around 35 to 40 cents a pound, and these high prices have retarded consumer buying, dealers said. A heavy catch this week end could result in sharply lower prices next week, dealers believe. Smelt are in the Columbia in large numbers, but runs have been spotty and in and out of the tributaries. Forsyth said there appeared to be plenty of smelt in the deep holes on the Columbia between Eagle Cliff and Cathlamet.
25 February 1955	Portland, OR	<i>Oregonian</i> , p. 8, col. 1-2	Market Wise. ... Columbia river smelt are another low-priced choice—about 29 cents a pound. ...
4 March 1955	Portland, OR	<i>Oregonian</i> , p. 8, col. 1-2	Columbia River Smelt New Low Price lb. 19c

Date	Place	Source	Quote
4 March 1955	Portland, OR	<i>Oregonian</i> , p. 24, advert	Market Wise ... Fish always offers lots for the money—particularly low-priced are smelt—to be had for as little as 19 cents a pound. ...
11 March 1955	Portland, OR	<i>Oregonian</i> , p. 8, col. 1-2	Market Wise ... Columbia river smelt ... They're to be had for 19 cents a pound. ...
19 March 1955	Cowlitz River	<i>Oregonian</i> , p. 1, col. 7	Smelt Heavy In Cowlitz. KELSO, Wash. (Special) — The heaviest smelt run in the current season was reported in the Cowlitz river Friday by fishermen who could not take a single fish. The weekly closure will end at 8 p. m. Saturday. Kelso chamber of commerce officials prepared to aid prospective fishermen find the best dipping areas by erecting directional signs to fishing places. Commercial fishermen described the run as “the best we’ve seen this year.” The first smelt were reported in the Cowlitz Tuesday night and 500 boxes were taken by commercial fishermen early Wednesday morning. The run dwindled and it was not until late Thursday that the heavy run was spotted.
20 March 1955	Cowlitz River	<i>Oregonian</i> , p. 30, col. 4	Smelt Dippers Set to Resume. Commercial smelt fishermen were set Saturday afternoon to resume dipping of smelt from the Cowlitz river at Longview and Kelso when the department of fisheries closing period expires at 8 p. m. Saturday. The smelt appeared in the river Wednesday and good catches were reported prior to closure at 8 a. m. Thursday.
21 March 1955	Cowlitz River	<i>Oregonian</i> , p. 1, col. 5	Catches Light In Smelt Run. KELSO (Special) — Smelt fishermen competed with sea gulls on the Cowlitz river Sunday, but the thousand or so persons who congregated on a trampled beach at Sandy bend came away with little more than light catches. The smelters had been hard at it since fishing resumed Saturday night and said the biggest hauls were made during the night. Largest of the year’s run in the Cowlitz was reported Friday, midway through the river’s weekly closed period. The Sunday fishermen were hoping for a second run the size of the first. Night-time netters presented a solid phalanx on the west bank of the stream at Sandy bend early Sunday, despite temperatures that went well below freezing. One fisherman said that at the peak period, not one more net could be squeezed among the poles that bristled out from an ancient west bank piling. Female Fish Safe. State patrolmen and other experts of the run said the female fish mostly got through the shallow waters to a safe spawning ground. A preponderance of smelt taken Sunday was males, they reported. Sea gulls competed for the succulent river travelers Sunday morning. The birds, circling watchfully above the water, patrolled the Cowlitz in division strength from Kelso to Castle Rock.
21 March 1955	Portland, OR	<i>Oregonian</i> , p. 4, advert	Thriftway. ... Columbia River Fresh Smelt lb. 19c
23 March 1955	Cowlitz River	<i>Oregonian</i> , p. 15, col. 4	Cowlitz Smelt Run Tapers Off. KELSO, Wash. (Special) — The Cowlitz river smelt run which attracted scores of fishermen to this area over the week end had pretty well petered out Tuesday. The few fish remaining were in mid-stream, ending all bank netting operations. Commercial fishermen’s boats were continuing to operate with diminishing success, but, in the words of one veteran observer, the netters “have pretty well had it for this run.”
27 March 1955	Cowlitz River	<i>Oregonian</i> , p. 1, col. 1	Gulls Grab Smelt In Cowlitz River. KELSO, Wash. (Special) — Thousands of

Date	Place	Source	Quote
			seagulls fished smelt in the Cowlitz river Saturday as dipnetters waited for the weekly closure to end at 8 p. m. For the second week in a row the smelt have chosen the closure period for their biggest run of the season. They had only the seagulls to fear. The closure began Thursday morning at 8 a. m.
29 March 1955	Portland, OR	<i>Oregonian</i> , p. 9, ad	Fred Meyer ... Fresh Smelt 2 lbs. 25c
March 1955		<i>Pacific Fisherman</i> 53 (4): 19.	Columbia Smelt Short. Columbia River smelt production during January was scant and the fishermen went into February hoping that the scratch fishing in the main stem of the river through the year's first month was a "pilot" run rather than the main show. About 30 boats were fishing out of Clatskanie, Ore., headquarters of the early operations.
4 April 1955		<i>Oregonian</i> , p. 22, col. 3	Smelt Avoid Cold Waters. If you are a Sandy river smelt addict and wonder where are your silvery friends this season, you might consult Edward E. Brockmann, 7 S. E. 52d avenue. Brockmann says the water is too cold and the eulachon will not show up until the temperature moderates a bit. A follower of Sandy smelt for many years, Brockmann has noted that smelt do not enter the Sandy until the water comes up to 42 degrees. Last time he checked, he said Saturday, it was still 40 degrees, so he believes the smelt will hold off for a few days more, at least. The Cowlitz and Lewis rivers are both warmer streams and get their smelt runs early, but the Sandy, which come straight from the Mt. Hood glaciers, has to wait, declares the Sage of the Sandy. Glacial Soil Needed. Another point Brockmann has noted is that fact that the smelt must deposit their eggs in fine glacial soil because heavy sand will crush them. The eggs are very fine, 1225 of them covering a square inch when laid out on a glass. One fish from which he counted eggs a few years ago provided enough to cover 64 square inches, indicating there were 68,400 eggs in the fish. "I have the glass plate to prove it," he added. A proponent of the 5-cent smelt fishing license which raised funds to build a dam over the original channel and direct the water down the present channel, Brockmann dreams of the day when the state game commission will improve the Sandy entrance and provide a public park along the shores. "The game commission has collected \$120,082 from smelt licenses but it has spent only \$65,295.24, leaving a balance of \$54,786.76, which could be used very well for improvements to the channel for the movement of fish and boats, and along the shoreline for the public," he declared.
5 April 1955	Cowlitz River	<i>Oregonian</i> , p. 1, col. 7	Smelt Reappear In Cowlitz River. LONGVIEW, Wash. (Special) Large concentrations of smelt were in the Cowlitz river Monday. Commercial dippers scored heavily over the week end, while bank dipping results were spotty. An estimated 90,000 pounds of the succulent silvery fish were landed at commercial buying docks in Kelso Sunday night and early Monday. One commercial firm which had closed its doors Thursday, thinking the season was over, reopened Saturday night to handle its share of the deluge. While some commercial fishermen thought a heavy new run of smelt had entered the Cowlitz Saturday, others felt the fish were part of an earlier run which for some reason did not move on upstream in their annual spawning migration.

Date	Place	Source	Quote
6 April 1955	Sandy River	<i>Oregonian</i> , p. 1, col. 5	Smelt Reported In Sandy River. Smelt are in the Sandy river, according to a report at midnight Tuesday. Cecil Davis, Union Pacific railroad trackwalker, reported to The Oregonian that he saw a few of the fish moving up the river when he crossed the bridge at Troutdale while going to work at 4 p. m. When he returned home at midnight he reported “a lot of them” under the bridge. Last year a light run of smelt in the Sandy began on April 2.
7 April 1955	Sandy River	<i>Oregonian</i> , p. 1, col. 7	Smelt Continue To Shun Sandy. There were no smelt in the Sandy river Wednesday, and none could be located swimming in the Columbia river off the mouth of the Sandy. Deputies of the county sheriff’s office made a thorough search early Wednesday after a railway trackwalker has reported spotting the shiny fish shortly after midnight beneath the Troutdale bridge. Latest date for smelt to enter the Sandy, according to Oregon state game commission records, was April 20, 1953, when the fleeting fish entered after most everyone had decided they would skip the river. The run started during a 24-hour kings-X period, too.
11 April 1955	Cowlitz River	<i>Oregonian</i> , p. 1, col. 2	Run of Smelt Crashes Price. LONGVIEW (Special) — The heaviest run of smelt of the season choked the Cowlitz river Sunday, but relatively few of the fish were taken by commercial fishermen or amateurs because of an overloaded market. “People have had enough smelt,” one buyer reported in explaining that fish were being bought only “on order,” since freezers are already loaded. Fishermen began dip-netting the run at 8 p. m. Saturday night, finding the fish thick all the way to the closure line, five miles from the Cowlitz mouth. Price Skids to \$1. The price per box (50 pounds of fish) has dropped to \$1 from a high of \$7 offered when the season began early in March. However, there were few fish being bought even at the low price. It was estimated some 400 boxes were caught Sunday, although fishermen could have taken thousands of boxes had there been any market for the fish, which were described as the biggest and the best quality of any run of the season.
12 April 1955	Portland, OR	<i>Oregonian</i> , p. 5, advert	Fred Meyer ... Fresh Smelt, 2 lbs. 25c
		Wendler <i>et al.</i> (1955)	COLUMBIA RIVER PROGRESS REPORT. January through April 1955. 1955 SMELT RUN. Ed Preston. The first smelt caught and landed commercially was on January 10 in the lower two zones of the Columbia River. Throughout the first five weeks of the fishery the total units of gear working and the amount of landings associated with this gear were at a low magnitude. The run had only begun to enter the river during this period. The smelt fishermen’s association designed to avoid saturation of the market and to sustain profitable prices to the fishermen, did not function in the Columbia gill-net fishery. Their office-receiving station did provide an outlet for the fish taken, but at no time acted as a governing agent in respect to assigning fishing members maximum daily poundages. It is customary that gill-net operations cease when smelt become available to tributary dip-nets; the gill-net fishermen converting to dipnetters. Such a practice did not occur in the early weeks of the fishery when fish were obtained by both methods. This

Date	Place	Source	Quote
			incongruity may be traced to two components. First, the minimal number of fish present in the Columbia was totally inadequate to satisfy the demand of the early season market and hence contributions from any source were in demand. Second, the first appearance of smelt in the Cowlitz was also in small numbers and the run at this time was of short duration so that main stem fishermen did not migrate to the Cowlitz. This was perhaps the most significant reason for concurrent gill and dip-net fisheries. This pattern prevailed until late in March when smelt became extremely available in the Cowlitz. The gill-net fishery virtually ceased operations on March 16. The preponderance of the run ultimately destined for the Cowlitz River was late in entering and another Cowlitz failure was anticipated. When the run became established in the Cowlitz in the latter part of March, the buyers in the Kelso-Longview area soon had to restrict the fishermen's poundage. These restrictions of course, were to avoid glutting the market, however, saturation of the market soon occurred. Prices dropped sharply, reaching as low as \$[0].75 for a 50 pound box. As a result, many fishermen quit even though large numbers of fish were yet available to the fishery. The largest single days landing by gill-net was on March 3, (36,201 lbs.). In the dip-net fishery the largest catch (202,587 lbs.) occurred on March 20. On these days, 49 and 112 units of gear operated respectively. Smelt did not avail themselves of any of the remaining tributaries this season. The Kalama, Lewis and Sandy rivers produced no fish either commercially or sportwise.
1956			
20 January 1956	Portland, OR	<i>Oregonian</i> , p. 4, advert	Grand Central Market. Fresh Columbia River Smelt lb. 39c
27 January 1956	Portland, OR	<i>Oregonian</i> , p. 13, advert	Fred Meyer ... Fresh Columbia River Smelt, 29c lb.
2 February 1956	Columbia River	<i>Oregonian</i> , p. 1, col. 4	Baker Numb At 24 Below. ... One bright corner remained in this ugly weather picture. This was in Kelso, Wash., where the smelt fishermen reported that 1600 boxes of smelt had been taken in the Eagle Cliff-Clatskanie area of the Columbia and that catches are remaining good.
3 February 1956	Portland, OR	<i>Oregonian</i> , p. 18, advert	Fred Meyer ... Columbia River Smelt Fresh 29c lb.
7 February 1956	Portland, OR	<i>Oregonian</i> , p. 7, advert	Fred Meyer ... Fresh Columbia River Smelt 29c lb.
10 February 1956	Portland, OR	<i>Oregonian</i> , p. 23, advert	Fred Meyer ... Fresh Columbia River Smelt 29c lb.
14 February 1956	Columbia River	<i>Oregonian</i> , p. 5, col. 4	Fish Yield Seen Poor. ASTORIA (Special) — ... Fishermen report the smelt run coming into the Columbia. Steady catches of smelt were reported a week ago and they have increased. Prices have come down also and consumer demands have been easy to take care of in the fresh markets of the Columbia river area.
14 February 1956	Portland, OR	<i>Oregonian</i> , p. 9, advert	Fred Meyer ... Columbia River Smelt 29c lb.
17 February 1956	Portland, OR	<i>Oregonian</i> , p. 8, col. 1-2	Market Wise. ... Then there are Columbia river smelt—about 35 cents a pound—and a wonderful change.
17 February 1956	Portland, OR	<i>Oregonian</i> , p. 14, advert	Fred Meyer ... Fresh Columbia River Smelt 29c lb.
28 February 1956	Portland, OR	<i>Oregonian</i> , p. 11, advert	Fred Meyer ... Columbia River Smelt Fresh 29c lb.
2 March 1956	Portland, OR	<i>Oregonian</i> , p. 13, advert	Fred Meyer ... Columbia River Smelt 2 lbs. 49c

Date	Place	Source	Quote
4 March 1956	Columbia River	<i>Oregonian</i> , p. 4, col. 1-2	Casting about For Fish and Game — By Bill Hulen ... As this is written, smelt are in the lower Columbia river only, and have not yet entered the Cowlitz or the Lewis ...
6 March 1956	Portland, OR	<i>Oregonian</i> , p. 5, advert	Fred Meyer ... Columbia River Smelt 2 lbs. 39c
9 March 1956	Portland, OR	<i>Oregonian</i> , p. 3, col. 1-2	Market Wise ... Columbia river smelt give the makings of a fine fish fry—and they're about 35 cents a pound. ...
9 March 1956	Portland, OR	<i>Oregonian</i> , p. 4, advert	Grand Central Grocery. ... Grand Fish Co. Columbia River Fresh Smelt 2 lbs. 39c
16 March 1956	Portland, OR	<i>Oregonian</i> , p. 12, advert	Fred Meyer ... Columbia River Smelt 2 lbs. 39c
20 March 1956	Cowlitz River	<i>Oregonian</i> , p. 1, col. 7	Smelt School Hits Cowlitz. LONGVIEW, Wash. (Special) Silvery smelt were in the Cowlitz river Monday [19 March]. Many observers here had almost given up hope of a run this season. The fish first were observed Sunday, but hung to deep water in the lower river, and bank dippers had little success. Commercial boats took a relatively small catch of about sixty 50-pound boxes Sunday. Some smelt showed up as far upriver as Rocky point, about three miles above Kelso. A few commercial fishermen and bank dippers made light catches there Sunday night. Fish Widely Scattered. Auzy Amundsen, department of fisheries inspector, said the eulachon were widely scattered, making dipping difficult. No bank dippers or commercial boats were active on the river Monday morning. One fish buyer here said the quality of the commercial catch was only fair, with many of the fish spawned out. Some large, prime smelt were taken around Rocky point, however.
20 March 1956	Portland, OR	<i>Oregonian</i> , p. 11, advert	Fred Meyer ... Columbia River Smelt 2 lbs. 39c
22 March 1956	Cowlitz River	<i>Oregonian</i> , p. 12, photo	Vanguard of smelt dippers appeared Wednesday along the bank of Washington's Cowlitz river as the belated annual smelt run increased in numbers. First of the little silvery fish appeared in the stream Sunday [18 March], several weeks behind schedule.
23 March 1956	Cowlitz River Kalama River	<i>Oregonian</i> , p. 1, col. 5	Two Tributaries Get Smelt Run. Smelt were reported Thursday [22 March] in two Columbia river tributaries in Washington, the Cowlitz and Kalama. They were also reported concentrated in the Columbia river at Martin's bluff, headed for either Washington's Lewis river or Oregon's Sandy. However, no fish were reported in either of the latter rivers. The Kalama river run was said to be "unusually long." The Cowlitz run was light. Washington law bars sportsman dipnetters from operating from 8 a. m. Thursdays to 8 p. m. Saturdays during the period of the run. Oregon closure periods in the Sandy are midnight Sundays to midnight Mondays. Washington's daily catch limit is 20 pounds per person, but no license is required. Oregon's Sandy river limit is 25 pounds and a special 50-cent license is required. The Sandy is closed to dippers above Viking park bridge.
23 March 1956	Portland, OR	<i>Oregonian</i> , p. 9, advert	Fred Meyer ... Fresh Smelt From the Columbia River 2 lbs. for 39c
25 March 1956	Cowlitz River	<i>Oregonian</i> , p. 1, col. 8	Smelt Dippers Prepare Gear. KELSO, Wash. (Special)—A sizable run of smelt was reported in the Cowlitz river despite rising water Saturday as the weekly escapement period was drawing to a close. Law enforcement officials prepared for traffic headaches along the West side highway Sunday. The closure began Thursday morning and ended at

Date	Place	Source	Quote
			8 p. m. Saturday. Reports from Riverside park, on the Cowlitz north of Kelso, indicated that smelt were in the river in large quantities. Hundreds of amateur dippers armed with everything from bird cages to gunny sacks are expected to be on hand Sunday. Commercial dippers planned to maneuver their boats into position to meet market demands.
26 March 1956	Cowlitz River	<i>Oregonian</i> , p. 12, photos	These smelt dippers brave rapid waters of Cowlitz river to dip for silvery fish Sunday just north of Longview. Dipping at this point was fairly good. River was high, however, and smelt were spread out. Men dip from boats out in the stream. The smelt were big and firm. ...
27 March 1956	Portland, OR	<i>Oregonian</i> , p. 9, advert	Fred Meyer ... Columbia River Smelt fresh 2 lbs. 25c
29 March 1956	Cowlitz River	<i>Oregonian</i> , p. 1, col. 5	Smelt Avoid Dip Fishermen. KELSO, Wash. (Special) — Smelt fishing for bank dippers in the Cowlitz river was poor Wednesday, although commercial fishermen got about 1000 boxes Tuesday night. The river continued murky, but was reported dropping and clearing some in the late afternoon. The fish apparently were keeping in deep water, well out of reach of shore nets. A few were taken at Rocky point, three miles above here. Smelt appeared briefly in the Lewis river at Woodland Tuesday and vanished. Dipping closes at 8 a. m. Thursday until 8 p. m. Friday.
29 March 1956		<i>Oregonian</i> , p. 10, col. 1-2	Where Are the Smelt? This is the time of year when smelt fishermen begin wondering whether or not the tasty little fish are going to run into the Sandy river where the dipnets can catch them. Some years they do; others they don't. And there's no use asking the biologists of the state fish and game commissions to explain this fickleness. They are just as puzzled at the behavior of smelt as the rest of us. Like their big brothers, the salmon, smelt are ocean fishes which come into fresh water to spawn at the end of a three or four-year life cycle. But salmon habitually return to the same river in which they were hatched, while smelt appear to be indifferent students of geography. Fish scientists are beginning to suspect Sandy river smelt do not necessarily return to the Sandy, and that mature smelt coming into this river to spawn were not necessarily hatched there. This belief is reinforced by records which show there were no Sandy runs in 1937, 1938 and 1939, while 1941, 1942 and 1943 were bumper smelt years in this stream. The theory that water temperature has a big influence on smelt habits is becoming increasingly accepted. It is now widely believed that smelt do not enter the Sandy until the water is above the 40-degree mark. But so far this year the smelt, while thick in the lower Columbia, have not even penetrated far enough upstream to test the Sandy's temperature. Martin's bluff, a favorite smelt spawning spot in the main Columbia opposite Deer island, is the farthest upstream the little fish have been observed this season. There is still hope, however. Smelt can't seem to read the calendar any better than the maps. Since 1929 they have showed up in the Sandy in various years from March 4 to April 20. The latter date, in 1953, was the beginning of what commercial fishermen said was the biggest smelt run in memory. Some 10,000,000 fish were caught in the Sandy alone, yet

Date	Place	Source	Quote
			enough escaped so that in May and June of that year fish commission biologists found the river literally swarming with newly hatched fry. So there seems no basis for fear the smelt are headed for early extinction. Another scientific puzzle is why smelt like some river systems and ignore others. The Willamette and its tributaries, for instance, offer conditions similar to those in the Cowlitz, a favorite with spawning smelt. Yet as far as is known no smelt enter the Willamette. Out at Troutdale the hopeful residents are ready and waiting with newly repaired rental dipnets and freshly painted booths for the sale of smelt dipping licenses. They know that, despite the fact that smelt are plentiful and cheap at the fish markets, amateur dippers will be out in force at the first triumphal cry, "Smelt in the Sandy!" That's because everyone knows the smelt you catch yourself taste the best.
30 March 1956	Sandy River	<i>Oregonian</i> , p. 1, lead story	Fear Held Mud to Cut Fish Catch. Sun Dial Girls Score First Haul Thursday Evening. A smelt run so numerous that even dogs were "snapping them out" hit the mouth of the Sandy river at about 6:10 p. m. Thursday [29 March] and raced upstream, slowed up only by the hundreds of fishermen who pounced on the fish with everything from bird cages to suitcases. Two girls, Jackie Quade, 18, and Pat Bakdell, 16, both of Sun Dial beach at the mouth of the river, caught the first Sandy river smelt of the season and promptly informed the state game commission. Less than an hour later, scores of cars and flocks of fishermen went to work on the run, which was described by James Petrie, state game officer with the highway patrol as "fat, clean and fresh." Dip netters, wading out with hip boots, were taking 15 to 20 fish at a swipe. Unlike last year when the fish appeared at the mouth of the river and then did a disappearing act, the smelt of 1956 sailed their way right on up the Sandy, Petrie reported after being called to the scene. Earlier Runs Recorded. The run this year was neither the earliest nor the latest. In 1934, the smelt appeared March 4 at 9 a. m., the earliest modern record, and in 1953, the little fish did not duck into the Sandy until April 20, the latest date which also produced the heaviest run. Reports that the fish had moved into the upper Columbia came Wednesday when amateur fishermen caught several boxes off Sauvies Island, one of the few times the fish have come close enough inshore there for dipnetters. Exact time of the 1956 run was easily established. Fishermen at Sun Dial beach had been out at 6 p. m. and had come back skunked. Then 10 minutes later the teen-age girls netted 15 to 20 pounds. Sandy Rises Six Feet. Petrie said the Sandy had risen six feet in the past week and expressed fears that the mud stirred up by the swift running water might cut down the catch. "But if it keeps up like tonight's run the fishermen won't have a thing to worry about" he said as he watched the dippers unloading their nets. The state policeman said the run showed a predominance of females and seemed to be cruising very near the surface. Biggest catches Thursday night were being scooped about a foot below the surface. A special license costing 50 cents, is needed by smelt dippers, and may be obtained from state police at the scene. The license entitles the dipper to 25 pounds a

Date	Place	Source	Quote
			day. Smelt dipping is prohibited from midnight Sunday until midnight Monday.
30 March 1956	Cowlitz River	<i>Oregonian</i> , p. 1	Cowlitz Conditions To Favor Dippers. KELSO, Wash. (Special)—The Cowlitz river was Thursday reported falling and clearing, raising hopes for favorable bank dipping conditions by the end of the closed period Saturday night. Closed period for Cowlitz river smelt dippers is 8 a. m. Thursday to 8 p. m. Saturday, Auzy Amundsen, fisheries department inspector here, said Thursday. A story in the <i>Oregonian</i> Thursday morning incorrectly said the closure period ended at 8 p. m. Friday.
30 March 1956	Portland, OR	<i>Oregonian</i> , p. 10, advert	Fred Meyer ... Columbia River Smelt Fresh 2 lbs. 25c
31 March 1956	Sandy River	<i>Oregonian</i> , p. 1, col. 5-6	Smelt Run Deep in Sandy; Long-poled Nets Required. The smelt are in the Sandy, all right, but only those with long-poled nets, rugged constitutions and the luck to be in the right spot were getting anything like the 25-pound limit Friday. Fishermen were still arriving along the Sandy to try their luck, even though the catches were piebald. County sheriff's officers said Friday night the fish were continuing to run deep and that the water was muddy, necessitating long poles for dip netters. Some game commission observers felt that the main run had not entered the Sandy. They predicted the run would thicken. Fishermen with a 50-cent license could continue night and day to try their luck—up to 25 pounds a day—until Sunday at midnight when the stream will be closed until Monday midnight. The slippery little fish were first spotted in the Sandy by two girls at Sun Dial beach at the mouth of the river at 6:10 p. m. Thursday, and first reports indicated the run was a heavy one. However, the early bird at Troutdale, historic site of Herculean catches with everything from bedsocks to birdcages, caught nothing but the bird, and many cars full of fishermen, drawn to the river banks like needles to a magnet, turned back in disgust. By 10 a. m., however, the word flew that dipnetters were netting quarter-full bags in one spot, halfway between the Viking bridge and the Troutdale bridge on the steep east bank of the river, and the rush was on. Those who could make their way down the slippery bank to the rocks that jut out into the water at that point made what were described as satisfactory hauls. Despite a cold and persistent rainfall that slicked and made perilous the rocks and mud lining the river, state game officials estimated by midday that between 5000 and 6000 persons were gathered at the scene, presenting the usual parking and traffic problems to state police.
1 April 1956	Sandy River	<i>Oregonian</i> , p. 1, col. 2	Sandy Smelt Run Reported Better. The smelt run in the Sandy river was heavier Saturday than it had been Friday, and hundreds of dipnet fishermen were thronging the banks of the river. The little fish continued to be of excellent quality. Fishermen who had paid their 50 cents and were entitled to take 25 pounds of nature's squirming bounty were elbow to elbow in the best dipping places. Commercial dippers operating from boats were reported getting 10 to 15 pounds at a dip 25 to 30 feet from the bank. From midnight Sunday until midnight Monday, the Sandy will be closed to fishing to permit a portion of the silver horde to escape and spawn.
2 April 1956	Sandy River	<i>Oregonian</i> , p. 1, col. 4	Run Increases In Sandy River. Smelt-dipping was wonderful on the Sandy river

Date	Place	Source	Quote
			Sunday. The run had increased in volume, the water had cleared and lowered, and net wielders on the banks were getting the 25-pound limit without difficulty. The run continued abundant through the day, and at sunset, observers reported, large schools of smelt could be seen in the Columbia ready to enter the Sandy. Smelt also were abundant Sunday in the Cowlitz river. Gresham precinct of the Multnomah county sheriff's office reported traffic of smelt fishermen was heavy but kept moving without serious delays. The Sandy will be closed to fishing from midnight Sunday to midnight Monday.
3 April 1956	Sandy River	<i>Oregonian</i> , p. 1, col. 1	Smelt Plentiful, So Are Dippers. The smelt run in the Sandy river continued heavy early Tuesday [3 April]— dipnetters too. Hundreds of hopeful fishermen were at it again at the crack of midnight, when the week-end closure period was lifted. One riverside observer estimated 1200 to 1400 persons lined the banks. Limits were being caught in 20 minutes, the run was so heavy. Some of the dipnetters were there, nets in hand and waiting, as early as 10 p. m. The Sandy had been closed since midnight Sunday to allow escapement of some of the run to spawn. Fishing will be allowed until midnight next Sunday — if the run continues — with a 25-pound limit per dipnetter.
4 April 1956	Sandy River	<i>Oregonian</i> , p. 4, photo	LINEUP Thousands of dipnetters lined Sandy river's banks again Tuesday in quest of running smelt. Game commissioners said most had to work hard to get the 25-pound limit in afternoons, but run increased at night.
4 April 1956	Portland, OR	<i>Oregonian</i> , p. 17, col. 6	Pork Prices Up In Slow Market. ... Factors in the sluggish buying [included] ... the smelt run ...
7 April 1956	Sandy River	<i>Oregonian</i> , p. 6, col. 1	40,000 Licensed To Dip Smelt. Anybody with a license—and there are already over 40,000 of them—who shows up on the banks of the Sandy river this week end is practically guaranteed his quota of smelt, according to the 8 p. m. Friday report of John C. Miller of the state game commission. Miller said the little fish were running thick and deep in the center of the river, with plenty waiting their turn outside. Dippers at that time were successful in getting their limit from either bank of the river, but the east bank was better. In fact dipping was so good there that one group of got, and surrendered, 105 pounds over the limit. Most of the take were males, Miller reported, and fish were still beyond the mouth of the river, indicating the run should last through the week end, he said.
8 April 1956	Sandy River	<i>Oregonian</i> , p. 1, col. 3	More Smelt Due In Sandy River. Smelt were still running in the Sandy river Saturday, and indications were they would still be there Sunday. But the run was fluctuating. At times, dippers got as many as they could handle, and a few minutes later in the same spot no more than two or three, or none at all. John C. miller of the state game commission who has his trailer parked on the river and keeps watch practically around the clock reported Saturday night there were still smelt in the Columbia river, indication that here would be smelt in the Sandy for the crowd of dippers Sunday. Deep dippers had most success Saturday. Those who tried surface action did little more than frighten the fish. The weather bureau forecasts fair weather Sunday, with increasing cloudiness in the

Date	Place	Source	Quote
			afternoon.
9 April 1956	Sandy River	<i>Oregonian</i> , p. 12, col. 3	Elusive Smelt Fool Dipnetters. Smelt in the Sandy played dodge with dipnetters all day Sunday, leaving most of the Sunday fishermen with empty nets. A report from the state game and fish official stationed out by the Sandy bridge said there just weren't enough fish to make dipping worthwhile most of the day. But as the night fell and most of the dippers were heading home in disgust, the fish started to run again. This has been the trend for the past three days according to riverside observers. The smelt seem to sit it out during the daylight hours and head for spawning spots at night. Fishing on the Sandy closed at midnight Sunday and will remain closed until midnight Monday to allow the fish through.
10 April 1956	Sandy River	<i>Oregonian</i> , p. 1, col. 2	Run of Smelt Nears Record. Smelt are still in the Sandy river. And this may indicate a record long run. Tuesday will mark the 13th day for the little silver fish. The record run in 1949, lasted 15 days. State game observer John C. Miller told <i>The Oregonian</i> at midnight: "They're still coming in. Some fishermen are betting this may go on for a record." The river will be open to dipnetters again after the 24-hour closure to allow some escapement for the fish to make it upriver to spawn. While not as heavy as before, there are enough fish running yet to insure netters their 25-pound limit.
11 April 1956	Sandy River	<i>Oregonian</i> , p. 1, col. 6	1956 Smelt Run Found on Wane. The smelt run in the Sandy river has "pretty well tapered off," fish and game wardens reported late Tuesday. Persistent netters can still obtain smelt in small quantities, morning and evening, but the main runs seem to have ended, wardens report. Permits will still be sold at the Sandy bridge and at Viking park for awhile yet, however.
11 April 1956		<i>Oregonian</i> , p. 19, col. 6-7	Biologists Study Smelt. Smelt runs in the Sandy river and the Cowlitz, Washington tributary of the Columbia, are being studied by biologists of the Washington department of fisheries and the Oregon fish commission, in a program having as its objective more information on the life histories of the silvery fish. Samples of the runs are being sent to Dr. Allen DeLacey at the University of Washington fisheries school for racial research. The biology technicians of the university are using males of the eulachon in an effort to determine if the fish are of the same or different races. In conducting the study the scientists count the vertebrae, the length from tip of snout to back of eye, the distance from the fork of the tail to the head, and make various other measurements.
12 April 1956	Sandy River	<i>Oregonian</i> , p. 10, col. 8	Smelt Thinning In Sandy River. Smelt were still running in the Sandy river Wednesday—for the 14th consecutive day. Game commission officer John C. Miller said ranks of dipnetters were thinned but three to six fish were still being caught with each dip. If the run continues Thursday, the all-time length of run will be tied. It lasted 15 days in 1949.
13 April 1956	Sandy River	<i>Oregonian</i> , p. 1, col. 6	Smelt Run Ends Short of Record. The 1956 smelt run is over. Sate Game Officer John C. Miller called the finish at noon Thursday after checking a half dozen points in the Sandy river. Officially, this year's run lasted 14 days. That was one short of the 15-day

Date	Place	Source	Quote
			record set in 1949.
May 1956		<i>Pacific Fisherman</i> 54 (6): 59.	Excellent Late Smelt Run. Smelt fishing on the Columbia River was good, steady and productive during the early part of the year, and this main stem fishing was followed in March by really heavy production as the little fish moved into the Cowlitz.
May 1956		<i>Pacific Fisherman</i> 56 (6): 35.	1958 Washington Smelt Production Runs High. With smelt catches still being landed in April, Washington state deliveries of Columbia River smelt were on the order of 1,750,000 lbs., with ultimate poundage of 2,000,000 regarded as possible. The great majority of the catch came from the Cowlitz River, although some significant volume of fish was delivered at Columbia River points. The state total was expected to rank second only to 1949 in the past 10 years. Prices in March averaged 3c per lb. to the fishermen, and went as low as 2c at times in some areas.
		Wendler <i>et al.</i> (1956)	THE 1956 COLUMBIA RIVER SMELT SEASON. The 1956 smelt run was geographically more widely distributed than that of 1955. The Cowlitz, Kalama, and Sandy rivers supported both sizeable commercial and sport fisheries and, in addition, an unknown quantity entered Grays River. Interviews with commercial fishermen indicated the run appeared reduced in size and of shorter duration than in 1955. Final statistics are not available to confirm the comparative size of the runs; however, smelt were unavailable after April 7. In 1955, these fish were plentiful until late April. The first gill net landings appeared early in January, as was the case in 1955. Information based upon fishermen contacts indicated the landings were light in early January but gradually increased as the season progressed. Four or five weeks after the season began, smelt were abundant enough to require imposition of a quota on the fishermen to maintain a good price. The first smelt taken either commercially or sportwise in the Cowlitz were soft-fleshed, poor quality fish which were soon supplanted by stocks of large firm fish. Spot checks of the sport fisheries and newspaper accounts indicated good success by sportsmen. It is currently believed that a temperature of about 40° (at Bonneville dam) is optimum for migration to and beyond the mouth of the Cowlitz River. This temperature-migration theory was further substantiated in 1956. The temperature of the River reached 40° on March 7 and remained there or above for the remainder of the Columbia season. On March 18 (temperature 44°) the smelt first entered the Cowlitz River and one day later large numbers were fished commercially in the Kalama. Smelt entered the Sandy River in Oregon on March 21. In 1954 a catch-per-unit-effort study was initiated to collect data relative to the total pounds caught by participating fishermen, hours fished, and the number of drifts made. These data should be a year to year measure of the relative abundance of smelt. Table 1 demonstrates the type of information collected. The primary variable, other than abundance, affecting these figures is market demand. It is common practice on the Columbia River and its tributaries to leave fishable smelt stocks untouched because of saturated market conditions. The buyers control this ever-present mid-seasonal problem to some extent. It is the many fishermen unwilling to cooperate

Date	Place	Source	Quote
			with the buyers that causes the breakdown of the fishery. Eventually prices deteriorate until it is no longer profitable to fish. The present state of smelt stocks in the lower Columbia River watershed is not viewed with alarm. Large spawning escapement is assured by the establishment of upstream deadlines in the tributaries and the cessation of the gill net fishery when the run has entered the tributaries. A considerable amount of spawning is now known to occur in the Columbia River below the mouth of the Cowlitz River.
1957			
11 January 1957	Portland, OR	<i>Oregonian</i> , p. 10, col. 1-2	Market Wise. ... The first smelt of the season is selling for 75 cents a pound.
19 February 1957	Columbia River Cowlitz River Grays River	<i>Oregonian</i> , p. 1, col. 5	Smelt Catches Cheer Dippers. KELSO, Wash. (Special)—Heavy week-end catches in the Columbia, Cowlitz and Grays rivers sent the first commercial quantities of smelt to Pacific Northwest markets from here Monday [18 February]. Commercial fishermen dipped deep for the silvery fish which through Monday afternoon remained beyond the reach of bank dippers. Best commercial catches came from the Eagle Cliff area on the Columbia between Longview and Cathlamet, the lower Cowlitz near the mouth and the lower Grays river. No smelt had been reported in the upper Cowlitz or in the Lewis or Kalama rivers. Amateur dippers were hopeful the eulachon would start their annual spawning run up the Cowlitz within a day or two. Arrival of the fish at points in the Cowlitz above Kelso brings thousands of dippers to the river banks each year.
22 February 1957	Portland, OR	<i>Oregonian</i> , p. 7, col. 1-2	Market Wise. ... Signs of Spring are indicated by the appearance of larger quantities of smelt on the market. If the cold weather doesn't chase them back to the ocean, smelt will be available for around 35 cents a pound. ...
8 March 1957	Portland, OR	<i>Oregonian</i> , p. 3, advert	Luther's. ... Columbia River Fresh Smelt lb. 29c ...
11 March 1957	Columbia River Cowlitz River	<i>Oregonian</i> , p. 5, col. 2-3	High Water Handicaps Amateur Dippers on Bank. LONGVIEW (Special)—The annual smelt run that rolled in the Cowlitz river three days ago brought excellent catches Sunday to commercial fishermen, but high waters made it more difficult for amateurs to get at the migratory little fish. The commercial season opened Saturday and numerous gillnet and dipnetters along the banks of the Cowlitz were shipping the 50-pound boxes of smelt to the fresh markets. Fishermen were being paid \$3.50 a 50-pound box, an opening season price that reflected the scarcity of the fish delicacy. Not too many amateur dipnetters were out Sunday along the Cowlitz. High waters made it difficult to fish from bankside spots. At places where floats were available dipnetters, using extra-long poles to rake along the bottom, were getting a half dozen or so smelt per swipe of the net. Ervine Taylor, Longview commercial gillnet and dipnet fisherman, and his partner, Bud Berry, Cathlamet, Wash., took more than 100 boxes of smelt Saturday. Quality Appears Good. Both reported the smelt run as excellent. They did most of their fishing at Rocky point, a few miles north of Longview and Kelso. Their catches, some of which were selling at a stand on the West Side road, appeared to be of good quality fish.

Date	Place	Source	Quote
			Fishermen were working both banks of the Cowlitz but not in the mob-scene numbers seen in years when the water has been lower.
13 March 1957	Siltcoos River	<i>Oregonian</i> , p. 1, col. 5	Smelt Invade Siltcoos River. FLORENCE (AP)—For the first time in the memory of local residents, smelt are running in Siltcoos river. Hordes of small silvery fish were seen in the river Sunday, but it was Monday afternoon before state game commission biologists positively identified them as smelt. A few local residents were able to dip net catches of 20 pounds or more Monday but their success was restricted by the steep undercut banks of the river which prevented them from getting close to the water level. The fish also seemed to be keeping well to the center of the stream. The Siltcoos is a short tidal stream that serves as an outlet for Siltcoos lake. The smelt, which the biologists believe are attempting to spawn, enter the river daily on flood tide.
15 March 1957	Portland, OR	<i>Oregonian</i> , p. 13, advert	Safeway's ... Fresh Smelt Columbia River 2 lbs. 29c
15 March 1957	Portland, OR	<i>Oregonian</i> , p. 14, col. 1-2	Market Wise ... Columbia River Smelt arrive in the markets lean, firm and sweet at 2 pounds for 29 cents. ...
19 March 1957	Portland, OR	<i>Oregonian</i> , p. 10, advert	Fred Meyer ... Fresh Columbia River Smelt 19c lb.
20 March 1957		<i>Oregonian</i> , p. 17, col. 2	Clues Hint Smelt Near. This is the time of year smelt dippers become eager for action and wonder if, or when, the mysterious little fish will swarm into the Sandy river. The old question, "Are the smelt in the Sandy yet?" came up Tuesday. The answer is "no" for the present. However, the Old Veteran who watches for the fish near Sun Dial beach and Troutdale said the sturgeon in the Columbia river suddenly quit biting Tuesday morning. Smelt Still In Cowlitz. Smelt were reported in great abundance in the Cowlitz river Tuesday, despite they have failed to appear in either the Lewis or Kalama rivers. Popular spots for bank netters were Rocky point, three miles upstream from Kelso on both sides of the river. Officials warned that no smelt may be taken between 8 a. m. Thursday to 8 p. m. Saturday. "But it could be several days before the smelt decide to enter the Sandy." Smelt were still running in the Cowlitz river Tuesday, but are in deep water and dipping from the banks was poor. The wily smelt entered the Sandy a year ago on March 29 at 6 p. m. They failed to come in 1955. Late March or early April is the most likely time for their appearance. Earliest run recorded by records in The Oregonian was March 4, 1934. Latest was April 20, 1953. Smelt failed to appear in the Sandy in nine of the years since 1929.
23 March 1957	Columbia River	<i>Oregonian</i> , p. 8, col. 4	Sauvies Island Reports Smelt. Fishermen off Sauvies island late Friday claimed there were "literally millions" of smelt in the Columbia river. However, veteran anglers at the mouth of the Sandy river told deputy sheriffs "no sign of smelt yet." Dippers were hoping smelt would reach the mouth of the Sandy river "within a couple of days."
24 March 1957	Cowlitz River	<i>Oregonian</i> , p. 32, col. 3	Smelt Abundant. KELSO, Wash. (Special) — Plenty of smelt apparently still were available in the Cowlitz river Saturday. Commercial dippers said they expected little trouble filling orders after the midweek closure ended at 8 p. m. Good quantities of prime fish were reported in the river as far upstream as Lexington. Fisheries inspectors said this

Date	Place	Source	Quote
			was likely to be the second consecutive week end for amateur dippers on the Cowlitz. Smelt still had not appeared in the Kalama or Lewis rivers by Saturday.
25 March 1957	Sandy River	<i>Oregonian</i> , p. 1, col. 2-3	Enthusiasts Answer Call, Flock to Mouth of Sandy. March madness struck the population Sunday [24 March] when word went out “The smelt are here.” The smelt were reported at Sun Dial beach on the Columbia just below the mouth of the Sandy river at 12:30 p. m. By 2 the red signs with arrows and the single word “smelt” were up and the Sun Dial dock was riding low in the water from the weight of happy dippers. The smelt fanciers included both adults and children, one only 2 years old, and a black dog named Skeeter who was growing fatter by the minute. Dipping was spotty during the afternoon with nets coming up with a few fish to half loaded. Harris Quade of Sun Dial said the run probably would get thicker after dark and predicted good catches from Sunday night on. Most dippers were getting their limits Sunday afternoon anyway. Deputy Sheriff Jack Elliott said he sighted one lone smelt on a run from Troutdale to Sun Dial. “They’ll probably move on into the Sandy after dark,” he predicted. However, they hadn’t arrived by early Monday. Elliott said the Sandy was in “ideal” condition for the smelt run—at medium level and clear. Smelt dippers on the Sandy—whether 1 or 100—must have a 50-cent license, which entitled them to 25 pounds of smelt per day for the duration of the run. Day’s Closing Provided. The Sandy is closed for dipping from midnight Sunday to midnight Monday—this year giving law enforcement officers who have to direct traffic and maintain order during the annual stampede time to prepare—and giving the fish a chance to get to spawning beds. No license is required for dipping in the Columbia but a 25-pound-per-day limit will be in effect this year for the first time. The 24-hour closure does not apply in the Columbia. The smelt made their appearance this year five days earlier than their 1956 arrival date. In 1955 they failed to show.
26 March 1957	Sandy River	<i>Oregonian</i> , p. 1, col. 6	Smelt Enter Sandy River. Smelt were running “fairly good” in the Sandy river at midnight Monday at the end of a 24-hour closure of the stream to fish dippers. Multnomah county deputies reported. The deputies said the banks of the river were lined with anxious dippers at midnight, ready to take their quota of fish when the closure ended. Deputies said the fish run had come up the river as far as Viking park when dipping began. Monday night police reported a steady stream of automobiles loaded with fishermen and fish nets heading east on S. E. Stark street for the stream. A 24-hour closure on dipping is enforced each week of the run between midnight Sunday and midnight Monday in order to assure enough will escape to the spawning grounds to maintain the run. A 25-pound-per-person-per-day limit is enforced on both the Sandy and Columbia rivers. A 50-cent license is required for all dippers on the Sandy, but not for those on the Columbia. The 24-hour closure is not enforced on the Columbia.
26 March 1957	Portland, OR	<i>Oregonian</i> , p. 7, advert	Fred Meyer ... Fresh Columbia River Smelt 19c lb.
27 March 1957	Sandy River	<i>Oregonian</i> , p. 1, col. 4	Limits Filled In Fast Time. Smelt dippers had no trouble getting their 25-pound limit Tuesday on the banks of the Sandy river and a fine, windless day brought them out in

Date	Place	Source	Quote
			near record numbers for a week-day. By early Wednesday morning the ranks of the smelt dippers had thinned somewhat but officials of the state game commission at the river said there was “still a pretty good crowd” shortly after midnight. The smelt run also had thinned out a little bit by early morning but was still good and the early morning dippers were having little trouble getting their limits. Webb said licenses issued thus far for Sandy river dipping would amount to at least several thousand. He expected a large crowd of smelt-seekers to remain at work on the river banks throughout the night. Old timers on the banks, Troutdale residents who have watched many smelt runs, thought the run of silvery fish seeking their spawning grounds one of the heaviest in recent years. Unusually large size of the fish was noted by old smelt hands. They averaged eight or nine inches in length and some were as long as 12 inches. State smelt fishing licenses are sold at stands near the banks at 50 cents each.
28 March 1957	Sandy River	<i>Oregonian</i> , p. 1, col. 7	Smelt Dips Fair From Bank. The smelt run in the Sandy river was “still pretty good” early Thursday, state game commission officials reported. Persons on the bank were getting “fair” catches in their dipnets. The crowd, while sizable, was down from Tuesday night’s throng, officers said.
29 March 1957	Portland, OR	<i>Oregonian</i> , p. 2, advert	Holgate Farms ... Fresh Sandy Caught Smelt 2 lbs. 25c
29 March 1957	Portland, OR	<i>Oregonian</i> , p. 7, col. 1-2	Market Wise ... Fish Selection for Lenten Menus is quite good. First of all, of course, there’s smelt. And now’s the time to get your fill of it. If the Sandy hasn’t called you, you can buy plenty of smelt on the market from 15 to 20 cents a pound. ...
30 March 1957	Sandy River	<i>Oregonian</i> , p. 1, col. 2	Smelt Dippers Garner Limits. Smelt dippers were getting their limits on the banks of the Sandy river near Troutdale Friday night as another wave of the migrating fish tried to make their way to upriver spawning beaches. Strength of the run was reported “good.” The smelt have been running, sometimes good and sometimes only fair, since Sunday.
31 March 1957	Sandy River	<i>Oregonian</i> , p. 1, col. 3	Smelt Thin Out, Clouds Flying. A partly sunny Sunday and—maybe—still smelt in the Sandy river is the weather and dipnet forecast. Sunday will, however, have a few scattered showers with partly cloudy weather Sunday night and Monday. High temperature both days is expected to be about 58. Dippers were getting only one or two smelt at a time Saturday night. The fish were either running in midstream or not running at all. Experts said the run might be ending, but there also was a chance a new rush might hit the river Sunday. Smelt fishing ends for 24 hours at midnight Sunday. State law makes dipping the fish illegal on Mondays to give the migrating eulachon a better chance to reach their spawning beds upstream on the Sandy.
1 April 1957	Sandy River	<i>Oregonian</i> , p. 1, col. 6	Gulls Signal Smelt Run End. Seagulls had begun flocking to the Sandy river by Sunday, signaling the probable end of the 1957 smelt run. Dippers Sunday were netting only a few stragglers below the Troutdale bridge. The seagulls feed on spawned out fish which have died and smelt experts say their appearance usually means the run is over. Sheriff’s deputies said only a few dippers were at the Sandy Sunday and luck was “very poor.” The deputies said they were informed a state commission office, which had been

Date	Place	Source	Quote
			issuing licenses at the river, was closed Sunday.
5 April 1957	Portland, OR	<i>Oregonian</i> , p. 8, col. 1-2	Market Wise ... The last of the smelt is selling for 19 cents a pound. ...
	Kalama River Sandy River	Wendler <i>et al.</i> (1957)	THE 1957 COLUMBIA RIVER SMELT RUN. Gene Nye. A total of 1,554,000 pounds of smelt were landed by commercial fishermen from the Columbia River and its tributaries in 1957 compared to 1,858,000 pounds in 1956. Smelt were present in the Columbia River in late December, but landings of economic importance did not occur until about the middle of February. Appreciable quantities of smelt were taken from the Cowlitz River by both the commercial and sport dip net fisheries. Smelt also entered the Grays and Kalama rivers of Washington and the Sandy River in Oregon, but none were reported from the Lewis River. <u>Columbia River gill net fishery</u> . Investigations of the fishery indicated the presence of smelt in the lower river in late December, although no commercial landings were reported for this month. Only 2,800 pounds of smelt were taken in the Columbia River in January as compared to 167,000 pounds in 1956. The January landings were the third lowest since 1936. Significant quantities of smelt were taken beginning February 13 or approximately one month later than in 1956. Landings for this month totaled 165,000 pounds and the daily landings were approximately of the same magnitude for the remainder of the month. In late February the presence of a new wave of smelt in the Astoria area was reported by the commercial fishermen. From March 2 until March 9, the gill net fishermen reported an abundance of fish in the upriver drifts and had little difficulty filling their quotas (refer to quota system progress report Columbia River, January-April, 1955-56). The 1957 smelt run appears to be one of the latest on record to enter the Columbia River. The extreme cold weather existing from January 16 through February 8 may have been attributable to the delay of the run, although favorable temperatures prevailed prior to this period (Bonneville water temperatures from January 1 through 15 averaged 39.5 degrees F). On January 25 the Bonneville water temperatures dropped to 32 degrees F and remained so until February 6 before a gradual warming trend developed. Fishermen were prevented from fishing during most of the cold weather due to their nets freezing and ice in the river. The availability of smelt is unknown during this period; however, it is suspected that fish were present in negligible quantities, since some minor upriver landings occurred on initial fishing attempts following the disappearance of the ice. Due to the lateness of the run and the appearance of smelt in the Cowlitz River in early March, the gill net fishery was of short duration and comprised but 30 percent of the total commercial fishery. It is the lowest catch by this gear since 1947 when a comparable catch was taken. <u>Tributary fisheries</u> . Almost a million pounds of smelt were taken commercially from the Cowlitz River by fishermen from March 3 through 31, 1957. Prior to the major smelt entry on March 9, one delivery of 57 pounds was reported on March 3 and in addition, earlier reports were confirmed of a few fish present in the river. Smelt entered the river during a gradually decreasing streamflow with the water temperature 42 degrees F and in

Date	Place	Source	Quote
			accordance with the temperature migration theory (Smith and Saalfeld, Fisheries Research paper Volume 1, number 3). Water conditions in the Cowlitz River remained high and turbid for several weeks causing fish to follow the shoreline, which contributed to a successful sport fishery. Smelt were taken sportwise as far upstream as Castle Rock by the end of the second week in March. As stated above, commercial landings were reported until March 31; however, after March 24 practically no sport dipping activity was observed on the river. Smelt entered the Sandy River in Oregon on March 24 in minor numbers, but soon increased in abundance. Approximately 200,000 pounds of smelt were taken by the commercial fisheries in addition to the vast quantities taken by the sport fishery. Only a short spawning period occurred and smelt were virtually unavailable in the Sandy River after April 2, 1957. On April 1, a run which appeared to be small entered the Kalama River but was not fished on commercially probably because of market saturation. Commercial landings totaling 2,100 pounds of smelt were taken from Grays River between February 12 through 28, 1957. It is unknown whether a sport fishery operated on this run. The 1957 season marks the third consecutive year that smelt have not entered the Lewis River, although water temperatures were considered favorable this year. The migrational pattern of smelt into the tributaries was essentially the same as in 1956, although the timing of the Cowlitz River run was 9 days earlier this year despite the delay into the main Columbia River. <u>Catch-per-unit-of-effort analysis relative to the smelt gill net fishery.</u> Inasmuch as the total commercial smelt landings are not indicative of the condition of the stocks, a catch- per-unit-of-effort study was initiated in 1954 to determine the relative abundance of the runs from year to year. It was anticipated that data thus obtained would be a useful tool in managing the fishery. The data necessary for the study have been kept by a group of commercial fishermen selected by their willingness to participate. The number of fishermen cooperating has varied from 6 in 1954 to 11 in 1957. A comparative analysis for the years 1954 through 1956 was presented in the 1956 January-April progress report based on the records maintained by 4 fishermen who participated fully during each of these years. In order to maintain continuity with the previous analyses, the 1957 catch per unit of effort data were calculated using the same fishermen. In the future, additional records will be utilized to process the data. <u>Assumptions.</u> The data analyzed were collected from questionnaires requesting date of catch, number of pounds caught, type of gear used, number of boxes prorated, hours fished, number of drifts, and location of catch by drift. For the purpose of integrating the data in lieu of the previous analysis, certain assumptions are necessary. The data collected as a whole are assumed to be reasonably accurate and consistent from year to year. The fishermen must report time as actual fishing time (while drifting) exclusive of running time etc., and report every pound of smelt (each landing) no matter how insignificant the catch may be. However, the basic assumption is that each fisherman's effort is duplicated insofar as possible from year to year. <u>Catch-per-unit-of-</u>

Date	Place	Source	Quote
			<u>effort comparison</u> . Table 1 shows the data compiled from the selected fishermen records for each year 1954 through 1957. The number of pounds caught by the four fishermen is their combined total seasonal catch. Prior to 1957, the catch-per-unit of effort as represented by pounds per hour increased each year as did the total yearly landings. In 1957, a significant increase in catch-per-unit of effort was noted over 1956, although the total Columbia River gill net landings declined markedly in proportion to the landings of the selected fishermen. On the average, one hour was spent per drift in 1957 as compared to a slightly longer period in previous years. The indices of catch represented by pounds per hour and pounds per drift landed in 1957 were 21 and 8 percent higher respectively than the previous three-year average. <u>Limitations</u> . As the study has progressed, it has become obvious that certain limitations may affect the validity of a comparative analysis. These are: (1) the selected fishermen do not necessarily fish the entire season or similarly as to time from year to year; (2) the selected fishermen's catch appears not to be representative the total fishery; (3) cessation of each year's fishery is different (usually influenced by the Cowlitz River smelt entry); (4) the timing and migrational pattern of smelt varies from year to year; (5) market demand appears to be a direct influence every year. To determine the effect of these factors, a comparison will be made of the four selected fishermen records with additional records obtained during the 1957 and 1958 seasons.
1958			
10 January 1958	Portland, OR	<i>Oregonian</i> , p. 6, col. 1-2	Market Wise ... the first of the Columbia river smelt two pounds for 95 cents, with the price probably coming down quickly ...
21 January 1958	Portland, OR	<i>Oregonian</i> , p. 7, advert	Fred Meyer ... First of the Season Columbia River Smelt 39c lb.
24 January 1958	Portland, OR	<i>Oregonian</i> , p. 10, col. 1-2	Market Wise ... Smelt are running faster in the Columbia river, resulting in lower prices—as little as 29 cents a pound at one market this week end. ...
24 January 1958	Cowlitz River Columbia River	<i>Oregonian</i> , p. 13, col. 1	Cowlitz Smelt School Reported . KELSO, Wash. (Special) — The annual midwinter smelt run in the Cowlitz river apparently is on, but commercial and sports dippers will have to wait until Saturday at 8 p. m. to cash in on it. Carl Oleim of the Central Smelt company here reported 150 boxes were taken by commercial fishermen Wednesday night before the weekly closure period began at 8 a. m. Thursday. Fishermen found smelt in large quantities in the Cowlitz and substantial numbers were spotted as far down the Columbia river as Clatskanie. This led to commercial fishermen predicting the run will continue strong.
28 January 1958	Portland, OR	<i>Oregonian</i> , p. 9, advert	Fred Meyer ... Fresh Columbia River Smelt 29c lb.
31 January 1958	Portland, OR	<i>Oregonian</i> , p. 10, col. 1-2	Market Wise ... Columbia river smelt have dipped in price to 25 cents a pound ...
31 January 1958	Portland, OR	<i>Oregonian</i> , p. 15, advert	Fred Meyer ... Fresh Columbia River Smelt 25c lb.
7 February 1958	Cowlitz River	<i>Oregonian</i> , p. 4, col. 7-8	Outlook Appears Good For Ironhead Angling ... Southwest Washington ... It was reported Thursday that smelt were in the Cowlitz as far upstream as Sportsmen's Park at

Date	Place	Source	Quote
			Lexington, though not in great numbers. ...
7 February 1958	Portland, OR	<i>Oregonian</i> , p. 10, col. 1-2	Market Wise ... At Fish and Seafood counters this weekend may be found ...lots of Columbia river smelt for as low as 25 cents a pound ...
9 February 1958	Cowlitz River	<i>Oregonian</i> , p. 1, col. 2	Smelt Run Said Thick. KELSO (Special)—Commercial boats moved into the Cowlitz River Saturday night and sports fishermen began lining the banks as far [as] Castle Rock by 7 p.m. to get in on a run of smelt reportedly so thick “you could walk across the river on them.” Sports and commercial fishing for smelt is permitted from 8 p.m. Saturday 8 a.m. Thursday each week. The Washington Department of Fisheries reported the run was somewhat ahead of normal. Saturday was the first chance this year for dippers to pull in big hauls. Smelt were reported running in the Cowlitz about two weeks ago during the closed period, but there were few left by the time the closed period ended. Water Warmer. Department biologists said water temperatures had risen to above 44 degrees, inducing the smelt run. Water temperatures until the last few days have held around 42 degrees and lower. Sports fishermen are allowed to take up to 20 pounds a day, and the smelt possession limit is 20 pounds. Agents of the Department of Fisheries patrol the river to enforce the bag limits. Smelt did not enter the Cowlitz last year until March 18.
10 February 1958	Cowlitz River	<i>Oregonian</i> , p. 5, col. 1	Cowlitz Smelt Run Turns Thin. KELSO, Wash. (Special) — Smelt dippers after the first of 1958 run in the Cowlitz river had to be on their toes to catch their limits Sunday, according to Washington State patrol officers. The run, which was reported thick Saturday, thinned out some Sunday and catches were reported as only “fair.” Fishing on the Cowlitz for smelt is permitted from 8 p.m. Saturday until 8 a.m. Thursday.
11 February 1958	Portland, OR	<i>Oregonian</i> , p. 9, advert	Fred Meyer ... Columbia River Fresh Smelt 25c lb.
12 February 1958	Cowlitz River	<i>Oregonian</i> , p. 10, col. 2	Smelt Run Still Heavy. KELSO, Wash. (Special)—The current run of smelt in the Cowlitz River continued strong Monday and Tuesday. Commercial fishermen said that except for thinning out of the run Sunday morning the run has been strong since last week. The river will remain open to sports and commercial dippers until Thursday at 8 a.m.
18 February 1958	Portland, OR	<i>Oregonian</i> , p. 7, advert	Fred Meyer ... Fresh Columbia River Smelt 17c lb.
21 February 1958	Portland, OR	<i>Oregonian</i> , p. 15, advert	Fred Meyer ... Fresh Columbia River Smelt 17c lb.
23 February 1958	Cowlitz River	<i>Oregonian</i> , p. 31, col. 4	Smelt Continue Run in Cowlitz. Smelt still are running in the Cowlitz River in Washington according to a report Saturday from Washington state police. The season for dipping the fish will continue as long as the run lasts but there is an enforced closure each week from 8 a.m. Thursday to 8 p.m. Saturday. Catches are limited to 20 pounds per person and each dipper is required to have his own container, police said.
25 February 1958	Portland, OR	<i>Oregonian</i> , p. 6, advert	Fred Meyer ... Fresh Columbia River Smelt 17c lb.
4 March 1958	Portland, OR	<i>Oregonian</i> , p. 7, advert	Fred Meyer ... Fresh Columbia River Smelt 15c lb.
11 March 1958	Portland, OR	<i>Oregonian</i> , p. 2, advert	Fred Meyer ... Fresh Columbia River Smelt 15c lb.
21 March 1958	Portland, OR	<i>Oregonian</i> , p. 14, advert	Fred Meyer ... Fresh Columbia River Smelt 10c lb.
10 April 1958	Sandy River	<i>Oregonian</i> , p. 15, col. 5	Smelt Zero About Sandy. Anxious Oregon smelt fishermen were watching the Sandy

Date	Place	Source	Quote
			River closely Wednesday for a return of the small fish to the stream, but no sign of migrating smelt was noted, the Multnomah county sheriff's office reported. Deputies expressed fear that 1958 might turn out to be a year in which no smelt appear in the river. Latest date in records of the Oregon Fish Commission for smelt to appear in the Sandy was in 1953, when a strong run began April 20. In most years runs have begun in March or early April. In Washington, smelt appeared this year on January 22 in the Cowlitz River. They disappeared for a time, but a second run developed February 6. Fish commission records show that smelt failed to appear in the Sandy on several previous years, including 1931, 1933, 1935, 1937, 1938, 1939, 1944, 1947, 1950 and 1955. In 1955 the fish appeared at the mouth of the river, but then disappeared. The run last year began March 24.
		Moore (1958, p.)	Smelt. Landings from the Cowlitz River of this tasty little fish totaled 2.2 million pounds or 85 percent of the total Columbia River district landings. The Cowlitz River was the only smelt-producing tributary in 1958. Initially the smelt are caught in gill nets in the main Columbia River. As the season progresses and the smelt enter the major tributaries to spawn, the dip-net fishery operates on them, delivering a more marketable product at a lower price than the gill net fishery. The commercial dip-net fishery usually continues as long as the runs are in the tributaries. As the recreational fishery develops in the streams the market declines sharply. In recent years the commercial catch has approximated 2 million pounds annually and the sport or recreational fishery has accounted for as much as one million pounds in a single year. Smelt regulations were modified in 1958 to allow a longer daylight fishery on weekends.
	Grays River	Nye (1961)	COLUMBIA RIVER SMELT. Gene Nye. The 1958 Washington-Oregon Columbia River commercial smelt landings totaled 2,564,000 pounds, of which 87 per cent were taken from the Cowlitz River. This represents the largest smelt catch since 1949 and is an increase of more than one million pounds over 1957. In addition, it was the largest Cowlitz River catch since 1946. The 1958 total landings were also about 200,000 pounds greater than a 23-year average of 2,471,000 pounds. Although a few smelt were reported entering the Lewis and Grays rivers, only the Cowlitz produced any commercial or sport quantities. <u>Commercial gill net fishery.</u> A total of 326,000 pounds of gill net smelt were landed in 1958 which is slightly above the previous year. Landings began early in January or approximately one and one-half months earlier than in 1957 (in 1957, the season was delayed because of extreme cold weather). The largest deliveries occurred towards the end of the season or in the first week of February. The largest single catch per unit of gear was 1,800 pounds. Table 3 shows the average combined catch per landing to 310 pounds or below landings of previous years. Nearly all of the smelt were caught in Wahkiakum and Cowlitz counties (Zones 2 and 3). Areas near Stella, Eagle Cliff, and Cathlamet were the most productive; however, all areas are dependent upon water conditions. When the Columbia River increases in turbidity, smelt appear to

Date	Place	Source	Quote																																																													
			disperse on their upstream migration and catches tend to decrease until a change of water occurs. As the season progresses “new” and “old” fish appear in the catch. “Old” fish are those showing signs of semi-spent gonads, rough ventral, and pectoral fins. <u>Cowlitz River fishery</u>. Smelt entered the Cowlitz River by January 22 (March 9 in 1957) and commercial landings continued to April 2. The total river catch of 2,241,648 pounds (Table 3) compares with peak years when 3 to 5 million pounds were taken in the Columbia River district. The largest number of landings (80) occurred on February 19 when 135,250 pounds were delivered to the buying stations. Landings were constant throughout the season with the first upsurge appearing in early February near the time when the gill net fishery ceased operations. Table 3. Columbia River smelt-number of landings, pounds, gear, and approximate Cowlitz River arrival of smelt 1954 through 1958. <table><tr><th>Year</th><th>Type of gear</th><th>Number of landings</th><th>Number of pounds*</th><th>Pounds per landing</th><th>Cowlitz River arrival data</th></tr><tr><td rowspan="2">1954</td><td>RGN</td><td>829</td><td>308,742</td><td>372</td><td>----</td></tr><tr><td>DBN</td><td>1,255</td><td>792,902</td><td>1,255</td><td>February 12</td></tr><tr><td rowspan="2">1955</td><td>RGN</td><td>818</td><td>408,833</td><td>500</td><td>----</td></tr><tr><td>DBN</td><td>946</td><td>1,349,599</td><td>1,427</td><td>February 13</td></tr><tr><td rowspan="2">1956</td><td>RGN</td><td>1,184</td><td>397,265</td><td>336</td><td>----</td></tr><tr><td>DBN</td><td>373</td><td>575,055</td><td>1,542</td><td>March 18</td></tr><tr><td rowspan="2">1957</td><td>RGN</td><td>495</td><td>209,924</td><td>424</td><td>----</td></tr><tr><td>DBN</td><td>491</td><td>987,804</td><td>2,012</td><td>March 9</td></tr><tr><td rowspan="2">1958</td><td>RGN</td><td>354</td><td>109,837</td><td>310</td><td>----</td></tr><tr><td>DBN</td><td>1,625</td><td>2,241,648</td><td>1,379</td><td>January 22</td></tr></table> During late January and early February smelt tended to remain in the main channels of the Cowlitz and were virtually unavailable to sport fishermen. However in succeeding weeks the personal use fishery expanded rapidly and hundreds of dippers began obtaining limit catches. Numerous trips were made to the area this year because of the failure of smelt to enter other tributaries, particularly the Sandy River in Oregon. The increased fishery resulted in the request for an increase in fishing time. The amount of fishing time was increased 12 hours by opening 8:00 a.m. instead of 8:00 p.m. on Saturday and continuing to the normal closure on Thursday at 8:00 a.m. The increase in fishing time was not felt to be detrimental to the spawning stock. <u>Water temperature with respect to smelt migration</u>. Water temperature is known to affect the upstream migration and spawning of smelt. Figure 1 indicates the relationship between the arrival of smelt into the Cowlitz and water temperatures. Recent temperature migration data concur with those found by Smith and Saalfeld (Fish. Res. Paper Vol. 1, No. 3, 1953) and enclosed	Year	Type of gear	Number of landings	Number of pounds*	Pounds per landing	Cowlitz River arrival data	1954	RGN	829	308,742	372	----	DBN	1,255	792,902	1,255	February 12	1955	RGN	818	408,833	500	----	DBN	946	1,349,599	1,427	February 13	1956	RGN	1,184	397,265	336	----	DBN	373	575,055	1,542	March 18	1957	RGN	495	209,924	424	----	DBN	491	987,804	2,012	March 9	1958	RGN	354	109,837	310	----	DBN	1,625	2,241,648	1,379	January 22
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	DBN	946	1,349,599	1,427	February 13																																																											
1956	RGN	1,184	397,265	336	----																																																											
	DBN	373	575,055	1,542	March 18																																																											
1957	RGN	495	209,924	424	----																																																											
	DBN	491	987,804	2,012	March 9																																																											
1958	RGN	354	109,837	310	----																																																											
	DBN	1,625	2,241,648	1,379	January 22																																																											

Date	Place	Source	Quote
			herein to bring their data up-to-date. For the most part the water temperature of the Cowlitz is warmer than the Columbia when smelt enter the tributary stream. In addition, during several years when the water temperature was low in the Cowlitz, smelt were not available until a rise in temperature occurred. <u>Catch per unit of effort</u> . This investigation, which was discussed in previous progress reports, was terminated in 1958. Table 4 shows the comparison of the data collected from 1954 to 1958. It was decided that the data could be used only on a limited basis and with extreme caution to determine the relative abundance of smelt. Limitations are listed in the previous progress report in addition to showing details of the investigation. In addition to those factors affecting the landings is the difference in density of the run as it enters the Columbia River each year. A run may be large but widely dispersed or small and compact. The catch per unit landing could not determine this fact.
1959			
31 December 1958	Columbia River at Clatskanie	<i>Oregonian</i> , p. 1, col. 6	Merchants Offer Columbia Smelt. CLATSKANIE (Special) — First Columbia River smelt of the commercial season appeared Tuesday in Clatskanie markets. The smelt, Caught by Clatskanie area gillnetters, were marketed through Central Smelt, Kelso, Wash., distributors.
16 January 1959	Portland, OR	<i>Oregonian</i> , p. 10, col. 4-5	Market Wise ... Columbia River smelt, though still on the small-supply side, are down in price to 59 cents a pound ...
17 January 1959	Cowlitz River	<i>Oregonian</i> , p. 1, col. 7	Smelt Arrive In Small Run. KELSO, Wash. (Special)—Commercial fishermen Friday reported the pilot run of the 1959 smelt invasion is in the Cowlitz River. However, the fishermen said there are not enough smelt in the river to make commercial fishing worthwhile and hardly enough to fill their own frying pans.
27 January 1959	Portland, OR	<i>Oregonian</i> , p. 7, advert	Fred Meyer ... Fresh Columbia River Smelt First of the Season 35c
3 February 1959	Portland, OR	<i>Oregonian</i> , p. 4, advert	Fred Meyer ... Fresh Columbia River Smelt 29c lb.
10 February 1959	Portland, OR	<i>Oregonian</i> , p. 6, advert	Fred Meyer ... Fresh Columbia River Smelt 29c lb.
13 February 1959		<i>Oregonian</i> , p. 2, col. 7-8	Steelhead Fishing Still Slow in Most Coast Rivers. ... Southwest Washington ... Smelt have not yet appeared in the Cowlitz.
13 February 1959	Portland, OR	<i>Oregonian</i> , p. 4, col. 3-4	Market Wise ... Fresh Columbia River smelt leads the plentiful and cheap list, selling from 23 to 29 cents a pound. ...
13 February 1959	Portland, OR	<i>Oregonian</i> , p. 15, advert	Fred Meyer ... Fresh Columbia River Smelt 23c lb. ... 2 for 45c
3 March 1959	Portland, OR	<i>Oregonian</i> , p. 6, advert	Fred Meyer ... Fresh Columbia River Smelt 25c lb.
6 March 1959	Columbia River	<i>Oregonian</i> , p. 1, col. 7	Smelt Tardy Near Cowlitz. A tardy run of smelt appeared Thursday off the mouth of the Cowlitz River, but no smelt have appeared as yet near the Sandy River. Smelt might enter the Cowlitz this week, but a weekly closure period, which began Wednesday night will remain in effect until 8 a.m. Saturday. The small fish usually enter the Cowlitz in January or February, and this year's run is considered late. There was a small run in the Cowlitz a month ago, but nothing since. Appearance of the smelt in the Sandy is always later. Earliest date on record for the return of the smelt to their Sandy spawning grounds

Date	Place	Source	Quote
			was March 4. That was in 1934. Latest Sandy date was April 28 in 1924. In some years the smelt have not appeared. Heavy Catches Reported. Commercial fishermen Thursday near the Cowlitz reported heavy catches of smelt in the vicinity of Walker's Island, the Reynolds Metals Co. plant and the Weyerhaeuser Timber Co. plant on the Columbia River. Smelt have been taken for several weeks in the Columbia off Clatskanie and Mayger. The news of the approaching smelt run in the Cowlitz is expected to set off the annual rush to the river Saturday by amateur dippers. If the run develops this weekend, it will come just in time to coincide with the annual smelt eating championship of the world contest, staged by the Kelso Eagles Lodge. ...
7 March 1959	Columbia River	<i>Oregonian</i> , p. 1, col. 3	Cowlitz Smelt Still Elusive. Citizens hungering for smelt who drive to the Cowlitz River Saturday expecting to dip their fill may have to shell out shekels to a commercial fisherman or come home with empty containers. Late Friday night word from the watch on the river at Longview was that the smelt had not yet come in. They were in the Columbia just off the mouth of the Cowlitz and of course could enter the smaller river in which amateur dipping is feasible at any time. The weekly closure of the river ends at 8 a.m. Saturday, and the river will be open to all comers with hand nets until Wednesday night.
10 March 1959	Kalama River	<i>Oregonian</i> , p. 1, col. 1-3	KELSO, Wash. (Special)—Cowlitz River smelt hopes took a turn for the better again Monday with the run appearing to be off the mouth for the second time in a week. Sunday the smelt were reported in the Kalama river in some quantity after passing up the Cowlitz River on their expected entry over the weekend. A Columbia River pilot Monday reported no seagulls near the Kalama but that they were concentrating on the area off the International Paper Co. on the Columbia River, near the mouth of the Cowlitz. The seagulls give the tip off on the location of the smelt.
10 March 1959	Portland, OR	<i>Oregonian</i> , p. 4, advert	Fred Meyer ... Fresh Columbia River Smelt 25c lb.
11 March 1959	Kalama River	<i>Oregonian</i> , p. 1, col. 5	Kalama River Yields Smelt. KALAMA, Wash. (Special)—Commercial fishermen were taking smelt in the Kalama River on a sporadic basis Tuesday. The smelt stayed downstream from the Pacific Highway bridge and were swinging into the Kalama when the tide came in and then going back into the Columbia when the tide began to recede. Because the river is so narrow at its mouth, only six or eight boats are able to operate in the narrow channel at one time. The main run of smelt passed up the entrance to the Cowlitz River, its main spawning grounds in normal years.
13 March 1959	Portland, OR	<i>Oregonian</i> , p. 8, col. 1-2	Market Wise ... Smelt, still coming from the Columbia River, is selling for 29 cents a pound. ...
13 March 1959	Lewis River	<i>Oregonian</i> , Sect 2 p. 1, col. 5-6	Salmon Angling Fair, Steelheading Spotty. ... Smelt were in the north fork of the Lewis River Thursday [12 March], as far up as Woodland. Smelt are not in the Cowlitz. ...
18 March 1959	Necanicum River Stillaguamish River	<i>Oregonian</i> , p. 1, col. 7-8	Columbia River's Smelt Moved to Other Streams. A revolutionary experiment in the smelt industry was launched Tuesday by the Oregon Fish Commission and the

Date	Place	Source	Quote
	transplant Lewis River		Washington State Department of Fisheries. Biologists of the two states began taking smelt from the Lewis River in Washington and transplanting the silvery food fish to other streams. Oregon's quota was transplanted in the Necanicum River near Seaside and Washington biologists started with a load of the eulachon to be liberated in the Stillaguamish River near Seattle. The joint project is the brain child of Harold T. Johnson of Astoria, chairman of the Oregon commission. Purpose of the experiment is to determine the feasibility of establishing runs in Columbia tributaries below the point of maximum pollution on the river. The new idea was made public at Tuesday's monthly meeting of the Oregon commission. Meantime, smelt dipping continued good in the Lewis River at Woodland. Officials there reported persons in boats were getting the 20-pound limit within a few minutes. Shore dippers had to work harder and longer, getting from one to ten fish per sweep. A license is not required to dip smelt in Washington. The daily limit is 20 pounds. Smelt have not yet appeared at the Sandy River on the Oregon side of the Columbia.
20 March 1959	Portland, OR	<i>Oregonian</i> , p. 12, advert	Fred Meyer ... Fresh Columbia River Smelt 19c lb.
21 March 1959	Necanicum River transplant	<i>Oregonian</i> , p. 1, col. 2-3	Necanicum River Greets Transplanted Fish Run. ASTORIA (Special) — About 6,000 smelt were piped into the Necanicum River south of Seaside Friday. They made the journey from truck to river in two minutes. An eye-witness told The Oregonian the fish appeared frisky and evidently enjoyed their new residence, which listed a 46 degree temperature. The smelt were handled by officials of the Oregon Fish Commission who transplanted them from the Lewis River in Washington. Smelt Dipped. A tank truck from the Bonneville Hatchery transported the shiny smelt. They were hand-dipped by net into buckets and then splashed into the truck. At the Necanicum, the fish were swiftly spilled into the river through a pipe chute. Mel Sharp and Floyd Jones, commission staff members, collected the smelt. Bob Loeffel, a biologist for the commission, conducted the stream survey to decide where the fish might best be planted. Most of the fish were between three and four years of age and sped upstream as soon as they hit the water. The commission's interest in transplanting the smelt reportedly originated with Andrew Carlson, a veteran fisherman here and in Alaska, who had seen it done elsewhere.
24 March 1959	Lewis River	<i>Oregonian</i> , p. 35, col. 4-6	Lewis Yields 600,000 Pounds of Smelt. More than 600,000 pounds of smelt — and two commercial smelt boats—have been caught thus far this big smelt season on the Lewis River, where the biggest run in a decade is slowing up. The Washington state fisheries patrol reported Monday that 60 commercial fishermen in 30 boats have landed 500,000 pounds since smattering catches on March 11, and that the amateur catch must exceed 100,000 pounds with some 1,000 amateurs showing up regularly on weekends and a few on weekdays. The commercial catch for the Lewis in 1954 when smelt last appeared before the current run was 360,671 pounds. Four eager commercial fishermen, two in a Puget Island gillnet boat and two in a Longview one, were grounded on a bar several miles up the river late Sunday when the river dropped as a result of flow regulation at

Date	Place	Source	Quote
			Merwin Dam. They got off the bar after the dam released them additional water. The main run is reported four miles upriver, with some pioneer smelt miles ahead as far as Cedar Creek. But no new run is showing up in the lower river. This indicates a letup in fish volume. Washington fisheries patrolmen estimate that one third of the cars attracted to the river have Oregon licenses. ... This year the fish have appeared in large numbers only in the Lewis.
27 March 1959	Lewis River	<i>Oregonian</i> , p. 2, col. 4-5	Willamette Fishing Slow; Traces of Mud Observed ... Smelt are slowing down in the Lewis River. There are no smelt in the Cowlitz. ...
20 April 1959		<i>Oregonian</i> , p. 3, col. 3-4	Champ Chomps 84 Smelt to Engulf Own Record. ... The absence of smelt in the nearby Sandy River forced the society to import smelt for the contest.
		Moore (1959, p. 68)	Smelt. A total of 1.6 million pounds of smelt was landed commercially in the Columbia River and its tributaries in 1959. This is nearly one million pounds less than the 1958 catch which was largely attributable to the very heavy Cowlitz River run. In 1959, only 52,000 pounds of smelt were landed in the Cowlitz River but the Lewis River, which had been without a run since 1954, produced 800,000 pounds. In addition, a small commercial catch (44,000 pounds) was landed in the Kalama River. Because of the erratic behavior of these tiny fish and the difficulty in predicting whether or not a tributary run will appear, a cooperative program with the Oregon Fish Commission resulted in transplanting smelt from the Lewis River to other likely tributaries in both Washington and Oregon.
	Kalama River	Wendler and Nye (1962)	SMELT. Commercial landings of smelt totaled 1,756,000 pounds in 1959 which compared to the 1938-1958 average of 2.5 million pounds. The Cowlitz River failed to support a run, but the Lewis River which has failed since 1954 contributed nearly 900,000 pounds of the total landings. This is the fifth year since 1938 smelt were absent from the Cowlitz. A minor catch occurred in the Kalama River; otherwise none of the other Columbia River tributaries supported any smelt in 1959. The question often arises why do smelt fail to enter a tributary to spawn only in certain years. Delacy (1959) indicated that studies conducted at the University of Washington School of Fisheries in the character examination of vertebrae, anal rays, gill rakers, and position of insertion of the dorsal fin pointed to evidence of population heterogeneity. The irregular movement of smelt into various tributaries further demonstrates that these fish do not necessarily need to return to the parent stream. Smith (1953) concluded that water temperatures had to be 40 degrees F or above at Bonneville dam to insure smelt migration to or above the mouth of the Cowlitz River. Water temperatures in 1959 remained 40 degrees or above from January 1 through the entire expected smelt migrational period. During the years 1949 through 1951 when smelt failed to enter the Cowlitz, water temperatures were below 35 degrees F most of January and February and may have prevented smelt from entering the Cowlitz. However, since water temperatures in 1959 were above those during the period 1949-1951 smelt should have entered the Cowlitz if this factor alone

Date	Place	Source	Quote
			controlled their movement. Cowlitz River streamflow records have also been examined to determine if this could be a factor effecting a smelt entry. Data shows that smelt runs have entered the Cowlitz at various water levels from 3.4 feet to 30.3 feet during the years 1947 through 1959 (U.S.G.S. WSP-Castle Rock). Smelt entries into the Cowlitz have occurred during both increasing and decreasing flows, but more often during stable flow periods. However, catches have tended to fluctuate when streamflow decreases or increases once smelt have entered the stream. Although very high runoff (52.9 feet) occurred in late January, the streamflow moderated in subsequent months when smelt were expected to enter based on temperature. Catch-per-unit of effort in the main Columbia River gill net fishery has shown a decrease when the river becomes extremely turbid. Smelt apparently disperse and scatter widely when this occurs. A smelt transplant was initiated in 1959 from the Lewis River to the Puyallup River through the cooperative efforts of the hatchery and research divisions. Approximately 4,500 fish were transplanted with an estimated egg potential of 40 million. This was considered a minimal number to plant for a species which requires mass spawning for successful reproduction. However, a measure of success may be seen if Columbia River smelt are present in the Puyallup during the spring of 1962.
1960			
22 January 1960	Columbia River at Eagle Cliff	<i>Oregonian</i> , p. 1, col. 8	Smelt Show Up In Kelso Area. KELSO, Wash. (Special) — Small smelt catches are being made at Eagle Cliff on the Columbia River but to date no smelt have reached the Cowlitz River. Spokesman for central Smelt Co. said commercial fishermen are netting about eight boxes of smelt daily at Eagle Cliff. Last year smelt passed up the Cowlitz River where the heaviest runs are normally reported and went instead into the Lewis and Kalama rivers.
9 February 1960	Cowlitz River	<i>Oregonian</i> , p. 1, col. 4	Cowlitz Yields Smelt Harvest. KELSO, Wash. (Special) — Smelt fever gripped this Cowlitz River community Monday [8 February] after a weekend invasion by the tiny food fish brought commercial and sports fishermen swarming into the river. Bank dipping was spotty Sunday but Monday morning bank dippers reported good success in getting 20-pound limits in short order. The Cowlitz Fish Co. reported commercial boats brought in approximately 30,000 pounds of smelt during the weekend. First smelt were reported off Clatskanie in the Columbia River Jan. 11. Since then commercial boats have made small catches. Last year smelt virtually ignored the Cowlitz River. Light runs were reported Jan. 16 and April 7. Best dipping was in the Kalama River March 10 and the Lewis River several days later.
10 February 1960	Cowlitz River	<i>Oregonian</i> , p. 5, col. 7	Smelt Run Holding Up. KELSO, Wash. (Special) — The Cowlitz River smelt run remained strong Tuesday with commercial and sports dippers reporting good catches. Some 30 commercial boats took approximately 300 boxes of smelt Monday night. The 15,000 pounds of food fish enabled the commercial fishermen to fill their orders without difficulty. At times Monday night near Rocky Point bank dippers were netting their 20-

Date	Place	Source	Quote
			pound sportsmen's limit within a matter of minutes. The run began Saturday night. All dipping will close Thursday at 8 a. m. for the 48-hour escapement period. Operations will resume Saturday at 8 a. m.
11 February 1960	Cowlitz River	<i>Oregonian</i> , p. 1, col. 4	Cowlitz Smelt Dipping Halted. High water in the Cowlitz River brought smelt dipping to a halt Tuesday night and Wednesday, according to reports from the Washington State Patrol. The river will be closed to dippers at 8 a. m. Thursday and will reopen at 8 Saturday.
12 February 1960	Portland, OR	<i>Oregonian</i> , p. 13 advert	Fred Meyer ... Fresh Columbia River Smelt 35c lb.
12 February 1960	Cowlitz River	<i>Oregonian</i> , p. 27 and 29, col. 1-2	Streams Said Falling; Few Catches Reported. By Tom McAllister. ... Smelt run in the Cowlitz is as far upstream as Miller's eddy and early morning dipnet catches in the main channel are heavy.
14 February 1960	Cowlitz River	<i>Oregonian</i> , p. 1, col. 4	Cowlitz Smelt Run Declines. The smelt were still present in the Cowlitz River in the Kelso-Longview area Saturday night following a two-day closure but dippers along the banks were not doing well and commercial fishing boats were doing little better. Prior to the closure at 8 a. m. Thursday, the smelt were running strong and bank dippers were collecting their limits of 20 pounds per person in only a couple of sweeps. There were still many dippers on the banks Saturday and the fish were in the river. The poor take of smelt, which are running earlier than usual this year, was attributed to the fact that the fish were not schooling close to the banks. In size, the smelt are reported larger than in most years.
16 February 1960	Cowlitz River	<i>Oregonian</i> , p. 1, col. 1-2	Cowlitz Catch Good As Smelt Run 'Booms' Smelt fishing in the Cowlitz River was reported "real good" late Monday night with dip net fishermen on the banks reaping their limits of 20 pounds. The rate of catch had dropped off by Monday morning. At Riverside Park, Lexington, dippers working under flood lights, were quickly getting their limits Monday night, some of them working in complete comfort from the dock. The smelt run is earlier than usual this year and the fish are larger than usual in size. The fishing will remain open until 8 a. m. Thursday when the law requires a 48-hour closure until 8 a. m. Saturday for spawning escapement period. Amateurs need no license and may take up to 20 pounds of the tasty little fish.
16 February 1960	Portland, OR	<i>Oregonian</i> , p. 9, advert	Fred Meyer ... Fresh Columbia River Smelt 29c lb.
19 February 1960	Cowlitz River	<i>Oregonian</i> , p. 32, col. 1-3	Cowlitz Plunkers Strike Steelhead. By Tom McAllister. ... Weekly closure period on smelt in the Cowlitz is from 8 a. m. Thursday to 8 a. m. Saturday. Deep dipping in the main channel is good and the run is heavy.
21 February 1960	Cowlitz River	<i>Oregonian</i> , p. 1, col. 6	Smelt Run Drops. KELSO, Wash. (Special) — Dull dipping appeared to be in store for smelt fishermen on the Cowlitz river this weekend, barring an unexpected run of the silver fish. As fishing resumed Saturday after a two-day closure, dipping at the banks was reported as poor, and in midstream, only fair.
23 February 1960	Portland, OR	<i>Oregonian</i> , p. 11, advert	Fred Meyer ... Fresh Columbia River Smelt 25c lb.
24 February 1960	Cowlitz River	<i>Oregonian</i> , p. 1, col. 3	More Smelt In Cowlitz. KELSO, Wash. (Special) — Smelt continued to run in the

Date	Place	Source	Quote
			Cowlitz River here Tuesday. Commercial fishermen were having no trouble Monday night filling large orders for the tasty food fish. Sportsmen at Riverside Park and Cowlitz Gardens reported good success after dark. A new run entered the Cowlitz over the weekend. The smelt in this run are reported to be larger than those which opened the run more than two weeks ago. Dipping will be permitted until Thursday at 8 a. m. when the weekly closure period will begin to permit spawning. Hundreds of persons from as far away as Seattle and Tacoma jammed the river banks Monday and Monday night. Those who tried after dark often got their 20-pound limits in only a few dips.
24 February 1960	Sandy River	<i>Oregonian</i> , p. 30, col. 1-2	Wide Open Spaces By Tom McAllister. ...Amazing how many people call to inquire when the smelt horde will be in the Sandy River. The smelt don't know themselves, and much less humans. A fish commission table kept since 1916 shows smelt run arrival dates varying from March 4 to April 28 at the latest. There is likely a strong correlation between temperature in the Sandy river and the entry of the smelt.
25 February 1960	Cowlitz River	<i>Oregonian</i> , p. 3, col. 2	Smelt Dippers Note Decrease. KELSO, Wash. (Special) — The smelt run in the Cowlitz River tapered off Wednesday [24 February] with bank dippers having poor to fair luck. Earlier in the week, dippers got limits at some places north of Kelso. The Cowlitz will be closed to smelting at 8 a.m. Thursday and remain closed until 8 a.m. Saturday. Meantime, Washington state fish and game men checked the Columbia River east of Kelso and the North fork of the Lewis River near Woodland for smelt runs. Concentrations of seagulls near the mouth of the Lewis led some to believe smelt might be in the vicinity.
26 February 1960	Portland, OR	<i>Oregonian</i> , p. 15, advert	Fred Meyer ... Fresh Columbia River Smelt 25c lb.
27 February 1960	Necanicum River Sandy River transplant	<i>Oregonian</i> , p. 1, col. 5-7	Smelt Lift Staged In Washington to Stock Northern Oregon Rivers. KELSO, Wash. (Special) — The State of Washington donated two truckloads of live smelt from the Cowlitz River to the State of Oregon Friday. A few hours later the little fish were dumped into Oregon's Necanicum and Sandy rivers. The "smelt lift" was part of an experiment started last year to find out whether new smelt runs can be established in streams presently bypassed by the eulachon. State Releases Fish. Last March the Oregon State Fish Commission released 6,000 smelt from the Lewis River in Washington into the Necanicum, which flows into the Pacific Ocean at Seaside. The Sandy in the past has had heavy smelt runs nearly every March or April. But in recent years the runs have been small, or non-existent. The transplanted smelt from the Cowlitz, it is hoped, will revive the run. Employees of the Washington State Department of Fisheries and Cowlitz River commercial fishermen cooperated with the Oregon department in carrying out the transplants. The smelt were dipped from a gillnet boat off Rocky Point, a mile north of Kelso, and transferred to two tank trucks filled with 42-degree Cowlitz River water. Trucks Have Aerators. The trucks, borrowed from the Bonneville Hatchery of the Oregon Fish Commission, are equipped with aerators and pumps to maintain the oxygen content of the water for long overland journeys with live

Date	Place	Source	Quote
			fish. The experiment was suggested last year by Harold T. Johnson, chairman of the Oregon Fish Commission. Runs of other anadromous fish, such as salmon, steelhead, shad and striped bass, have been started in the same fashion in Pacific Coast rivers.
28 February 1960	Sandy River related	<i>Oregonian</i> , p. 6, col. 1-2	Smelt Run, Island Park Backers Meet Objections. .. Ben Mayo of the Eulachon Society asked the committed to restore the smelt run of the Sandy, which has disappeared during the past two years. He pointed to large sums collected as license fees from smelt fishermen and urged the money be used to restore the runs. Nobody Knows Why. The committees suggested that this was a problem for the game commission. A spokesman from the game group informed the committee that biologists were at work on the problem, but that nobody knows as yet why smelt fail to return to the Sandy, or for that matter, to other streams, such as the Cowlitz River, from time to time.
1 March 1960	Cowlitz River	<i>Oregonian</i> , p. 1, col. 2	Cowlitz Smelt Run Holds On. KELSO, Wash. (Special) — Smelt dippers reported continued heavy runs in the Cowlitz river from Kelso to Castle Rock Monday after a weekend of good dipping. The run is in its fourth week and all indications point to one of the best seasons in recent years. Best dipping for bank sportsmen comes after dark.
1 March 1960	Portland, OR	<i>Oregonian</i> , p. 9, advert	Fred Meyer ... Fresh Columbia River Smelt 25c lb.
3 March 1960	Cowlitz River	<i>Oregonian</i> , p. 9, col. 5	Smelt Dippers Losing Thrill. KELSO, Wash. (Special) — Indications were Tuesday that the Cowlitz River smelt run will outlast sportsmen's interest in it this year. For 24 days the river has been full of smelt and with a few exceptions, the bank dipper who tried hard enough easily got his 20-pound limit. Monday fewer sportsmen showed up at Riverside Park and Cowlitz Gardens than is usual, even though the run had not diminished. This could indicate that the near freezing temperature was a factor, but more likely that smelt appetites have been appeased. However, commercial fishermen who catch the smelt to supply markets across the nation say their market is holding up well. A new favorite place to dip smelt is at the end of Huntington avenue in Castle Rock, 10 miles up the river. Limits are being taken there as well as farther down river. The weekly escapement period will begin at 8 a.m. Thursday and continue until 8 a.m. Saturday
4 March 1960	Portland, OR	<i>Oregonian</i> , p. 13 advert	Fred Meyer ... Fresh Columbia River Smelt 25c lb.
4 March 1960	Cowlitz River	<i>Oregonian</i> , p. 30, col. 7-8	Rivers Low, Catches Few By Tom McAllister. ... Smelt continue to run in the Cowlitz, and limits were dipped readily on Wednesday below Castle Rock bridge. Again, the smelt closure period is from 8 a.m. Thursday to 8 a.m. Saturday. Limit is 20 pounds of smelt.
5 March 1960	Cowlitz River	<i>Oregonian</i> , p. 4, col. 3-4	Smelt Eaters To Gather For Kelso Competition. KELSO, Wash. (Special) — ... Meanwhile the weekly closure period was due to end at 8 a.m. Saturday when it will again be legal to dip smelt in the Cowlitz River. The run will be a full four weeks old Saturday. When the closure opened Thursday morning, commercial fishermen and sportsmen were still dipping large quantities of smelt in one of the longest and best runs on record.
6 March 1960	Sandy River	<i>Oregonian</i> , p. 32, col. 1-	Wide Open Spaces. By Tom McAllister, Journal Outdoor Editor. ... Sandy Smelt

Date	Place	Source	Quote
		2	Table Requested. Norman Vanderbeck of Woodburn has requested a table of smelt run dates, available from 1916, in the column. Concern over the failure of the smelt to run the last two years is not well founded as the dates show. Smelt are unpredictable and that's the most the writer has ever been able to gain from the table outside of entry dates of March 4 at the earliest and April 28 at the latest. Here it is, smelt dippers. 1916—April 4

Date	Place	Source	Quote
			silvery little fish have not swum into the Sandy River.
		Starlund (1960, p. 23)	Smelt. Smelt landings totaled 1.2 million pounds of which only 183,000 pounds were landed in the Columbia River. Nearly 1.0 million pounds were taken in the Cowlitz River of Washington. The cooperative program with the Oregon Fish Commission to transplant smelt to other tributaries in both Washington and Oregon was continued. The 1960 smelt run followed the temperature regime observed in the early 1950's. The run migrated to the north of the Cowlitz River about a week after the Columbia River temperature reached 40 degrees F.
		Wendler and Nye (1963)	<u>Miscellaneous Food Fish Catch. Smelt.</u> The Columbia River combined Washington and Oregon smelt landings in 1960 were 1,170,000 pounds. This was the lowest recorded catch since 1938, but it was not appreciably lower than other years during that period. A partial decrease in the total catch was probably attributable to the minor Columbia River gill net landings as the season was comparatively short. The majority of the landings were taken from the Cowlitz River which contributed nearly one million pounds. A very minor catch was reported from Grays River while the Oregon tributaries lacked a smelt run in 1960.
1961			
4 January 1961	Columbia River at Eagle Cliff	<i>Oregonian</i> , p. 3, col. 6	Smelt Start In Columbia. KELSO (Special) — A “pilot run” of smelt has started in the Columbia River near here. Central Smelt Co. officials said Tuesday they have marketed the first smelt of 1961 in this Cowlitz River city that proclaims itself “Smelt capital of the world.” The first catch was made by Clatskanie commercial fishermen near Eagle Cliff Monday. An estimated 50 pounds were boated from the advance run which shows up in the Columbia anywhere from a few days to a month before big smelt runs hit the Cowlitz. Last year the Cowlitz had one of its biggest and longest smelt runs in history but in 1959 only a few entered the river. The season’s first gillnet smelt arrived in the Portland market Tuesday, bringing 95 cents a pound in some quarters. The first batch weighed about 40 pounds and was sold to several outlets, including a retail fish market. The smelt were caught at Clatskanie. The season opened this week.
21 January 1961	Cowlitz River	<i>Oregonian</i> , p. 1, col. 6	Smelt Enter Cowlitz River. KELSO, Wash. (Special) — Smelt have entered the Cowlitz River for the first time this season and prospects are that hundreds of bank dippers will be on hand at 8 a.m. Saturday to find out how big a run it is. Paul Clow, State Department of Fisheries inspector, conducted tests Friday to get advance information about the run. Dipping by commercial and sports fishermen is prohibited each week from 8 a.m. Thursday to 8 a.m. Saturday. Clow reported that about 35 boxes of smelt were taken from the river by commercial fishermen just before the closure period started this week.
24 January 1961	Cowlitz River	<i>Oregonian</i> , p. 3, col. 1-2	Casting About For Fish and Game By Bill Hulen. ... Spike McKee at Longview said Monday that dip netters for smelt in the Cowlitz have had very poor luck. Commercial fishermen have taken a few smelt in the lower river. ...

Date	Place	Source	Quote
26 January 1961	Portland, OR	<i>Oregonian</i> , p. 4 advert	Tradewell. ... Smelt Fresh Columbia River Smelt lb. 31c
28 January 1961	Cowlitz River	<i>Oregonian</i> , p. 4, col. 4	Smelt Run Light. Smelt have been running in the Cowlitz River, but they are very scarce so far. The season has been closed from 8 a.m. Thursday to 8 a.m. Saturday.
31 January 1961	Portland, OR	<i>Oregonian</i> , p. 7 advert	Fred Meyer ... Fresh Columbia River Smelt First of the Season ... 3 lb. For \$1.00
3 February 1961	Cowlitz River	<i>Oregonian</i> , p. 2, col. 4	Outlook Poor For Anglers. ... S.W. Washington. ... Smelt are in the By Bill Hulen, Wildlife Editor, The Oregonian. Cowlitz and dip netting has been slow. ...
10 February 1961	Cowlitz River	<i>Oregonian</i> , p. 1, col. 2	Smelt Fever Hits Cowlitz. KELSO, Wash. (Special) — Smelt fever brought hundreds of bank dippers and commercial fishermen to the Cowlitz River Wednesday afternoon and far into the night as the year's largest run raced up river. Many sportsmen got their 20 pound limits quickly but Thursday at 8 a.m. the weekly escapement period began cutting off further dipping until Saturday at 8 a.m. when the period ends. All indications point to the fact that Wednesday's run, heralded by swarms of noisy seagulls feasting on the smelt will be the real beginning of this year's big run. Several weeks ago a pilot run entered the Cowlitz from the Columbia River but neither commercial nor sports fishermen were able to boat any much beyond the mouth of the Cowlitz. Wednesday's run was north of the Cowlitz Way Bridge and upstream to Rocky Point, always the favorite spot for bank dippers. West Side Highway, north of Kelso, was jammed with cars during the afternoon and evening causing a traffic problem for law enforcement agencies. No license is required for sportsmen dipping smelt. The annual run brings thousands of persons to the Cowlitz from Oregon and Washington. Commercial fishermen reported large catches from their boats anchored in the middle of the stream.
10 February 1961	Cowlitz River	<i>Oregonian</i> , p. 3, col. 7-8	Steelhead Hopes Dim. By Bill Hulen, Wildlife Editor, The Oregonian. ... S.W. Washington ... A good run of smelt reached the second Kelso bridge over the Cowlitz Thursday morning, and they could be as far upriver as Lexington when dip netting opens at 8 a.m. Saturday.
12 February 1961	Cowlitz River	<i>Oregonian</i> , p. 1, col. 2	Many Take Smelt Limit. KELSO, Wash. (Special) — Undismayed by winds and drenching rains, thousands lined the banks of the Cowlitz River Saturday and easily hauled in their 20 – pound limits of smelt. The large turnout of bank dippers and commercial fishermen created a traffic problem on both sides of the river from the Cowlitz River Bridge to Rocky Point. Many driveways and roads were blocked at Cowlitz Gardens, two miles north of Kelso. "The place is choked with people," said Wayne Bevins, Cowlitz County Sheriff's deputy. Many Get Limit. Bevins reported that "many got their 20 – pound limits." With long – handled nets, the bank fishermen stood on the beach or waded into the water with hip boots. Others, especially commercial fishermen dipped their nets from anchored boats. Smelt fishing is open each week from 8 a.m. Saturday until Thursday. Lights burn on the river all night from boats of the fishermen. The annual run brings thousands of persons to the Cowlitz from Oregon and Washington. No license is required for dipping smelt. In regards to Saturday's smelt fever, Bevins said, "The rain didn't seem to discourage anybody."

Date	Place	Source	Quote
13 February 1961	Cowlitz River	<i>Oregonian</i> , p. 1, col. 5	Smelt Flood Into Cowlitz. LONGVIEW (Special) — Svelte smelt swelled the piscatorial population of the Cowlitz River over the weekend as the delectable denizens from the deep ocean continued their annual spawning run. Fishermen, though not quite outnumbering their prey, sloshed along the river banks by the thousands banging elbows with their long – handled nets to enjoy this unlicensed pursuit and amass their 20-pound limits. Others bobbed about in boats. Reports from downriver indicated there were many more fish to come. Reports elsewhere indicated there were lots more fish – dippers too. Weekly “time out” is from 8 a.m. Thursday to 8 a.m. Saturday.
16 February 1961	Cowlitz River	<i>Oregonian</i> , p. 1, col. 2	Smelt Fisher Slips, Drowns. KELSO, Wash. (Special) — ... The river, swollen by high waters, has made smelt fishing poor the last two days, it was reported, and the number of fishermen had dropped to less than 100 daily. ...
19 February 1961	Cowlitz River	<i>Oregonian</i> , p. 1, col. 6	Smelt Run ‘Light.’ KELSO, Wash. (Special) — Smelt fishing resumed Saturday [18 February] in the Cowlitz River, but catches were “very, very light.” The number of fishermen likewise was “very light.”
24 February 1961	Sandy River related	<i>Oregonian</i> , p. 4, col. 5-8	Trout Dropped From Plan For Stocking Blue Lake. By Bill Hulen, Wildlife Editor, The Oregonian. ... Also appearing before the commission was the Eulachon Society of Troutdale, represented by Emil Carrow, president, and State Rep. William Bradley. This group is concerned with the smelt situation in the Sandy River. There has been no run of smelt in the Sandy in the past three years. Carrow told the commission the last half mile of the Sandy was in very bad shape. “There is more sand in the river than I’ve ever seen,” Carrow said. “There is no channel there at all.” The Society approved the commission’s that part of the Sandy River smelt fund, which now amounts to some \$30,000, be used to expedite the smelt research of Dr. A. C. DeLacey of the university of Washington.
25 February 1961	Columbia River at Cathlamet and Oak Point	<i>Oregonian</i> , p. 1, col. 6	Columbia New Smelt Hot Spot. KELSO, Wash. (Special) — Smelt scouting reports indicates the Columbia River between Cathlamet and Oak Point is the hottest spot now. Paul Clow, State Fisheries Department officer, found substantial quantities of the tasty food fish in that area in a survey Thursday during the 48 hour closed period. Clow found few smelt in the Cowlitz River but does not rule out the possibility the new run will enter the river. The closed period ends Saturday at 8 a.m. On the other hand, Clow points out, the smelt may be heading for the Kalama, Lewis or Sandy Rivers, upstream from here.
26 February 1961	Columbia River near Mill Creek and Oak Point	<i>Oregonian</i> , p. 1, col. 7	Smelt Avoiding Cowlitz River. KELSO, Wash. (Special) — The 48-hour closure period on smelt lifted at 8 a.m. Saturday, but scouts failed to sight any of the tasty food fish in the Cowlitz River. It marked the second weekend in a row that dippers were unable to net any smelt in the Cowlitz. No appreciable number of smelt has appeared in the Cowlitz since Feb. 15. Good runs of the fish were reported in the Columbia River near Mill Creek and Oak Point west of Longview. Bank dippers were not doing well, but commercial fishermen in boats in the river reported good success.
26 February 1961	Sandy River related	<i>Oregonian</i> , p. 2, col. 1-2	Casting About For Fish and Game By Bill Hulen. ... If a smelt run fails to materialize

Date	Place	Source	Quote
			in the Sandy River this year, it will be the first time the little fish have bypassed that river four years in a row. There hasn't been a run in the Sandy since 1957. Only other three-year absence of smelt occurred in 1937-38-39.
3 March 1961	Columbia River	<i>Oregonian</i> , p. 4, col. 1-2	Fish Future Washed Out. By Bill Hulen, Wildlife Editor, The Oregonian. ... S.W. Washington. ... Smelt are in the Columbia, but not in the Cowlitz.
18 March 1961	Cowlitz River	<i>Oregonian</i> , p. 1, col. 7	Smelt Fishing Prospect Good. KELSO, Wash. (Special) — Prospects appeared bright Friday for the best smelt fishing weekend for sportsmen in a month. The 48-hour closure period will end at 8 a.m. Saturday and it is certain the banks of the Cowlitz River will be jammed with dippers seeking their 20-pound limits. The story for the commercial fishermen was another matter. They have voluntarily agreed to limit themselves to marketing only three and a half boxes each per day. The smelt market has gone "soft" after more than a month, according to smelt houses.
23 March 1961	Sandy River related	<i>Oregonian</i> , p. 9, col. 1-8	Everybody – Except Smelt – Ready For Big Annual Orgy Along Banks Of Sandy River. It's about time for the annual smelt catching and smelt eating contest at Troutdale and thereabouts, but the principle ingredient — smelt—is lacking. For three years straight running the small fish have failed to show up in the Sandy River, 15 miles east of Portland, and thus far this year there has been no sign of them above the Cowlitz River, 50 miles down the Washington side of the Columbia. The last run was in 1957. However, Oregon State Game Commission is not unduly alarmed as yet because the season for the smelt to appear in the Sandy is not half gone by. The average date for the arrival of the fish over a period of 31 years is March 25. That will be next Saturday. The earliest run was recorded March 4, 1934, and the latest began April 19, 1953. That 1953 run was a "humdinger," lasting for 10 days, and the game commission collected \$29,751.50 from the sale of 59,503 licenses at 50 cents each. If and when the smelt appear in the Sandy this year, the Game Commission plans to start an intensive research program in the hope that the smelt runs can be restored with more regularity than they have been. Dr. A. C. DeLacey, of the University of Washington School of Fisheries, will direct the studies and will be assisted by Oregon State research biologists. The work will be finance from the \$30,299 balance left in the Sandy River smelt fund, built from the sale of licenses. The fund has received \$150,622.50 and spent \$120,323 during the past 31 years.
13 April 1961	Sandy River related	<i>Oregonian</i> , p. 17, col. 3-4	Insert In 'Personals': 'Smelt-Where You Is?' The smelt run in the Sandy River is pretty late this year, but do not despair, the very latest on record, April 19, 1953,, was one of the biggest ever and lasted for 10 days. This is wishful thinking, of course, because for the last three years smelt have not appeared at all in the Sandy. So far this year there has been no sign of them above the Cowlitz River. ...
		Wendler and Nye (1967)	FIELD ACTIVITIES. ... Most effort during this season (January through March) was concerned with smelt utilizing Washington tributaries, especially the Cowlitz River. The primary purpose is to determine if smelt are available, and if so in what relative quantities to the commercial and sport dip-net fisheries. This information is relayed to

Date	Place	Source	Quote
			the news services for dissemination. In 1961 smelt were available in the Cowlitz River from late February to late March. Sport dipping near shore was fair to good only after mid-March. Commercial landings totaled 1,052,249 lb of which nearly ½-million lb were taken from the Cowlitz River. Sport-fishery landings were only sporadically sampled but indicated an average of about 3 lb of smelt per dipper per day during late March. Neither value is particularly high for the Cowlitz River.
1962			
3 January 1962	Columbia River at Clatskanie	<i>Oregonian</i> , p. 4, col. 3	1st Batch Of Smelt Arrives At Mart. The first commercially caught smelt arrived at the Portland wholesale market Tuesday. Ralph Policar of the Puritan Fish Market, reported he had received 35 to 50 pounds from Clatskanie. The retail price was quoted at 95 cents a pound. The commercial smelt season opened Monday.
10 January 1962	Columbia River near Eagle Cliff and Cathlamet	<i>Oregonian</i> , p. 6, col. 4	Kelso Man Says Smelt Run Light. Smelt are in the lower Columbia River and commercial fishermen are gathering the small fish in small quantities. Knute Soleim, Central Smelt Co. Kelso Wash., said Tuesday some 30 to 50 boxes, weighing 50 pounds, have been taken from the river to date near Eagle Cliff and Cathlamet. The warm weather and high river are favorable conditions for a smelt run, Soleim pointed out.
11 January 1962	Columbia River near Eagle Cliff and Cathlamet	<i>Oregonian</i> , p. 26, col. 2	Smelt Catch Doubles Size. KELSO, Wash. (Special) — Smelt catches have doubled this week in the Eagle Cliff area near Cathlamet on the Columbia River, Paul E. Clow of the State Fisheries Department said Wednesday. More than 3,000 pounds of smelt have been delivered to fish handling firms in Kelso by commercial fishermen since the weekly closure ended last Saturday. Move Not Reported. No indication that the smelt run is moving upriver toward the Cowlitz River has been reported. Sportsmen dipping from the banks usually await the run in the Cowlitz before joining in the annual fishing frolic.
24 February 1962	Cowlitz River	<i>Oregonian</i> , p. 4, col. 6	Smelt Reported In Kelso Area. KELSO, Wash. (Special) — The smelt are in the Cowlitz River. State fisheries inspectors reported Friday the first run of 1962 had entered the river Thursday — during the 48-hour closure period when it is illegal to dip for them.
25 February 1962	Columbia River	<i>Oregonian</i> , p. 29, col. 2	Cowlitz Cold Stymies Smelt. LONGVIEW, Wash. (Special) — Smelt swam around the mouth of the Cowlitz River Saturday but failed to leave the Columbia. State Fisheries Department Inspector Paul Clow of Kelso, said the cold weather apparently stopped the smelt from swimming into the Cowlitz.
26 February 1962	Cowlitz River	<i>Oregonian</i> , p. 1, col. 5	Cowlitz River Smelt Scarce. LONGVIEW (Special) — A few smelt entered the Cowlitz River Sunday, but Washington highway patrolmen said that dippers were having very poor success. The smelt have reached the mouth of the river, but the cold weather is believed to be keeping them from going upstream.
9 March 1962	Portland, OR	<i>Oregonian</i> , p. 4, col. 3-4	Spotlight On Food. ... fresh smelt is coming to markets from the Columbia River ...
12 March 1962	Portland, OR	<i>Oregonian</i> , p. 8 advert	Shop Kienow's ... Strictly Fresh Columbia River Smelt LB. 29c ...
15 March 1962	Portland, OR	<i>Oregonian</i> , p. 11 advert	Thriftway ... Fresh Smelt From the Cowlitz River 4 LBS. \$1.00
16 March 1962	Cowlitz River	<i>Oregonian</i> , p. 1, col. 2	Cowlitz River Smelt Return. KELSO, Wash. (Special) — Smelt returned to the Cowlitz River Wednesday night—just before the 48-hour closure period was to begin for

Date	Place	Source	Quote
			the week. The closure period will end at 8 a.m. Saturday. The run marked the second appearance this season of the tasty little fish. They tarried briefly and vanished into the Columbia, where commercial fishermen have been taking them in the Clatskanie, Cathlamet and Eagle Cliff areas. Commercial fishermen were on hand Wednesday night and made good catches.
18 March 1962	Cowlitz River	<i>Oregonian</i> , p. 1, col. 7	Smelt Netters Line Cowlitz. KELSO, Wash. (Special) — Dip netters lined the shore of the Cowlitz River near here Saturday to harvest smelt, the Washington State Patrol announced. The fish and fishers, the patrol said, appeared plentiful.
19 March 1962	Cowlitz River	<i>Oregonian</i> , p. 1, col. 2	Netters Miss Bulk Of Smelt. KELSO, Wash. (Special) — Scores of stubborn smelt dipnetters lined the banks of the Cowlitz River Sunday but few of them were getting more than aching backs. The wily, silver-sided smelt outsmarted the experts this year. The main body of the annual smelt migrants ran upstream during closed hours, thus avoiding disappointed fishermen.
21 March 1962	Cowlitz River	<i>Oregonian</i> , p. 11, col. 4-8	Dipnetters Cheer As New Smelt Run Hits Cowlitz River. KELSO, Wash. (Special) — Smelt fishing prospects brightened Tuesday as commercial fishermen reported a new run had entered the mouth of the Cowlitz River Monday night. Farther upstream, as far as Castle Rock, bank dippers continued to have varying degrees of success. At Riverside Park, operated by the Cowlitz Game and Anglers Club, reports indicated bank dipping was spotty Monday night. Club officials said the main run seemed to be in the center of the river where only commercial fishermen and sportsmen in boats could take smelt in big netfulls. Across the river near Rocky Point the report was that sportsmen were getting their 20-pound limits in one or two dips. The Castle Rock airgrounds, to the north, was crowded at times by sportsmen who managed to dip their limits if they stayed at it. Quality of the Monday night run was described as excellent. Mostly males were taken. A Cowlitz Game and Anglers spoke[s]men said if the new run at the mouth develops as expected, there should be good smelt dipping for three weeks. The weekly closure period will begin at 8 a.m. Thursday and end Saturday at 8 a.m. Smelt have been in the river since late Wednesday night.
22 March 1962	Portland, OR	<i>Oregonian</i> , p. 13 advert	Fred Meyer ... Smelt Fresh Columbia 23c lb ... 3 lbs. for 65c
23 March 1962	Portland, OR	<i>Oregonian</i> , p. 33 advert	Shop Luther's. ... Smelt Columbia River Fresh Caught 4 lbs. 99c
26 March 1962	Cowlitz River	<i>Oregonian</i> , p. 1, col. 4	Smelt Vanish From Cowlitz. KELSO, Wash. (Special) — State Patrolmen report the smelt have left the Cowlitz River and that persons trying for catches Sunday morning met with little or no success. Smelt catches in the river were generally good at some points during the past week. Police said the run moved out late Saturday or early Sunday.
26 March 1962	Portland, OR	<i>Oregonian</i> , p. 8 advert	Fred Meyer ... Fresh Columbia River Smelt ... 23c lb ... 3 lbs. for 65c
4 April 1962	Cowlitz River	<i>Oregonian</i> , p. 1, col. 6	Cowlitz River Smelt Return. KELSO, Wash. (Special) — Smelt are back in the Cowlitz River but only a few wide-awake sportsmen and commercial fishermen learned of it before Tuesday. Paul Clow, State Fisheries Department inspector, said he counted only 18 bank dippers between Longview and Castle rock Monday. Those who did dip,

Date	Place	Source	Quote
			Clow said, got their limits in about four dips. Clow said the run appears to be the largest to enter the Cowlitz this season and are scattered from Kelso to Castle Rock. The weekly closure period will begin Thursday at 8 a.m. and be lifted Saturday at 8 a.m.
8 April 1962	Cowlitz River	<i>Oregonian</i> , p. 21, col. 1-2	Fisheries Biologist Says Cowlitz Smelt Run Heavy. KELSO, Wash. (Special) — A fisheries biologist conducting smelt experiments for the University of Washington Friday reported a heavy run of smelt is still in the Cowlitz River. Billy S. Bates, the biologist, was the only man legally permitted to determine whether smelt were still there because the 48-hour closure period was in force. It ends Saturday at 8 a.m. Bates said the main body of smelt is in the Castle Rock area, between the Cowlitz River and Huntington Road. He said they could be netted from the bank as well as at midstream.
10 April 1962	Cowlitz River	<i>Oregonian</i> , p. 2, col. 1-3	Casting About For Fish and Game By Bill Hulen. ... Smelt were still in the Cowlitz Monday and dippers at Riverside park were having good success.
		Wendler and Nye (1966)	FIELD ACTIVITIES. Commercial Fishery Sampling – Winter Season. Major effort during the winter period (January-March) was placed on obtaining newsworthy information on the tributary smelt fisheries. Public demand for information on when, where, and how to fish smelt was high in 1962. Commercial smelt landings totaled 1,473,000 lb. and nearly 800,000 lb. were removed from Washington tributaries, mainly the Cowlitz River. Some landings occurred in Grays River. Major landings, both commercial and sport, occurred during March and sport dipping was excellent throughout areas open to fishing.
1963			
12 February 1963	Cowlitz River related	<i>Oregonian</i> , p. 2, col. 5-8	Casting About For Fish and Game By Bill Hulen. ... Smelt have not made an appearance in the Cowlitz
24 February 1963	Cowlitz River	<i>Oregonian</i> , p. 1, col. 6	Big Smelt Run Enters Cowlitz. LONGVIEW (AP) — The biggest smelt run of the season in the Cowlitz River was reported here Saturday. State fishing inspector Paul Plow of Kelso reported hundreds of persons lining both banks from the mouth of the river to Castle Rock. He said the weekly closure was lifted at 8 a.m. and the bank dippers were having no trouble getting their limit. The weekly closure will go back into effect at 8 a.m. Thursday.
28 February 1963	Portland, OR	<i>Oregonian</i> , p. 16 advert	Fred Meyer ... Fresh Columbia River Smelt ... 25c lb
15 March 1963	Cowlitz River	<i>Oregonian</i> , p. 2, col. 1-4	Favorable Outlook Seen For Chinook Fishermen. By Bill Hulen, Wildlife Editor, The Oregonian. ... Southwest Washington ... Cowlitz River still has lots of smelt. ...
May 1963		<i>Pacific Fisherman</i> 61 (6): 23.	Columbia River Smelt Are Taken by Trawling. An interesting aspect of the late winter research trip of the U.S. Bureau of Commercial Fisheries research vessel <i>John N. Cobb</i> , working off the Oregon coast southwest of the Columbia River, was the dominance of Columbia River smelt (<i>Thaleichthys pacificus</i>) in the catches at depths from 50 to 100 fathoms. Rex sole shared with the smelt dominance in the catch at this horizon. The smelt apparently were heading toward the Columbia River on their spawning migration, as this species is anadromous, and the January fishing of the <i>Cobb</i>

Date	Place	Source	Quote
			was followed a few weeks later by the heavy run of smelt to the Columbia, and particularly into its Cowlitz tributary. The spring smelt catch on the Cowlitz was one of the heaviest in a number of years. Columbia River smelt is known in other areas as the eulachon or oolichan, after the Indian terminology. It is not to be confused with the Silver smelt (<i>Hypomesus pretiosus</i>). Eulachon appear by preference to spawn in streams and tributaries having glacial sources.
		Wendler and Fiscus (1968)	COMMERCIAL FISHERY SAMPLING. ... <u>Winter season</u> . Sport and commercial catches of smelt were monitored to some extent to assess the progress and size of the run into the Cowlitz River. This information was used primarily to answer requests from the public and news media regarding the quality of the sport dip-net fishery. Commercial fishermen sold 222,346 lb. from the Columbia River (chiefly gill net) and 854,762 lb. from the tributaries (chiefly Cowlitz River). The main Columbia landings have remained comparatively static over the years, while the tributary landings in 1963, although similar to previous recent years, were down from the period of high catches in the 1940's which averaged 2.7 million lb. Smelt entered the Cowlitz River in late February providing sporadically good sport and commercial dipping. The Cowlitz run increased to the best in recent previous years during early March, providing easy dipping.
1964			
10 January 1964		<i>Oregonian</i> , p. 6, col. 1-2	Southwest Washington ... Small pilot run of smelt entered the Cowlitz Wednesday [8 January] but were available only to commercial fishermen in boats. No chance for bank dippers.
13 February 1964		<i>Oregonian</i> , p. 14, advertisement	Fred Meyer ... Fresh Columbia River Smelt 29c lb.
24 February 1964		<i>Oregonian</i> , p. 6, advertisement	Fred Meyer ... Columbia River Smelt 29c lb.
28 February 1964		<i>Oregonian</i> , p. 6M, col. 4-5	Southwest Washington ... No smelt yet in the Cowlitz River.
6 March 1964		<i>Oregonian</i> , p. 4, col. 3-4	Southwest Washington ... Smelt have not appeared in Cowlitz, but are due anytime. Commercial fishermen have been taking smelt in the Columbia in the Stella area, some 20 miles downstream from Longview.
8 March 1964	Cowlitz River	<i>Oregonian</i> , p. 1, col. 4	Smelt Running In Cowlitz River. Smelt were running in the Cowlitz River, Wash., Saturday, according to the Washington State Patrol. However, the run was reported to be small and mid-stream. Few fish were available to dippers on the banks. The Cowlitz is closed to dipping from 8 a.m. Thursday to 8 a.m. Saturday.
9 March 1964	Cowlitz River	<i>Oregonian</i> , p. 1, col. 4	Smelt Taken From Cowlitz. Several hundred fishermen lined the banks and crowded into boats Sunday on the Cowlitz River near Kelso to dip with their long-handled nets for the small, silvery smelt. A cold drizzle and wind failed to keep net-laden anglers from lining and jamming the road along the river between Kelso and Lexington. Some waded waist-deep into the river. However, fishing was only fair for all but the hundreds of

Date	Place	Source	Quote
			seagulls which followed the smelt in from the coast. Even commercial fishermen in boats midstream often brought up empty nets. Smelt fishermen are restricted to 20 pounds per person a day. The Cowlitz is closed to dipping from 8 a.m. Thursday to 8 a.m. Saturday.
11 March 1964	Cowlitz River	<i>Oregonian</i> , p. 1, col. 4	Smelt Fishers Crowd Cowlitz. Kelso, Wash. (AP) — The smelt outnumbered the dippers on the Cowlitz River Tuesday—but only because they’re smaller. Banks on both sides of the river were jammed with men, women and children standing shoulder-to-shoulder as they scooped up the little silvery fish by the tens of thousands. The main smelt run headed upriver early in the day and reached Castle Rock by nightfall. Waters above Castle Rock are closed for spawning. Sports dippers had their 20-pound individual limits within about 15 minutes. Commercial catches also were heavy. The season is closed each week from 8 a.m. Thursday to 8 a.m. Saturday to allow upstream escapement.
12 March 1964	Cowlitz River	<i>Oregonian</i> , p. 34, col. 5	Smelt Harvest Reported Poor. Kelso, Wash. (Special) — Smelt fishing in the Cowlitz River has been an unprofitable pastime this season, the Washington State Department of Fisheries said Wednesday. Most of the smelt run has been concentrated in a small section of the river from a half mile below Kelso to a half mile above, a department report indicated. Even then bank dippers have little luck. Persons scooping up the fish from boats have enjoyed a little more success. The department directly contradicted earlier reports which indicated fishermen have been reaping a large harvest of the fish.
13 March 1964	Cowlitz River	<i>Oregonian</i> , p. 2, col. 7-8	Southwest Washington ... Dip netting for smelt in Cowlitz River has been poor, with fish in the middle of the river. No dipping is permitted between 8 a.m. Thursday and 8 a.m. Saturday.
20 March 1964	Cowlitz River	<i>Oregonian</i> , p. 4, col. 2-3	Outlook Better For Anglers ... Southwest Washington. Smelt disappeared from the Cowlitz River Wednesday ...
24 March 1964	Cowlitz River	<i>Oregonian</i> , p. 2, col. 1-2	Casting About For Fish and Game by Bill Hulen. ... Cowlitz River was slow for smelt dippers from the bank, and only a few were taken by dippers from boats. Whether a new run will enter river is not known.
24 March 1964	Portland, OR	<i>Oregonian</i> , p. 6, advert	Fred Meyer ... Columbia River Smelt 29c lb.
		Stockley and Fiscus (1968)	Smelt. The 1964 commercial smelt harvest [w]as [at] an all-time low of 806,000 lb., the first year since 1938 that less than a million pounds have been bought. In past years the Cowlitz River catches have averaged about one-half the total landings. In 1964, catches were chiefly from the Columbia River until March when good numbers of fish began appearing in the Cowlitz River. About 45% of the seasons catch was eventually taken from the Cowlitz River.
1965			
12 January 1965	Columbia River	<i>Oregonian</i> , p. 7, col. 1	Smelt Arrive. ASTORIA (Special) — First smelt of the 1965 season have appeared in small quantities in the lower Columbia River, fishermen reported last week.
23 January 1965		<i>Oregonian</i> , p. 10, col. 3	Units Alter Fish Rules. Agencies Make Minor Changes. ... Smelt seasons in the main Columbia River were set for Saturdays (1 p.m. PDT) to Thursdays (1 a.m. PDT). In

Date	Place	Source	Quote
			Washington tributaries the smelt seasons were set for Saturdays (8a.m. PST to Thursdays (8 a.m. PST). Sandy River smelt fishing was set from midnight Monday to midnight Sunday, daylight time. ... The commission set a maximum measure for dipper bag nets used for smelt fishing of 36 inches across the bag frame.
18 February 1965		<i>Oregonian</i> , p. 16, col. 1-2	Market Wise. ... Smelt are still out in the Columbia, but catches have been good, bringing the price down to about 29 cents per lb. This is probably as low as they'll go, so now's the time to purchase.
20 February 1965		<i>Oregonian</i> , Section 2, p. 4, col. 5	Smelt Described as Fine Food Fish. Supplies are plentiful, quality is tops and prices are now way down on the popular <i>Thaleichthys Pacificus</i> (sic). One eminent ichthyologist (sic) has termed this the "finest food fish in the world—tender, fragrant, digestible," due to its peculiarly delicate, agreeable flavor which comes from the oils. Those of us who are laymen are probably more familiar with the term "Columbia River smelt," but the thought of that big fresh smelt feed means just one thing: Lip-smacking goodness. ...
23 February 1965		<i>Oregonian</i> , p. 3, col. 1-2	Casting About For Fish and Game by Bill Hulen. ... No smelt in Cowlitz as yet.
26 February 1965		<i>Oregonian</i> , p. 4, col. 2-3	... No smelt in Cowlitz as yet.
1 March 1965	Columbia River	<i>Oregonian</i> , p. 1, col. 8	Anglers Scoop Smelt Catches. Smelt are in the Columbia River but as yet the silvery fish have not appeared in the Cowlitz and Lewis rivers in Washington, according to police in Kelso. It was reported that fishermen aboard boats are catching smelt with gill nets and dip nets from the middle of the Columbia. The fish are grouped in pools from Astoria to Woodland until the weather warms, then they will enter the Cowlitz and Lewis rivers where they can be dipped from banks. If the tiny fish follow past schedules, they will start up the Cowlitz and Lewis rivers by mid-March or early April. There is a 20-pound limit per person a day. No license to catch smelt is needed by non-commercial smelt dippers.
1 March 1965		<i>Oregonian</i> , p. 12, advertisement	Kienow's ... Fresh Columbia River Smelt 3 pounds 79c
9 March 1965		<i>Oregonian</i> , p. 3, col. 1-2	Casting About For Fish and Game by Bill Hulen. ... smelt are not yet in the Cowlitz.
19 March 1965		<i>Oregonian</i> , p. 4, col. 7-8	Southwest Washington ... Heavy run of smelt was in the Columbia off St. Helens Thursday, offering the possibility they may enter Lewis River. This run has apparently bypassed the Cowlitz.
26 March 1965		<i>Oregonian</i> , p. 2, col. 7-8	Southwest Washington ... No smelt in the Cowlitz or Lewis.
30 March 1965	Lewis River	<i>Oregonian</i> , p. 1, col. 2	Smelt Enter Lewis River. Woodland, Wash. (AP) — Smelt entered the Lewis River here Monday and sports dippers were taking their 20-pound limits by afternoon. Dippers said the run fluctuated from light to heavy. So far, the smelt have not entered the Cowlitz as they have every year but two for the past 55.
31 March 1965	Lewis River	<i>Oregonian</i> , p. 1, photo caption	THE SMELT HAVE COME IN from the sea to spawn but finding them in sufficient numbers to dip is a problem. Robert M. Hamill ... shows his total take from several hours of effort Tuesday in the Lewis River near Woodland.
31 March 1965	Lewis River	<i>Oregonian</i> , p. 13, col. 1-	Fickle Smelt Puzzling Experts As Annual Run Heads Up River. Picture on Page 1.

Date	Place	Source	Quote
		3	The yearly smelt run is, as usual, baffling Oregon and Washington fishery officials trying to chart its course. The perennially unpredictable fish is being just that, and authorities confess they have not an inkling of what will happen next. The run Tuesday reached Government Island on the Columbia River and light catches have been reported in the Trout Creek area. A light run of smelt is making its way up the Lewis River, but has frustrated riverbank dippers by sticking to the main channel, the Washington Fishery Bureau said. The run is concentrated in the area between the county bridge in Woodland and the Interstate Bridge, but it takes an 18-foot pole to reach the fish from the bank. This is the first year since 1958 smelt have appeared in the Lewis River. The Cowlitz River, where half of all commercial smelt fishermen are located, appears to have been bypassed by the fickle fish for the first time since 1951. Early in the run, smelt entered the Cowlitz on a high tide, but were washed back into the Columbia on the succeeding tide. The commercial fishermen along the river must now travel 20 to 30 miles to the Columbia to dip their nets. Catches are reported good. However, the market for the fish is not. "The price of smelt is down," said a Washington fishery official. "The going retail price is between 23 and 28 cents a pound because the market is saturated. Oregon Game Commission officials are keeping a hopeful watch on the Sandy River, which has been shunned by smelt since 1957. "They could go into the Sandy," one official said, "but I'm not making any predictions. Smelt seem to lack the homing instinct of salmon so their actions are totally unpredictable." The fish, the official added, seem to be spawning in the Columbia. But even if the smelt now loitering around Government Island fail to enter the Sandy, other runs entering the Columbia might. In any event, the Oregon Game Commission is taking no chances. Facilities for issuing permits for bank netting have been established in Troutdale so if the smelt do decide to end their boycott, amateur fishermen will be able to get permits without a long wait. As for smelt loving Oregonians, they are just keeping their fingers crossed and their nets ready.
31 March 1965		<i>Oregonian</i> , p. 18, col. 2 (editorial)	Smelt In The Sandy? The smelt are making their annual run up the Columbia River, and great numbers are reported as far upstream as Government Island, close to the mouth of their historic spawning river, the Sandy. There was a time when this news would send smelt fishermen rummaging their basements to find their long-handled dipnets, and likely these would be snugly lashed to the headlights of the Model T so there'd be no delay in joining the rush to Troutdale at the first electrifying cry of "Smelt in the Sandy!" But few expect to hear that cry this year. Not since 1957 has there been a smelt run in the Sandy River. Nobody knows why, not even the Oregon State Game Commission biologists who have spent many years searching vainly for clues to smelt behavior. For reasons known only to themselves, smelt nowadays swim right on past the mouth of the Sandy and spawn in the main river farther upstream. There are many theories about the non-appearance of the smelt, once so thick in the Sandy that one could scoop up all he could eat or give away with his bare hands. Some blame obstructions in the river mouth;

Date	Place	Source	Quote
			others believe upstream dams have altered the stream flow or water temperature in some subtle fashion detectable only by a sensitive smelt. However, it is possible the eight-year hiatus is merely the result of the unpredictable workings of the law of averages, which sometimes let a crapshooter make a half-dozen passes in a row, while at other times the dice give him only a string of snake-eyes and boxcars. For even when the smelt were habitual visitors to the Sandy, they skipped many years. Early records are sketchy, but the Oregon Fish Commission says the smelt failed to appear in 1931, 1933, 1935, 1938, 1939, 1944, 1947, 1950 and 1955. Curiously enough one of the last of the Sandy runs, in 1953, was one of the biggest of all time. Thus, if one wishes to be optimistic he can look at this erratic record and readily conclude that simply because the smelt have ignored the Sandy for eight years doesn't mean they never will come back. This year could — who knows? — be the year. Say, where did we store that old dipnet?
1 April 1965	Lewis River	<i>Oregonian</i> , p. 8, col. 3	Market Wise by Nancy Morris. ... A few smelt have drifted up the Lewis River despite inclement weather so they should be available again. ...
2 April 1965	Lewis River	<i>Oregonian</i> , p. 4, col. 1-8	Spring Salmon Yield Rises In Willamette Slough. By Bill Hulen, Wildlife Editor, The Oregonian. ... Southwest Washington. ... Smelt are still in Lewis River but bank dipping is hard because of the steep inclines along the dike. Dipping will resume at 8 a.m. Saturday. ...
5 April 1965	Lewis River	<i>Oregonian</i> , p. 8, col. 1	Tiny Fish Elude Lewis Dippers. There were smelt in the Lewis River Saturday, but the silvery fish were small in number and stayed away from dippers on the bank. The Washington State Patrol said the smelt run was poor and that none had been dipped from the banks since about five days ago. No smelt have been reported in the Cowlitz River, according to the Washington State Patrol.
		Stockley <i>et al.</i> (1969a)	<u>Smelt.</u> The 1965 commercial smelt landings totaled 910,759 lb., a 97,000 lb. increase over the lowest catch on record made in 1964. This was the second consecutive year that less than 1-million lb. of smelt were landed from the Columbia River and tributaries. Usually the Cowlitz River produces about half of the total harvest, but in 1965 the smelt failed to enter the Cowlitz and practically the entire catch was taken in the main stem of the Columbia. There was some successful dipping in the Columbia River. There were 82,000 lb. of smelt taken from the Lewis River. Smelt ascended to the mouth of the Sandy River and were gill netted in the Columbia River in the vicinity, but the smelt did not enter the Sandy River.
1966			
19 December 1965	Columbia River at Clatskanie	<i>Oregonian</i> , p. 36, col. 1	Weather Delays Smelt Season. ASTORIA (Special) — No smelt have appeared on the fish markets here yet, although a few were reported caught this week near Clatskanie. Smelt fishing normally starts in the Columbia river about Christmas time. Most gillnetters will not try for them until January, however.
24 January 1966	Portland, OR	<i>Oregonian</i> , p. 13 advert	Fred Meyer ... First of Season Fresh ... Columbia River Smelt ... 39c lb
7 February 1966	Portland, OR	<i>Oregonian</i> , p. 12 advert	Shop Kienow's. ... Fresh! Columbia River Smelt ... pound 39c

Date	Place	Source	Quote
10 February 1966	Portland, OR	<i>Oregonian</i> , p. 6 advert	Piggly Wiggly and 3 Boys Markets ... Columbia River Fresh Smelt ... lb. 39c
24 February 1966	Portland, OR	<i>Oregonian</i> , p. 6 advert	Thriftway Features ... Columbia River Fresh Smelt ... 3 LBS. \$1.00
3 March 1966	Portland, OR	<i>Oregonian</i> , p. 6 advert	Sheridan Fruit Co. ... Smelt Fresh Columbia River ... 3 lbs. 85c
8 March 1966	Cowlitz River	<i>Oregonian</i> , p. 9, col. 4	Smelt Start Cowlitz Run. KELSO, Wash. (Special) — Smelt entered the Cowlitz River in Southwestern Washington Sunday, and fishermen flocked to the banks with long-handled nets. Success was reported moderate Sunday night, with fishermen netting one or two pounds per dip in their quest for their 20-pound limit. By Monday morning, the head of the run had reached the Weyerhaeuser trestle a half mile north of Kelso. Veteran smelt fishermen said the run will last a week to ten days and may be followed by others during the spring. Smelt usually appear also in the Lewis and Sandy rivers farther up the Columbia. None has been spotted so far in those streams.
10 March 1966	Portland, OR	<i>Oregonian</i> , p. 16 advert	Fred Meyer ... Smelt ... Fresh Columbia River ... 29c lb
13 March 1966	Cowlitz River	<i>Oregonian</i> , p. 4, col. 8	Prospects Good For Smelt Run. LONGVIEW, Wash. (Special) — Prospects for smelt dippers in the Cowlitz River seem better than fair when fishing reopens at 8 a.m. Saturday. The weekly ban on smelt fishing is from 8 a.m. Thursday to 8 a.m. Saturday. The Washington State Patrol at Kelso reported seagulls still hovering over the river late Friday, an indication that fish are present. However, a spokesman in Longview said a recent three-foot rise in the water level may have moved the small silvery fish upstream beyond Castle Rock. Dipping is not permitted beyond that point. Dippers who worked the river late Wednesday reported as much as five pounds of fish [in] a single dip. One veteran smelt dipper said there will be more fish even if dipping is sparse Saturday. He said there can be five or six runs that, in the past, have extended as late as July.
13 March 1966	Cowlitz River	<i>Oregonian</i> , p. 25, col. 1-3	Cowlitz Smelt Run Disappoints. KELSO, Wash. (Special) — Hundreds of hopeful fishermen tried their luck Saturday with the Cowlitz River smelt run only to be left wondering where the smelt had run to. “Last year they didn’t run and it looks like they’re not running much this year,” said one dipper, pulling his long-handled net from the river waters and trudging up the muddy bank to his car. Steady net-dipping an hour after Saturday’s 8 a.m. opening time had yielded only a dozen silvery catches for the Delbert Knowles family of McMillan, Wash. Persons who claim knowledge of such things say the ... most have been taken from the center of the stream by netters in boats. Veteran smelt fishermen last week predicted the “run” would last throughout this week and would be followed by others during the spring. Saturday some of the onshore netters were complaining commercial fishing boasts had “scared” the smelt away. Net after net came out of the river and went back on auto fenders as discouraged dippers headed home or changed fishing sites. “Might be better up river,” said one. The Harold Buttz and Harold Cornelius families from Tacoma refused to return home without a smelt supply. They — and others — headed for the handy roadside “smelt stand,” where business was booming.
17 March 1966	Portland, OR	<i>Oregonian</i> , p. 21 advert	Fred Meyer ... Fresh Smelt ... Columbia River ... 4 lbs. 89c

Date	Place	Source	Quote
21 March 1966	Cowlitz River	<i>Oregonian</i> , p. 21, col. 1	Smelt Shun Dip Netters. KELSO, Wash. (Special) — Commercial fishing boats and bank dippers were having “poor” results Sunday in their attempts to pull smelt out of the Cowlitz River near here. Law enforcement agencies charged with patrol[l]ing the river bank said the fishermen would have been just as well off staying at home. “It’s been poor,” commented a dispatcher for the State Patrol. “A few commercial boasts Saturday were taking smelt at various holes in the river, but Sunday it was not good.” A fish company spokesman confirmed that boats were doing better than the bank dippers Saturday. There were no reports that a fish run had materialized Sunday. “A week ago, it was pretty good; there wasn’t even parking room along the river,” reported Cowlitz County Sheriff Merle D. Bevins. He reported Sunday the run had “slackened off” and very few cars were reported along the river.
		Stockley <i>et al.</i> (1969b)	Smelt. For the third consecutive year, less than 1 million pounds of smelt were landed commercially. The 1966 landings totaled 732,000 lb. of which 445,000 lb. were landed in the main stem of the Columbia River by gill nets. The remainder was landed in the Cowlitz River by dip nets.
1967			
19 January 1967	Portland, OR	<i>Oregonian</i> , p. 12 advert	Tradewell. ... Seafresh Seafoods ... Fresh Smelt Columbia River ... lb. 39c
19 January 1967	Portland, OR	<i>Oregonian</i> , p. 18, col. 2-3	Market Wise by Nancy Morris ... fresh Columbia River smelt ... have been caught in quantities to put them in the Better Buys in the seafood sections.
6 February 1967	Portland, OR	<i>Oregonian</i> , p. 12 advert	Shop Kienow’s ... Fresh Columbia River Smelt ... pound 29c
9 February 1967	Portland, OR	<i>Oregonian</i> , p. 13, col. 7-8	Market Wise by Nancy Morris ... The Lenten season brings more activity in the seafood sections where Columbia River smelt is about 29 cents a lb. ...
16 February 1967	Cowlitz River	<i>Oregonian</i> , p. 17, col. 6	Smelt Begin Cowlitz Run, Bank Fishing Still Difficult. LONGVIEW, Wash. (Special) — Smelt, in limited numbers, are in the Cowlitz River. Ray Hartley of Spike’s Sporting Goods, Longview, said the early part of the run has entered the river but, as usual, is keeping to the center of the stream, make it difficult for bank fishermen. Few dip netters are having any luck, Hartley said, but commercial fishermen have fared better. The run, earlier than last year, has been noted as far upstream as Rocky Point, near Kelso. Commercial fishermen reported about 4,000 pounds of the small silvery fish were taken in a night of netting recently. Limits for sport fishermen are 20 pounds daily, and netting is prohibited between 8 a.m. Thursdays and 8 a.m. Saturdays. The run in past years has lasted several weeks. Hartley said fishing should be good for bankdippers within a short time, after the run increases so fish are closer to the river banks. The Cowlitz is reported two to three feet higher than normal. Experts say the run will increase as the river lowers.
17 February 1967	Cowlitz River	<i>Oregonian</i> , p. 3 main	Steelheading Slack; Salmon Show Up (Continued from Page 1) ... Southwest Washington ... Smelt have entered the lower Cowlitz and dippers have had fair success.
19 February 1967	Cowlitz River	<i>Oregonian</i> , p. 1 pictures	It’s Harvest Time For Cowlitz Smelt. [Photo caption]. Wide-eyed smelt, seemingly still in a state of shock, wriggle in a bucket on the bank of the Cowlitz River near Kelso, Wash. Hundreds of dipnetters swarmed to the muddy river Saturday to glean thousands

Date	Place	Source	Quote
			of the silvery little fish from the annual migration. [Photo caption]. Calvin Stenson, of Seattle, who with his wife, Mary, makes annual pilgrimages to the Cowlitz, hoists a heavy netful of smelt to shore. He wears hip-waders but a few other fishermen braved the icy waters without such comforting gear. Most dippers were moderately successful. But kibitzing old timers reminded them of the days smelt were taken “hand over bucketful.” ...
23 February 1967	Cowlitz River	<i>Oregonian</i> , p. 22, col. 3	Run Of Smelt Remains Thick. KELSO, Wash. (Special) — The Cowlitz County sheriff’s office reported Wednesday that the smelt run in the Cowlitz River continued through the day in what has been described as the best run in years. Dippers will have to interrupt their efforts Thursday when the state imposes a recess beginning at 8 a.m. and lasting until 8 a.m. Saturday. However, the sheriff’s office said the run is expected to continue through the weekend. The most popular sites have been north of this city on the west bank of the river where the smelt have been running close to shore.
28 February 1967	Cowlitz River	<i>Oregonian</i> , p. 16, col. 7	Smelt Sticking To Mid-River. LONGVIEW, Wash. (Special) — Smelt are still in the Cowlitz River but bank dippers have been taking second place to fishermen in boats. Dick Olson, Longview sporting goods store owner, said the silvery fish seem to be holding to the center of the stream, making it almost impossible for the bank fishermen to connect.
2 March 1967	Cowlitz River	<i>Oregonian</i> , p. 28, col. 1-4	Air Of Madness Accompanies Smelt Run by Archie Satterfield, Longview Daily News. KELSO, Wash. (AP) — This is the time of year a kind of madness seizes people and sends them dashing to the Cowlitz River banks from Kelso to Castle Rock. They carry long poles with nets attached to one end. They carry buckets or pans in the other hand. They joust each other on the bank and bump each other in boats. This breach of good manners and rational conduct is caused by millions of small, silvery fish making their annual spawning run up the Cowlitz. Old timers call them eulachon. To everyone else they are smelt. If the runs were more predictable, or if they lasted longer, there probably would be no organized panic each year. But no one, probably including the tasty fish themselves knows when there is going to be a run. Some years they choose the Lewis River in Washington or the Sandy River in Oregon. But they have missed the Cowlitz only twice in nearly 50 years. When they go up the Cowlitz, the 10-mile stretch from Kelso to Castle Rock, where dipping is legal, a mass of net-swinging people await on the banks and the river is filled with commercial and private boaters jockeying for position. Not all dippers have conventional gear. Some use burlap sacks on a pole. One desperate dipper was seen with a bird cage tied to a pole. No licenses are required and each dipper may take 20 pounds of fish a day. The smelt are given a two-day rest each week to insure that enough will escape to spawning grounds. No dipping is permitted from 8 a.m. Thursday to 8 a.m. Saturday. Smelt runs also represent a sizable economic boost to Castle Rock, Kelso and Longview. Motels, restaurants, sporting goods stores and service stations are indebted to smelt for the thousands of people who flock in each

Date	Place	Source	Quote
			winter. 1935 Record Year. Commercial fishermen work around the clock during the runs to net the fish which are sent to all parts of the nation. The record year is 1935, when 3,974,018 pounds were taken in Washington and Oregon rivers. Commercial fishermen get a head start on the sports dippers by catching them in the Columbia River, where bank dipping is impossible. ...
5 March 1967	Cowlitz River	<i>Oregonian</i> , p. 11, col. 5	Smelt Run Still Strong. LONGVIEW, Wash. (Special) — Smelt are still running in the Cowlitz River, with a new run expected, according to Richard Olson, owner of Spike's Sporting Goods Store here. In a Saturday morning check, Olson reported he found "very few people dipping, but a lot of seagull activity, which is an indication of fish." "One commercial boat was dipping above Lexington, bringing in about three pounds per dip—which is not awfully good," Olson said. Bank dippers seemed to be having greater activity on the east (Kelso) side of the river than on the west (Longview) side, Olson said. "It seemed like those getting the best dips were dippers with waist-high waders," Olson [s]aid. A recent report was that there is another run of smelt in the Columbia that will surge into the Cowlitz soon. "But when it will get into the Cowlitz is a good question," said Olson.
		Stockley <i>et al.</i> (1969c)	<u>Smelt</u> . Commercial landings of smelt exceeded 1 million pounds and nearly equaled the 1966 landings. Some 353,000 were gill netted from the Columbia River, while 648,000 lb. were dip netted from the Cowlitz and Grays rivers. The mean catch for the past 10 years was 1,321,000 lb. with about 480,000 lb. of the total gill netted from the Columbia River.
1968			
6 January 1968	Columbia River	<i>Oregonian</i> , p. 8, col. 2	Smelt Season Starts In River. ASTORIA (Special) — First smelt of the season have been caught [in] the Columbia River. Clatskanie gillnetters delivered about 100 pounds to local fish markets this week. The smelt run normally appears about this time, builds to a peak in February and dwindles away in March. Fishermen were retailing at 85 cents a pound
19 January 1968	Columbia River	<i>Oregonian</i> , p. 44, col. 2-5	Big Steelhead, Smelt Move In, SW Washington Streams Hot. ... Southwest Washington ... in the Longview-Kelso area the fishing has picked up spectacularly and even the smelt are back.
22 January 1968	Portland, OR	<i>Oregonian</i> , p. 12 advert	Shop Kienow's ... Fresh! Columbia River "Dip Net" Smelt ... 2 LBS. 89c
25 January 1968	Portland, OR	<i>Oregonian</i> , p. 2 advert	Kienow's ... First Of The Season Fresh Columbia River "Dip Net" Smelt ... 1 LB. 39c
25 January 1968	Portland, OR	<i>Oregonian</i> , p. 13, col. 7-8	Market Wise by Nancy Morris. ... The smelt are in ...
25 January 1968	Portland, OR	<i>Oregonian</i> , p. 45 advert	SAFEWAY ... Fresh Smelt Local River lb. 39c
26 January 1968	Portland, OR	<i>Oregonian</i> , p. 3, col. 4-5	Cold Weather Fouls Fishing (Continued from Page 1) ... Lower Columbia—The early smelt run is now in the river, and moving in and out of the Cowlitz. ...
27 January 1968	Cowlitz River	<i>Oregonian</i> , p. 14, col. 1	Smelt Appear In Area Early. VANCOUVER, Wash. (Special) — One of the earliest smelt runs on record has appeared in the Cowlitz River near Longview, the state

Date	Place	Source	Quote
			Department of Fisheries said Friday. A fisheries spokesman said there has been good commercial dipping for almost two weeks. Clearing water tends to send the small silvery fish to the center of the stream, out of reach of bank dippers, officials said. The smelt usually appear in the Cowlitz in late February or early March but there have been some fish in the river this year since the weekend of Jan. 13.
28 January 1968	Cowlitz River	<i>Oregonian</i> , p. 1, col. 4	Cowlitz River Smelt Running. Washington State Police reported Saturday night that the smelt are running in the Cowlitz River, and early indications are that most fishermen are bagging their 20-pound limits. No license is required, but sportsmen must utilize separate containers for their catch. The nets may be dipped from 8 a.m. Saturday until 8 a.m. Thursday, 24 hours per day, if desired.
1 February 1968	Portland, OR	<i>Oregonian</i> , p. 3, col. 7-8	Market Wise by Nancy Morris. ... lots of smelt — the latter earlier than usual — are most abundant seafoods.
1 February 1968	Portland, OR	<i>Oregonian</i> , p. 12 advert	THRIFTWAY ... Fresh Columbia River Smelt ... lb. 29c
2 February 1968	Cowlitz River	<i>Oregonian</i> , p. 4, col. 7-8	Action Waits Hardy Souls (Continued from Page 1) Lower Columbia — ... Wise anglers, by the way, are taking advantage of the new smelt run in the Cowlitz to freeze a supply of bait for offshore salmon mooching. ... Smelting in the Cowlitz is from Rocky Point downstream. Most of the dipping has been from boats using long poles all the way to the bottom. ...
4 February 1968	Cowlitz River	<i>Oregonian</i> , p. 1, col. 8	Cowlitz Smelt Netting Good. KELSO, Wash. (Special) — Better catch that mess of smelt while the netting's good. Reports say that the Cowlitz River is having one of its better smelt runs this year, although Saturday runs were said to be a "little spotty," according to Cowlitz County sheriff's office deputies. Earlier, reports were that the smelt were really running and that netters were bringing them in both from the banks and from boats. Sheriff's deputies said big crowds were in evidence Saturday.
5 February 1968	Cowlitz River	<i>Oregonian</i> , p. 1 picture	[Photo caption]. Smelt dippers were so thick on the banks of the Cowlitz River north of Kelso Sunday that they had to maneuver to bring in their catches. Officers estimated the crowd on the banks and in boats at 4,000. It was the first day that dippers on shore easily got 20-pound limits.
7 February 1968	Cowlitz River	<i>Oregonian</i> , p. 1, col. 6	Cowlitz Run Holds Strong. The smelt run in the Cowlitz River continues strong, according to reports from the Kelso area, the Washington State Patrol said Tuesday night. The river is closed to dippers from 8 a.m. Thursday to 8 a.m. Saturday, but otherwise open 24 hours a day. Smelt limit is 20 pounds.
8 February 1968	Portland, OR	<i>Oregonian</i> , p. 43 advert	SAFEWAY ... Fresh Smelt, Fresh from local rivers. Lb. 29c
9 February 1968	Columbia River	<i>Oregonian</i> , p. 2, col. 3-4	Anglers Get Green Light (Continued from Page 1) ... LOWER COLUMBIA — Fishing has been poor in the Rainier-Goble area on the Oregon side because of high muddy water and too many smelt. ...
10 February 1968	Cowlitz River	<i>Oregonian</i> , p. 1, col. 6	Run Of Smelt Remains High. KELSO, Wash. (Special) — The smelt run in the Cowlitz River near here continues to be excellent, Cowlitz County sheriff's deputies reported Friday night. "They're really catching big ones," reported a deputy who witnessed

Date	Place	Source	Quote
			anglers at the river during the week. Smelt fishing will open at 8 a.m. Saturday, Feb. 10 and continue through Thursday, Feb. 15, deputies reported.
11 February 1968	Cowlitz River	<i>Oregonian</i> , p. 1, col. 7	Smelt Dippers Line Riverbank. KELSO, Wash. (Special) — Smelt fanciers crowded the banks of the Cowlitz River Saturday to take advantage of what experts have termed “an unusually excellent” run. The season opened at 8 a.m. Saturday and will continue through Feb. 15.
13 February 1968	Cowlitz River	<i>Oregonian</i> , p. 17, col. 7	Smelt Dippers Have Bad Day. KELSO, Wash. (Special) — Smelt dippers worked hard Monday for the few fish they were able to take from the Cowlitz River. Rain is needed to raise the river level and attract more smelt. The season continues through Thursday, with dipping permitted after 8 a.m. daily.
16 February 1968	Cowlitz River	<i>Oregonian</i> , p. 2, col. 5-8	Weather, Water Slow Action. (Continued from Page 1) ... In other news of interest, the smelt have disappeared from the Cowlitz ...
1 March 1968	Cowlitz River	<i>Oregonian</i> , p. 10, col. 1-4	Skimpy Steelies Signal End (Continued from Page 1) ... SOUTHWEST WASHINGTON ... The Cowlitz is still high and murky but smelt fishing has been excellent during the week. ...
1 March 1968	Cowlitz River	<i>Oregonian</i> , p. 31, col. 7-8	Skimpy Steelhead Signal Season End by Don Holm, Wildlife Editor, The Oregonian. ... The smelt run is back again in the Cowlitz with only about three dips necessary to get a limit, and the season opens again at 8 a.m. Saturday.
6 March 1968	Cowlitz River	<i>Oregonian</i> , p. 1, col. 5	Smelt Run Heavy. CASTLE ROCK, Wash. (Special) — The smelt run in the Cowlitz River here was reported “tremendous” Tuesday. Smelt dippers were catching their limits without difficulty, with the run reported the best in five years.
8 March 1968	Cowlitz River	<i>Oregonian</i> , Sect 3 p. 1, col. 7-8	Bass Beats Boredom For Oregon Anglers by Don Holm, Wildlife Editor, The Oregonian. ... a smelt run in the Cowlitz that is expected to be excellent when the season opens again at 8 a.m. Saturday.
15 March 1968	Cowlitz River	<i>Oregonian</i> , p. 2, col. 3-4	Chinooks Provide Best Bet by Don Holm, Wildlife Editor, The Oregonian. ... SOUTHWEST WASHINGTON ... A few smelt are still hanging around. ...
17 March 1968	Sandy River (historical)	<i>Oregonian</i> , p. 31, col. 1-5	Smelt Run In Sandy Hectic Affair by Don Holm, Wildlife Editor, The Oregonian. For centuries they supplied the coastal Indians with the basis for an intricate intertribal trade system, as well as food, heat, and even illumination. Lewis and Clark first brought them to the attention of science. For nearly 100 years past (although records don’t go back that far) each spring, usually around April Fool’s Day, some anonymous Paul Revere would get up early, look out upon the swollen waters of the Sandy River, see a purple hoard moving upstream in a frenzy triggered by some unknown biological clock. Hardly pausing to put on his pants, he would rush up the road to the Troutdale general store shouting: “The smelt are here! The smelt are here!” The news would spread almost instantaneously over the metropolitan area, up the Willamette Valley, northward to Olympia, and eastward through the Columbia Gorge. Within minutes, it seemed, the roads leading to Troutdale would be jammed with vehicles, crowded with dogs, kids, wives, grandpas. And, waving in the slipstream like banners in the Crusades, would be

Date	Place	Source	Quote
			dipnets attached to the end of long poles. For days, and sometimes for a couple of weeks, the hoard of small herring-like fish, fresh in from the depths of the ocean, would push upstream toward ancient spawning grounds, while thousands of equally frenzied dippers lined the banks shoulder to shoulder, dipping and yelling and laughing, as they hauled in washtubs full of the flopping, squirming fish. Sometimes a dipper could get a limit of 20 to 25 pounds in a couple of minutes. Sometimes the smelt were so thick you could seemingly walk across the river on their backs. While they ran a sort of piscatorial madness possessed the dippers. It was common to see people throw away their nets and grab washtubs and even bird cages and wade right out into the icy water after them. Over the years this springtime madness created a tradition which moved the poets of several generations, and inspired such esoteric organizations as the Sandy River Eulachon Society, and other dedicated clans. First Sight Recalled. The first time I saw this dramatic demonstration of nature's fecundity, I watched from the highway bridge below Troutdale in disbelief. Standing nearby was an old Sandy River character named Wally, who was muttering to himself and shaking his head. He had long since taken a year's supply of smelt for sturgeon bait, and now watched the spectacle. "You know," he said, "I'd give five dollars for the first mess of smelt in the spring—but I wouldn't give you five cents for the second." Then, alas, that fateful year of 1958 rolled around. Sandy River watchers waited as always but the little fish did not show up. This has happened in the past, so although disappointing, little alarm was felt. The next year, however, they did not appear. Nor did they show up in 1960, in 1961, 1962, or in any year since the last one in 1957. What happened to the smelt? Will they ever come back? No one knows, not the most experienced Sandy watchers, nor the fisheries scientists, nor probably not even the smelt themselves, wherever they are. Many theories have been offered for the Case of the Disappearing Smelt, ranging from a climatic change in the upper watershed, to ecological evolution, and to floods, pollution, and no doubt to U.S. foreign policy. But the truth of it is, no one really knows; and when or if they do return, it's not likely anyone will be able to predict their arrival. They could, in fact, return once more to the Sandy River this year. They've been known to show up as late as April 20, and those who know the river say the conditions are as ideal as they've ever been. The jinx could be broken in 1968. The Sandy River smelt, in truth, is not only a gourmet's delight, but also one of nature's most unpredictable and perverse critters. The word smelt, it is written, comes from the Anglo-Saxon "smeolt," meaning smooth and shiny. Another version has it derived from the odor, which resembles cucumbers or violets. Another claims it came from the smelting of metal, because of its metallic appearance. Seen underwater, smelt do have a metallic purple color, which changes to pale green when pulled out of water, and then to a metallic silver. Of the four or five varieties in the North Pacific, all are probably the same fish with different spawning habits. Some spawn in the surf, like the California grunion and the Oregon surf smelt, and others make the run up

Date	Place	Source	Quote
			coastal streams. Experts say the Columbia River variety is the “eulachon,” which the natives called “olthen.” These are the ones Lewis and Clark referred to as anchovies. However, in the early 1930s I heard Alaskan natives refer to the same fish as “oolichan,” or sometimes, “hooligan,” and the oil derived from the fish was known as “hooligan oil” and used extensively in cooking. Natives Use Fish. Alaskan commercial fishermen called them “candlefish,” and, indeed, they are so rich in oil that they were used by the natives for centuries for illumination. An entire page in the Lewis and Clark journals was devoted to a description of the fish, and Clark commented, smacking his lips, “I think them superior to any fish I ever tasted, even more delicate and luscious than the white fish of the lakes.” Dr. David Starr Jordan identified the smelt as the <i>Thaleichthys Pacificus</i> [sic]. The U.S. Fish and Wildlife Service listed four varieties as <i>Hypomesus Pretiosus</i>, or surf smelt; <i>Spirinchus starksi</i>, or night smelt (grunion) [sic]; <i>S. Thaleichthys</i> or longfin smelt; and <i>T. Pacificus</i> or Eulachon. It is, in short, a metallic silvery ocean fish about six inches long, rich in natural oil. “Sandy River Ed,” otherwise known as Edward Brockman, for many years official watchdog over the smelt runs, and an amateur ichthyologist who probably did more research and compiled more authentic information on this species than any other man in history, concluded that: — The eggs were about .85 mm in diameter, and that as many as 88,000 were deposited by one female. River Sand Attracts.—That the Sandy and Cowlitz smelt chose those streams because of the fine powdery pumice which was ideal for the deposit of eggs, compared to the coarse sands of the Willamette and other rivers. — The Sandy smelt were believed to ascend only as far as Gordon Creek, and most of them actually stopped in the vicinity of Viking Park. The temperature of the water plays an important part, and must be warmer than a minimum 42 to 48 degrees. It is now believed the smelt do not necessarily return to the stream of their birth, but when they enter the Columbia they move upstream until they come to a tributary which has the right combination of water temperature, “smell,” and sediment. There is no basis for the old legend that each run has a “pilot fish,” who goes ahead of the others up a tributary to sample the water. There apparently was no basis for another old legend that the smelt only appeared when long-time Troutdale storekeeper, Milt Fox was on the job. It is believed that smelt spawning conditions were created by the melting snow of the Cascades which caused freshets in the Columbia tributaries, and as these rivers rose they formed backwaters in such streams as the Sandy, Cowlitz, and others, slowing down the current and turning the backwaters into gigantic incubators for the billions and trillions of spawned eggs. Perhaps they will break the jinx in 1968. Perhaps they will pass up the Sandy for the 11th year in a row — a magic number that many poker players view with awe. THEY APPEARED LAST IN 1957. At 12:30 p.m., March 26, 1957, the smelt appeared in the Sandy River for the last time. What happened to them? Will they ever return? What about this year? There is no known reason why the smelt have not come back, nor is there any known reason why they won’t reappear in

Date	Place	Source	Quote
			1968. They have at least until April 20, which is the latest arrival date on record. SMELT ARRIVAL DATES RECORDED. 1929—April 9 1930—March 18 1931—No run 1932—March 26 1933—No run 1934—March 4 1935—No run 1936—March 27 1937—No run 1938—No run 1939—No run 1940—March 6 1941—March 14 1942—March 19 1943—March 25 1944—No run 1945—April 1 1946—March 26 1947—No run 1948—March 27 1949—March 24 1950—No run 1951—April 5 1952—Appeared 1953—April 19 1954—April 1 1955—No run 1956—March 29 1957—March 26
22 March 1968	Cowlitz River	<i>Oregonian</i> , p. 5, col. 3-4	Chinooks Lift Angler Hope (Continued from Page 1) ... SOUTHWEST WASHIGTON ... Dick Olson of Longview said the smelt were still in the Cowlitz but most people seem to have got their fill of the little fish. ...
2 April 1968		<i>Oregonian</i> , p. 3, col. 1	Oregon Camps Lure Dudes by Don Holm, Wildlife Editor, The Oregonian ... Another scientist has taken exception to this child's wildlife research. Erland T Juntunen, fisheries assistant at Oregon State University's department of fisheries and wildlife, said my article on Sandy River smelt wasn't too bad, but I erred in stating that four or five varieties of Pacific smelt were probably the same fish with different spawning habits.

Date	Place	Source	Quote
			“They are not the same fish,” he said, “since they are placed in three separate genera on the basis of morphological differences. <i>Spirinchus starksi</i> (note that scientific names are always italicized or underlined and the specific name is never capitalized) is the night smelt but is not the grunion. The grunion (<i>Leuresthes tenuis</i>) is a member of the family Atherinidae and is far removed from the smelt which are in the family Osmeridae. The long-finned smelt is <i>Spirinchus dilatatus</i> . <i>S. thaleichthys</i> is the Sacramento smelt.” Well, anyway as Gertrude Stein would say, a smelt is a smelt is a smelt — especially after a few days in the sun.
5 April 1968	Cowlitz River	<i>Oregonian</i> , p. 5, col. 5-6	Spring Chinook Boil Into Columbia-Willamette River System (Continued From Page 1) ... Dick Olson at Longview, however, said most salmon caught now are stuffed with smelt. ...
		Stockley <i>et al.</i> (1970)	Smelt. The commercial smelt landings were 911,000 lb. About 131,000 lb. were gillnetted from the Columbia, while the remainder were dipped from the Grays and Cowlitz rivers. It was a great season for sport dipping, as the run entered the Cowlitz River in mid-January with good numbers available until late March. Fishermen showed interest in trawling for smelt in the Columbia River. The Bureau of Commercial Fisheries Exploratory Fishing Section was contacted to consider a cooperative effort to develop gear for smelt trawling. Cooperative test fishing trials subsequently proved successful (Ellis and Stockley, 1969).
1969			
6 February 1969	Portland, OR	<i>Oregonian</i> , p. 6, col. 1-2	Market Wise by Nancy Morris. ... Fresh Dungeness crab and Columbia River smelt join halibut and perch as some of the most plentiful seafoods. ...
6 February 1969	Portland, OR	<i>Oregonian</i> , p. 13 advert	3 BOYS MARKETS ... Columbia River Smelt Fresh smelt ... lb. 59c
13 February 1969	Portland, OR	<i>Oregonian</i> , p. 22 advert	Sheridan Fruit Co. ... Fresh Columbia River smelt lb. 49c
17 February 1969	Portland, OR	<i>Oregonian</i> , p. 12 advert	Shop Kienow's ... Fresh Columbia River Dip Net Smelt Pound 39c
19 February 1969	Cowlitz River	<i>Oregonian</i> , p. 14, col. 2	Cowlitz Smelt On Annual Run. LONGVIEW, Wash. (Special) — The annual smelt run which draws fish dippers from all over the Northwest has started in the Cowlitz River near Longview. The small silvery fish entered the Lower Cowlitz last weekend and so far, fishermen said, they are holding to the center of the stream. Bank dippers are having little success but commercial fishermen dipping from boats are making good catches. Clint Stockley, of the State Fisheries Department, said the Columbia River has smelt in good supply and a warming rain could start a big run into tributaries.
19 February 1969	Portland, OR	<i>Oregonian</i> , p. 23 advert	Farm Boys ... From the Columbia Fresh Smelt Lb. 59c
24 February 1969	Cowlitz River	<i>Oregonian</i> , p. 1, col. 2-4	Unhappy Smelt Fishermen ... By Charlie Hanna, Staff Write, The Oregonian. KELSO (Special) — The net profits of smelt dippers along the Cowlitz River just north of here were disappointing Sunday. ... Roadside stand operators in the area, two miles north of here, were doing brisk business. They were selling smelt at 25 cents a pound to thwarted smelters who vowed not to go home empty-netted. There were a number of theories why the smelt chose not to show up in any kind of force in this area Sunday. One fisherman,

Date	Place	Source	Quote
			packing up his camper ... said it was too cold for the smelt. Ideally, he said, a warm rain brings better luck. Another netter, a mile up the road at Riverside Park, said the river was too low. A third smelt fan said that smelt are fickle. He added that fickle smelt beat pickled herring for taste, and it really was too early in the smelt season anyway. At one of the roadside stands, Mrs. Jeff Taylor said she and her husband sold 50 pounds of silver fish by 10 a.m., many of them to disappointed fishermen. The Taylor catch came from commercial fishermen who smelted in the wee hours, she said.
28 February 1969	Cowlitz River	<i>Oregonian</i> , p. 4, col. 2-5	Fishing In Transition Period by Don Holm, Wildlife Editor, The Oregonian ... the Cowlitz main run had not yet made an appearance. ...
1 March 1969	Cowlitz River	<i>Oregonian</i> , p. 3, col. 6	Smelt Return To Cowlitz. Smelt, which made a miserable return to the Cowlitz River at Kelso, Wash., last weekend, appear to finally have made up their minds to run the gamut of bank dippers, waders and boats to reach their spawning grounds. Washington State Police reported Friday there appears to be a large number of the small silvery six-inch fish in the river, offering good prospects for “dippers” this weekend. ...
2 March 1969	Cowlitz River	<i>Oregonian</i> , p. 1, col. 2	Cowlitz Smelt Show Up Again. KELSO (Special) — Smelt dipping improved on the Cowlitz River near here Saturday with boat dippers reporting “good” success and bank dippers having “fair to improving” luck. The season opened again after its regular hiatus from 8 a.m. Thursday to 8 a.m. Saturday. It will continue with this time off for escapement, through the end of the run. ...
3 March 1969	Cowlitz River	<i>Oregonian</i> , p. 5, col. 1-2	Outdoor News, Rivers To Hold Silver Bonanza by Don Holm, Wildlife Editor, The Oregonian. The Cowlitz River smelt run has been unpredictable so far. Many dippers have rushed to the river banks from all over the Northwest to get in on the run, only to find few fish to dip. Others have hit it lucky and loaded up a 20-pound limit with a few sweeps. Commercial dippers last Wednesday night came in loaded with smelt, and reported the river alive with them. ...
5 March 1969	Cowlitz River	<i>Oregonian</i> , p. 1, col. 2	Smelt Run Heavy. KELSO, Wash. (Special) — The late-winter smelt run was thick in the Cowlitz River Tuesday, the Washington State Patrol here reported. “They’re running at capacity,” a patrol officer said.
6 March 1969	Cowlitz River	<i>Oregonian</i> , p. 3, col. 5	Fishin’ Good For Soul, Kids by Don Holm, Wildlife Editor, The Oregonian ... Word from Don Reed of the Washington Department of Fisheries the other day was that the Cowlitz smelt run has been the best in years so far, with more and bigger fish reported by the commercial dippers. Many sports dippers have reported missing out on the silvery bonanza, because of timing, but others have been highly successful.
6 March 1969	Portland, OR	<i>Oregonian</i> , p. 17 advert	Associated Grocers ... Fresh Smelt Columbia River Lb. 25c
7 March 1969	Cowlitz River	<i>Oregonian</i> , p. 29, col. 1-2	Dippers Thank Russians For Good Run Of Smelt. LONGVIEW, Wash. (Special) — Record catches of smelt are expected this weekend in the Cowlitz River and perhaps dippers have the Russians to thank. One theory which may explain the exceptional smelt run this year is that Russian fishermen have taken large numbers of hake in the Pacific. The hake prey on smelt and smaller fish and less hake around means more smelt are left

Date	Place	Source	Quote
			to run up the Cowlitz. Hugh Fiscus, a biologist with the State Department of Fisheries in Vancouver, called the idea “one of those things that nobody can prove, but I suppose it’s possible.” Fiscus said bank dippers have had great success during the past week and prospects look excellent for the weekend which starts again at 8 a.m. Saturday. ... Fiscus also added that there seems to be no evidence that a run of smelt would enter Oregon’s Sandy River this year. Few of the small silvery fish have been taken east of the mouth of the Cowlitz, he said.
		Stockley <i>et al.</i> (1971)	<u>Smelt</u> . The winter smelt run to the Columbia River was fair for recent years with total landings slightly over one million pounds. Gill net landings were 107,680 lbs. from the mainstem. One experimental otter trawl produced 9,375 lbs. in 14 landings. Grays River dip nets yielded 51,309 lbs. in 37 landings in February. The Cowlitz River had a large run which began on February 12 as a scout run that was soon dipped out, and then a main run from February 25 to March 26, where 846,371 lbs. of smelt were dipped. The Cowlitz run produced 89% of the total basin landings. <u>Smelt Trawl</u> . An experimental smelt otter trawl was fished near Eagle Cliff. Early run smelt are usually caught with gill nets. The trawl appears to be a better method of fishing than smelt gillnetting. The trawl produces an undamaged, high value, and attractive fish. The trawl was found to be more efficient than gill nets and time was not lost in shaking the smelt, the method of removal from gill nets. Trawls cost less than gill nets and last longer. Trawling is a more comfortable mode of fishing than gillnetting in cold weather (Ellis and Stockley, 1970; Stockley and Ellis, 1970). Washington is licensing smelt trawlers to fish experimentally under special permit. Fishing is monitored by biologists. A maximum length of 25 feet between the doors (footrope length) is being considered to protect the small boat river fleet.
	Grays River	Stockley and Ellis (1970)	INTRODUCTION. <u>Description</u> . The Columbia River smelt or eulachon, <i>Thaleichthys pacificus</i> , (Richardson, 1836), is an anadromous member of the family Osmeridae. They are a small slender fish covered with fine cycloid scales. A lateral line is well developed and an adipose fin is present as in other members of the sub order Salmonoidea – the salmon and trouts. Eulachon are distinguished from other smelts by the origin of the dorsal fin being posterior to the origins of the pelvic fins and the stria on the opercles [sic] following the contours of the bones of the [o]perculum. They are a rich oily fish of excellent flavor. <u>Range</u> . Northern California to Bering Sea. Smelt commonly enter the large rivers in late winter ascending beyond the estuary to spawn. Smelt annually enter the Columbia River, while runs to the tributaries are irregular and occur in the Grays, Cowlitz, Lewis, and Sandy rivers. The last run to enter the Lewis River was in 1965. Smelt have not returned to the Sandy since 1957 (Oakley). When very large runs appear as in 1945, smelt penetrate beyond Bonneville Dam. <u>Biological notes</u> . Homing instinct is not well established. The smelt return to the Columbia River but entry into the tributaries is so irregular that the home stream theory is hardly demonstrated. It may be that when

Date	Place	Source	Quote
			there are small runs of smelt to the Columbia River they do not enter the tributaries (Delacy, 1963). A water temperature of 40 F was found to be necessary to insure upstream migration of smelt in the Columbia River to and beyond the mouth of the Cowlitz River (Smith, 1955). Experiments indicated that smelt exhibit an aversion to certain pollutants; sulphates, sulphite waste liquors and flouride base wastes (Smith, et al.). Wendler (1969) had assembled a history of industrial incorporations along the Cowlitz River to associate trends in production with possible pollution, but inconsistency and recent peak runs in 1968 and 1969 indicate that fluctuations in abundance are complex and involve diverse phenomena. Delacy and Batts (1963) reported that smelt spawn and die mainly at 3 years of age and that many are 4-year-olds in some years according to otolith studies. Figure 1 shows length distribution by sex of a main stem sample from the trawl taken on March 21, 1969. This suggests a broad size range in both sexes and the occurrence of more than one age group. Sampling of prolarvae from the lower Cowlitz River by Bureau of Commercial Fisheries research personnel in 1969 indicated negative phototropism and a high sensitivity to pollutants (Snyder, 1969). <u>Fishery.</u> Smelt are captured in the Columbia River with gill nets and in the tributaries with dip nets. Catch statistics are not an exact index of abundance because of various factors. On years when large numbers enter the tributaries the transition to tributary dipnetting is immediate suggesting that large stocks in the main stem often remain unexploited. Development of special gill nets did not increase annual landings. During World War II, limited high sea fisheries and expanding armed forces created an unlimited market. In 1950, a fishermen's cooperative was formed to share in the post war market (Wendler, 1969). The Cowlitz River often supports over half the annual smelt harvest according to landing data. The 1967 smelt harvest from the Columbia River was: Columbia River gill net, 351,118 lb.; Columbia River dip bag net, 4,543 lb.; Grays River dip bag net 23,212 lb.; Cowlitz River dip bag net, 620,502 lb.; (Ward, 1968). The tributary dip net fishery is concentrated mainly on spawned out fish or "sticks". These prime quality fish have already spawned, so that they are ideally suited for harvest, providing that fishing is so regulated as to protect the spawning areas in the tributaries. The fishery on the early part of the Columbia River smelt run has long been a gill net fishery. Smelt are caught in gill nets from December to May. Excessive handling and associated time loss by gillnetting, coupled with the high wastage and frequently a poor appearing product have resulted in a search for a better harvest system. Initial efforts indicate a high potential value in the small boat trawling technique devised in a joint study by the Columbia River Laboratory of the Washington State Department of Fisheries and the Seattle Exploratory Fishing and Gear Research Base of the Bureau of Commercial Fisheries. <u>Background.</u> Smelt enter the Columbia River in November or later. Until fish enter tributaries to become available to the dip net harvest the fishery has been limited to gillnetting. The habit of the smelt as they ascend the estuary is to surface

Date	Place	Source	Quote
			and scatter when the tide is high and slack and to sound in compact schools on the river bottom when the tide ebbs. ... From February 13 to 20, fishermen dipnetted a scout run in the Cowlitz River. Good trawl catches were made from February 22 to 25, the best occurring on two ebb tides on February 24 and 25 when 53 boxes, or 2,600 lb., were trawled near Mayger, Oregon (Blaine, 1969). On February 25 the main run moved into the Cowlitz and, thereafter, all attention was focused on dipnetting in the spawning tributary. ... The total Washington landings of gill net smelt from the Columbia River in 1969 was 51,056 lb. in 187 deliveries with a mean of 273.02 lb. per landing. Most of the fish came from Zone II from January 15 to February 26. In Zone III only 17-1/2% of the gillnetted smelt were caught from February 2 to 24. ... Dip net smelt were caught in the Grays River from February 9 to 27 with 51,309 lb. sold from 37 deliveries or 1,386.7 lb. per landing. Four deliveries of dip net smelt from the Columbia River on February 13 and 23 yielded 6,400 lb. or 1,600 lb. per landing. Dipping in the main stem requires heavy concentration of smelt over shallow water, which is occasional in occurrence. From February 13 to 20, a scout run occurred in the Cowlitz River and then from February 25 to March 26 a large run of smelt in the Cowlitz River was dipnetted. This produced 846,371 lb. in 675 deliveries or 1,253.8 lb. per landing. The Cowlitz River gill net landings were nearly twice the 10-year mean (1959 through 1968) total joint state smelt landings. Oregon gill net landings from the main stem were 56,024 lb. Joint state landings of smelt were 1,020,535 lb. Dip net landings were up about a third over the 10-year mean of 642,000 lb. The Cowlitz dip net landings represented 89% of the total landings. ... <u>Outlook for tributary fisheries.</u> Earlier we pointed out that most of the fish were dipnetted from the tributaries. Runs to the Sandy, Lewis, and Kalama rivers have ceased. The small early run to the Grays River is consistent, but occasionally smelt do not enter the Cowlitz River (no run in 1965). There is no deadline in the Grays River, thus, providing some 10 river miles of commercial dipnetting. It would be appropriate to initiate a commercial dip net deadline at Grays River village at RM 8, and to investigate moving the commercial deadline further downstream. On the Cowlitz River, where 88% of all of the Columbia River smelt landings originated in 1969, the commercial deadline is at Peterson's Eddy above the hamlet of Lexington at about RM 10. There has been strife between the sport personal-use dippers and the commercial fishermen. The value of the landings mentioned earlier at 25¢ per pound to the fishermen was \$255,133.75 for all smelt sold. The value of the Washington tributary dip net landings was \$224,420. The value of the Cowlitz River dip net landings was \$211,592.75. The Cowlitz sport take has been about 10% of the commercial dip (Wendler) for some 84,600 lb. or 4,230 limits at 20 lb. each. The large run into the Cowlitz River this season following a long run in 1968 resulted in a greater influx of sportsmen. The smelt were available for about 36 days, with a month of steady dipping. The WDF patrol division monitored this fishery and Patrolman Heenan reported 15,000 daily limits of smelt from the Cowlitz with an

Date	Place	Source	Quote
			expenditure by the sports of 23,000 man days to produce the fish. This is close to 1,100 sportsmen per day during the 21 days of legal fishing from February 25 to March 25 when smelt were available to bank dippers. A value of \$15.00 cost to each sportsman per day of smelt fishing for gas, gear, (boats and net), and food would be a mean low estimate. At such a value the 15,000 limits of smelt from the Cowlitz River would be worth \$75,000. Or the expended effort for 23,000 man days would be worth \$345,000. Or the 1,100 sportsmen fishing for 21 days at \$15.00 cost per day would be worth about \$245,500. No matter how the personal-use fishery is evaluated it rivals the commercial values. ...
1970			
23 January 1970	Columbia River	<i>Oregonian</i> , p. 4, col. 3	Rain Ruins Fishing Prospects by Don Holm, Wildlife Editor, The Oregonian ... Smelt bait is available already from Columbia River runs.
29 January 1970	Portland, OR	<i>Oregonian</i> , p. 5, col. 7-8	Market Wise by Nancy Morris. ... First fresh smelt of the season are making their appearance in some markets this week along with fresh oysters and crab.
5 February 1970	Portland, OR	<i>Oregonian</i> , p. 2, col. 1-2	Market Wise by Nancy Morris. ... Smelt and oysters are in good supply.
13 February 1970	Columbia River	<i>Oregonian</i> , p. 8, col. 5-8	Pick Big Rivers For Steelies , Weekend Forecast by Don Holm, Wildlife Editor, The Oregonian ... The commercial netters are taking smelt in the Columbia off the Cowlitz.
20 February 1970	lower Kalama and Cowlitz rivers	<i>Oregonian</i> , p. 1, col. 2	Smelt Begin Annual Run . Smelt have begun running in the lower Kalama and Cowlitz rivers and should be in the Lewis river as well by the time the season opens Saturday, the Washington State Department of Fisheries announced Thursday. The smelt season on the Columbia River will run from noon Saturday to midnight the following Wednesday. The season on tributaries will run from 8 a.m. Saturday to 8 a.m. Thursday.
20 February 1970	Columbia River	<i>Oregonian</i> , p. 4, col. 3-6	Steelhead Season Nearly Over ... Weekend Forecast ... Smelt are reported in the lower Columbia off the mouths of tributaries. ... The smelt at midweek had not come up into the Cowlitz.
21 February 1970	Columbia River	<i>Oregonian</i> , p. 12, photo caption	THE SMELT ARE RUNNING , but not in the rivers where fishermen can dip them from the banks. Commercial fisherman, Don Ostling, Puget Sound, loads a portion of his catch into box. The tiny fish have been reported in lower Columbia River and some tributary streams, but none has been sighted in Kalama or Cowlitz rivers. ...
22 February 1970	Cowlitz River	<i>Oregonian</i> , p. 47, col. 2	Smelt Move Into Cowlitz . Smelt began to move up into the Cowlitz River Saturday and dipping from the banks improved through the day but conditions remained poor in the Kalama River. Washington State Fisheries spokesmen were making no predictions for Sunday. However, dipping was fair to good Saturday in the Cowlitz, where only small numbers of the small fish were reported earlier in the week. ...
24 February 1970	Cowlitz River	<i>Oregonian</i> , p. 5, col. 1-2	Dippers Delight, Smelt Moving Up In Cowlitz River by Don Holm, Wildlife Editor, The Oregonian ... Although it's more of a spectator sport, it probably should be mentioned that the smelt finally moved up the Cowlitz as far as Kelso over the weekend. Milford Leathers at Woodland said Monday the dippers were working hard for limits, however, due to the clear water. Night dippers were doing better. Smelt fans, who await

Date	Place	Source	Quote
			the annual runs with eagerness, consider the first mess of fresh fried smelt right out of the river a gourmet delight — and the second one not worth the effort. After that they freeze them for sturgeon bait. Open dipping hours on the Cowlitz are from Saturday 8 a.m. through Thursday, with a 20-pound daily limit and no license required. Even “Southerners” from across the Columbia are permitted to dip. Real smelt fans who remember the good old days on the Sandy, still hold out hope for the return of those runs which mysteriously disappeared about a decade ago. Troutdale, in fact, was once billed as the “Smelt Capital of the World.”
24 February 1970	Cowlitz River	<i>Oregonian</i> , p. 15, col. 3	Run Begun By Smelt. Smelt-dipping from the banks of the Cowlitz River still is “not too good,” the Washington State Patrol said Monday, although fishing “is fairly good from commercial boats in midriver.” Bank-dipping is expected to improve later this week and once it does, patrol spokesmen said the full run should continue for 1½ to 2 weeks. Numerous bank dippers were reported over the weekend in the Lexington area four miles north of Kelso, and the patrol reported “they were getting a few — just enough to keep them trying.” ...
25 February 1970	Cowlitz River North Fork Lewis River Kalama River	<i>Oregonian</i> , p. 16, col. 1	Smelt Catch Rated Good. KELSO, Wash. (Special) — Smelt dipping was reported “fair to good” in both the North Fork of the Lewis River and in the Cowlitz River but few fish remained Tuesday in the Kalama. Sgt. Albert Dougherty, in charge of the Washington Fisheries Department’s Columbia River District, said Tuesday that smelt returned to the North Fork of the Lewis Monday after an absence of several years. Most of the fish taken from the banks of the North Fork Monday night were in a one-mile stretch from Woodland up to the water intake, Dougherty said.
26 February 1970	Portland, OR	<i>Oregonian</i> , p. 10 advert	SAFEWAY ... Fresh Smelt, Local River Smelt lb. 29c
26 February 1970	Portland, OR	<i>Oregonian</i> , p. 12 advert	THRIFTWAY ... Columbia River Fresh Smelt LB. 25c
27 February 1970	Cowlitz, Kalama and Lewis rivers	<i>Oregonian</i> , p. 64, col. 6 also	Inland Steelheading Picks Up ... Weekend Forecast by Don Holm, Wildlife Editor, The Oregonian ... By the 8 a.m. deadline Thursday, the smelt were still pouring up the Cowlitz, Kalama and Lewis rivers in good numbers. Tackle stores reported a brisk business in dipnets all over the metro area. The dipping will open again Saturday. ... Spring-like weather this weekend should bring out smelt dippers by the thousands to the Lewis, Kalama and Cowlitz. ... Smelt are also good smoked, but most veteran anglers take this opportunity to pack up supplies in the freezer for sturgeon bait the rest of the year.
5 March 1970	Cowlitz River North Fork Lewis River Kalama River	<i>Oregonian</i> , p. 4, col. 1	Smelt Dipping Continues Good by Don Holm, Wildlife Editor, The Oregonian. Late reports from Southwest Washington indicate the Columbia River smelt run is continuing in the Cowlitz, Kalama and Lewis rivers, with the latter probably the best dipping so far. Bank dippers on the Cowlitz have had to work for the fish, but those in the boats have done well. The dipping legally closes over the weekend, but will open again Saturday morning with the usual 20 pound daily personal limit and no license required. ... Meanwhile, old timers are keeping a close eye on the mouth of the Sandy, in hopes that

Date	Place	Source	Quote
			maybe this year they'll return.
13 March 1970	Cowlitz River North Fork Lewis River Kalama River	<i>Oregonian</i> , p. 3, col. 4	Rogue Awaits Spring Chinook , Weekend Forecast by Don Holm, Wildlife Editor, The Oregonian ... The smelt run this year was above average, with fish in the Kalama and North Fork, as well as the Cowlitz. All these being considered glacial streams, they are traditional smelt rivers, although the water temperature must be just right when the fish arrive. The East Fork, on the other hand, has never had a smelt run in recent memory. The fish, local people say, won't even go 10-feet up the East Fork.
1971			
8 December 1970		<i>Oregonian</i> , p. 3, col. 2-3	Old Quicksand. Winter Runs Enter Sandy. ... The smelt run [in the Sandy] was once so regular and tremendous that it was a springtime industry in the village of Troutdale, and every March or April for centuries these little fishes returned like the Swallows of Capistrano, in one of nature's miracles. Then they quit coming. That was more than a decade ago.
7 January 1971	Portland, OR	<i>Oregonian</i> , p. 20 advert	Tradewell ... Fresh. Col. River Smelt lb. 45c
7 January 1971	Cowlitz River	<i>Oregonian</i> , p. 20, col. 2	Columbia Runs. Jan. 27 Hearing To Set Gillnets. ... by Don Holm, Wildlife Editor, The Oregonian ... An early run of smelt has appeared in the Cowlitz River and boat dipping was reported good Wednesday by the Department of Fisheries. Some of the smelt over the weekend had moved up as far as the railroad bridge at Kelso. There is no weekly closed period for sport dippers this year in Washington Streams.
8 January 1971	Cowlitz River	<i>Oregonian</i> , p. 3, col. 3	Steelhead, Waterfowl Outlook Good by Don Holm, Wildlife Editor, The Oregonian ... The Cowlitz had an early smelt run also this past week.
15 January 1971	Columbia River Cowlitz River	<i>Oregonian</i> , p. 2, col. 1 and 6	... Weekend Forecast by Don Holm, Wildlife Editor, The Oregonian ... The Lower Columbia area, however, was virtually paralyzed by the snow storms, and the river was too rough for boats. Until driven off, a number of boats had been taking smelt in goodly numbers, and they have also been reported in the Cowlitz for the past two weeks.
21 January 1971	Portland, OR	<i>Oregonian</i> , p. 12 advert	THRIFTWAY ... Fresh Smelt Columbia River LB. 29c
22 January 1971	Columbia River	<i>Oregonian</i> , p. 4, col. 6	... Weekend Forecast by Don Holm, Wildlife Editor, The Oregonian ... SOUTHWEST WASHINGTON ... The smelt, which had started up the Cowlitz a couple of weeks ago, have disappeared again, perhaps back into the Columbia. The Lewis had a run last year and two years in a row would be a rare exception.
4 February 1971	Portland, OR	<i>Oregonian</i> , p. 7 advert	3 Boys' Markets ... Fresh Smelt, Fresh run river smelt lb. 29c
5 February 1971	Columbia River	<i>Oregonian</i> , p. 2, col. 3 col. 6	... Weekend Forecast by Don Holm, Wildlife Editor, The Oregonian ... LOWER COLUMBIA ... The smelt have also put in only sporadic appearances so far. Sturgeon fishermen have been buying smelt, a sure indication that these little silvery fish are still scarce. It is early, however, for they have come upriver as late as the middle of April.
11 February 1971	Portland, OR	<i>Oregonian</i> , p. 8 advert	3 Boys' Markets ... Fresh-Caught Smelt, Fresh river run smelt at a low price lb. 29c
12 February 1971	Columbia River	<i>Oregonian</i> , p. 2, col. 1-8	... Weekend Forecast by Don Holm, Wildlife Editor, The Oregonian ... Smelt were reported bunched up off the bars in the main Columbia. ... LOWER COLUMBIA ... Smelt were reported being dipped off the beaches at Rainier, and were observed off the

Date	Place	Source	Quote
			Lewis as well.
19 February 1971	North Fork Lewis River	<i>Oregonian</i> , p. 2, col. 1-8	Smelt Show In Lewis River ... by Don Holm, Wildlife Editor, The Oregonian ... Thursday [18 February] the smelt had entered the Lewis River and had reached a point near Woodland on the North Fork. Best dipping is in mid-stream, except in the airport area where bank dippers can get at them. This is the first time in years the smelt have come up the North Fork, and solves a minor mystery about where the smelt were after the first run went up the Cowlitz. Smelt dippers last weekend were doing well in the Rainier area on the Oregon side, not realizing it was illegal. State police could have made hundreds of arrests, but didn't. In Oregon dipping is prohibited from noon Saturday to midnight Wednesday; in Washington there are no such restrictions. ... Sturgeon fishing has been excellent in the lower river, too, probably because of the smelt. ... SOUTHWEST WASHINGTON — Biggest news at mid-week is the rare smelt run in the North Fork Lewis, Milford Leathers at Woodland said the silvery fish were above the forks Thursday morning and still coming.
22 February 1971	Columbia River Lewis River	<i>Oregonian</i> , p. 3, col. 1-6	Nests Go In Lower Columbia River As Anglers Reap Chinook Catches by Don Holm, Wildlife Editor, The Oregonian ... The river is still full of smelt, and a heavy run entered the Lewis last week.
23 February 1971	Lewis River	<i>Oregonian</i> , p. 9, col. 5	Fishermen Jam Highway. WOODLAND, Wash. (Special) — The smelt run in the Lewis River caused traffic congestion and several arrests during the weekend, Washington State Department of Fisheries officials said Monday. One spokesman said it was the best run in the river in 25 years. Officials said fishermen were taking their limits without any trouble in a nine-mile stretch from the rail bridge at Woodland to the state salmon hatchery upstream. There were several arrests of persons exceeding the personal use limit of 20 pounds, the spokesman said. He said there were traffic problems particularly at the intersection of Interstate 5 and Washington 501 at Woodland. He said no smelt had been reported as of this morning in the Cowlitz River.
2 March 1971	Lewis River	<i>Oregonian</i> , p. 2, col. 4	Wildlife Conferences Due To Cover Ecology by Don Holm, Wildlife Editor, The Oregonian ... The fabulous smelt run in the Lewis River continues unabated as of Monday, according to Milford Leathers at Woodland. The little fish are up as far as the dam. Netters have no trouble getting limits, even with the prevailing ice and snow along the banks. Washington's regulations differ from Oregon's. The daily limit is 20 pounds, and individual dippers must have separate containers. There is no license requirement and no closed hours for dipping, however. Violators have been rapped with \$35 fines for taking over-limits.
5 March 1971	Lewis River	<i>Oregonian</i> , p. 2, col. 1-8	... Weekend Forecast by Don Holm, Wildlife Editor, The Oregonian ... The smelt run in the Lewis River continues apparently unabated, and while steelhead are present also no one can get to them through the hoards [sic] of smelt. ... LOWER COLUMBIA — The sturgeon have been having a smorgasbord with spawned smelt floating downriver. ... SOUTHWEST WASHINGTON — The big smelt run in the Lewis continues and as

Date	Place	Source	Quote
			long as it does there will be no steelhead angling, said Milford Leathers at Woodland.
12 March 1971	Lewis River	<i>Oregonian</i> , p. 3, col. 1-4	... Weekend Forecast by Don Holm, Wildlife Editor, The Oregonian ... The smelt run continues in the Lewis River, apparently unabated. A friend on Sauvie Island reported a heavy run off Reeder Beach, well above the mouth of the Lewis this week. Could be headed for the Sandy? ... SOUTHWEST WASHINGTON — Milford Leathers at Woodland reported the smelt still in the Lewis. Other fish are there, too, but it is impossible to get to them through the smelt. ...
19 March 1971	Lewis River	<i>Oregonian</i> , p. 3, col. 1-4	... Weekend Forecast by Don Holm, Wildlife Editor, The Oregonian ... The smelt are still in the lower Lewis, too, and some have been signaled by seagull activity up the Columbia above the mouth of the Willamette. ... SOUTHWEST WASHINGTON — Milford Leathers at Woodland said the smelt in the Lewis and Cowlitz are there but now hard to dip.
21 March 1971	Columbia River	<i>Oregonian</i> , p. 8, col. 6-8	... Smelt were reported in the Columbia last week all the way to the Sandy River but had not entered that stream by late Thursday. They appeared to be spawning in the sandbars of the main river and a line of sea gulls feeding on spawned-out carcasses led to the Sandy. ...
22 March 1971	Columbia River at Hamilton Island, Lewis and Cowlitz rivers	<i>Oregonian</i> , p. 3, col. 1-3	Outdoor News, Spring Hits Northwest by Don Holm, Wildlife Editor, The Oregonian ... Suddenly it's spring, and nobody will believe it. One sign: undetected by veteran smelt watchers. These pesky little fish swam right by the mouth of the Sandy and were being netted as far up as Hamilton Island. Meanwhile, the seemingly endless run of smelt in the Lewis and Cowlitz continues ...
23 March 1971	Sandy River	<i>Oregonian</i> , p. 1, col. 1	Sandy River Smelt Return. TROUTDALE (Special) — A few days after the swallows' return to San Juan Capistrano, the smelt came back to the Sandy Monday [22 March]. Why they returned and where they've been for the last 14 years, nobody knows. Whether their reappearance signals resumption of an annual event, only next year will tell. The presence of the small fish was confirmed by residents along the river's bank about 2:30 p.m. By 10 p.m. the State Game Commission had moved a small trailer to the Sandy River Bridge at Troutdale and was starting to sell dipping licenses, effective at 12:01 a.m. Tuesday. For some reason known only to the fish they elected to return to the river between the 24-hour period between midnight Sunday and midnight Monday, when dipping is prohibited. Anita Espenel, Troutdale, who was selling dipping licenses, reminded that each person who dips, regardless of age, must have a license. The catch limit is 25 pounds per person per day. She said the last sustained run of smelt on the Sandy was in 1957.
24 March 1971	Sandy River Cowlitz River	<i>Oregonian</i> , p. 1, col. 1-4	Hundreds Greet Sandy Smelt Return. TROUTDALE (Special) — The smelt run continued Tuesday in the Sandy River after an absence of 14 years, but not in the silver hordes that marked the good old days. Hundreds of eulachon lovers lined the banks of the Sandy from its mouth to the Troutdale bridge, but they were lucky to net one or two fish in a dozen sweeps of the net. Multnomah County sheriff's deputies cited one man

Date	Place	Source	Quote
			who had dipped 44 pounds of the silver beauties. Others, working in pairs, reported catching 30 pounds in four hours, starting at the witching hour of midnight. Most dippers had only a hatful Tuesday morning. The smelt, running in small schools, had penetrated only a few hundred yards above the Troutdale bridge at noon. In the good old days they used to breast the current as far as Viking Park, another three miles up the Sandy, sometimes as far as Gordon Creek, above Viking Park. The first fish were reported in the Sandy just after noon Monday, but the run did not begin in earnest until after dark, residents reported. Cowlitz Run Reported. A few smelt are still being netted in the middle of the Cowlitz River, but none in the Lewis River, the Washington State Patrol said. The small fish, actually <i>Thaleichthys pacificus</i>, which the Indians called eulachon, last entered the Sandy shortly after noon on March 26, 1957. Now, after years without the delectable treat, the citizens of Troutdale are ecstatic. This town came to life with a start at midnight when the State Game Commission started selling permits. By midmorning Monday, parking lots at Lewis and Clark State Park and both sides of the road along the Sandy were lined with parked cars. Kids from 3 to 73 were lining the banks sweeping the swift green water with their dip nets. It didn't seem to matter whether they caught any fish. They were caught up in the fascination of fishing for fishing's sake.
24 March 1971	Sandy River	<i>Oregonian</i> , p. 3, col. 1-2	Smelt Return ... by Don Holm, Wildlife Editor, The Oregonian. Well, they did it again. Those pesky little smelt upset all predictions and traditions again and, after an absence of 14 years they once again returned to the Sandy River. On Monday morning this column appeared with an item about how numerous they were in the Lewis and Cowlitz, and how they had been observed passing up the Sandy and going on up to Hamilton Island near Skamania. Then at 2:30 p.m. Monday a riverbank resident saw them in the Sandy. By 10 p.m. the run was confirmed and the Oregon Game Commission had set up a trailer at the Troutdale bridge to sell licenses, which were to be effective at 12:01 a.m. Tuesday. Smelt dipping on the Sandy River is governed by statute and regulated by the Oregon Game Commission rather than the Fish Commission. The statutes set the bag limit, establish the fees and ORS 498.315 establishes where and when. Smelt dipping is prohibited on the Sandy River between midnight Sunday and midnight Monday. Smelt cannot be dipped above the Viking Bridge. The personal dipping license is 50 cents with a limit of 25 pounds per day. In past years, April 19 was the latest date the smelt returned to the Sandy (in 1953). Traditionally, March and April were the months the little eulachons always returned to the river, at a time when the winter snows began to melt on Mt. Hood and the milky glacial water began flowing down to the Columbia. Records show the smelt did not appear in 1931, 1933, 1935, 1936, 1937, 1938, 1944, 1945, 1947, 1950 and 1955. In 1957 they failed to appear and never returned again until Monday. The Sandy — called the “Quicksand River” by Lewis and Clark — is a unique, but typical smelt-spawning river. It is 52 miles long and drains an area of 450 square miles.

Date	Place	Source	Quote
			It drops 700 feet from its source on Mt. Hood to the mouth, three miles below Troutdale. It is believed the temperature and natural [sic] is ideal for smelt spawning. An anadromous fish, which comes in from the sea to spawn, this member of the smelt family likes glacial streams where the female will deposit as many as 250,000 [sic] tiny eggs (less than a millimeter in diameter) on the sandy bottom. Covered with a sticky fluid, the eggs stick tenaciously to anything they touch. The smelt seem to prefer water temperatures of from 42 degrees to 54 degrees. In the Sandy, they seldom migrate above Gordon Creek. In past years the Viking Park bridge has been the deadline for dipping. The smelt die soon after spawning. A good smelt run almost always results in an upsurge in sturgeon fishing. Often the runs, in other rivers, are followed in from the seas by striped bass and other predators that gorge on them, in one of nature's marvelous and mysterious dramas.
25 March 1971	Sandy River Cowlitz River	<i>Oregonian</i> , p. 31, col. 1	Smelt Runs Spasmodic. Smelt ran in "splurges" on the Sandy River Wednesday, the Oregon State game commission reported. Small groups of fish were appearing, followed by long runs of empty water. Optimists are expecting this type of smelting to continue for three or four days. "Wild speculation says then the run could increase," a commission spokesman said. "Very minimal" is the way the Washington State Patrol described the smelt in the Cowlitz River Tuesday. None has shown up in the Lewis.
26 March 1971	Sandy River North Fork Lewis Cowlitz River Columbia River	<i>Oregonian</i> , p. 5, col. 1-4	Spring Chinook Run Appears Good by Don Holm, Wildlife Editor, The Oregonian ... The salmon in the lower river are apparently still on a feeding spree. One angler caught a 27-pounder up the Channel that had 14 smelt in its belly. Speaking of smelt, they are still in the Lewis River in surprising numbers, some in the Cowlitz, lots of them in the main Columbia as far up as Hamilton Island, and even — for the first time in 14 years — in the Sandy River. The latter run started last Monday and continues slow with dippers having to work for the 25 pound daily limit. A 50 cent special dipping license is required, incidentally. ... LOWER COLUMBIA — There are so many smelt in the river that even the seagulls are getting tired of them. ... SOUTHWEST WASHINGTON ... The smelt were still in the North Fork Lewis, said Milford Leathers at Woodland.
26 March 1971	Sandy River	<i>Oregonian</i> , p. 49, col. 4	Sandy's Smelt Hard To Find. Smelt and smelt fishermen tapered off in the Sandy River late Thursday after a strong run of the silvery fish earlier in the day, the Multnomah County Sheriff's Office reported. The Sandy is experiencing its first smelt run in 15 years, an event which started Monday. The Oregon Fish Commission reported Thursday it had sold more than 4,000 smelt-dipping permits.
30 March 1971	Sandy River	<i>Oregonian</i> , p. 33, col. 4-5	Smelt, Chinook Elude Hunters by Don Holm, Wildlife Editor, The Oregonian ... Over on the east side of the Metro area, at the Sandy River, the scene took a different turn. Smelt dippers were encamped in pickups and trailers. Some had boats and were hopefully paddling around on the swollen river looking for the metallic colored hoard of little fishes. But dipnets were stilled, the quickie establishments where you rent gear and buy 50-cent licenses were quiet of this Sunday morning. A few early families arrived as

Date	Place	Source	Quote
			church let out, hoping to get in on the bonanza. The elusive eulachon had disappeared again temporarily, but they would be back.
2 April 1971	Sandy River	<i>Oregonian</i> , p. 2, col. 5	... Weekend Forecast by Don Holm, Wildlife Editor, The Oregonian ... The Sandy Smelt run petered out. ...
11 April 1971		<i>Oregonian</i> , p. 95, col. 1-4	Spring Salmon fever Lures Thousands To 'Hoglines' by Don Holm, Wildlife Editor, The Oregonian ... This year, anglers cutting open the first spring salmon noted they were full of smelt. The run had obviously followed the smelt run right into the river. ...
1972			
14 January 1972	lower Columbia Cowlitz River	<i>Oregonian</i> , p. 66, col. 5-6	Steelheading poor as flooding hits Northwest streams. By Don Holm of The Oregonian staff ... meanwhile, the early floods have brought in the first smelt runs. Reports of smelt have come from the lower Umpqua and the lower Columbia. Dippers said smelt were moving up the Cowlitz Thursday but the high water hindered catches. Best results were among the commercial smelt boats. In the Columbia they are up as far as Rainier. Along with the incoming smelt, the sturgeon fishing has also improved in the Columbia and lower Umpqua.
21 January 1972	Umpqua and Cowlitz rivers	<i>Oregonian</i> , p. 67, col 3-4	Fishing hampered by floods, slides. By Don Holm of the Oregonian staff. Almost all coast streams were out of shape by mid-week, and many were out of their banks. ... There are smelt in the Umpqua and Cowlitz, with some possible sturgeon fishing in the former, as a result.
17 February 1972	Portland, OR	<i>Oregonian</i> , p. 45, col. 2	Market Wise ... Columbia River smelt are still available and reasonably priced. ...
23 February 1972	Portland, OR	<i>Oregonian</i> , p. 45, col. 2	Market Wise. Columbia River smelt are still available and reasonably priced.
25 February 1972	Cowlitz River	<i>Oregonian</i> , p. 1, col. 3	Smelt running into Cowlitz. CASTLE ROCK, Wash. — Good catches of smelt are reported on the Cowlitz River as far north as the Castle Rock Bridge here. Ken Nicholson, local hardware owner, said good catches are reported both by fishermen using boats, and those dipping for smelt along the bank. "It looks like a terrific run," he said. The Washington State Police confirmed reports of the smelt run and said fishing should be good this weekend.
28 February 1972	Cowlitz River	<i>Oregonian</i> , p. 37, col. 1-3	Smelt Dippers landing limits from Cowlitz. By Don Holm of the Oregonian staff. Smelt dippers have been taking home limits of these pesky little critters over the weekend from the Kelso City park and Castle Rock sections of the Cowlitz. No runs have been reported yet from the Lewis River, however, said Frank White, regional supervisor for the Washington Game Department. The smelt had first appeared in the Cowlitz about a month ago, then disappeared with the flood waters. Commercial netters have been taking them in the Columbia, but high water has hampered dippers. ... Sunday morning dipping featured pouring down rain and the Cowlitz was high and off color.
1 March 1972	Cowlitz River	<i>Oregonian</i> , p. 26, col. 1	Smelt run rated good. Smelt are running in the Cowlitz River between Kelso and Castle Rock at an "excellent" rate according to a Washington Department of Fisheries spokesman. They said Tuesday the fish, which sometimes run in the Lewis River as well, so far have appeared only in the Cowlitz this season. Smelt netters were reporting netting

Date	Place	Source	Quote
			three to five pounds of fish per dip Tuesday night.
2 March 1972	Portland, OR	<i>Oregonian</i> , p. 50	Columbia River fresh smelt LB. 25c
3 March 1972	Cowlitz River	<i>Oregonian</i> , p. 2	Streams reel with muddy flood waters. By Don Holm of the <i>Oregonian</i> staff. ... Over in Washington, the smelt run continued good in the Cowlitz, between Kelso and Castle Rock, in spite of high water. The daily limit is 20 pounds, and each angler must have his own container. No license is required. ... Smelt fishing continued good in the Cowlitz between Kelso and Castle Rock.
16 March 1972	Portland, OR	<i>Oregonian</i> , p. 17 advert	AG Food Stores. ... Columbia River Fresh Smelt LB. 25c
17 March 1972	Cowlitz River Kalama River	<i>Oregonian</i> , p. 3, col. 1-8	Salmon angling poor, high water hampers smelt dippers. Weekend Forecast by Don Holm of The <i>Oregonian</i> staff. ... Smelt were still in the Cowlitz, but high water has hampered dipping. ... Smelt are still in the Cowlitz and occasionally in the lower Kalama. The smelt only move into the Kalama as far as the highway bridge.
24 March 1972	Cowlitz River	<i>Oregonian</i> , p. 8, col. 1-5	... Weekend Forecast by Don Holm of The <i>Oregonian</i> staff. ... The smelt run [in the Cowlitz River] has dropped off some, being centered in the Castle Rock area.
1973			
12 January 1973	Cowlitz River	<i>Oregonian</i> , p. 3, col. 8	... Weekend Forecast by Don Holm of The <i>Oregonian</i> staff. ... Smelt were reported in the lower Cowlitz near Kelso this week.
18 January 1973	Columbia River	<i>Oregonian</i> , p. 19, col. 5	Market Wise ... Columbia River smelt are in.
19 January 1973	Cowlitz River	<i>Oregonian</i> , p. 8, col. 1	... Weekend Forecast by Don Holm of The <i>Oregonian</i> staff. ... The “pilot run” of smelt has already appeared in the Cowlitz, although it is still too early for the main run.
1 February 1973	Portland, OR	<i>Oregonian</i> , p. 7 advert	3 BOYS’ Markets ... Columbia River Fresh Smelt lb. 44c
2 February 1973	Columbia River	<i>Oregonian</i> , p. 3, col. 1-8	... Weekend Forecast by Don Holm of The <i>Oregonian</i> staff. ... The spring smelt runs have started in the Umpqua and Columbia systems. The runs were heavy and already above Scottsburg on the Umpqua. The lower Cowlitz has been the scene of excellent commercial netting, although the dipping pressure has been light so far. ... Denny Hannah at Lakeside reported excellent smelt dipping at Scottsburg early in the week, and the campgrounds were filled with dippers. Below Gardiner, in the Big Bend area, schools of white sturgeon were feeding on the smelt. Smelt makes good bait for these, using 30 to 50-pound test line and 9 to 10-ounce sinkers. ...
6 February 1973	Cowlitz River	<i>Oregonian</i> , p. 1 photo caption	SMELT, ANYONE? Roy Gilmore, Longview, Wash., commercial fisherman, holds net full of smelt caught Monday in the Cowlitz River just north of Kelso. Early run of tiny fish is considered heavy.
6 February 1973	Portland, OR	<i>Oregonian</i> , p. 11 advert	Disco Mart Discount. ... Fresh Dipped Cowlitz River Smelt LB. 35c
6 February 1973	Cowlitz River	<i>Oregonian</i> , p. 13, col. 1-3	Heavy smelt bonanza please fishermen in Cowlitz River by Stan Federman of the <i>Oregonian</i> staff. KELSO, Wash. — Commercial fishing boats swarmed with smelt Monday as one of the heaviest early runs of the little fish hit the Cowlitz River. Almost all fishing, however, was confined to nighttime dipping. The shallow, clear water apparently was “spooking” the smelt during the day and they were gathering in large

Date	Place	Source	Quote
			groups only after dark. There was little bank dipping and that was mostly done during the evening hours, reported Washington State Patrol. But commercial fishermen were enjoying a bonanza. “Best run I’ve seen this early in a long time,” said Roy Gilmore, Longview. Gilmore and his partner, Jim Chambers, had fished continuously from about 10 p.m. Sunday until 7 a.m. Monday. During that time, their two small boats landed 5,000 pounds of smelt. The commercial “hot spot” seemed to be a five-mile stretch of the Cowlitz between Lexington and the Cherry Hill area north of Kelso. “The smelt are in beautiful condition right now,” said Gilmore. “We’ve been bringing in 20 to 40 pounds with a single dip.” The commercial men use slender, long-handled dipping nets to catch the small, silvery fish which Gilmore said are “practically clogging up the middle of the river at night.” Chambers said it would be another two weeks before the fish get tired of battling the currents and begin drifting more toward shore. But he added that the fine fish were “goofy critters” that could start moving into shore anytime, or suddenly leave the area. Most commercial men, who have suffered through a lean tuna and salmon season were excited at the hot run. “We can sure use it,” said Gilmore. “A heavy early run always brings excellent prices.” The current market price for smelt for the Portland-Southwest Washington market is averaging \$7.50 for a 50-pound box. Although there is a 20-pound per container daily limit for sports fishermen, there is no limit for commercial men. But the Cowlitz is closed to commercial boats from noon Wednesday to noon Saturday as a conservation practice.
7 February 1973	Portland, OR	<i>Oregonian</i> , p. 7 advert	SAFEWAY ... Fresh Smelt Cowlitz River lb. 29c
15 February 1973	Portland, OR	<i>Oregonian</i> , p. 9 advert	3 BOYS’ Markets ... Fresh River Smelt lb. 28c
16 February 1973	Cowlitz River	<i>Oregonian</i> , p. 2, col. 1-8	... Weekend Forecast by Don Holm of The Oregonian staff. Smelt are still in the Cowlitz. ... Late runs of smelt are expected in the Kalama and Lewis, and possibly even the Sandy. ... The Cowlitz smelt run is spotty, with best dipping late afternoon and evening. The little fish are smaller than usual this year.
20 February 1973	Portland, OR	<i>Oregonian</i> , p. 13 advert	Disco Mart Discount ... Fresh Cowlitz Smelt LB.26c
21 February 1973		<i>Oregonian</i> , p. 5, col. 1-8	Anglers wonder – will salmon eat smelt by Don Holm of The Oregonian staff. Now that the smelt are in the Columbia system and the sturgeon are feasting mightily, and the spring Chinook are on the way, there comes up again the old question — will salmon eat smelt? If so, salmon hunters would do well to put up supplies of the little eulachons now for the coming summer [and] the fall. ... I then put the same question to Dave Easter, veteran salmon angler and moorage operator on the lower Columbia at Goble, and he said: “salmon feed on smelt? You bet they do! I’ve seen lots of them caught this way. In fact, the last big one my wife caught, a 32-pounder, I cut it open and found 13 smelt in its belly. This close to the ocean, the salmon’s digestive system is still working, and they do feed readily on these smelts.”
21 February 1973	Portland, OR	<i>Oregonian</i> , p. 8 advert	THRIFTWAY ... Fresh smelt Columbia River LB. 29c
23 February 1973	Cowlitz River	<i>Oregonian</i> , p. 5, col. 1-8	... Weekend Forecast by Don Holm of The Oregonian staff. ... The smelt run continues

Date	Place	Source	Quote
			in the Cowlitz River, and limits are being taken early morning and late evening. Because of low water, the smelts stay in deep water during the daylight hours. ... The smelt run in the Cowlitz was slow to fair, with the best dipping early and late. ...
26 February 1973	Cowlitz River	<i>Oregonian</i> , p. 2, col. 1-8	Where, oh where, have the spring Chinook gone? by Don Holm of The Oregonian staff. There is a saying that the smelt only move upriver when the water gets above 40 degrees, and when the smelt move up the spring Chinook run is not far behind. There was no telling. The vanguard of the smelt had been in the Cowlitz for several weeks, and at several points along the river ... two or three Chinooks a day were recorded. But you couldn't say the salmon run was on, by any means.
27 February 1973	Cowlitz River	<i>Oregonian</i> , p. 2, col. 6-8	Anglers can pickle, smoke or use smelt as later bait. by Don Holm of The Oregonian staff. The spring smelt runs in the Cowlitz and Umpqua rivers once again give rise to the oldie; what do you do with these darn critters after you've had one good meal of them? ...
2 March 1973	Cowlitz River	<i>Oregonian</i> , p. 2, col. 1-8	... Weekend Forecast by Don Holm of The Oregonian staff. ... The smelt are still in the Cowlitz, but due to low water are hard to dip.
3 March 1973	Cowlitz River	<i>Oregonian</i> , p. 11, col. 8	Smelt 'fill' river. Smelt have appeared in Washington's Cowlitz River in large numbers, the state Game Department said Friday morning. One observer said the river "was full of smelt" all the way up to and beyond Castle Rock.
5 March 1973	Cowlitz River	<i>Oregonian</i> , p. 2, col. 8	Spring chinook run depressing for sport, recreation anglers by Don Holm of The Oregonian staff. ... Friday, after the soaking rains at midweek, the Cowlitz again was full of smelt, started on the move by fresh water. By Friday afternoon the smelt were already above Castle Rock and still coming. Complained one hardware store owner in Castle Rock who rents dipnets: "Now we got a river full of smelt and no one is here."
9 March 1973	Cowlitz River	<i>Oregonian</i> , p. 7, col. 8	... Weekend Forecast by Don Holm of The Oregonian staff. ... Smelt are still present in the Cowlitz.
11 March 1973		<i>Sunday Oregonian</i> Outdoors, p. 156	SMELT ARE COMING By Don Holm. Each new year, since time began, somewhere between January and April, the advance scouts of a blue-packed [sic] silversided little critter commonly called a smelt, show up in the lower Columbia River. As they pass the mouths of tributaries, they hesitate, as if testing or tasting the water for some mysterious element known only to lovesick smelts looking for a place to spawn. Should the Cowlitz on the Washington side have the right temperature and density, they will turn in there. Legend has it that if they go on upstream and don't come back, the main body of the run will follow. If the scouts come back down they continue on up the Columbia to the Kalama, Lewis, Washougal or Sandy. Sometimes they don't find conditions right in any of these streams and they stay in the main river to spawn. Sometimes they appear in all of these streams in seemingly unlimited hoards. Sometimes they pass up one of another of these tributaries for no apparent reason. In any case, they have mystified and delighted all the peoples who live along the river, at least since Lewis and Clark first mentioned them in their journals. Each year, beginning in January, smelt watchers take up the vigil,

Date	Place	Source	Quote
			alert for the first signs of the new run, such as unusual seagull activity, rippling surface of the water in early morning or late evening, predator fish jumping as they feed on the little fish. Their cry goes up, “The smelt are in.” Within hours the news has traveled the length of the lower Columbia. Outside of sporting goods and hardware stores appear racks of longhandled dipnets for rent or sale. Roadside hotdog and popcorn wagons suddenly blossom on the banks of the smelt tributaries, as if by osmosis. The low-slung commercial gillnet fleet assembles on the main river from its hundred hidden sloughs and island coves. Excited telephone callers swamp the newspaper offices for more details. Fish buyers prepare their trucks for rushing the harvest to the markets all over the Northwest. The only thing that has changed in the mad scene along the smelt rivers these days when the run appear[s] is that now the first word brings a stream of campers and other recreation vehicles, filled with eager dippers. The camper and trailer, especially, are ideal for family smelting, as in many cases they can be backed up to the river bank or parked nearby and the smelt fever enjoyed in complete comfort. Nothing, not even the return of the swallows to Capistrano, surpasses the annual arrival of the smelt for sheer fascination and often abandonment of all inhibitions in the rush to harvest them. Depending on the stream, the banks of the tributary overnight becomes crowded with frantic dippers, plunging their nets into the water and coming up with anywhere from two or three wriggling fish to five or 10 pounds at a dip. At times the run becomes so thick that it appears as a dark, fluid oily stream undulation relentlessly upstream. As the excitement takes on a crescendo, dippers often abandon nets, leap into the water and try to scoop them up with pails, boxes, and even their hands. On the banks, the game wardens get cramped fingers from writing citations to citizens, who in their zeal have forgotten that the limit is 20 pounds. Then come the local celebrations contrived by the booster types — the smelt-eating contests, the annual meetings of the smelt brotherhoods, such as the Eulachon Society. The fish markets begin to overflow with boxes of fresh smelts. The price begins to fall rapidly. Dippers and others who can’t wait to buy their first mess of smelt for the first fry of the year, surfeit themselves with the rich little fish. As a friend and smelt aficionado once exclaimed to me “I would give \$10 for the first good fried smelt dinner of the year — but you couldn’t pay me to eat the second!” Sturgeon fishermen lay in a supply for the summer’s bait. Others smoke or pickle the smelt. Tons and tons probably go to waste, as happens whenever nature manifests her fecundity in such a phenomenal way. And when the smelt arrive, all the people who live along the river take it as a sign that the spring Chinooks will not be far behind, and the big sturgeon will come out of their deep holes on a feeding spree. The Columbia River smelt is truly a miracle, even in an age when most miracles are credited to man’s scientific achievements, not to Mother Nature, and happily not even science has been able to reduce the smelt’s behavior to predictable motivations. The element of mystery and biological instinct that trigger this behavior is what makes the annual smelt

Date	Place	Source	Quote
			run a good form of madness, and a happy way to herald the coming spring. The Columbia River smelt is one of numerous species of similar fishes that inhabit most oceans. It is related to the grunion or surf smelt that practice their lovemaking on the beaches of Oregon and California during certain phases of the moon and tide. In the Northwest, particularly in Alaska, the smelt is also known as candlefish, oolichan, or eulachon which is “hooligan.” The name candlefish comes from the practice of the coast Indians, who used the oily critter heating, lighting and cooking. In Alaska, when I was there in the late 1930s, most native foods were cooked in “hooligan oil.” I believe in some of the outlying villages, the oil was used also for rubbing babies and grooming hair. In any case, the scientific nomenclature for the Columbia River run is <i>Thaleichthys pacificus</i> (which I hope survives the typesetting and proofreading of this page). The word “smelt” comes from the Anglo-Saxon “smeolt” meaning smooth and shiny. Another version has it that word comes from the odor, which faintly resembles cucumbers or violets (but as any dedicated angler knows, it is the black bass that smells like violets). Still another version has it that the name comes from the smelting of metal, because of its metallic sheen. Lewis and Clark, who called them “anchovies” devoted an entire page to their description, and Captain Clark was moved to write: “I think them superior to any fish I have ever tasted, even more delicate and luscious than the white fish of the lakes.” They apparently spawn in tributaries of the main river that originate in slow snowfields or glaciers. Joint studies made by Oregon and Washington biologists indicate that they enter the Columbia only when the water temperature reaches 40 degrees. Apparently, this is also true of the tributaries. After mild winters, they seem to appear early — the earliest recorded time is Jan. 3 — and enter more tributaries. After harsh winters, they appear later. The Cowlitz is apparently the Equator for the smelt. Unless the water temperature is right, they will not pass this mouth. At other times, they will not enter the Cowlitz if the water is too cold, but will go on past to enter one of the others. The famed Sandy River run usually came in March or April when the winters['] snows began to melt on Mt. Hood. The Sandy is the only river on the Oregon side where they are known to spawn, although in 1936 and 1945 at least, they also went up to the Tanner Creek below Bonneville Dam. In the early days, the annual smelt run was a major factor in Troutdale’s economy. In many years as much as 25 tons a day were shipped commercially from there during the run. In one typical year — 1945 — 17,754 daily permits at 50 cents a head were sold (and fines for violations totaled \$1,830). The arrival of the first smelt in the Sandy usually signaled a mass exodus from Portland, as eager dippers flocked to the scene. On March 26, 1957 at 12:30 p.m., the Sandy River smelt watchers welcomed what turned out to be the last smelt run for more than a decade. During the long fruitless vigil, the Ancient and Honorable Order of Smelt Watchers faded away, and the militant members of the Eulachon Society of Troutdale disbanded in despair. Everyone resigned themselves to the conclusion that the smelt had deserted the

Date	Place	Source	Quote
			Sandy forever. Then, at 2:30 p.m. on March 23, 1971, residents who lived along the river conformed that after a long absence, the smelt again had appeared. Ironically, the smelt had entered the river in numbers during the 24-hour period from midnight Sunday to midnight Monday, when dipping is prohibited. But no one worried about that. The joy at seeing the run again compensated for the timing. In 1972 the run again appeared in the lower Sandy, but did not ascend the river in numbers that permitted a sports or commercial fishery — at least during observable hours. Large numbers were known to be in the Columbia off the Sandy, however. As this is written, the smelt watchers are already on station, taking up the vigil. Once again the anticipation and expectation increases in intensity, particularly since the run appeared earlier than usual in the Cowlitz, and was exceptionally heavy. Then, again, who knows how a smelt thinks? It is enough to know they still return to the Columbia every year, like the swallows to Capistrano. SANDY RIVER CHRONOLOGY OF SMELT RUNS 1929 — April 9 1937 — no run 1945 — April 1 1953 — April 19 1930 — March 18 1938 — no run 1946 — March 26 1954 — April 1 1931 — no run 1939 — no run 1947 — no run 1955 — no run 1932 — March 26 1940 — March 6 1948 — March 27 1956 — March 29 1933 — no run 1941 — March 14 1949 — March 24 1957 — March 26 1934 — March 4 1942 — March 19 1950 — no run no more runs until 1935 — no run 1943 — March 25 1951 — April 5 1971 — March 23 1936 — March 27 1944 — no run 1952 — Appeared 1972 — appeared
23 March 1973	Cowlitz River	Oregonian, p. 74, col. 8	... Weekend Forecast by Don Holm of The Oregonian staff. ... The Cowlitz was in between steelhead and salmon runs. Some smelt were still being taken.
1974			
9 January 1974	Portland, OR	<i>Oregonian</i> , p. 6, advert	Fred Meyer ... Fresh Columbia River Smelt 59c lb. First of the season.
9 January 1974	Portland, OR	<i>Oregonian</i> , p. 40, advert	TRADEWELL ... Fresh Smelt ... Lb. 49c
9 January 1974	Columbia River	<i>Oregonian</i> , section 3M, p. 2, col. 1-5	Steelhead purchasing law hits Oregon. By Don Holm of The Oregonian Staff. ... It seems odd to be talking about smelt in January. Traditionally this silvery little eulachon arrives in early spring with the floods and the pussy willows. But commercial fishermen have been netting smelt in the Columbia for weeks now, even though they have not entered any of the tributaries. Washington Fisheries Department Director Thor C. Tollefson said Tuesday that netters have taken as many as 40 boxes of smelt in one day from the Columbia at Eagle Cliff near Cathlamet. Sport dipping has also been good in the Oak Point area near Longview. The smelt season does not pick up until March and April, but they are in there for the frostbite dippers. There is no limit on the commercial catch, of course, but sports anglers are restricted to 20 pounds a day.
16 January 1974	Portland, OR	<i>Oregonian</i> , section 4M, p. 8, advert	Thriftway ... Columbia River Fresh Smelt ... LB. 39c

Date	Place	Source	Quote
17 January 1974	Portland, OR	<i>Oregonian</i> , section 3M, p. 9, advert	AG Food Stores ... Columbia River Fresh Smelt ... LB. 39c
23 January 1974	Portland, OR	<i>Oregonian</i> , section 4M, p. 16, advert	ALBERTSON'S ... Fresh Smelt Columbia River ... lb. 39c
25 January 1974	Columbia River	<i>Oregonian</i> , section 4M, p. 4, col. 1-8	Weekend steelhead prospects should improve in larger rivers. By Don Holm of The Oregonian Staff. ... Smelt are already in the Columbia, but not in any of the tributaries yet.
5 February 1974	Columbia River (Oak Point)	<i>Oregonian</i> , section 4M, p. 2, col. 1-3	Drought finally ends. By Don Holm of The Oregonian Staff. ... Record high prices Commercial smelt dippers on the Columbia have been getting record high prices, although the season is far from peaking up. That won't happen until late March or April. The best dipping has been at Oak Point near Longview. At this writing, the silvery little eulachons had not entered the Cowlitz. The daily bag limit for sports dippers was 20 pounds, but when a woman complained that this was too small these days of gasoline shortages, Fisheries Department director Thor Tollefson, after discussions with the staff, discovered there was no biological reason why the daily limit could not be raised to 40 pounds, and it was done.
6 February 1974	Portland, OR	<i>Oregonian</i> , section 3M, p. 12, advert	Thriftway ... Columbia River Fresh Smelt LB. 29c
6 February 1974	Portland, OR	<i>Oregonian</i> , section 4M, p. 19, advert	ALBERTSON'S ... Fresh Smelt Columbia River ... lb. 35c
7 February 1974	Portland, OR	<i>Oregonian</i> , p. 7, advert	Sentry Markets ... Fresh Columbia River Smelt LB. 29c
13 February 1974	Columbia River (Stella, Eagle Cliff, and Cathlamet)	<i>Oregonian</i> , section 3M, p. 5, col. 1-4	Anglers eye Chinook, smelt. By Don Holm of The Oregonian Staff. ... Fish watchers are maintaining the vigil for the arrival of the early spring run of Columbia River Chinook and the silvery little eulachon called the smelt. Both are in the lower river somewhere. ... As for the smelts, they have not appeared at all above the Cowlitz. Unconfirmed reports say they have been seen in the lower Cowlitz. Chances are they are still hanging below the mouth in the main stem. Commercial and sport dipped has been going on for several weeks on the Washington side, near Stella, Eagle Cliff, and Cathlamet. Both smelt prices for commercials, and smelt catches have been high during the first of the season. ... According to Thor C. Tolefson, director of the Washington Fisheries Department, the 20-pound daily limit to sport dippers has been raised to 40 pounds.
15 February 1974	Columbia River,	<i>Oregonian</i> , section 3M, p. 4, col. 1-8	Cold rains hit fishing spots; Elkton reports first spring Chinook catch. By Don Holm of The Oregonian Staff. ... The big smelt run is momentarily expected in the Cowlitz, but as of Thursday noon dippers were still waiting. The daily bag this year is 40 pounds per person. ... The smelt run was reported heavy in the Prescott to Cowlitz area, but the Cowlitz was still muddy.
16 February 1974	Cowlitz River	<i>Oregonian</i> , section 4M, p. 3, col. 2	Cowlitz river smelt dipping reported good. The smelt turned up in the Cowlitz river Friday and both commercial and sport dippers were harvesting the silvery little fish as far

Date	Place	Source	Quote
			up as Kelso. Dippers were reported getting from five to 10 pounds per dip. The season is open 24 hours a day in Washington. No license is required and this year there is a 40-pound daily limit in the Cowlitz. In the main Columbia River, the limit is 20 pounds per day and a 50-cent daily permit is needed.
22 February 1974	Columbia River (Goble to St. Helens), Lewis River, Cowlitz River	<i>Oregonian</i> section 3M, p. 3, col. 1-8	Continuous rein hampers steelhead streams; smelt run stays hot. By Don Holm of The Oregonian Staff. ... The smelt run continues hot and heavy in the main Columbia from Goble to St. Helens, in the lower Lewis up to Woodland, and in the Cowlitz up to Castle Rock. ... LOWER COLUMBIA — At St Helens, Keith Rowland reported a heavy smelt run at the mouth of the Lewis.
25 February 1974	Columbia River (Rainier Docks), Lewis River, Cowlitz River	<i>Oregonian</i> , section 3M, p. 2, col. 1-3	Fisherman's life now orbits around search for gasoline. By Don Holm of The Oregonian Staff. ... I went smelt dipping in the Lewis River where the silvery, blue-backed little fishes have reached as far up as Woodland in frenzied hoards [sic] of spawners. The Cowlitz run, too, is one of the heaviest in years. Good dipping is found all the way from the mouth up to Castle Rock. The bank dipping is most accessible from old U.S. 99, with numerous access roads to the river, some of which are open for a fee. Fuel-conscious dippers from the metro area will do better in the Lewis, however, as it is closer to home. Good dipping has also been reported from the Oregon side of the Columbia, even places such as the Rainier docks.
25 February 1974	Portland, OR	<i>Oregonian</i> , section 3M, p. 12, advert	Shop Kienow's ... Fresh Columbia River Smelt Dip Net 4 pounds \$1.00 29c Pound
27 February 1974	Portland, OR	<i>Oregonian</i> , p. 5, advert	SAFEWAY ... Fresh Smelt Fresh Dipped lb. 24c
28 February 1974	Sandy River	<i>Oregonian</i> , p. 1, col. 2-3	BIG DIPPER — The earliest smelt run on record showed up in the Sandy River Tuesday afternoon, and by Wednesday morning the banks were lined with happy dippers from the freeway to the Troutdale bridge. The run this year also appears to be a large one [picture caption]. Smelt's arrival sets Sandy River record. Smelt returned to the Sandy River Tuesday afternoon [26 February] — the earliest arrival on record — and by Wednesday morning happy dippers lined both banks from the freeway to the Troutdale bridge, and everyone was getting his limit. Most dippers were able to take the daily limit of 25 pounds within five or 10 minutes. The Sandy was low and clear Wednesday and dipping conditions were ideal. No license is needed for personal use dipping this year. Mrs. Glenn Otto, who lives on the banks of the Sandy, said she discovered the run had turned into the river Tuesday afternoon and gave out the word. By Wednesday morning she was doing a brisk business renting long-handled nets. Mrs. Harris Quade, at Sun Dial Beach, said the fish had passed by the Sandy over the weekend and had gone as far as Corbet; where commercial netters were taking them. For unknown reasons, the smelt began to turn up the Sandy Tuesday. Little is known about the habits of smelt, also known as eulachons, except they apparently spawn in rivers which have headwaters in the snowfields or glaciers. Unlike the swallows which go back to Capistrano every year, the smelt are not so consistent. Since 1929 when records were started, the earliest

Date	Place	Source	Quote
			appearance was March 4, 1934, and the latest April 19, 1953. Until 1958, they occasionally missed a year. From 1958 to 1970 they did not appear at all. A small run turned into the Sandy in 1971 to break the jinx. The early run of smelt first appeared in the lower Columbia River in December. In mid-February they began running in the Cowlitz and North Fork Lewis rivers on the Washington side.
1 March 1974	Columbia River (Bonneville to Goble), Lewis River, Cowlitz River, Sandy River	<i>Oregonian</i> , section 3M, p. 3, col. 1-5	Most streams remain high and muddy. By Don Holm of The Oregonian Staff. ... The Columbia River, from below Bonneville to Goble, is experiencing the largest smelt run in years. The river is full of the silvery eulachons. They are in the Cowlitz, Lewis, and Sandy rivers, as well as the main stream. For the first time in my memory, dippers have been taking smelt from the main river on the Oregon side. The smelt run has increased the sturgeon activity in the Columbia, and netters also report the Chinook salmon have been dining on the little fish, too. In Oregon, the daily smelt limit is 25 pounds and no license is required. The season is closed from midnight Sunday to midnight Monday. In Washington the daily limit is 40 pounds, except in the main Columbia, where it is 20. ... LOWER COLUMBIA — The river is full of smelt, and the sturgeon and salmon being caught are also full of smelt. Anglers report even the carp to be bulging with the little silvery fish. ... The Sandy was low and clear Wednesday, and full of smelt.
1 March 1974	Sandy River	<i>Oregonian</i> , section 3M, p. 32, col. 3	Happy days again! A happy day it was this Tuesday, Feb. 26, in the late afternoon, when a huge run of smelt wandering around in the murky Columbia River followed its leaders into the Sandy River and moved up beyond Troutdale, once famed as the “smelt capital of Oregon.” So there is a revolt in Ethiopia, gunfire on the Golan Heights, Kissinger laying a peace trail in the Middle East, ex-Cabinet officers on trial, the President fighting against impeachment. So what? The smelt have returned to the Sandy! Not the smidgeon of smelt that ventured timidly into the river in 1971, then scuttled back to the big river, but a surge of eulachon as in the olden, golden days when thousands of Oregonians lined the Sandy’s banks and dipped to their hearts’ content with nets, birdcages and other contrivances. It would have gladdened the heart of Ed Brockman, “Sandy River Ed,” he was known as, who watched and guarded the smelt runs like a mother hen with her chicks. Could it have been the inconstancy of the smelt that broke Ed’s heart and hastened his death? The smelt stopped visiting the Sandy in 1958, after missing a year now and then; the trickle in 1971 was hardly enough to count. Not only have the smelt come home to the Sandy, but the run is the earliest on record—perhaps due to the grossly maligned abundance of rainfall in western Oregon this winter. It’s a sign, a portent. The smelt are saying, “Be of good cheer, Oregon, the sun will shine again.” So, it’s off to the Sandy for Everyman’s fish, the tasty smelt fresh from the sea; no skill necessary, no license required, 25 pounds per dipper—the only free food roundabout these days.
3 March 1974	Sandy River	<i>Oregonian</i> p. 1, col. 1-2	Careful there, smelt, dippers line the Sandy. By Kathleen Piper of the Oregonian Staff. If you’re a smelt thinking of heading into the Sandy River, do it between midnight

Date	Place	Source	Quote
			Sunday and midnight Monday, or you likely will wind up in a frying pan. In spite of Saturday's foul weather, hundreds of smelt dippers lined the banks of the Sandy. According to Roy Meger, owner of the Troutdale General Store, every dipper netted his 25-pound limit within an hour. "They're nice, big fish," he said. "This is the biggest run I can remember, and I've been here 40 years." Meger has been renting his nets at a furious pace. At times Saturday people waited in line to rent a dip net. The nets were stashed in Meger's attic since the run of 1950. The nets rent for 75 cents an hour. Many dippers bring their own nets. The fishermen are undaunted by the cold and rain — and snow. "They come in here soaking wet, but they're in good spirits," Meger said. "I haven't heard any complaints." Dipping is forbidden during the 24 hours after midnight Sunday, thus ensuring a safe journey for the smelt during that period. The Oregon Game Commission requires no permit, but it limits daily catches to 25 pounds per person. Citations have been issued for violations. On the Sandy, smelters are allowed only below the Viking (Stark Street) Bridge. Multnomah County sheriff's deputies Saturday reported traffic heavy near the Sandy, with the Lewis and Clark park lot full and cars parked solid along road shoulders. Deputies warned drivers to observe "no parking" signs posted in some areas. Unfortunately, many successful dippers have been wasteful, according to Sgt. Harold Boehmer. "We've been finding smelt dumped all over the county," he said. Boehmer theorized that the dumpers unload when faced with the reality of cleaning 25 pounds of small fish. Nobody can tell how long the run will last.
3 March 1974		<i>Oregonian</i> , p. 152	IT'S TIME TO JUMP WHEN THE SMELT RUN. By Don Holm. Sometime this month (if they have not appeared by the time this comes out in print), the vanguard of the annual spawning migration of Columbia River smelt, will appear at the mouth of the Sandy, and if they like what they see, the hoard will turn off and begin spawning in the stretch of river between the Troutdale bridge and Viking Park. This they have done since time immemorial, with a few unexplained exceptions, namely the period from 1958 through 1970 when they did not show up at all. From records compiled by the now defunct Eulachon Society, beginning in 1929, the earliest appearance was March 4 (in 1934) and the latest April 19 (in 1953). Where they come from, why they miss certain years, and why they spawn in only certain streams at certain times is unknown to science. Like the swallows at Capistrano, the urge comes from some ancient stirrings of nature that perhaps are better left unexplained. ... This run appears in the main stem, perhaps as early as December. Commercial and sport dippers this season have been taking them in large quantities from the river in the Stella and Eagle Cliff areas on the Washington side below Longview since before last Christmas. ...
4 March 1974	Sandy River, Cowlitz River	<i>Oregonian</i> , section 4M, p. 10, col. 4	Smelt dippers are taking limit. Smelt ran again in the Sandy River Sunday, attracting eager dippers to the river banks. "They're doing real good," said Roy Meger, owner of the Troutdale General Store. "They're running just as good as yesterday. I've got a store full of people right now," he said Sunday morning. "I opened at 8 a.m. and they were out

Date	Place	Source	Quote
			here waiting for me. “They’re getting the limit ... within an hour.” Daily catches are limited to 25 pounds per person. The smelt will get a brief respite, though, during the 24 hours after midnight Sunday when dipping is forbidden. This ensures a safe journey up the Sandy River and increases probability of future runs. In Washington, the run in the Cowlitz River near Kelso was reported slow.
8 March 1974	Columbia River, Sandy River, Cowlitz River, Lewis River, Tanner Creek	<i>Oregonian</i> , section 3M p. 6, col. 1-8	Cold front aids prospects for late run winter steelhead fishing. By Don Holm of The Oregonian Staff. ... The smelt run continues heavy in the Columbia, Sandy, Cowlitz, and Lewis, and even in Tanner Creek. This year smelt have even been dipped off the dock at Goble, St. Helens and Rainier. ... LOWER COLUMBIA — The heavy smelt runs continue in the Columbia. Clarence Quick at Goble landing said they were even dipping them off the dock. ... At St. Helens, Keith Rowland also reported dipping smelt off the landing. There seems to be a different type of smelt in the Columbia this year, or at least two distinct runs. The Sandy River smelt are slightly different from those in the Cowlitz and Lewis. ... The smelt in the Sandy at mid-week, with the earliest and one of the largest runs on record. The Sandy is closed to dipping from midnight Sunday to midnight Monday.
15 March 1974	Columbia River, Sandy River, Cowlitz River	<i>Oregonian</i> , section 3M, p. 2, col. 1-4	First Chinook caught at St. Helens. WEEKEND FORECAST By Don Holm of The Oregonian Staff. ... Dippers report smelt still present in the Columbia and some tributaries. ... The Sandy was in good condition, with the smelt run still on. ... Smelt were still present in the Cowlitz, and the run is expected to continue through March.
20 March 1974	Sandy River	<i>Oregonian</i> , section 3M, p. 18, col. 1-3	Getting boasts ready, Anglers prepare for salmon. WEEKEND FORECAST By Don Holm of The Oregonian Staff. ... The ubiquitous smelt were still in the river, hovered over by seagulls, and there were reports that the Sandy River run continued unabated, for what will go down in the book as the earliest, biggest, and longest smelt run ever recorded in that river.
22 March 1974	Columbia River, Sandy River	<i>Oregonian</i> , section 2M, p. 2, col. 1-8	Prospects for good outdoors weekend appear best in months. WEEKEND FORECAST By Don Holm of The Oregonian Staff. ... The fantastic smelt run still continues in the Columbia and tributaries. Earlier in the week, when I checked the Sandy, it was bank to bank with the ubiquitous eulachons and they are now of a bigger size — in the 10 to 12-inch class. ... LOWER COLUMBIA — The main stem is still loaded with smelt. Where they are all coming from nobody knows.
25 March 1974		<i>Oregonian</i> , section 3M, p. 3, col. 1-4	Big chinook catches reported. By Don Holm of The Oregonian Staff. ... The best sturgeon fishing in the Columbia and Willamette usually comes in March, April and May and the beginning of the action usually coincides with the smelt runs, as the sturgeon gorge on these oily little eulachons. Veteran sturgeon anglers freeze bucket loads of smelt during the runs for later use as sturgeon bait. ...
29 March 1974	Sandy River	<i>Oregonian</i> , section 4M, p. 4, col. 1-8	Storm front drives most anglers from Oregon rivers, lakes. WEEKEND FORECAST By Don Holm of The Oregonian Staff. ... LOWER COLUMBIA ... The river is full of smelt. ... Smelt are still in the Sandy River ...

Date	Place	Source	Quote
5 April 1974	Sandy River	<i>Oregonian</i> , section 3M, p. 6, col. 4-8	Fishing outlook poor for weekend. WEEKEND FORECAST By Don Holm of The Oregonian Staff. ... Smelt are still in the Sandy, according to the seagulls. ...
1975			
15 January 1975	Portland, OR	<i>Oregonian</i> , 3M A19 ad	Fred Meyer ... Fresh Columbia River Smelt ... 39c lb
15 January 1975	Portland, OR	<i>Oregonian</i> , ad	SAFEWAY ... Fresh Smelt First of the Season lb. 48c
15 January 1975	Cowlitz River	<i>Oregonian</i> , ad 2	Big 'C ... Cowlitz River, First of the Season, Fresh Smelt lb. 47c
4 March 1975	Cowlitz River	<i>Oregonian</i> , p. B8, photo caption	Boats jam Cowlitz as eager fishermen dip nets for smelt. COWLITZ RIVER — Weekend smelt fishermen crowded the Cowlitz River near Castle Rock, Wash., to dip for the small fish. Bank fishermen were finding some smelt, but boaters and waders dipping in deeper water near the center were scoring heavily. The Cowlitz run is said to be largest in the Northwest.
5 March 1975	Portland, OR	<i>Oregonian</i> , p. B12 ad	Tradewell ... Fresh Smelt lb. 23c
7 March 1975	Cowlitz River,	<i>Oregonian</i> , p. C4	... Weekend Forecast by Don Holm of The Oregonian staff. ... The smelt were still in the Cowlitz, but nowhere above that river.
14 March 1975	Cowlitz River	<i>Oregonian</i> , p. C6	Washington will close Columbia River to steelhead angling. By Don Holm of The Oregonian staff. ... The smelt were reported still in the Cowlitz, but have not appeared above St. Helens yet.
21 March 1975	Columbia River	<i>Oregonian</i> , p. C4	Sandy River smelt run has been detected as far up as Goble. by Don Holm of The Oregonian staff. ... As a member of the Ancient and Honorable Eulachon Society, I can report that the Sandy River smelt run has been detected at least as far up as Goble, where they are swarming past the docks on the Oregon side. By weekend they should be as far as St. Helens.
24 March 1975	Cowlitz River,	<i>Oregonian</i> , p. G29	Shake off 'November of soul' — fish! By Don Holm of The Oregonian staff. ... As this is being written, the ubiquitous and delicious little smelt or eulachon is already engaged in its nuptial migrations up the Cowlitz and Umpqua; and we have taken up the smelt vigil on other streams such as the Sandy and Lewis.
28 March 1975	Lewis River	<i>Oregonian</i> , p. C5	The smelt run showed up exactly as predicted at St. Helens last weekend, but as of this writing, have not appeared at the Sandy. ... The smelt also appeared at the Lewis River. ... There is a possibility that the smelt may show in the Sandy as well. ... Smelt were in the lower Lewis River this week.
29 March 1975	Sandy River	<i>Oregonian</i> , p. 1	Smelt — and fishermen — come to Sandy River. By Steve Erickson of the Oregonian staff. TROUTDALE — They came to the Sandy river Friday [28 March] . First, flashing silver smelt. Next, lunging fishermen with long-handled nets. Occasionally the twain met. "They're out here in the middle; I can see the whole damn works of 'em," growled Lind Bell of Gresham, fisherman without a hook. He waded in that direction. "Well, don't go out too far and fall off that ledge," cautioned Bell's onshore partner, Joe Turner, "or we'll have to fish YOU out." The Sandy's green water looked inviting to scores of dippers along its slate-gray rocks and sloping banks. What one oldtimer termed "the first good run in 15 years" had occurred last spring, and fish fever was rampant Friday as

Date	Place	Source	Quote
			another strong run was anticipated. While in previous years portions of the Sandy have been closed to smelt dipping, the Oregon State Police said Friday the entire river will be open 24 hours a day, seven days a week. “They’re delicious,” said Turner, 38, “and you can’t beat the price. I’ve got a Volkswagen and it must have cost me a dime to come down and get a couple of limits.” A limit is 25 pounds per person. Turner’s wife Angie was on hand to help him haul home their 50 pounds. ...
1976			
30 December 1975	Cowlitz River	<i>Oregonian</i> , p. 20, col. 5	Smelt in Cowlitz. KELSO, Wash., — A trickle of smelt has developed on the Cowlitz River. But Cowlitz County deputies report that it in no way approaches a major run.
2 January 1976	Columbia River Cowlitz River	<i>Oregonian</i> , p. C6, col. 4-8	Excellent prospects seen, Steelhead stream returning to shape. By Don Holm of the Oregonian staff. ... LOWER COLUMBIA — A few advance schools of smelt were present along the Washington shore and in the lower Cowlitz. Dippers had picked up a few at the Cowlitz Boat Club landing, but there’s no big run on.
6 January 1976	Columbia River Cowlitz River	<i>Oregonian</i> , p. 28, col. 5	Smelt run comes early. This year’s smelt run in the Columbia River and its tributaries is about three weeks early and will be larger than ever according to early indications. The tiny fish began showing up in the Cowlitz River at Kelso, Wash. three weeks ago. Commercial operators say this is the third straight year that the smelt have returned in increasing numbers. Millions of smelt are expected to show up in the Portland area in four to six weeks.
7 January 1976	Cowlitz River	<i>Oregonian</i> , p. 27, col. 3-6	Despite heavy rains, Several SW Washington rivers still fishable. By Don Holm of The Oregonian Staff. ... With the lower Cowlitz flood plain partly under water in place, there was no prospect of any improvement in the smelt run which started and stopped several weeks ago.
7 January 1976	Portland, OR	<i>Oregonian</i> , p. 46, advert	TRADEWELL ... 1st of Season lb. 49c
8 January 1976	Portland, OR	<i>Oregonian</i> , p. 33, advert	Smelt First of the Season, Fresh Columbia River Pound 49c
9 January 1976	Cowlitz River	<i>Oregonian</i> , p. 60, col. 2-3	Heavy rains knock out most western steelhead steams. By Don Holm of The Oregonian Staff. ... The smelt are in the lower Cowlitz. The river is high and muddy and commercial dippers are reporting slow going. ... The Washington Department of Fisheries reported the smelt run slow in the Cowlitz. Commercial boats were having slow harvesting. Dippers at times were reporting one or two smelt per dip. The high water actually aids dippers, as it forces the smelt hoards over closer to the banks. This week the little fish were being taken up as far as the Interstate 5 bridge, but not “in quantities to justify a sport fishery.”
11 January 1976	Cowlitz River	<i>Oregonian</i> , p. 26, photo caption	WET WORK — These smelt dippers on the Cowlitz River at Lexington, just north of Kelso, Wash., were having little luck Saturday morning but continued to brave cold and wet weather.
16 January 1976	Cowlitz River	<i>Oregonian</i> , p. 57, col. 1	Ocean bottom fishing good. By Don Holm of The Oregonian Staff. ... SOUTHWEST WASHINGTON ... The Cowlitz smelt run was still attracting dippers, but pickings were slim. ...

Date	Place	Source	Quote
23 January 1976	Cowlitz River	<i>Oregonian</i> , p. 59, col. 1-2	Oregon coast offers best weekend fishing prospects. By Don Holm of The Oregonian Staff. ... SOUTHWEST WASHINGTON ... At Longview, a few smelt were being dipped. The little fish have been in the river for six weeks now, but high cold water has kept them down deep and hard to capture.
30 January 1976	Cowlitz River	<i>Oregonian</i> , p. 36, col. 1-2	Most rivers dropping; fishing poor to fair. By Don Holm of The Oregonian Staff. ... And the smelt are back in the Cowlitz, according to the Washington Department of Fisheries. ... SOUTHWEST WASHINGTON — The silvery little smelt were being taken in small numbers again in the Cowlitz. They are up to about Lexington Park.
4 February 1976	Portland, OR	<i>Oregonian</i> , p. 30, advert	AG FOOD STORES ... Columbia River Fresh Smelt ... lb.29c
6 February 1976	Cowlitz River	<i>Oregonian</i> , p. 60, col. 1-6	Most streams are now too low, clear for steelhead fishing. By Don Holm of The Oregonian Staff. ... The mighty Cowlitz smelt run was back in the news, with dippers limiting out in as little as 15 minutes. The biggest part of the run is in the Lexington Park area, but the little fish are up as far as Castle Rock. ... LOWER COLUMBIA ... No smelt have been reported above the Cowlitz, according to seagull watchers. ... SOUTHWEST WASHINGTON ... The Fisheries Department reported the smelt run going strong in the Cowlitz, up as far as Castle Rock.
10 February 1976	Cowlitz River	<i>Oregonian</i> , p. 32, col. 2-8	Low water, poor steelheading continue; smelt run hot. By Don Holm of The Oregonian Staff. ... Low water and poor steelheading continue through the weekend in most parts, with the best fishing prospects being the smelt run in the Cowlitz ...
11 February 1976	Portland, OR	<i>Oregonian</i> , p. 32, advert	THRIFTWAY ... Columbia River Fresh Smelt LB.29c
11 February 1976	Portland, OR	<i>Oregonian</i> , p. 34, advert	AG FOOD STORES ... Columbia River Fresh Smelt lb. 29c
11 February 1976	Portland, OR	<i>Oregonian</i> , p. 37, advert	TROY'S SEAFOOD MARKETS ... Fresh Smelt 4 lbs \$1.00 From the Cowlitz River
13 February 1976	Cowlitz River	<i>Oregonian</i> , p. 48, col. 1	Streams still low, Steelheading generally poor. By Don Holm of The Oregonian Staff. ... The little smelt are coming up the Cowlitz, but at this writing not above Sauvie Island yet. ... SOUTHWEST WASHINGTON — The Cowlitz was high and murky Wednesday, when I was there. ... Smelt were present up past Castle Rock, but most of the activity, from dippers who have not yet had enough, was found above the highway bridge between Longview and Kelso. The smelt were large and mostly males. No one knows how long the run will last.
20 February 1976	Cowlitz River	<i>Oregonian</i> , p. 39, col. 3-6	Storms hurt steelhead fishing on coast. By Don Holm of The Oregonian Staff. ... The smelt run in the Cowlitz continues excellent, but none have been reported above the Lewis. ... SOUTHWEST WASHINGTON — The Cowlitz smelt run was still on and in excellent condition.
27 February 1976	Cowlitz River	<i>Oregonian</i> , p. 43, col. 1-2	In all areas, Fish outlook lousy. By Don Holm of The Oregonian Staff. ... The only favorable prospects appeared to be the continuing smelt run in the Cowlitz and sturgeon fishing in the Columbia. ... SOUTHWEST WASHINGTON — The Washington Department of Fisheries reported the smelt run still in the Cowlitz, with bank netting good at night, and boat netting 'superb.'
5 March 1976	Cowlitz River	<i>Oregonian</i> , p. 38, col. 5-	For winter steelhead, Coastal fishing streams returning to shape. By Don Holm of

Date	Place	Source	Quote
		6	The Oregonian Staff. ... And those pesky little smelt are still in the Cowlitz as the run continues in excellent condition. SOUTHWEST WASHINGTON — The big news remains the super smelt run in the Cowlitz.
12 March 1976	Cowlitz River	<i>Oregonian</i> , p. 63, col. 1-4	Spring chinook fishing starts improving. By Don Holm of The Oregonian Staff. ... Smelt are still in the Cowlitz — but nowhere else. ... LOWER COLUMBIA ... No smelt have appeared. ... SOUTHWEST WASHINGTON — The Cowlitz in the Castle Rock area was covered with seagulls Tuesday, indicating the smelt run still was there.
14 March 1976	Portland, OR	<i>Oregonian</i> , p. 69, advert	Columbia River Seafoods, Kelso, Wash. SMELT SALE 19c lb. Caught Fresh Daily.
18 March 1976	Portland, OR	<i>Oregonian</i> , p. 13, advert	Columbia River Seafoods, Kelso, Wash. SMELT SALE 19c lb. Caught Fresh Daily.
25 March 1976	Sandy River	<i>Oregonian</i> , p. 1, photo caption	ARRIVED — Two Portland men haul in smelt from the Sandy River near the Lewis and Clark bridge Wednesday [24 March] where the run of the little fish was under way.
26 March 1976	Sandy River	<i>Oregonian</i> , p. 57, col. 1-4	Sandy River smelt has appearance of a large run. By Don Holm of The Oregonian Staff. ... The Sandy River smelt run was holding up well as of this writing. In fact it had the appearance of a large run. Dippers were taking daily limits of 25 pounds easily in a few minutes. Muddy water at midweek aided the netters.
29 March 1976	Sandy River	<i>Oregonian</i> , p. 29, col. 2-6	When Sandy is clear, best smelt dipping is at night. By Don Holm of The Oregonian Staff. The silvery hordes of smelt, like the swallows of Capistrano, returned to the Sandy River again last week, pretty much on schedule, and judging from the first few days of dipping, the run is a strong one. No license is required for sport dipping this year, and the personal daily limit is 25 pounds. Each person is required to do his own dipping and have his own container. Most of the action so far has been between the freeway bridge and the Troutdale bridge. Long-handled dip nets usually available for rent in the Troutdale area, and most sporting goods stores sell them. According to Harris Quade, retired marina operator who lives at Sun Dial, the first smelt nosed into the Sandy sometime last Monday night, March 22. By Tuesday, the early-bird smelt dippers, who have been keeping the vigil since the run was reported in the Goble area two weeks ago, were taking fair numbers of the little fish. The Sandy muddied up late Tuesday, which made dipping easy during the day. When the river is clear, the best dipping is at night, when the hordes move in closer to the banks. Quade said that if the river gets too muddy, it irritates the fishes' gills and they may move back down to the main Columbia. My personal records show that this year's run is the 25th since 1929, which is as far back as mine go. Lewis and Clark, however, were the first to mention them when they camped near the mouth of the Sandy (which they called the "Quicksand") River in 1806. The earliest arrival I can find is Feb. 26, and this occurred in 1974. The latest arrival on record was April 19, in 1953. There were no runs in 1931, 1933, 1935, 1937, 1938, 1939, 1944, 1947, 1950, 1955 and from 1958 through 1970, although a couple of years in that 12-year period, the smelt nosed into the river and went right back out again. In 1952 and 1972, the smelt made short appearances only, just barely qualifying as runs. Records indicate that after hard winters, the smelt appear later than usual; and after mild winters,

Date	Place	Source	Quote
			they seem to arrive earlier. Not much is known about the habits of the smelt, which the Indians called “eulachons.” The Columbia River species is <i>Thaleichthys pacificus</i> , one of several of the Pacific smelts. A close relative is the surf smelt or grunion, which spawn in the sand during certain periods of the tidal cycles, at such places as Yachats. The Columbia runs seem to prefer spawning in certain rivers, such as the Cowlitz, Lewis, Kalama and Sandy, but are known to spawn in the main stem if conditions are not right in the tributaries. They first appear in the lower Columbia in early December, and gradually work their way upriver. In the Sandy, the spawning is known to occur at least three miles above Viking Park, and probably further. The eggs are released by the females by the billions, filling the river with alevin, or newly hatched smelt. These nearly invisible fry begin feeding on attached egg sacs, and then on minute organisms in the water, drifting downstream with the currents. Not much is known about their habits until the adults surviving the ocean experience, return to spawn again. The adults do not necessarily die after spawning, as do salmon. Dippers much prefer the male smelt, which are firm. The females, in spawning condition, often are soft and mushy. What to do with all that smelt? Usually after the first meal of fresh fried smelt, one’s appetite is satiated by their richness. Captain Clark in his journals, wrote, “I think them superior to any fish I have ever tasted.” He didn’t stick around, however, for an encore. Smelt can be frozen for later use as sturgeon bait ...
2 April 1976	Sandy River	<i>Oregonian</i> , p. 47, col. 1-4	Muddy waters hamper Chinook angling. By Don Holm of The Oregonian Staff. ... The smelt run slowed somewhat this week in the Sandy, but dippers were working from the mouth up to Viking Park bridge. ... The Sandy smelt run tapered off toward midweek, although the silvery little fish were up as far as Viking Park as early as Monday.
9 April 1976	Sandy River	<i>Oregonian</i> , p. 40, col. 1-8	Spring Chinook finally arrive; angling picks up in Northwest rivers. By Don Holm of The Oregonian Staff. ... In the Sandy, the smelt run seems to be over. ...
1977			
21 January 1977		<i>Oregonian</i> , p. 40, col. 1-3	Steelhead slowing, Oregon rivers still low, clear for good fishing. By Don Holm of The Oregonian Staff. ... LOWER COLUMBIA ... No smelt on the Oregon side yet.
4 February 1977		<i>Oregonian</i> , p. 44, col. 1-6	Steelhead fishing rated poor, but trout, crabs still available. By Don Holm of The Oregonian Staff. ... The Columbia River smelt are extremely late this year, and no one’s making any predictions.
1 March 1977	Portland, OR	<i>Oregonian</i> , p. 5, advert	DISCO FOODS ... From the Columbia River Fresh Smelt 38c lb.
4 March 1977	Columbia River (Stella)	<i>Oregonian</i> , p. 37, col. 1-6	Angling prospects vary; coast appears to be best bet. By Don Holm of The Oregonian Staff. ... The pesky little smelt are still hiding out and have not entered any rivers, although commercial boats have been taking some in the Stella area on the Washington side. LOWER COLUMBIA ... No smelt have appeared above Stella. ... SOUTHWEST WASHINGTON ... The Department of Fisheries reported no smelt in the rivers yet.

Date	Place	Source	Quote
9 March 1977	Portland, OR	<i>Oregonian</i> , p. 52, advert	THRIFTWAY ... Columbia River Fresh Smelt ... lb. 33c
11 March 1977	Columbia River, Kalama River	<i>Oregonian</i> , p. 40, col. 1-6	Seagulls see them, but smelt still confound would-be dippers. By Don Holm of The Oregonian Staff. ... Those pesky eulachons, commonly known as smelts, are confounding the spring smelt watchers again. There are jillions [sic] of them in the main stem of the Columbia River, as evidenced by the concentrations of seagulls, but the little fish are being mighty picky about which tributaries they choose for spawning. Maybe the extreme drought conditions, followed by soaking rains, had something to do with it. So far they have gone up only the Kalama River, where they now have passed the Modrow Bridge. This is the first time smelt have appeared in the Kalama since 1970 and one of the few times since 1957. Washington Game Department people report dipping to be good. No license is required; the daily limit is 20 pounds. Smelt also have appeared on the Oregon side at St. Helens and in the main channel near the Interstate Bridge, probably heading for the Sandy River. ... LOWER COLUMBIA ... Don Calnon at St. Helens said a few smelt were seen on the Oregon side here. ... SOUTHWEST WASHINGTON — As has been mentioned, the smelt have not yet appeared in the Cowlitz River but instead have made a run up the Kalama and are now above the Modrow Bridge, where dipping is reported to be excellent. They may appear later in the Cowlitz, where last year they had the biggest run ever recorded; they also may show up later in the Lewis River, which has occasional runs of smelt.
13 March 1977	Sandy River	<i>Oregonian</i> , p. 1, col. 5	Smelt return to Sandy River. The annual smelt run has begun in the Sandy River, with abundant catches reported Saturday [12 March] . The Clackamas County game warden said smelt dippers were netting their 25-pound limits in three to four dips. Smelt were first reported seen at the Troutdale Bridge Saturday morning.
14 March 1977	Sandy River	<i>Oregonian</i> , p. 1, photo caption	ABUNDANT RUN — Hundreds of fish fanciers turned out Sunday along the Sandy River east of Portland to net their 25-pound limit of smelt, which are reported to be running in abundance this year.
14 March 1977	Sandy River, Kalama River	<i>Oregonian</i> , p. 1, col. 4-6	Smelt fishermen suffer fatal attacks. ... Smelt were running heavily up the Sandy River all weekend, according to Oregon State Police, but he most popular spot for fishing was near Lewis and Clark State Park. In Washington, the usually crowded Cowlitz River showed no signs of smelt runs Sunday, according to Cowlitz County sheriff's deputies. However, they said the Kalama River was heavily fished Sunday in the Modrow Bridge area near Kalama.
14 March 1977	Sandy River	<i>Oregonian</i> , p. 13, photo caption	DIPPERS — Smelt fishermen swarmed to the Sandy River on Sunday as the small fish made their annual run. .. fish were abundant ... Limits were caught by many ...
15 March 1977	Sandy River	<i>Oregonian</i> , p. 37, col. 1	3rd angler succumbs on Sandy. ... Smelt still were running strong in the Sandy with crowds of people clogging Lewis and Clark State Park and the Troutdale Bridge. Monday night, lights were visible up and down the Sandy bank as dippers continued to net good catches near the river's mouth. "Some still were arriving at 8 p.m. when we left the scene," Brusse said. "They were coming six to eight to a vehicle. Many of them were

Date	Place	Source	Quote
15 March 1977	Sandy River, Kalama River	<i>Oregonian</i> , p. 40, col. 1	in station wagons.” Smelt again filling rivers. By Don Holm of The Oregonian Staff. TROUTDALE — The smelt run in the Sandy River continues at this writing to hold the promise of being one of the better ones. Weekend dippers were taking limits in the section between the Troutdale bridge and the freeway bridge in minutes. The little smelts, or eulachons as the Indians called them, have been in the lower Columbia since late December. So far this year they have passed by the Cowlitz, scene of the biggest run in history last year, and instead entered the Kalama a week ago last Sunday, where they are still available in the Modrow Bridge area. During the week, they were revealed by the concentrations of seagulls in the Columbia above the Interstate bridges. A check at Sun Dial beach late Friday showed no sign of them. But sometime during the night of March 11 or 12, they arrived and turned up the Sandy. The smelt watchers were there to greet them with long-handled dipnets. The personal-use limit is 25 pounds per person per day and no license is required. This was not the earliest appearance recorded in the Sandy. In 1974, they showed up Feb. 26. In 1975, the arrival date was March 27, and in 1976, it was March 22. ... The records go back to 1929, although the smelt run was mentioned in the Lewis and Clark journals in both 1805 and 1806 [actually only in 1806]. The run appeared April 9 in 1929. Latest recorded appearance was in 1953, when they showed up April 19. They failed to appear 10 times from 1929 to 1957. After that year they did not appear again until 1971, a gap of 13 years. Until they reappeared, it was thought that the run had become extinct. In 1952 and 1972, the little fish made brief appearances, barely qualifying as runs. Records indicate that after hard winters, the smelt appear later than usual; and after mild winters, they seem to arrive earlier. ... The Columbia run seems to prefer spawning in tributaries such as the Cowlitz, Lewis, Kalama and Sandy, where the water is of glacial or icefield quality. But they appear as early as December in the Columbia, and in some may even spawn in the main river. In the Sandy, the spawning occurs at least three miles above Viking Park and maybe further. The eggs are released by the females literally by the millions, filling the river with alevin or newly hatched smelt. These nearly invisible fry begin feeding on attached egg sacs at first. Later, the fry feed on minute organisms in the water as they drift downstream with the currents. Not much is known about their habits until the adults that survive the ocean experience, return again to spawn. ...
17 March 1977	Sandy River, Kalama River	<i>Oregonian</i> , p. 44, col. 1-5	On Sandy River, Smelt run may become one of largest. By Don Holm of The Oregonian Staff. ... The fine smelt run in the sandy River continued through midweek and may become one of the largest on record. Each year, there is a difference of opinion as to whether the females or the males show up first ... but here was no mistaking the fact that female smelt came into the river first this year. ... A large concentration of seagulls was noted off the Lewis, where, perhaps, smelt gathering for entering that river. The smelt were still in the Kalama, up as far as Modrow Bridge and farther. Also, seagulls were heavily concentrated at the mouth, around the famous “Hell Hole,” where

Date	Place	Source	Quote
			two boats were anchored as well. ... There was a large concentration of seagulls off the Cowlitz at Longview, but at this writing no smelt had been reported in the river. It is not known whether this year's run is late, or passed up this important river, or just never returned in numbers sufficient to be called a run.
18 March 1977	Sandy River	<i>Oregonian</i> , p. 42, col. 1-6	Smelt run on Sandy River to provide weekend's most exciting fishing. By Don Holm of The Oregonian Staff. ... Most of the excitement for anglers this weekend will be the smelt run in the Sandy River. As of Thursday, no smelt had appeared yet in the Cowlitz River, and the Kalama River run was over. The lower Umpqua also was empty of smelt at midweek. ... METRO AREA ... Smelt dippers were finding excellent pickings on the Sandy from the mouth up to the Troutdale Bridge and beyond. ... SOUTHWEST WASHINGTON ... The smelt have not yet appeared [on the Cowlitz River].
24 March 1977	Sandy River	<i>Oregonian</i> , p. 51, col. 1-5	Dippers net limits in Sandy, Visit to river proves smelt run huge. By Don Holm of The Oregonian Staff. If there were any doubts about this year's Sandy River smelt run being a big one, they were gone by noon when I reached Lewis and Clark, on the east bank, just above the freeway bridge. By then the morning fog had dissipated and the day turned warm, sunny and spring-like. From the freeway bridge, I could see dippers upstream and down — some in the lower section using boats. The parking areas were crowded but not full. Folks arrived with nets and gear and left a short time later with limits of the little fish. Quite a few families brought along kids, it being spring vacation, and picnic lunched to make a day of it. Tourists were in the crowd, too, their campers and trailers carrying license plates from east and south. As I pulled on my waders, a visitor from South Dakota came over to inquire about finding a service station for some repair work. He said he had camped at the park the night before. "I went down to the river last night with a lantern," he said, "and found it jammed with fish from bank to bank." Some of the initial excitement of the smelt run had worn off by the time I arrived. There was not a seagull or scavenger to be seen, although the bars and beaches were literally blanketed with carcasses of spawned out (or discarded) smelt and a stench drifted up from the river in the warm air. The dippers simply wandered down to the river, made a few casts and came up with their limits and left. I ran into "Tio John" Lacey from Salem, who is past 80, there with his fishing amigo, Ted, and they could have limited out in a few minutes, but were being choosy. Seeking only the firm males, letting the egg-heavy females go. I waded out to my hips to take pictures, and could see in the clear water the scattered hordes of smelt still coming upstream. The males were easy to spot among the females. They had a silvery outline and dark bluish, iridescent coloring. Some of these late runners were beginning to spawn, or were on the verge of it. The females were bursting with eggs and the males with milky sperm. Actually, at this stage they are not as good quality as early in the run. They were easy to catch. I reached down with one hand and brought up three at a time. From the strength of the run at this point, it would seem that it would last through a second week, at least. ...

Date	Place	Source	Quote
25 March 1977	Sandy River	<i>Oregonian</i> , p. 71, col. 1-4	Smelt run continues strong, but fish beyond prime condition. By Don Holm of The Oregonian Staff. The Sandy smelt run still was coming in strong at midweek, but the little fish were not in prime condition due to their advanced spawning state. Many already were spawning or had spawned out.
29 March 1977	Columbia River	<i>Oregonian</i> , p. 39, col. 1-4	Mushroom hunters tread ground carefully. By Don Holm of The Oregonian Staff. ... I climbed in and we shoved off into the current. The banks of the Columbia were heavily littered with the odoriferous carcasses of smelt from the current run. In the clear upper two feet of the water, I could see hundreds more, some struggling weakly in the last throes, having expended their energies irrevocably, others swimming in confused circles, as if still trying to spawn. Not a seagull was in sight. Seagulls these days on the Columbia are so stuffed with smelt they can't even walk, let alone fly. I know how they feel. ... Even on this side [of the Columbia River], the water was filled with smelt, and the banks littered. ...
8 April 1977	Cascade Locks	<i>Oregonian</i> , p. 22, col. 1	Salmon catch in Willamette remains low. By Don Holm of The Oregonian Staff. ... B. P. Severtson at Bonneville reported the smelt run reached as far as Cascade Locks. He said he was dipping from the bank at Dodson-Warrendale without wetting a shoe. ...
1978			
10 January 1978	Portland, OR	<i>Oregonian</i> , p. 14, advert	Keil's ... Smelt Fresh Columbia River Caught ...lb 49c
18 January 1978	Portland, OR	<i>Oregonian</i> , p. 51, advert	Tradewell ... Columbia River Fresh Smelt lb. 35c
18 January 1978	Portland, OR	<i>Oregonian</i> , p. 54, advert	COLUMBIA RIVER SMELT Fresh ...lb 39c
20 January 1978	Cowlitz River	<i>Oregonian</i> , p. 68, col. 1-6	North coast streams perfect, but steelhead runs take break. Smelt aficionados will be happy to learn that the tasty little eulachons are up the Cowlitz at least as far as Kelso. This was the report from Dr. Paul Olson of Milwaukie, who was steelhead fishing in the area and brought back smelt instead. So far few dippers have been on hand. ... SOUTHWEST WASHINGTON — The Cowlitz is a good prospect for smelt, according to reports Thursday.
27 January 1978	Cowlitz River	<i>Oregonian</i> , p. 75, col. 1-7	Coast streams, Sandy top steelhead prospects. By Don Holm of the Oregonian Staff. ... This is also smelt time, and the Washington Department of Fisheries reports that the little eulachons are up as far as Castle Rock in the Cowlitz and dippers are having no trouble taking daily limits. ... SOUTHWEST WASHINGTON — Smelt are in the Cowlitz up to Castle Rock and dippers are easily taking daily limits.
31 January 1978	Portland, OR	<i>Oregonian</i> , p. 4, advert	IGA ... FRESH COLUMBIA RIVER SMELT ...lb. 29c
31 January 1978	Cowlitz River	<i>Oregonian</i> , p. 45, col. 1-6	Spring Chinook making early appearance in Portland area. By Don Holm of the Oregonian Staff. ... The Cowlitz has been dropping to normal levels after the big floods, but this has not apparently stopped the smelt run. The Department of Fisheries said dippers were taking limits up as far as Castle Rock.
3 February 1978	Cowlitz River	<i>Oregonian</i> , p. 32, col. 1-6	Steelhead prospects hold up despite weather; smelt running. By Don Holm of the Oregonian Staff. ... Smelt are running in a couple of places. ... SOUTHWEST WASHINGTON ... The lower Cowlitz is still the scene of the early smelt run, with

Date	Place	Source	Quote
			dipping reported good.
8 February 1978	Portland, OR	<i>Oregonian</i> , p. 47, advert	AG... Columbia River FRESH SMELT lb. 39c
10 February 1978	Columbia River at Stella	<i>Oregonian</i> , p. 74, col. 4	Show features live exhibits, equipment. By Don Holm of the Oregonian Staff. ... LOWER COLUMBIA ... Smelt are running up the Washington side in the vicinity of Stella.
15 February 1978	Portland, OR	<i>Oregonian</i> , p. 17, advert	Fred Meyer Shopping Centers ... Fresh Smelt from the Columbia 39c lb.
17 February 1978	Cowlitz River	<i>Oregonian</i> , p. 71, col. 1-6	Metro-area streams to provide good steelhead fishing. By Don Holm of the Oregonian Staff. ... SOUTHWEST WASHINGTON ... Dippers were still taking smelt [in the Cowlitz River].
22 February 1978		<i>Oregonian</i> , p. 62, col. 1-4	Time has come to take fishing for spring Chinook seriously. By Don Holm of the Oregonian Staff. ... At this writing, there was no sign yet of smelt in the Sandy.
3 March 1978	Cowlitz River	<i>Oregonian</i> , p. 58, col. 1-6	Spring Chinook due in lower Umpqua; Metro area slow. By Don Holm of the Oregonian Staff. ... SOUTHWEST WASHINGTON — Smelt are still in the Cowlitz, with the best place in the vicinity of Castle Rock.
8 March 1978	Cowlitz River	<i>Oregonian</i> , p. 64, col. 1-2	Scouting trip up north missed fishing action. By Don Holm of the Oregonian Staff. ... The main Cowlitz still was murky, and the lower river was unfishable for anything except smelt, those pesky little rascals that are still spawning up in the Castle Rock area.
12 March 1978	Cowlitz River	<i>Oregonian Northwest Magazine</i> , p. 256-257	Outdoors. A TIME THAT VERITABLY SHELTS OF SPRING. By Don Holm. The 1978 run of smelt has been in the Cowlitz since January — one of the earliest runs on record there ... I have also seen evidence of the main run in the Columbia along the Washington side near Stella. Already the Ancient and honorable Society of Sandy Eulachon Watchers has taken up its vigil. ... Will they come this year? The odds favor it, as shown in the accompanying box which lists their first appearance since 1929, the earliest record I have. ... It may pick certain streams such as the Cowlitz and Sandy because of the temperature and chemical content of the water. It is known that smelt like water 40 degrees or above, which means that in periods of warm runoff they tend to appear and in years with cold water or late runoff, the runs are disrupted. In 1953, for example, when the Cowlitz did not get below 40 degrees because of the mild winter, the run appeared Jan. 3. In the coldwater years of 1947 through 1950, the smelt run was delayed until late March when the water temperature went above 40 degrees. This year, with early rains and floods, the smelt appeared in the Cowlitz the first week in January. ... The Columbia River run is the <i>Thaleichthys pacificus</i> . It appears in the main stem, perhaps as early as December. Commercial and sport dippers take them from the river in the Stella and Eagle Cliff areas on the Washington side, often before Christmas. In the past, they have turned off to spawn in the Cowlitz, Lewis, Kalama, Washougal and Sandy rivers but not always in the same years. Last year the smelt seemed to pass up the Cowlitz and went up the Kalama instead. ... In “normal” years, the Sandy will be good dipping from the mouth all the way up to Viking Park and wherever you can find legal access to the river. A popular spot is at Lewis and Clark State Park at the Interstate

Date	Place	Source	Quote																																						
			Highway 80N bridge and at the old highway bridge just above that. On the Cowlitz, you can find dipping spots all the way from Castle Rock County fairgrounds to the mouth, with most of the places on the west bank. Riverside Park is a good spot. From there down to the Kelso-Longview highway bridge, the road runs along the river. ... SANDY RIVER SMELT SIGHTINGS <table><tr><td>1929 — April 9</td><td>1948 — March 27</td></tr><tr><td>1930 — March 18</td><td>1949 — March 24</td></tr><tr><td>1931 — no run</td><td>1950 — no run</td></tr><tr><td>1932 — March 26</td><td>1951 — April 5</td></tr><tr><td>1933 — no run</td><td>1952 — appeared only</td></tr><tr><td>1934 — March 4</td><td>1953 — April 19</td></tr><tr><td>1935 — no run</td><td>1954 — April 1</td></tr><tr><td>1936 — March 27</td><td>1955 — no run</td></tr><tr><td>1937 — no run</td><td>1956 — March 29</td></tr><tr><td>1938 — no run</td><td>1957 — March 26</td></tr><tr><td>1939 — no run</td><td>1958-1970 — No runs</td></tr><tr><td>1940 — March 6</td><td>1971 — March 23</td></tr><tr><td>1941 — March 14</td><td>1972 — appeared</td></tr><tr><td>1942 — March 19</td><td>1973 — appeared</td></tr><tr><td>1943 — March 25</td><td>1974 — Feb. 26</td></tr><tr><td>1944 — no run</td><td>1975 — March 27</td></tr><tr><td>1945 — April 1</td><td>1976 — March 22</td></tr><tr><td>1946 — March 26</td><td>1977 — March 12</td></tr><tr><td>1947 — no run</td><td></td></tr></table>	1929 — April 9	1948 — March 27	1930 — March 18	1949 — March 24	1931 — no run	1950 — no run	1932 — March 26	1951 — April 5	1933 — no run	1952 — appeared only	1934 — March 4	1953 — April 19	1935 — no run	1954 — April 1	1936 — March 27	1955 — no run	1937 — no run	1956 — March 29	1938 — no run	1957 — March 26	1939 — no run	1958-1970 — No runs	1940 — March 6	1971 — March 23	1941 — March 14	1972 — appeared	1942 — March 19	1973 — appeared	1943 — March 25	1974 — Feb. 26	1944 — no run	1975 — March 27	1945 — April 1	1976 — March 22	1946 — March 26	1977 — March 12	1947 — no run	
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15 March 1978		<i>Oregonian</i> , p. 25, col. 1-4	No sign yet, Sandy smelt watchers anxiously awaiting run. By Don Holm of the Oregonian Staff. ... So far most of the smelt found in the markets have come from the Cowlitz River or from the Columbia below Longview. The Cowlitz run appeared in the Kelso area in January, while down in the lower Columbia they were running in early December. As this is written (Tuesday), the Ancient and Honorable Society of Sandy River Eulachon Watchers is already on the job, alert for the first signs of that run. ... Will they come this year? The odds favor it. Since 1929, when records were first kept, they have appeared in the Sandy 24 times. He earliest date on record is Feb. 26, and the latest is April 19. ... The Sandy is one of two rivers where smelt usually spawn in Oregon — the other being the Umpqua. From 1936 to 1945, however, there was a run in Tanner Creek below Bonneville. ... The spring runoff — now regulated to some extent by the dams in the upper areas — is usually preceded by the smelt run and reaches a peak during the shad run. ... But certain water and temperature conditions seem to be required. In 1953, the Cowlitz did not get below 40 degrees because of the mild winter, and a run appeared Jan. 3. In cold water years of 1947 through 1950, the Cowlitz run was																																						

Date	Place	Source	Quote
			delayed until late March when water temperatures went above 40 degrees. Mineral content and turbidity probably also have an effect on runs. So, given right conditions of water quality and temperature, there is still time for a Sandy run to appear. Thousands of smelt watchers are getting restless.
17 March 1978	Columbia River in Goble-Kalama area	<i>Oregonian</i> , p. 89, col. 3-6	Chinook due in Columbia, Willamette. By Don Holm of the Oregonian Staff. ... Heavy concentrations of seagulls in the Goble-Kalama area, around St Helens and off the Lewis seem to announce the arrival of the upriver smelt runs. Sea lions are in the river as never before. A pod of 40 was observed by a biologist in the Rainier area over the weekend.
21 March 1978	Columbia River at St. Helens	<i>Oregonian</i> , p. 63, col. 1-6	Weather makes for great fishing, if spring Chinooks would only arrive. By Don Holm of the Oregonian Staff. ... There was a great deal of evidence of sea lions and smelt in the lower river ... In the St. Helens area, large flocks of seagulls were working over the smelt this weekend, but no dipnetting was being done. The fish were scattered, and only the dead ones were floating up on the surface for the gulls. In normal years you often dip smelt off the floats at St. Helens on the Oregon side. This year everything seems abnormal. ...
22 March 1978	Columbia River	<i>Oregonian</i> , p. 24, col. 1-6	Wildlife, salmon fishermen signal spring on lower Columbia. By Don Holm of the Oregonian Staff. ... Huge clusters of seagulls on the river announce Sandy or Lewis smelt runs. We also were told of an estimated 40 sea lions working between St. Helens and Rainier, but didn't see any. At Goble, the ramp was full, and anglers were heading out for the Hell Hole on the Kalama side and off Goble Creek on the Oregon side. A large cluster of seagulls could be seen on the Washington side there, too.
24 March 1978	Columbia River	<i>Oregonian</i> , p. 68, col. 1-7	Return of rain boosts salmon anglers' hopes. By Don Holm of the Oregonian Staff. ... Loads of smelt in the main river and the presence of sea lions up almost to St. Helens were blamed for the poor salmon showing.
30 March 1978		<i>Oregonian</i> , p. 28, col. 1-2	Smelt skip Sandy. TROUTDALE — Where are the smelt of yesteryear? Apparently some came through last Thursday, leaving Troutdale waiting expectantly for “the run of '78,” according to Roy Meger, owner of the Troutdale General Store. Meger and a smattering of steelhead fishermen on the Sandy River Wednesday morning said the water was too low and clear, and perhaps rain or run-off would bring in the small silver fish — which, in a good year, are a big drawing card in Troutdale. Normally, the smelt runs are a spring rite, a time when the fish almost symbolize the season's fecundity.
1979			
26 January 1979	Cowlitz River	<i>Oregonian</i> , p. 72, col. 5-6	Steelhead streams marginally better; catches remain spotty. Don Holm of the Oregonian Staff. ... The smelt season is upon us already, with the Cowlitz the scene of the first dipping. It's time for smelt watchers to go on duty as the tasty little eulachons make their way up the rivers on their spring spawning runs.
2 February 1979	Cowlitz River	<i>Oregonian</i> , p. 73, col. 1-2	Cold, dry weather puts streams out of sorts, all but halts fishing. Don Holm of the Oregonian Staff. ... This week I also saw some smelt nets headed for the Cowlitz.

Date	Place	Source	Quote
15 February 1979	No smelt	<i>Oregonian</i> , p. 50, col. 1-3	Muddy waters dampen hopes of fishermen. Don Holm of the Oregonian Staff. ... The Washington Department of Fisheries also noted there was no sign of smelt yet in the Cowlitz, or anywhere else for that matter. Normally, the smelt will appear in the Columbia below Longview on the Washington side as early as December.
16 February 1979	No smelt	<i>Oregonian</i> , p. 81, col. 1-2	Salmon, smelt absent. Mud, high water plague anglers. Don Holm of the Oregonian Staff. ... Mud and high water everywhere. .. No smelt yet. ... SOUTHWEST WASHINGTON ... The smelt run was still anticipated.
22 February 1979	No smelt	<i>Oregonian</i> , p. 45, col. 1-4	Winter steelhead heading upstream; Chinook angling still slow. Don Holm of the Oregonian Staff. ... A check at midweek of the Columbia from Kalama to the Sandy, and up the tributaries such as the Cowlitz, also showed no sign of smelt yet. They are late as far as the Cowlitz is concerned, but the Sandy runs have arrived as late as mid-April in past years.
23 February 1979	Columbia River at Astoria	<i>Oregonian</i> , p. 76, col. 1-4	Rain muddies prospects for salmon, steelhead. Don Holm of the Oregonian Staff. ... No smelt have appeared in the Columbia tributaries ... LOWER COLUMBIA ... There are reports of smelt in the river just above Astoria. If so, it will be another week or two under the best conditions before they get to the Cowlitz and other tributaries.
2 March 1979	Columbia River	<i>Oregonian</i> , p. 75, col. 1-8	Spring Chinook fishing slow; smelt absent; sturgeon best bet. Don Holm of the Oregonian Staff. ... Smelt have not appeared in the Columbia tributaries, but the run in the lower Umpqua at Scottsburg continues to improve.
9 March 1979	Columbia River at St. Helens Lewis River	<i>Oregonian</i> , p. 35, col. 1	Smelt plentiful at St. Helens. Don Holm of the Oregonian Staff. The smelt have arrived. Finally. Delighted dippers have been scooping them up off the docks at St. Helens. Also from the Lewis River up as far as the railroad bridge. Spring officially is sprung when the eulachons arrive. At this writing, they have not appeared in the Sandy, but the local Eulachon Society members have taken up the vigil. Will the pesky little fish pass up the Sandy this year as they did last? Or enter in fantastic swarms as they did the year before? The next few days will tell. ... LOWER COLUMBIA — The smelt run appears big and the critters are in excellent condition, about half males, which indicates they are getting close to spawning time. Don Calnon at St. Helens Marina said propellers of boats and ships going by are churning up smelt by the thousand. He said the smelt turned into the Lewis, too, Tuesday and Thursday and were up as far as the railroad bridge. Jan Gronholm at Bayport on Scapoose Bay, said she was dipping smelt off the public dock at the yacht club early this week. ... METRO AREA — Best prospect for the weekend is smelt dipping. If the run continues as of midweek, the fish should be off the airport or in the vicinity of the Sandy by Friday or Saturday. If not, one can get at them at St. Helens or on the lower Lewis River. A skiff would be handy, as the bank and dock access are liable to be crowded. ... SOUTHWEST WASHINGTON — The smelt run in the Lewis is the big news.
13 March 1979	Columbia River at Sauvie Island	<i>Oregonian</i> , p. 60, col. 1-2	Lower Columbia smelt elusive in strange year. By Don Holm of the Oregonian Staff. ... High water and lack of fish [spring Chinook] in the upper zones turned many

Date	Place	Source	Quote
	Lewis River		gillnetters to dipping smelt, which fill the Columbia in great hordes. ... During the weekend, smelt dippers chased the little eulachons which, although plentiful have been elusive — going down 15 or 20 feet during daylight and coming to the surface at dusk. Some dippers did well; others had to work hard for a pailful. There is no doubt, however, that there are millions of them in the main-stem Columbia. The birds are working them over, all the way from the Cowlitz to off the Portland airport; boats and ships churn them up by the thousands with prop-wash. ... Schools of blueback smelt were seen off the beaches along the east side of Sauvie Island Saturday and Sunday, but it is almost impossible to dipnet from shore there. The lower Lewis was also full of smelt, but dipping from the bank was unproductive. Monday morning, Mrs. Harris Quade at Sun Dial beach said no smelt had appeared there yet, although it was foggy and no boats were out at the time. It's been an unusual year for smelt behavior. So far, almost all the successful dipping has been from boats, with the best time early in the morning or at dusk.
15 March 1979	Sandy River	<i>Oregonian</i> , p. 1, photo caption	RITE OF SPRING — When smelt run up the Sandy River, can dogwood and salmon be far behind. ... Smelt entered Sandy Tuesday [13 March] night and by Wednesday morning private and commercial netters were doing well.
15 March 1979	Columbia River at Sauvie Island Lewis River Sandy River	<i>Oregonian</i> , p. 64, col. 1-4	Anglers surface for warmer weather. By Don Holm of the Oregonian Staff. ... As for smelt, at this writing they were in the Sandy and Lewis rivers in great numbers, and in the main stem Columbia up at least as far as upper Sauvie Island. Concentrations of gulls usually mark a school of the little fish, many of which are already washing up dead on the beaches.
16 March 1979	Lewis River Sandy River	<i>Oregonian</i> , p. 88, col. 1-2	Patience rewarded, Chinook, smelt to lure anglers. Don Holm of the Oregonian Staff. ... Anglers and smelt dippers are going to be rewarded for their patience this weekend. The smelt are in the Sandy at last ... The smelt appeared in the Sandy in small numbers early in the week and were first seen by steelhead plunkers. By Wednesday afternoon the run was in full swing, according to state police. Dippers also have been taking limits from the lower Lewis River on the Washington side up as far as Woodland. ... SOUTHWEST WASHINGTON ... There are no smelt in the Cowlitz, this stream having been passed up for the second year in a row (last year they went into the Kalama). The Lewis River run is petering out, according to Washington Fisheries Department. Best dipping is in the evening. Smelt still can be seen in the main Columbia, though.
19 March 1979	Sandy River	<i>Oregonian</i> , p. 31, col. 1-3	Everyone surprised. Sandy River smelt show up suddenly. Don Holm of the Oregonian Staff. TROUTDALE — Once more the bluebacked silvery little eulachons returned to the Sandy River and, like the swallows of Capistrano, made everybody feel good again. When the smelt return everything seems right with the world. For two weeks before their appearance in the Sandy, I had been chasing birds all the way to Astoria and back. When they finally showed up off the docks at St. Helens, it looked as if they'd be up to the Sandy within a week. Instead, they entered the Lewis on the Washington side,

Date	Place	Source	Quote
			after passing up the Cowlitz again, and appeared in great numbers in the main Columbia off Sauvie Island. I expected they would reach the Columbia by last weekend, but then came the warm rains and suddenly they were in the Sandy, swirling around the legs of steelheaders who were casting in waders. They caught everyone by surprise, including most members of the Sandy Eulachon Society. And me. ... Our plans were changed, however, by word of the smelt in the Sandy, which apparently started sometime late last Tuesday. Wednesday it was raining again — that miserable soggy stuff that gardeners like but I'm getting fed up with. We met at the Troutdale airport and took a back lane to the river bank. There we found the parking spaces jammed, the hawkers and net renters already in business and the banks lined with dippers as far as we could see upstream. A commercial netter was anchored just below us, bust hauling in smelt. I had not dipped from this spot for at least 30 years. The bank is steep and on a soggy day extremely slippery. A fall will put you into about eight feet of water right along shore. But, with buckets, dipnets and cameras, we got down to the water's edge where there was scarcely room to stand, no place to set a bucket level, and because of the brush and steep bank, wielding a long-handled net turned out to be a little awkward. But nothing stops a smelt dipper once he has the fever. My first two or three passes with the net caught only water. The smelt were running deep, not on the surface as they often are. Plunging the net down toward the bottom, I came up with a single smelt. The next two or three dips brought two or three at a time. "Let's wait a bit," said Lacey, "and let them settle down." We stopped dipping for a moment or two. Then the run surged forward again. This time we each dipped half a pailful in one scoop. It took less than five minutes to collect 25 pounds. Twenty five pounds will just about fill a five-gallon bucket. Game wardens diligently patrol the river during the smelt run and are quick to write tickets to anyone taking more. Actually, few people can use 25 pounds, unless one freezes them for sturgeon bait, or pickles or smokes them for later use. One or two meals of fresh smelt is all most people can stand. Anyone who takes more than 25 pounds is not only breaking the law but simply wasting a resource, since usually the surplus gets thrown away. As one guy remarked as he walked away with a bucket full: "It's sure easy to catch a limit of smelt, but awful hard to give them away." As we climbed back up the bank, puffing under the load, the law was busy weighing and writing tickets for two parties of dippers ahead of us. Our buckets came to a little more than 22 pounds apiece. The entire expedition, including about 40 miles of driving and four limits of smelt, had taken less than two hours. The Sandy run was in full swing on Wednesday, with the fish in fine condition and unusually large. There were many more males than females, so the indications were the run was just then starting. By the end of the week, dippers were still filling buckets. Meanwhile, as in previous years, some smelt were also being taken in the main Columbia above the Sandy, up as far as Corbett. Which only proves this is going to be a good year after all.

Date	Place	Source	Quote
20 March 1979		<i>Oregonian</i> , p. 33, col. 1-3	Nets along Sandy. Smelt of spring lures ‘em. By Sue Ford, correspondent, The Oregonian. TROUTDALE — Signs of spring: birds in the trees, flowers blooming and smelt in the Sandy River. And when the smelt start running, so do the netters — so much so that the annual smelt run is almost as big a spectacle for East Multnomah County residents as it is for hungry sportsmen. “This is the original smelt river,” one old-timer said last week as he rented nets to people who flocked to the river to take advantage of the free fish. Rental of the nets, though, isn’t free. They go for \$1 per hour, with a deposit of \$10 to \$15. Houses along roads leading to the river stand the tall nets up against walls to advertise their availability. Even in town, about a half-mile from the river, merchants have nets leaning up against shop walls. Despite the thousands of people who stream to the shore in anticipation of a silvery harvest, few of the residents near the river have anything bad to say. “They’re no problem. They com out here, get the smelt and leave,” said Al Esbenen, who lives near the Troutdale city park. The only problem that follows in the wake of the human migration is where to put all the cars. The city park has some spaces, and there are a few more at the east end of the Troutdale bridge. But both roads leading to the smelt have no-parking, tow-away signs on at least one side. Ten \$5 citations were issued one weekday morning by Troutdale police, according to acting Police Chief William Farr. Linda Scrivner, whose Vintage Village shop is located near the river, complained that “people park in our spots and we don’t have room for customers.” But while parking may be a problem, careless driving is not. “They seem to be driving pretty well through here,” Farr said. The home closest to the river is that of State Rep. Glenn Otto, the Troutdale Democrat. For years, he and a partner have rented nets and sold smelt to those who don’t want to catch their own. Otto’s front lawn even sports a mobile snack bar. Smelt dipping is frequently a family affair. One kindergarten teacher at Troutdale Elementary School even sent a note home to parents suggesting that they take their children to see the smelt run and try dipping for some.
22 March 1979	Lewis River Sandy River	<i>Oregonian</i> , p. 65, col. 1-2	Spring Chinook run begins. By Don Holm of the Oregonian Staff. ... “The water looks good — and even the smelt are back in the Lewis.” I saw large concentrations of seagulls on the lower Lewis Tuesday, up as far as the mouth of the East Fork. The smelt run in the Sandy remains spotty.
23 March 1979	Lewis River Sandy River	<i>Oregonian</i> , p. 85, col. 1-9	Multnomah Channel teems with Chinook; smelt runs ending. By Don Holm of the Oregonian Staff. ... Calnon said the Lewis River smelt run was about over, too. ... LOWER COLUMBIA Smelt are about gone from the lower river. ... METRO AREA ... The smelt are still in the Sandy at this writing. ... SOUTHWEST WASHINGTON ... The smelt run in the Lewis is petering out.
30 March 1979	Sandy River	<i>Oregonian</i> , p. 77, col. 1-2	Spring Chinook angling slows. By Don Holm of the Oregonian Staff. ... METRO AREA — The smelt run is about over in the Sandy. ...
1980			
8 February 1980	Lewis River	<i>Oregonian</i> , p. 73, col. 2-	Smelt make early appearance in NW. Don Holm. The eulachon are back! Smelt

Date	Place	Source	Quote
		5	dippers were scooping up limits of the tasty, silvery little fish by Wednesday evening when they appeared in the lower Lewis River. By Thursday they were above the Interstate 5 bridge. It is one of the earliest appearances of smelt in some years. By Thursday morning there were no smelt yet in the Sandy, according to Mrs. Harris Quade at Sun Dial. It is a little early. The earliest appearance on record in the Sandy was Feb. 26 in 1974. To paraphrase the poet, when the smelt appear can spring be far behind? ... LOWER COLUMBIA ... The smelt are in the river, though, in good numbers. Don Calnon at St. Helens moorage said the lower Lewis was full of them, and dippers going over usually have a limit in 20 minutes. "They are going up the north fork," he said. "This year the smelt are skittish and easily spooked, and you have to pick just the right spot." ... SOUTHWEST WASHINGTON — Big news this weekend is the smelt run in the lower Lewis. ...
8 February 1980	Lewis River	<i>Oregonian</i> , p. B1, photo caption	GULLS AND GUYS — Spawning smelt bring dippers by the hundreds to the banks of the North Fork of the Lewis River near Longview on Thursday.
12 February 1980	Lewis River	<i>Oregonian</i> , p. 69, col. 1-2	Smelt return; springs's near. Don Holm. The arrival of the 1980 smelt run in the Lewis River last week brought out members of the Ancient and Honorable Society of Sandy River Eulachon Watchers and signaled the first sign of spring. Traditionally, the smelt must appear before either the spring Chinook or the dogwood blossoms ... The little smelt have been coming back to the Columbia and tributaries since time began — and, so far, no one really knows why nor can they predict when with much exactitude. This year's appearance in the Lewis was one of the earliest known. The smelt, for some reason, entered the river, then turned up the north fork, disdaining the East Fork Lewis. Why? Actually, smelt entered the Columbia way back in December, but hardly anybody knew about it. Normally, once inside the Columbia, the first river they enter would be the Cowlitz, or the Kalama, or both on rare occasions. In 1977 they passed up the Cowlitz and entered the Kalama. In 1979 they started up the Cowlitz and changed their mind. Continuing on up the Columbia, the main body will be detected by the concentrations of birds along the east side of Sauvie Island, then between the Portland Airport and Government Island. The work on the Interstate 205 bridge may change the pattern this year. ... For spawning, the smelt seem to prefer streams with glacial origin and not more than 40 degrees water temperature. They may pick certain streams on certain years because of the water temperature and chemical content at the time. In 1953, for example, the Cowlitz did not get below 40 degrees because of a mild winter. The run appeared on Jan. 3. In the cold-water years of 1947 through 1950, the smelt run was delayed until late March. In 1977, because of early rains and floods, apparently, the smelt entered the Cowlitz the first week in January.
13 February 1980	Lewis River Kalama River	<i>Oregonian</i> , p. 67, col. 2	Smelt still running in Lewis. Dippers continued Tuesday [12 February] to take smelt out of the North Fork Lewis in considerable numbers up as far as Woodland. Some of the little fish had also gone up the East Fork Lewis as far as the freeway bridge. Farther

Date	Place	Source	Quote
			north, dippers were also working in the lower Kalama, up as far as the freeway bridge. No smelt have been reported in the Cowlitz. Don Calnon at St. Helens moorage said the fish had not appeared on the Oregon side. Last year it was March before they appeared along the moorage, he said. There was no sign of smelt along the Portland International Airport channel, nor in the Sandy River. The water temperature opposite Lewis and Clark State Park was 41 degrees, which is ideal for the smelt run. However, a bitter east wind brought the wind chill factor for would-be anglers down to below zero.
14 February 1980	Lewis River Kalama River	<i>Oregonian</i> , p. 54, col. 1-9	Chilled smelt-watch turns out in full force — to little avail. Don Holm. From St. Helens to Corbett, the murky Columbia rolled along under an early spring sun and clear skies, and nowhere was there a sign of that pesky little harbinger, the eulachon or smelt. Usually you are tipped off by wheeling and diving seagulls, but here wasn't a bird flying — or even walking. A 20-knot east wind gusting down out of the gorge lowered the chill factor to about minus 10 degrees. Only off the lower Kalama and the mouth of the Lewis could birds be found, and following them, a growing crowd of people with longhandled dip nets. The fish were in both river systems, but not the Cowlitz. Over on the Oregon side, at the St. Helens moorage, Don Calnon said the only sign of them close by was at the Lewis, which can be seen from his dock. A lot of local boats make the run over there, enter the river and do their dipping and return — some of them back in less than an hour with a limit. He hadn't seen any smelt along the Oregon shore yet. Last year, it was well into March before they were dipping them off his dock. This is the run, probably, that goes on up along the east side of Sauvie Island, then up the airport channel past Sun Dial, and into the Sandy. There was no sign of birds or smelt along the island beaches, either, although some weather-beaten plunkers stood their vigil along Social Security Beach, with steelhead rods stuck in holders, and huddled in little shapeless groups around a driftwood fire with the wind blowing the flames and smoke out flatly. "You waiting for smelt or steelhead?" I asked one oldtimer. "Either one," he said, through shivering lips. ... There was no sign of smelt off the airport, either. I did not expect any. It would take a week for them to get to the Sandy, from St. Helens, even if they were coming. The Interstate 205 bridge construction this year may change the run pattern, when they do come, but it is doubtful. Anyway, it is pretty early for the little rascals. Last year and the year before, we ran through millions of smelt going over to the islands for morels, and that was in late April. ... I got out a thermometer and climbed down to the river. The water temperature, even in the shallows along shore out of the current was 41 degrees. That was surprising because the air had that quick-freeze feel about it that turns exposed skin to a bloodless white. At 41 degrees, water clear and a good normal flow in the river, the conditions were ideal for a smelt run, but there is no predicting what these fish will do. The earliest arrival on record was Feb. 26 in 1974. The 1975, 1976, 1977 and 1979 runs came in March. The latest arrival was April 19, in 1953.
15 February 1980	Lewis River	<i>Oregonian</i> , p. 54, col. 1-	Prospects seem good for steelhead angling. Don Holm. ... As of this writing, the smelt

Date	Place	Source	Quote
	Kalama River	2	run was still in the Lewis and Kalama, but had not gone further up the Columbia. Not much chance of them showing in the Sandy this weekend. ... SOUTHWEST WASHINGTON ... Smelt are still in the Lewis [River]. ...
20 February 1980	Portland, OR	<i>Oregonian</i> , p. 14, advert	FRED MEYER ... Columbia River Fresh Smelt 39c lb.
21 February 1980	Lewis River	<i>Oregonian</i> , p. 45, col. 1-4	First spring Chinook landed in Willamette. Don Holm. ... On the smelt watchers front, at this writing a once-over lightly check failed to turn up any new information. The eulachon are still in the North Lewis, but the run now consists of small females, which are less desirable for eating, pickling and smoking. ... Calnon at St. Helens said he had seen no other sign of the little fish and no bird concentrations up along the east side of Sauvie Island. A personal check along the airport dike on the Oregon side also turned up no sign. One thing about smelt: Even when you expect them, it's always a surprise when they appear.
22 February 1980	Lewis River	<i>Oregonian</i> , p. 36, col. 2-3	Elusive Chinook caught by few. Don Holm. Also, as of this writing, the smelt are still in the Lewis in considerable numbers, but none have appeared in the Columbia or tributaries upstream from there yet. ... LOWER COLUMBIA ... Nor have the smelt arrived along the Oregon Shore, although dippers are still running over to the Lewis and taking limits. SOUTHWEST WASHINGTON — Smelt are still in the Lewis River.
28 February 1980	Lewis River	<i>Oregonian</i> , p. 40, col. 1-6	Salmon group shows favorite fish no stranger to Willamette. Don Holm. ... Neither Jan nor Don can explain the sudden wealth of sturgeon — unless it has something to do with the smelt run. The smelt are still in the Lewis in great numbers. On Tuesday, at Woodland, there were about 50 dippers at one time, and the river was covered with seagulls so full they could hardly fly.
29 February 1980	Lewis River	<i>Oregonian</i> , p. 92, col. 1-2	30-pound Clackamas Chinook reported caught on Willamette. Don Holm. ... The air had a crisp, springlike quality to it — just the kind of weather that signals the arrival of smelt in the Sandy, but none were reported at this writing. However, great quantities of smelt are still in the Lewis River. ... LOWER COLUMBIA ... Smelt were still in the Lewis, but none have been reported above the mouth of the Lewis in the Columbia yet. ... SOUTHWEST WASHINGTON — Smelt-dipping still was good in the Lewis in the Woodland area.
4 March 1980	Lewis River Columbia River at St. Helens	<i>Oregonian</i> , p. 55, col. 1-2	Chinook escape anglers. ... The river is full of smelt, however, in the St. Helens area and up by Sauvie Island. Don Calnon at St. Helens moorage said the seagulls were so fat they couldn't fly. The sturgeon being caught have distended bellies from the feast. Some dipping has been done from the city dock at St. Helens, so the smelt are on the Oregon side, as well as in the Lewis River.
6 March 1980	Columbia River at Sauvie Island	<i>Oregonian</i> , p. 60, col. 1-8	Anglers 'in know' take prime Chinook; most come up empty. Don Holm. ... In the steady drizzle of rain, I went back to the Sauvie Island bridge and drove out Reeder Road to Willow Bar and Walton Beach, otherwise known as Social Security Beach. ... I walked down through the sand to see what it was all about. The water was murky, but there was smelt moving up close to shore, almost on the beach. This spot is perhaps 12 to

Date	Place	Source	Quote
			15 miles below the Sandy River mouth. There was no sign of the smelt further upstream. No sign of birds or fish off the airport channel. ...
7 March 1980	Columbia River at Sauvie Island, Lewis River	<i>Oregonian</i> , p. 80, col. 4-5	Sturgeon fishing excellent. Don Holm. ... Smelt were moving up the Columbia on the Oregon side along Sauvie Island Thursday, bringing excellent sturgeon fishing to those who could take the rain and 30-degree temperatures. ... LOWER COLUMBIA ... Sturgeon fishing continues good from Tongue Point to Bonneville, especially in the areas where smelt are found. ... SOUTHWEST WASHINGTON — Some smelt are still in the lower Lewis [River].
10 March 1980	Sandy River	<i>Oregonian</i> , p. 30	Net Loss is smelt's gain in Sandy. By Steve Erickson of the Oregonian Staff. TROUTDALE — Like submerged butterflies, smelt fluttered up the Sandy River on Sunday [9 March] in their annual pilgrimage, and like angler-lepidopterists, shoreliners stabbed at them with long-handled nets. ... For fishermen along the river, the annual smelt run was sport; but for the fish, the game was called survival. The fish were prey, but they were bait, too, and as such lured thousands of appetites to the Troutdale area Sunday. Buckets abounded as sportsmen held sway. And the dippers were aggressive — some waded all the way to midstream and could have reached down and snatched a fish or two with bare hands. The technique employed by most enthusiasts was simple enough ... “You just throw your long-handled net upstream and keep steady pressure on it as it goes downstream,” he said. “That keeps the net traveling open. Then you just pull it to you — that closes off the net so they can’t get out, keeps them all bunched up in the end. “Hopefully, you end up with a whole bunch of smelt in it (your net),” Anderson said. “I’ve seen it here when you could get your limit (25 pounds) with one dip.” No fishing license is required. The smelt “started (running) this heavy Saturday and have been runnin’ right along,” said Joe Opray of Gresham, who was renting 16-to-20 foot nets for \$1.50 an hour and selling fresh smelt for 4 pounds for \$1. “Business is booming,” he said of smelt sales. “Older people can’t get down to the river, and you don’t know how cold it is down there.” For those who rented his nets, Opray said, “They’re catching their limits in about three or four dips.” By midday Sunday, it was like a carnival around Troutdale Bridge, which was lined with chattering spectators. ... Opray said the smelt averaged 7 to 10 inches in length, and he estimated that there were 1,600 dippers Sunday near Troutdale Bridge. ... Sunday was the first time on a smelt run for Vern Russell of Boardman, who had rented a net: “In 10 minutes I got all I wanted. Nothing to it. You see the things comin’ up the river, stick your net in and drag ‘em in,” he said. Togetherness was not salvation for smelt. Quite the opposite. If you were a smelt in the Sandy on Sunday, you didn’t want to go to school. One of the most popular dipping areas was from a rocky outcropping almost immediately beneath the bridge. There was excitement on the rocks, Jabbering and considerable exclamation. It was not unlike a gold rush. And, aside from rentals, it was free. “Hey!” a child’s incredulous voice piped, “they just started and they got their limit.” Making sure their limit was all the dippers got

Date	Place	Source	Quote
			was trooper Rick Pert of the Oregon State Police, stationed in a pickup truck on the Sandy's northeast bank, keeping track of fish takes (mostly contained in buckets) through binoculars. This is Pert's sixth year on smelt duty, and when the fish are running as heavily as they did this weekend, he works 12 hours a day. "Technically, you're supposed to do your own dipping," Pert said. "But when you have a bunch of little kids running around, or old people sitting in cars, they wouldn't qualify (for 25-pound takes)." "The people are being pretty good" about obeying the limits, he added. Pert was in radio contact with another OSP officer across the river who, notified when violators tried to depart with excess fish, stopped them. Citations were issued in such cases, with bail set at \$39. The amount of individual fines levied is left to district judges, Pert said.
11 March 1980	Sandy River	<i>Oregonian</i> , p. 64, col. 1-2	In Sandy River, Limits of smelt come quickly. Don Holm. Those pesky little eulachons have returned once more to the Sandy River. And the 1980 run of smelt appears to be one of the biggest in years. The first sign was noted by Mrs. Harris Quade at Sun Dial Beach, near the mouth of the Sandy, about 2:30 p.m. Friday. At the time I was chasing up and down the channel looking for them myself. During the afternoon, the run had progressed up past the airport on the Oregon side, and through the new construction work on the Interstate 205 bridge along Government Island, with the accompanying clouds of wheeling and diving seagulls. In fact, the run stretched all the way from near St. Helens, along Sauvie Island, up the main channel and through Oregon Slough or North Portland Harbor, a distance of at least 30 miles. By daylight Saturday, the run was well above the Troutdale bridge. Checking again at 7 a.m. Monday, I found the water temperature 46 degrees, which is ideal for the smelt spawning run, judging from past experience. The river level is low and wading is easy. The smelt are found close to the bottom. Dipping a limit took me only five minutes near Lewis and Clark State Park. One ingenious guy who had no waders was using plastic garbage bags tied onto his legs. It was only necessary to wade out to knee depth to get to the fish. At the Troutdale bridge, the new city park made it much more convenient for dippers than it was during the chaos of years past. Nets were being rented for \$1.50 an hour, and stands were offering fresh caught smelt for \$1 for four pounds. One senior citizen came up while I was inspecting the fish and bought 25 pounds. "It's easier than wading out for them," he explained. The smelt are in excellent condition, and on Monday morning there was a large percentage of male sin the catches. Males are the best for eating and smoking. This is the 18th time the smelt have arrived in March, since record-keeping began in 1929. March is undoubtedly the most popular month for the smelt to appear. The earliest run on record was on Feb. 26, 1974. ...
14 March 1980	Sandy River Columbia River	<i>Oregonian</i> , p. 55, col. 1-2	Steelhead season moves toward end. Don Holm. ... This should be another good weekend of smelt dipping in the Sandy River. ... LOWER COLUMBIA ... This week, the smelt run was strung up the Columbia from Sauvie Island to the Sandy. It appears to be a large one.

Date	Place	Source	Quote
17 March 1980		<i>Oregonian</i> , p. 36, col. 1-3	Sturgeon on rise as angling aim. Don Holm. ... Bait is almost universally herring or smelt. Now is a good time to stock up on smelt, while the little eulachons are still running. A day's limit of 25 pounds, frozen, should last a casual sturgeon angler all season. The best sturgeon fishing starts when the smelt enter the river in December and continues through May. After that, when the eels are running, the fishing picks up again. But sturgeon fishing is a year-round sport for the dedicated.
18 March 1980	Sandy River Lewis River	<i>Oregonian</i> , p. 63, col. 1-2	Rafting used for therapy. Don Holm. ... The smelt are still in the Sandy River in great numbers. Harris Quade at Sun Dial said he had never seen so many small ones as this year. This was true of the Lewis run, too.
21 March 1980	Sandy River	<i>Oregonian</i> , p. 88, col. 1	Outlook dismal for fishermen. Don Holm. ... The smelt run in the Sandy was petering out at midweek, with limits hard to dip. ... METRO AREA ... The smelt run was petering out in the Sandy.
28 March 1980	Sandy River	<i>Oregonian</i> , p. 89, col. 1	Chinook 'ripe' for weekend. Don Holm. ... The smelt run is over in the Sandy River.
1981			
16 January 1981	Cowlitz River	<i>Oregonian</i> , p. 35, col. 2-3	Dry forecast signals hard work for anglers. Don Holm. ... LOWER COLUMBIA ... This sudden sturgeon activity is probably a result of the smelt run in the Cowlitz River. ... SOUTHWEST WASHINGTON ... Also, the smelt are in the lower [Cowlitz] river, making dippers happy. ... A good smelt run was in the Cowlitz, but not in the other tributaries yet.
23 January 1981	Cowlitz River	<i>Oregonian</i> , p. 64, col. 1-2	Weekend steelheading keyed to new rainfall. Don Holm. ... The smelt are still in the Cowlitz. ... LOWER COLUMBIA ... Sturgeon fishing was good on the main stem, especially around the mouths of the Cowlitz and Lewis where they are feeding on smelt. So far the smelt have been confined to the Cowlitz and downstream. ... SOUTHWEST WASHINGTON — The Cowlitz still has the smelt run ...
30 January 1981	Cowlitz River	<i>Oregonian</i> , p. 42, col. 1-4	Rains take care of fishing for weekend. Don Holm. ... LOWER COLUMBIA ... Smelt are still in the lower Cowlitz. ... SOUTHWEST WASHINGTON — Smelt are in the Cowlitz despite the muddy conditions, but could not find any dippers working Wednesday.
6 February 1981	No smelt	<i>Oregonian</i> , p. 22, col. 3-4	Midweek rains may improve weekend steelhead prospects. Don Holm. ... LOWER COLUMBIA ... No smelt have appeared up this far yet [at St. Helens].
13 February 1981	Cowlitz River	<i>Oregonian</i> , p. 79, col. 3-4	Bay crabbing good; fishing on coast spotty. Don Holm. ... Smelting has been slow on the Cowlitz. ... SOUTHWEST WASHINGTON ... Smelt was slow on the Cowlitz.
27 February 1981	Lewis River	<i>Oregonian</i> , p. 73, col. 1-2	Spring Chinook run 'still downstream.' Don Holm. ... Smelt have appeared in the Lewis River, up as far as the bridge on the East Fork and well up into the North Lewis. They had appeared in the Kalama, but backed out again. ... SOUTHWEST WASHINGTON ... Smelt are in the East Fork Lewis and North Lewis.
3 March 1981	Lewis River	<i>Oregonian</i> , p. 80, col. 1-6	Coastal steelhead outlook poor; Willamette Chinook absent. Don Holm. ... SOUTHWEST WASHINGTON ... At Woodland Sports, Dennis Carpenter reported smelt in the North Lewis.

Date	Place	Source	Quote
8 March 1981	Cowlitz River	<i>Oregonian</i> , p. NW22	Outdoors. SMELT: SMELT: SPRING BONANAZA. ... The year was ideal [on the Cowlitz River]. The smelt run was showing in the daylight as well as in the evening. In previous years, they were seen at night and then only for a short time. Sometimes they swim close to shore, as they did that year. Other times they have appeared in deeper water, and a boat or waders were required to net them. ... Generally speaking, the smelt run begins sometime in February and ends in March. Occasionally, the smelt show up in January. ...
11 March 1981	Sandy River	<i>Oregonian</i> , p. 76, col. 1	Gulls, dippers working smelt. Don Holm. TROUTDALE — The old eulachon — otherwise known as the Columbia River smelt — is back; Monday [9 March] he returned to the Sandy, not exactly on schedule, but neither too late nor too early. It remains to be determined the extent of this year's run, but at 7 a.m. Tuesday morning, I had no trouble taking a limit. About a hundred other dippers also were on hand with similar results. More cars were showing up as I left, as the word spread. The water is low and clear at this time, but could change with releases from the upstream power dams. The main channel at the Interstate 84 bridge is along the west bank this year, but within easy wading from the park. ... The smelt apparently still are coming, and strung up and down the Columbia. I found some schooling under a raft of sea gulls Monday in the main stem Columbia below Walton Beach on the east side of Sauvie Island (otherwise known as Social Security Beach). Tuesday morning, on the south channel along the airport off Government Island, the gulls also were working over the schools. Reports claim the smelt were up past the Sandy, as far as Dodson.
12 March 1981	Sandy River	<i>Oregonian</i> , p. 39, photo caption	SPRING RITE — In sunny springlike weather Wednesday, the net dippers turn out in force along the Sandy River near Lewis and Clark State Park to catch the annual smelt run.
12 March 1981	Sandy River	<i>Oregonian</i> , p. 80, col. 2-3	Clear water slows smelt run; spring Chinook balky as well. Don Holm. ... Apparently because of the low clear water, the smelt run in the Sandy has not yet reached the frenetic state that usually characterizes this (almost) annual Phenomenon. So far, the best time for dipping has been at first light in the morning, tapering off during midday. Still, it's worth the effort.
13 March 1981	Sandy River Columbia River to Bonneville	<i>Oregonian</i> , p. 89, col. 1-4	Wet forecast favors weekend smelt-dippers. Don Holm. ... Smelt-dipping in the Sandy should be good over the weekend, with rain forecast which should improve water conditions. Smelt are also being taken all the way up to Bonneville. The run in the Lewis River has petered out, but the little fish appear to be strung out in the main Columbia for 50 miles or more. ... LOWER COLUMBIA ... Smelt are scattered up the main stem from as far as Bonneville. ... SOUTHWEST WASHINGTON — Dennis Carpenter at Woodland Sports reported fishing slow, and the smelt had begun leaving the Lewis.
19 March 1981	Sandy River	<i>Oregonian</i> , p. 46, col. 1-6	Spring Chinook run picking up; two arrested for illegal netting. Don Holm. ... I also went out to the Sandy again for some smelt dipping in the afternoon. It was a fine day to be out in the field, but the 100 or so dippers from the Interstate 84 bridge to the Troutdale

Date	Place	Source	Quote
			bridge were not having much luck. The water was too clear and too low. ... Some of the people had a few smelt, but most were simply enjoying the spring day, even having picnics on the sandbars. Some of the oldtimers I talked to said the best time was at daylight or just before dark, when the little critters can't see the nets and aren't so spooky. Down at the mouth of the Sandy and downstream along the South Channel on the Oregon side of Government Island, I found some schools of smelt with birds working over them. In past years, I have encountered these schools in South Channel when crossing over to the island for morel hunting, even in those years when the smelt passed up the Sandy. It seems apparent that a lot of the little eulachons spawn right there in the main river, as well as up in the traditional tributaries. ... It has been another "funny" year for smelt. They appeared first in the lower Columbia in December, moved into the Cowlitz in January briefly up as far as the bridge, then decided they did not like the muddy water and went back down again. They next appeared in the Kalama briefly, changed their mind and entered the Lewis River. A good run was experienced in the Lewis up past the forks and into the North Lewis as far as Woodland. All the smelt that have been taken this year were in excellent condition and of a good size for smoking and for sturgeon bait. As of this writing, they have not appeared in the lower Umpqua, the other Oregon stream which has annual spawning runs.
20 March 1981	Columbia River Sandy River	<i>Oregonian</i> , p. 64, col. 2-6	Spring chinook making serious run into Willamette River. Don Holm. ... LOWER COLUMBIA ... Smelt have disappeared upstream. ... METRO AREA — Smelt still are in the Columbia above the airport, and the Sandy River run is still hopeful.
26 March 1981	Sandy River	<i>Oregonian</i> , p. 79, col. 2-6	It was a day for anything on slough — anything but fish. Don Holm. ... The same day I checked the smelt run on the Sandy and found nothing. ...
27 March 1981	Sandy River	<i>Oregonian</i> , p. 45, col. 1-2	Willamette's early birds taking very few spring Chinook yet. Don Holm. ... METRO AREA — The smelt run in the Sandy is over. ...
1982			
7 January 1982	Cowlitz River	<i>Oregonian</i> , p. 62, col. 4-6	Steelhead run still in limbo. Forecast. ... SOUTHWEST WASHINGTON ... a small run of smelt appeared in the lower [Cowlitz] river.
14 January 1982	Cowlitz River	<i>Oregonian</i> , p. 60, col. 3-6	Cold river water hampering steelhead success. Forecast. ... A few smelt have been entering the Cowlitz, so sturgeon angling should improve as the water warms and the bulk of the smelt run moves up river. Some people are getting enough smelt to take home, but it's still early.
28 January 1982	Cowlitz River	<i>Oregonian</i> , p. 52, col. 5-6	Steelheaders facing more water problems. ... The rain even pushed the smelt out of the Cowlitz River in Washington. Felix Polasek at Columbia River Seafoods, in Longview, said the rain brought so much ash into the river that the smelt dropped back downstream. When that happened last year, they returned later to the Lewis River. The Sandy River run is still a month in the future. ... COLUMBIA AND NORTHWEST ... A smelt run appears kegged up at the mouth [of the Cowlitz River]. ... WESTERN WASHINGTON ... Smelt have disappeared from the Cowlitz with the latest shot of

Date	Place	Source	Quote
			runoff ash. ...
4 February 1982	Cowlitz River	<i>Oregonian</i> , p. 52, col. 5-6	Smelt run returns to Cowlitz River. Forecast. ... This week's good news is the smelt run on the Cowlitz River in southwest Washington, where fresh, firm fish have returned after being pushed out last week by high water. Felix Polasek at Columbia River Seafoods in Longview said fish are being dipped close to shore from Kelso upstream and that the run appears headed for Castle Rock. Dippers are allowed up to 20 pounds each (no license is required).
11 February 1982	Cowlitz River	<i>Oregonian</i> , p. 50, col. 5-6	Cold water slows steelhead fishing. Forecast. ... The good news is that smelt still are running strong in the Cowlitz and have moved into the Castle Rock area. Along with the smelt run, sturgeon activity has increased in the Columbia River.
18 February 1982	Cowlitz River	<i>Oregonian</i> , p. 51, col. 1-3	Rain-muddied rivers discourage anglers. Forecast. ... The best smelt dipping is likely to be in the supermarket, where the little fish are running 35 to 50 cents a pound. Before the rain, dippers on the Cowlitz were taking 15 to 20 pounds (a limit) per dip in some areas between Longview and Castle Rock. But that tapered to four or five fish per dip by Wednesday. Commercial operators are staying with the muck, however, observers report.
25 February 1982	Lewis River Kalama River	<i>Oregonian</i> , p. 50, col. 1-3	Anybody's guess, River levels control prospects. Forecast. ... Dropping water this weekend or next should also bring the first smelt into the Sandy River. Smelt have dropped completely out of the Cowlitz River in Washington but are being dipped in fair numbers in the North Fork of the Lewis River. Scattered smelt also are in the Kalama River but not in numbers worth dipping.
4 March 1982	Lewis River	<i>Oregonian</i> , p. 74, col. 1-3	Rivers dropping, but storm looms. Forecast. ... Smelt have dropped completely out of sight on the Cowlitz River in Washington and are being found only sporadically in the North Fork Lewis River — not in numbers enough to warrant a trip up there. And on the Sandy River, according to the Troutdale General store, the formula derived from seagull-watching, Columbia-flooding and calendar-recording says smelt should appear sometime next week, perhaps as early as Sunday. Any predictions should be taken with a grain of salt, however. ... SOUTHWEST WASHINGTON ... Smelt have all but disappeared. ...
11 March 1982	Lewis River	<i>Oregonian</i> , p. 83, col. 1-3	Forecast. Anglers get that old feeling. ... Smelt dippers are doing poorly from the bank of Washington's Lewis River, but boaters in midstream are still taking fish. Smelt have not been seen yet on the Sandy, and observers are beginning to wonder whether they'll show up this year.
18 March 1982	Not in Sandy River	<i>Oregonian</i> , p. 48, col. 1-5	Forecast. First Chinook herald end of winter, arrival of spring. ... Smelt are tardy in the Sandy River and perhaps won't show up this year.
25 March 1982	Not in Sandy River	<i>Oregonian</i> , p. 60, col. 1-3	Forecast. Boats reporting heavy action in channel for spring Chinook. ... Biologists have just about given up on the smelt run in the Sandy, according to Jay Massey, a district fish biologist for the Fish and Wildlife Department. Massey said, however, that the run has been as late as April in years past.
1983			
22 January 1983	Cowlitz River	<i>Oregonian</i> p. 30, col. 4	Smelt enter Cowlitz River. KELSO — Smelt — small, tasty fish that are dipped from

Date	Place	Source	Quote
			the river in nets — have entered the Cowlitz River in force upstream to at least one mile above here. The Washington limit is 20 pounds, or approximately one bucketful. No license required. The Sandy River smelt run — which failed to appear in 1982 — is not due until at least mid-February.
25 January 1983	Cowlitz River	<i>Oregonian</i> , p. 75, col. 3-5	Panel divides on surpluses. Bill Monroe. Concentrated fish are welcome features in the Cowlitz River, where the annual river of smelt is on the march toward Castle Rock. Last weekend saw heavy traffic between Portland and the Longview-Kelso reach as folks rushed to cash in on free (20-pound, no license) fish as close as a dipnet. ... The smelt run should hold up until spring, unless heavy rain brings ash down and pushes the fish back into the Columbia, according to Felix Polasek at Columbia River Fish in Kelso. And news of the smelt has spring Chinook anglers licking their chops, since the salmon always appear on the heels of the smelt runs. The big question will be whether the Sandy River run shows up in February or March after missing its 1982 cue.
27 January 1983	Cowlitz River	<i>Oregonian</i> , p. 84, col. 1-3	Cowlitz offers steelhead, smelt. By Bill Monroe and Tom McAllister of the <i>Oregonian</i> Staff. ... Smelt dipping in the Cowlitz also remains good, with smelt taken along the entire west bank upstream to Lexington.
3 February 1983	Lewis River Cowlitz River	<i>Oregonian</i> , p. 99, col. 3-6	Fishing is still better than catching, Bright spots show in generally slim offering. By Bill Monroe of the <i>Oregonian</i> Staff. ... ATTENTION SMELT DIPPERS: Smelt have moved into the Lewis River mainstem, but there are no guarantees they'll stay there. Smelt action has lessened somewhat on the Cowlitz River, but early morning dippers are taking limits up to Kelso. No smelt are yet reported in the Sandy River.
9 February 1983	Columbia River off St. Helens	<i>Oregonian</i> , p. 79, col. 1-4	Spring Chinook head home; anglers lick chops. Tom McAllister. ... Seals, chinook and smelt are in the Columbia off St. Helens — not necessarily in that order — but one accompanies the others as winter fades. The seals accompany the salmon and smelt runs and have a choice of menu, while the chinook, contrary to what appears in some fishing literature, keep feeding on the smelt as they come upriver. It's probably this feeding response to smelt that keeps the spring chinook's strike reaction hones as it turns up the Willamette.
10 February 1983	Lewis River	<i>Oregonian</i> , p. 70, col. 5-6	Forecast. High water clouds steelhead picture. By Tom McAllister of the <i>Oregonian</i> Staff. ... The Washington Fisheries Department's Vancouver office reports that the Lewis river smelt run is one of the strongest in years and the river is packed with the silvery horde from the mouth to Woodland.
15 February 1983	Cowlitz River Lewis River	<i>Oregonian</i> , p. 89, col. 2-5	Smelt not in Sandy River yet, but it's still early. Feb. 28 earliest showing, but there's no guarantee of '83 run. Bill Monroe. No, the smelt are not in the Sandy River. The Sandy River smelt run is a major attraction in the Portland area every winter and spring as thousands throng to cash in on free protein and wriggling masses of slippery morsels. But the run is not here yet and there is no guarantee it will show up, according to Ken Durbin of the state Fish and Wildlife Department. Smelt have appeared in the Cowlitz and Lewis rivers, which normally precede the Sandy showing. Old-timers also

Date	Place	Source	Quote
			swear spring Chinook seem to follow the smelt, which could account for a remarkable early showing of Chinook. Feb. 28 is the earliest the smelt have ever appeared in the Sandy, however, according to Durbin. The start of the run has occurred from Feb. 28 to April 28 in years past. Since 1916, according to state records, there have been 32 years in which smelt have not shown up at all. Last year was one, for example. The longest continuous absence was from 1958 through 1970. ... They also make excellent crab and sturgeon bait.
17 February 1983	Cowlitz River Lewis River	<i>Oregonian</i> , p. 91, col. 1-4	Fishing slow for steelhead and sturgeon. By Bill Monroe of the <i>Oregonian</i> staff. ... Smelt are still in the Cowlitz, although it takes more time to work out a limit. Lewis River dippers also are taking smelt.
23 February 1983	Lewis River	<i>Oregonian</i> , p. 75, col. 1-4	Crabbers carp over sea lion's brazen poaching. Tom McAllister. ... Smelt are still running in the Lewis River at Woodland, Wash., with sport dipping rated "fair" on Tuesday by the Washington Fisheries Department. There is no sign of smelt off the Sandy River, where Harris Quade at Sundial Beach reports the Columbia high and muddy. "Only the smelt know when they'll be in the Sandy," says Quade.
10 March 1983	Cowlitz River Lewis River	<i>Oregonian</i> , p. 116, col. 5-6	Endless rain dampens weekend fishing hopes. By Bill Monroe of the <i>Oregonian</i> Staff. ... Smelt have not yet been reported in the Sandy River and are tapering off in the Cowlitz and Lewis systems.
3 April 1983		<i>Oregonian</i> , p. 90, col. 1-5	Dipping nets dry in Troutdale as residents await smelt. Smelt-dipping burgeoned into a spring festival two decades ago. By Floyd Schneidermann of the <i>Oregonian</i> Staff. And sometimes, the smelt don't come at all. "It's getting late already," Vern Frischman said. "And because there was no run last year, people are thinking it won't happen again." ... Whenever the fish do come into the mouth of the Sandy River, the traffic backs up on Columbia Boulevard. The downtown area of Troutdale is several blocks from the city park below the bridge, but parking there is then at such a premium that the business blocks also swarm with smelt dippers and their cars, many bearing out-of-state license plates. "My business will quadruple if there's a good run," said Frischman [owner of the Troutdale Deli-Mart] ... Posted in the store is the annual pool, in which residents invest 50 cents and try to guess the day the fish will arrive. In 1982, there was no run and the modest proceeds (about \$90) went to the local businessmen's association and spent on downtown improvements. "We kind of go by whether the commercial dippers show up," Frischman said. "If there are enough fish for that, we pay off the pool." ... The sport of smelt-dipping burgeoned into a spring festival two decades ago. Community-sponsored events were held concurrently with the fish runs. But the event collapsed when the smelt runs suddenly stopped in 1957 and there were not enough fish to be counted for some 14 years. The fish began to return in force in the early 1970s, and so did the people. The smelt, unlike salmon, are not seekers of their source and not compelled to return to their native streams. Last year, for the first time in a decade, the capricious smelt did not appear. This spring, the townfolk heard that runs of smelt were

Date	Place	Source	Quote
			good downriver, but that can mean nothing. “The only thing sure,” said one Troutdale resident, “is that when you see the gulls, the smelt are coming.” Seagulls follow the smelt up the Columbia, feeding as the huge schools progress. ... Smelt runs have been chronicled since 1913 by the Troutdale Historical Society, and its figures show the latter portion of March to be the prime time for the fish to show up. Only once since the records were kept did the smelt come in February, but about a third of the time they have come in April. ... It’s getting late, but Troutdale folk haven’t entirely given up. The historical society records show that of the 13 times the fish have shown up in April, it once occurred as late as the 28th.
1984			
15 December 1983	Columbia River	<i>Oregonian</i> , p. 94, col. 2-6	Forecast. High water, warm weather hamper steelhead angling. By Bill Monroe of the <i>Oregonian</i> Staff. ... Some smelt have been reported near Puget Island on the lower Columbia River, but the main run has not arrived. Sturgeon angling will depend on the location of smelt schools.
12 January 1984		<i>Oregonian</i> , p. 81, col. 1-6	Forecast. Steelhead runs are on, and angling is best in years. By Bill Monroe of the <i>Oregonian</i> Staff. ... Sturgeon anglers in the lower Columbia are waiting for the first smelt to show.
23 January 1984	Cowlitz River	<i>Oregonian</i> , p. 50, col. 1-5	Smelt run in Cowlitz River not great yet, but some dip limits. Bill Monroe. KELSO, Wash., — The smelt are in. They’re not here in great numbers, according to Felix Polasek of Columbia River Seafoods, but some Cowlitz River netters in the right places at the right times have dipped limits in the past two weeks. Polasek said the run appears to be a scout patrol consisting of large fat fish. They are flighty, however, and move in and out with the tides. The next series of rains should result in better dipping conditions. Commercial netters have been getting all they want. ... Still a question mark is the Sandy River east of Portland, where smelt — if they come — should start showing in February. They’ve missed the past couple of years in the Sandy, but that’s nothing unusual.
26 January 1984	Cowlitz River	<i>Oregonian</i> , p. 64, col. 1-5	Forecast. Lot of ‘ifs’ must be met for successful weekend steelheading. By Bill Monroe of the <i>Oregonian</i> Staff. ... Smelt have been pushed out of the Cowlitz River by the mud and ash and may not be back until next week.
2 February 1984	Cowlitz River	<i>Oregonian</i> , p. 100, col. 1	Steelhead prospects picking up. By Tom McAllister of the <i>Oregonian</i> Staff. ... Felix Polasek at Columbia River Seafoods in Kelso said the Cowlitz smelt run was better, with dippers getting smelt on the incoming tide.
7 February 1984	Cowlitz River Lewis River	<i>Oregonian</i> , p. 102, col. 5-6	Smelt dippers enjoy Cowlitz conditions. Bill Monroe. Cowlitz River smelt dippers took advantage of the waning days of the recent heat wave and capped their weekends with limits of fish Sunday. All eyes now are split between an approaching storm front (Tuesday evening) and an imminent eruption of Mount St’ Helens (who knows?), either of which could end the party by increasing silt in the Cowlitz, driving smelt back into the Columbia. With such a prolonged dry spell, however, it would take a major rise to kick them out, say observers. Felix Polasek at Columbia River Seafoods in Kelso said he

Date	Place	Source	Quote
			expects the smelt to stay, but is making no bets in light of the smelt volcano interchange of the past few years. Meanwhile, smelt in the lower Columbia River have resulted in outstanding sturgeon angling. As for upstream smelt movement, time will tell. Some scattered dipping effort has been successful on the lower Lewis River system, but not enough to draw a serious effort from locals. Polasek said he generally watches the upstream passage of shipping traffic for signs. As ships make their way to Portland piers, their propellers cut through the schools, grinding many of the eulachons into meal for scavenging seagulls. When the gulls begin following ships up the Columbia above Longview, it's a sign that smelt schools are on the move. As for the Sandy River's celebrated, albeit inconsistent, smelt run, it is still a few weeks too early to make a judgment. For the past two years, the smelt failed to appear in the Sandy after a long string of annual appearances.
9 February 1984	Cowlitz River	<i>Oregonian</i> , p. 106, col. 5-6	Streams due to rise to delight of anglers. By Bill Monroe of the Oregonian Staff. First, the important news. Smelt success has dropped off on the Cowlitz River, with schools reported out in the Columbia near Trojan. Nor are they to be found anywhere upstream, including the Lewis and Sandy rivers. A new freshet probably will get them moving.
15 February 1984	Portland, OR	<i>Oregonian</i> , p. 112, advert	Fresh Produce from Kienow's ... FRESH SMELT, Columbia River 59c pound
16 February 1984		<i>Oregonian</i> , p. 47, col. 6	Forecast. High water fouls rivers; smelt gone. ... Smelt have virtually disappeared from the Cowlitz and the lower Columbia, with even commercial netters reporting extremely spotty success and dismal scouting reports. It's almost as if the smelt had left the Columbia entirely.
1 March 1984		<i>Oregonian</i> , p. 73, col. 1	Forecast. Washington lakes, coast rivers tops. By Tom McAllister of the Oregonian Staff. ... Jim Galbreath, Columbia River fishery biologist for the Oregon Fish and Wildlife Department, says it now appears there are few smelt in the main Columbia.
8 March 1984	Cowlitz River	<i>Oregonian</i> , p. 86, col. 5-6	Willamette clear; Chinook on move. By Tom McAllister of the Oregonian Staff. ... Smelt reappeared in the Cowlitz River at Kelso but it was only a scattering of fresh fish, and Felix Polasek at Columbia River Seafoods reported they were hard to dip from the beach — two hours to take a limit if one was in the right spot.
1985			
11 January 1985		<i>Oregonian</i> , p. 63, col. 1-2	Winter Steelhead alter angler tactics. Tom McAllister. ... Fresh smelt are in greater demand for bait than for the dinner table when they first appear in mid-winter. Felix Polasek at Columbia River Sea Foods at Kelso, Wash., said he has been besieged by sturgeon anglers who maintain no matter what they were using, it can't beat compare with fresh smelt. "I've got numbers for 51 sturgeon fishermen who want me to call when I have the first smelt — they're like candy to the sturgeon, a deadly bait at this time," said the fish dealer.
17 January 1985	Columbia River at Skamokawa	<i>Oregonian</i> , p. 117, col. 1-3	Conditions dictate spotty steelhead fishing. By Tom McAllister of the Oregonian Staff. Forecast. ... Smelt are being taken in the Skamokawa area by gill net, but have not

Date	Place	Source	Quote
			started running in the Cowlitz.
31 January 1985		<i>Oregonian</i> , p. 54, col. 1	Angling put on hold until rains come. By Tom McAllister of the <i>Oregonian</i> Staff. ... Commercial netters are taking hardly any smelt in the river around Cathlamet and the sturgeon caught in the lower river have empty stomachs when they are normally bursting with smelt at this time.
6 February 1985	Columbia River at Cathlamet Cowlitz River	<i>Oregonian</i> , p. 74, col. 1-6	Western Oregonians responsive to plight of beleaguered deer. Tom McAllister. ... A small school of smelt checked in and out of the Cowlitz River for 48 hours last week, and there has been nothing since. Until the cold spell ends and the Cowlitz and Lewis rivers get rain or snowmelt, no break is expected. Fish dealers are starting to get boxes of smelt from the commercial netters in the Cathlamet area, so there is some fresh bait becoming available for sturgeon fishing
7 February 1985	Columbia River Cowlitz River	<i>Oregonian</i> , p. 104, col. 5-6	Low, cold waters make catches few. By Bill Monroe and Tom McAllister of the <i>Oregonian</i> Staff. ... Some sturgeon success was reported on the Columbia river near Dodson. Anglers were using fresh smelt brought in from the short-lived smelt runs on the lower Columbia, where a small school of smelt moved quickly in and out of the Cowlitz last week. There was no bank dipping and no smelt have shown since then, although some commercial netters are still bringing in a few loads from the Columbia. The smelt may also be waiting for warmer water.
14 February 1985	Cowlitz River	<i>Oregonian</i> , p. 145, col. 5-6	Steelhead prospect improving. By Tom McAllister of the <i>Oregonian</i> Staff. Fishing Forecast. ... Dippers are scratching a few smelt from the Cowlitz near Kelso at night, but the big run has yet to develop.
21 February 1985	Columbia River Cowlitz River	<i>Oregonian</i> , p. 106, col. 5-6	Steelhead on move; coastal streams full. By Bill Monroe of the <i>Oregonian</i> Staff. ... Fresh smelt once again are on local fish market shelves, but most are being netted in the mainstem Columbia by commercial fishermen. On the Cowlitz, dippers in the best spots are only drawing a fish or two every other dip — not yet worth the trip. Local experts are wary in predicting whether the smelt will ever creep into the Cowlitz this winter, saying warmer water temperatures are needed.
24 February 1985	Columbia River	<i>Oregonian</i> , p. 115, col. 4-6	Shrimpers make smelt catch. Tom McAllister. Shrimp boats scooped smelt from the Columbia last week. Oregon and Washington fish managers were taken by surprise, but by Friday an emergency smelt closure was called in commercial fishing zones 1 and 2 in the lower river. The haul of smelt from the Astoria area, over 300,000 pounds, with mid-water trawls was the first of its kind in the Columbia by these boats, and it brought a supply of fresh smelt into the Portland markets. Shrimpers modified their trawl nets, located the smelt kegged in masses while waiting for the river to warm and towed through the schools. One tow produced 20,000 pounds of smelt in 20 minutes near Point Adams. The regulations on commercial smelt fishing never considered that ocean trawlers might move inside the river for smelt. In the time that it took for the two states to act through their Columbia River Fishery Compact, the modified shrimp gear filled local markets for the first time this winter. Traditionally, the commercial smelt netters

Date	Place	Source	Quote
			and dippers on the Cowlitz and Columbia rivers seek out schools of male fish that precede the female schools of smelt. The male smelt are a firmer, better-eating quality than the females. The separate schools come together at the time of spawning. Sixty percent of the smelt sent to market from the shrimp boat catch was females, which smelt connoisseurs consider inferior. Last week's surprise smelt catch came at the wrong time with the wrong sex because the smelt are in trouble. Don McIsaac, Washington Fisheries Department biologist for the Columbia and an expert on smelt, blames the small smelt runs last year and this on three environmental setbacks: (1) In May of 1980 the larval stage of the smelt hatched in the Cowlitz and Columbia was subjected to the great volcanic ash outpouring from Mount St. Helens. (2) Dredging to recapture the shipping channel that the ash-laden water filled kept the Columbia stirred while the minute and almost transparent smelt larvae were floating seaward on the current. (3) The smelt schools returning this year and last not only went to sea under adverse conditions but entered into the El Nino condition that altered ocean temperature and current and their food supply. The average catch of smelt is over 2 million pounds, but last year only 497,000 pounds were taken in the Columbia and Cowlitz, and the shrimp trawlers last week had already taken 300,000 pounds of mostly female smelt before the emergency cutoff. Like salmon, smelt home to the rivers after several years at sea, and they die after spawning. They also return in two age classes, schools with 3-year-old or 4-year-old fish. That explains why smelt can range from 6 to 12 inches long. Smelt are fickle as to when or how fast or far up the river they will move before spawning. Which of the lower Columbia tributaries, aside from the lower Cowlitz, they will enter from one year to the next is completely unpredictable. It may or may not be the Lewis, the Kalama or the Sandy. A few times they have appeared upstream as far as Bonneville Dam and nosed into Tanner Creek. The lower Cowlitz is the one certain tributary the smelt enter and provide a chance for personal use dipping from the bank. But this winter the Cowlitz has been a disappointment for smelt dippers.
28 February 1985	Cowlitz River	<i>Oregonian</i> , p. 74, col. 4-6	Cowlitz smelt 'thick as mush.' By Tom McAllister of the <i>Oregonian</i> Staff. Forecast. ... Smelt are running "thick as mush" in the Cowlitz River, according to the Washington Fisheries Department. ... The smelt started into the Cowlitz in force last weekend and, by Tuesday, dippers were getting from one to five pounds a sweep, and the schools were as far upriver as Castle Rock. The personal use limit on smelt in Washington is 20 pounds per person.
28 February 1985		<i>The Bulletin</i> (Bend, OR), p. D4	River once saw great smelt runs. By Dan Guthrie for <i>The Bulletin</i> . Portland — in the past 70 years there have been just 36 smelt runs on the Sandy River. The most recent was in 1981. But before that, from 1958 through 1970, the Columbia tributary just east of Portland had a smelt drought lasting 13 years. "It looks like there might not be a run this year either. So far, very few fish have appeared at the mouth of the Columbia," said Jay Massey, district fish biologist for the Oregon Department of Fish and Wildlife. When

Date	Place	Source	Quote
			salmon runs fail, usually logging or cows or fishermen or dams are loitering suspiciously in the vicinity. Is that also true for smelt (sometimes dubbed “the littlest salmon” because of their shirttail kinship with the pride of Northwest waters)? “Maybe not. Smelt aren’t like salmon. They don’t necessarily return to where they hatched. Instead they leave the Pacific and move upriver until they find a stream with suitable spawning habitat. Since the Sandy has the highest run in the Columbia, it’s not that surprising if they don’t always reach it,” said Massey. Still, when the fish do make it, they can convert the Sandy to a river of flesh. Commercial landings of Columbia smelt have approached six million pounds, and recreational anglers are thought to take even more than this. Past accounts tell of profligate harvests. In 1946, Edward E. Brockmann, a Portland printer and smelt aficionado, wrote a pamphlet titled “Smelt and the Sandy River,” in which he reported that one fisherman shipped out 50 tons of smelt a season, and that a commercial concern shipped out 25 tons a day during the one- to two-week runs. Continued Brockmann: “Time was when there was a big bag limit and no license; then it was a common sight to see from two to six gunny sacks loaded with smelt tied to the Model T cars. In the horse and buggy days the waste of fish was appalling. Farmers backed their wagons to the stream and took the smelt home for fertilizer. The decline in rose culture coincided with the law prohibiting the use of smelt as fertilizer.” Regulation of individual catches began in 1929, when the Oregon legislature passed a bill requiring dippers to buy a smelt license. It cost 50 cents and imposed a 25-pound daily limit. Other facts in Brockmann’s pamphlet include observations he made, beginning in 1926, on how far the smelt migrated up the Sandy (10 miles), what water temperature they preferred at the onset of the run (42 degrees), and how many eggs a big fish laid (259,200). He had a trough running day and night in our basement, and he kept the eggs there until they hatched,” said Edward Brockmann’s son Paul, who is now 66 years old and lives in Troutdale. “Nobody studied smelt then, so he decided to do it. He included me and my brother George in these projects whenever he could,” said Paul. “In the early days, commercial fishermen were allowed to put nets all the way across the mouth of the Sandy. That’s when my father and Johnny Mann, a Portland city commissioner, thought up the idea to stock Mann’s mill pond with fingerlings and donate it to the state as a hatchery. The pond drained into the Sandy, which meant that by law the nets had to go. “Even after the commercial netters were out, the smelt sometimes had trouble making it upriver when the water was low. Predators would grab them in the shallows. So in 1932, I think it was, during the Depression, Dad and some of his friends got the Army Corps of Engineers to put up \$5,000 for coffer dams on either side of the river. The dams weren’t much more than piling and they didn’t do a very good job. So Dad and his cronies went up to Troutdale and organized around 200 people to stuff brush between the piling. Then the water had to go down the center and it deepened the channel,” said Paul. “They called my father ‘Sandy River’ Brockmann.”

Date	Place	Source	Quote
1 March 1985	Cowlitz River	<i>Oregonian</i> , p. 1, photo caption	Gourmet catch — Net stars hoping for fresh fish line banks of Southwest Washington's Cowlitz River near Kelso Thursday as smelt continue their spring run. Many netters bring buckets to store their catch until they reach the legal limit of 20 pounds per person.
2 March 1985		<i>Oregonian</i> , p. 19, col. 2-4	Trawlers get go-ahead to net Columbia Smelt. Commercial trawlers who pioneered a new fishery in the lower Columbia River scored a victory with the Columbia Compact Friday. The compact, which comprises the Oregon Fish and Wildlife Commission and Washington Fisheries Director William Wilkerson, agreed to re-open the lower 75 miles of the river to smelt fishing by commercial trawling vessels of more than 40 feet in length. The new fishery will be allowed Saturday through Monday each week for as long as there are enough smelt to attract the boats that usually work in the Pacific Ocean to net pink shrimp or other fish. The compact closed the trawling each Tuesday through Friday to avoid potential gear conflicts with salmon gill-netters next week. The four-day closure is in Zones 1-3 upstream to Sauvie Island. There are no restrictions against trawling farther upstream, but state fish biologists believe there are too few smelt to interest operators of the large boats. The decision means competition for the gill-netters who have harvested smelt for sale for decades. ... Trawlers had not fished the lower Columbia until five boats took more than 300,000 pounds last week. The compact ordered an emergency closure Feb. 22 to prevent them from over-harvesting schools of smelt that were delayed in their migration until the river began to warm. No restrictions were placed on other commercial smelt fishermen. Biologists feared a poor run, but signs now point to an average or above-average run, said Kay Brown, an Oregon Department of Fish and Wildlife biologist. About 1.1 million pounds of smelt have been landed by all types of commercial fishermen, up from 497,000 in all of 1984, Brown said. The average commercial harvest is 2.2 million pounds. The department doubts that more trawlers will join the fishery this month, he said.
3 March 1985		<i>Oregonian</i> , p. 129, col. 1-6	Smelt truly 'savior fish' for Indians, now treat for 20th century dippers. Tom McAllister. ... Shrimp boats were not involved in the sudden heavy catch of 300,000 pounds of smelt concentrated in the lower Columbia near Astoria last week as reported in this writer's Sunday outdoor column. These were ocean drag boats that figured how to modify a shrimp net and hitch it to their bottom trawl board to comply with commercial regulations inside the river for the smelt. They were so effective so fast that they brought about an emergency closure in zones 1 and 2 of the lower Columbia. Not a licensed shrimper was involved in that brief bonanza that caught the fishery managers short.
7 March 1985	Columbia River at Sauvie Island	<i>Oregonian</i> , p. 34, col. 1	Gill-netters shut down for salmon. By Tom McAllister of the <i>Oregonian</i> Staff. ... Earl Reeder at Reeder Beach said the smelt arrived off Sauvie Island last Friday. By Wednesday the schools were moving toward the Sandy River, with big concentrations in the Columbia upstream from the Interstate 205 bridge, so the watch is on for the Sandy smelt run.
8 March 1985	Sandy River	<i>Oregonian</i> , p. 32, col. 3	Smelt enter Sandy River. Smelt watchers reported the silver horde that sets off a frenzy

Date	Place	Source	Quote
	Cowlitz River		of sipping entered the Sandy River at Troutdale Thursday [7 March] afternoon. Harris Quade of Sundial Beach Marina at the mouth of the Sandy said steelhead anglers first spotted the river” plugged with smelt” at the piling hole in the big bend of the river below the Interstate 80 Bridge, and by 4 p.m. the smelt vanguard was at the old Columbia River Highway Bridge at Troutdale. State Police game officers on the scene also confirmed the run was under way, but how heavy has yet to be determined. No license is required to dip smelt, but dippers cannot share containers and each must observe a 25-pound daily limit. The Cowlitz River smelt run faded out completely for dippers last Monday.
9 March 1985	Sandy River Cowlitz River	<i>Oregonian</i> , p. 1, col. 1-4	Sandy Smelt stage no-show. By Rolla J. Crick of the <i>Oregonian</i> staff. In terms of piscatorial plenty, the Sandy River’s much ballyhooed smelt were conspicuous by their absence Friday. It was more a crawl of smelt than a run. A few of the small fish wriggled in the river but not in the numbers eager smelters had hoped to see and catch. Men and women with buckets and nets lined the banks, and a few hardy souls wearing waders were in the water, but action was minimal. Lured by reports Thursday and Friday morning that the silver horde had entered the river on an unusual migration, dippers generally seemed disappointed at the meager showing Friday. Steelhead fishermen and Oregon State Police had reported the river to be “plugged with smelt” Thursday afternoon at the piling hole in the big bend of the Sandy River below the Interstate 84 bridge. By 4 p.m. Thursday, the smelt vanguard reportedly had approached the old Columbia River Highway bridge at Troutdale. But Friday’s early smelters were mostly out of luck. ... Different theories were postulated for why the smelt run was so light Friday. They ranged from “the water is too cold, and the fish went back out after discovering that,” to “There are only males there today, and you know what that means. The run is over because the male follow the females.” Other people dubbed Friday’s few bold smelt “the pilot fish, checking the river.” They predicted that the real run would commence Saturday or Sunday. John Christianson ... said he had been smelting on the Sandy for 30 years and he recalled years in which a person could catch the limit (25 pounds) in three minutes. “I used to go to Skid Road and give them to the bums until they got tired of seeing me coming,” he reported. Darrel Haynes ... said he used to dip commercially on the Cowlitz River and could get 4 tons per boatload. This year’s smelt run ended on the Cowlitz a few day[s] ago, but Haynes said it had been light. He contended the light run could be blamed on Mount St. Helens. “The volcano’s eruption caused the fish to stop coming in,” he said. ...
10 March 1985	Sandy River	<i>Oregonian</i> , p. 110, col. 4-5	Sandy River proves smelting pot of old-timers, first-timers to fish run. By Linda Gilpin of the <i>Oregonian</i> staff. For the old-timers, it smelt like spring Saturday afternoon along the Sandy River as they dipped their nets into sun-dappled waters. Temperatures in the 60s contributed to a laid-back atmosphere as thousands of Portland-area people, who had responded quickly to the grapevine news that the smelt were running in the Sandy

Date	Place	Source	Quote
			after a three-year absence, carried dipping nets and plastic buckets. Most wore waders into the waters near the mouth of the Sandy — the most fertile sites marked by sea gulls dipping and soaring overhead ... Most people said that the run was mediocre at best, but several commercial fishermen were busy scooping up fish all afternoon. Several people said they felt that the run was nearing its end because they were netting mostly male smelt. Several persons were catching individual limits of 25 pounds. ... [One person] said he had been out to the Cowlitz River earlier in the day but reported that he hadn't found any smelt. ...
11 March 1985	Sandy River	<i>Oregonian</i> , p. 70, col. 1-2	Trolling for salmon begins in channel. Tom McAllister. "A peculiar run," said Harris Quade at Sundial Marina when assessing the status of the smelt in the Sandy on Sunday. The silver horde has not moved above the Interstate 84 bridge, and the only successful dippers have been those working from boats in midstream or along the high banks off the east end of the Troutdale airport. With the Sandy so low and clear some of the bank dippers have adapted by coming out at night and working by lantern light downstream from the I-84 bridge. As the smelt broadcast their eggs and milt into the Columbia around the Sandy River mouth and begin to die and spiral down to the river floor, the great sturgeon fishing of recent weeks will taper off for a period while the sturgeon gorge on dead smelt.
14 March 1985	Sandy River Columbia River	<i>Oregonian</i> , p. 84, col. 6	Columbia sturgeon action hot. By Bill Monroe of the Oregonian Staff. Forecast. ... The smelt run has dropped out of the Sandy River and smelt are no longer in the Cowlitz in enough numbers to make dipping worthwhile. Smelt are still moving in the mainstem Columbia, however.
16 March 1985		<i>Oregonian</i> , p. 23, col. 1-2	Trawlers air complaint. ... Three Astoria-area trawlers with boats more than 40-feet long asked to be allowed to fish for smelt in the lower Columbia with no more restrictions than operators of smaller vessels. ... Burnie Bohn, an Oregon biologist, said trawlers landed 471,000 pounds of the 1.55 million pounds of smelt landed by commercial fishermen. But Miner contended trawlers had not ruined the season for other fishermen.
1986			
23 January 1986	Cowlitz River	<i>Oregonian</i> , p. 66, col. 3-5	Smelt run hits Cowlitz; steelhead outlook mixed. By Bill Monroe of the Oregonian Staff. The best of the good news is the appearance on schedule of the annual run of smelt in the Cowlitz River. Commercial dippers have been working the run successfully and limits for sport dippers are not uncommon for those who find the right spots up to Kelso and beyond to Rocky Point. No license is required for sport smelt dipping, but there is a limit of 20 pounds per day per dipper. The run should last for at least two weeks in the Cowlitz and perhaps longer. No smelt have been reported in the Lewis River, and if the run reaches the Sandy, it probably will not be until February. Felix Polasek at Columbia Seafoods in Kelso said the fish are not thick enough yet to assure everyone of limits, but those who work at it are picking up plenty fish in the right spots.

Date	Place	Source	Quote
30 January 1986	Cowlitz River	<i>Oregonian</i> , p. 72, col. 3-4	Smelt outlook in Cowlitz good; first spring Chinook reported. By Bill Monroe and Tom McAllister of the <i>Oregonian</i> Staff. Fishing forecast. ... The smelt spigot was turned off, then on again earlier in the week and the last word was fair to good dipping in the Cowlitz above Kelso. No reports of smelt have been heard from either the Lewis or the Sandy rivers. Likewise for the Umpqua River. ... What is hot on the lower river is sturgeon angling, as fish move into the river after the smelt. ... SOUTHWEST WASHINGTON ... another run of smelt came into the [Cowlitz] river and dipping improved sharply starting Tuesday. The new smelt school was mixed males and females and there is dipping from Kelso to Castle Rock with a 20-pound personal use limit. Smelt have not appeared of the Lewis or Kalama rivers.
31 January 1986	Cowlitz River	<i>Oregonian</i> , p. 36, photo caption	Silvery haul — Rocky Earle, 30, of Rainier, nets a few smelt Thursday on the Cowlitz River near Longview, Wash. The smelt forecast for the Cowlitz this weekend is for fair to good dipping. No reports of smelt have been heard from the Lewis or Sandy rivers.
6 February 1986	Cowlitz River	<i>Oregonian</i> , p. 65, col. 1	Smelt run stays hot in Cowlitz. By Bill Monroe of the <i>Oregonian</i> Staff. Fishing forecast. ... Yes, the smelt are still in the Cowlitz and yes, in the highest numbers yet this season. Dippers were gathering limits within 20 minutes Tuesday and there is no sign of let up. Most of the action has been from Kelso to Castle Rock. There still is no sign of smelt in either the Lewis or Sandy rivers.
11 February 1986	Cowlitz River	<i>Oregonian</i> , p. 18, col. 3	Smelt run provides easy limits. By Pat Moser, Correspondent, The <i>Oregonian</i> . KELSO, Wash. — Using long-handled nets, young and old are filling their 20-pound buckets with smelt along a 15-mile stretch of the Cowlitz River. ... The Ross brothers were among the hundreds who have pulled their 20-pound limit from the Cowlitz in just minutes during the past two weeks. This year has seen the hottest run of smelt in Southwest Washington since 1978, state Department of Fisheries biologists reported. Inexperienced smelters ... claim to have pulled their limits from the river within 15 minutes. ... Hugh Fiscus, state fisheries biologist, said the smelt were kept out of Washington streams during the November and December cold snap. As temperatures warmed last month, the pent-up run began. Smelt, a 5- to 9-inch silver fish called “eulachons” or candle fish by the Chinook Indians, began moving into the Cowlitz River the last week of January. News soon spread that the best run in years was under way. ... News about the smelt run has spread throughout the Pacific Northwest. ... Fiscus and Polasek were unable to say how much longer the smelt run would last.
13 February 1986	Cowlitz River Columbia River	<i>Oregonian</i> , p. 54, col. 1	Spring run of salmon taking off. By Tom McAllister of the <i>Oregonian</i> Staff. Forecast. ... Smelt in the mainstem Columbia have not been reported above the mouth of the Cowlitz. The run into the Cowlitz holds strong, but dipping effort is down with clearer lower levels and the smelt further out from the banks.
19 February 1986	Columbia River	<i>Oregonian</i> , p. 26, col. 1	Spring chinook landed. Tom McAllister. ... There is just speculation where these legal sturgeon — 4 to 6 feet in the commercial catch — were. The smelt were there to attract them below the Cowlitz. ... A pattern sturgeon stalkers expect in winter is a movement

Date	Place	Source	Quote
			downriver to meet the great shoals of smelt, and then for the sturgeon to accompany the smelt as they move up the Columbia.
21 February 1986		<i>Oregonian</i> , p. 114, col. 1-5	Steelhead labeled pike, packaged as salmon, billed as lamb. Tom McAllister. ... Perceptions: Don Denny on North Portland Boulevard was exercising his Labrador on the beach at Sauvie Island recently and saw thousands of dead and dying smelt cast up by waves from passing ships. He wondered what was going on. Denny perceived the smelt as in danger of extinction if they were being washed up at this rate all the way to the river mouth. These are smelt facts: After spawning, smelt spin and circle, turn on their sides and sink to the river bottom where white sturgeon enjoy an orgy of munching on the little oily bodies. A small number from the host of millions of smelt do wash ashore, but wakes of passing ships are no problem for smelt. Like salmon, they all die after spawning. Also, smelt don't have to get to tributaries like the Cowlitz, Lewis and Sandy rivers every year to assure spawning. They broadcast their eggs in the broad Columbia. Only pollution of the Columbia, which is far less than it was 30 years ago, or overfishing could pose a danger to the "French fry" of our fish world.
27 February 1986	No smelt	<i>Oregonian</i> , p. 84, col. 1	Planning can land big catch. By Bill Monroe of the <i>Oregonian</i> Staff. ... The only smelt in the region are on supermarket shelves right now. They have disappeared from the Cowlitz.
6 March 1986	Lewis River	<i>Oregonian</i> , p. 56, col. 6	Sturgeon, smelt, trout abundant. By Tom McAllister of the <i>Oregonian</i> Staff. Smelt are running in the Lewis River at Woodland, Wash. ... The Lewis River is high and clear and the dipping is best by lantern light at night with the major dipping spots at Woodland, The I-5 bridge and the forks.
16 March 1986	No smelt in Sandy River	<i>Oregonian</i> , p. 50	Something's fishy there; it's Troutdale smelt vigil. By Web Ruble of the <i>Oregonian</i> Staff. TROUTDALE — They are not like the swallows of Capistrano — They don't always return. But smelt dippers and watchers expect return of the prized eulachon to the Sandy River soon. It's the annual smelt watch. ... If the smelt come, they come by the millions to spawn on the Sandy's gravel bars near the Troutdale bridge. ... Thick clouds of <i>Thaleichthys pacificus</i> are sure to come. "They've already entered the Lewis River (in Washington) and generally in the past they've shown in the Sandy two or three weeks later ... that means about March 28," Meger said. But he also warns that the "oily, silver wiggles" are unpredictable. He said that just because they entered the Lewis doesn't mean they'll enter the Sandy. ... The earliest the smelt have entered the Sandy has been Feb. 26 in 1974. The latest, according to records kept since 1913, has been April 28 in 1924. Then there were the 13 consecutive years they didn't show at all — 1958 through 1970. ... The state used to charge 50 cents for a smelt license. But printing up licenses for most of those 13 years and not being able to sell them killed the project. Jim Galbreath, state Fish and Game project leader on the Columbia River, said that smelt spawn in tributaries in three major rivers — the Columbia; the Fraser in British Columbia, and the Umpqua. The smelt hatch from eggs after 30 to 40 days and migrate

Date	Place	Source	Quote																																																																																				
			to the Pacific. Sandy River smelt runs. The Troutdale Historical Society has recorded the official start of the smelt runs in the Sandy River back to 1913. But the small fish don't always show up, the longest absence being 13 years from 1958 through 1970. Here are the dates and corresponding years when the smelt first poked their noses into the river. <table><tr><td>1913</td><td>April 8</td><td>1932</td><td>March 26</td><td>1954</td><td>April 1</td></tr><tr><td>1914</td><td>March 24</td><td>1934</td><td>March 4</td><td>1956</td><td>March 29</td></tr><tr><td>1916</td><td>April 4</td><td>1936</td><td>March 27</td><td>1957</td><td>March 26</td></tr><tr><td>1917</td><td>April 21</td><td>1940</td><td>March 6</td><td>1971</td><td>March 23</td></tr><tr><td>1918</td><td>April 2</td><td>1941</td><td>March 14</td><td>1974</td><td>Feb. 26</td></tr><tr><td>1919</td><td>March 15</td><td>1942</td><td>March 19</td><td>1975</td><td>March 27</td></tr><tr><td>1921</td><td>March 29</td><td>1943</td><td>March 25</td><td>1976</td><td>March 22</td></tr><tr><td>1922</td><td>April 11</td><td>1945</td><td>April 1</td><td>1977</td><td>March 12</td></tr><tr><td>1924</td><td>April 28</td><td>1946</td><td>March 26</td><td>1978</td><td>March 23</td></tr><tr><td>1925</td><td>March 26</td><td>1948</td><td>March 27</td><td>1979</td><td>March 13</td></tr><tr><td>1926</td><td>April 1</td><td>1949</td><td>March 24</td><td>1980</td><td>March 8</td></tr><tr><td>1928</td><td>March 12</td><td>1951</td><td>April 5</td><td>1981</td><td>March 7</td></tr><tr><td>1929</td><td>April 9</td><td>1952</td><td>April 8</td><td>1985</td><td>March 9</td></tr><tr><td>1930</td><td>March 18</td><td>1953</td><td>April 19</td><td></td><td></td></tr></table>	1913	April 8	1932	March 26	1954	April 1	1914	March 24	1934	March 4	1956	March 29	1916	April 4	1936	March 27	1957	March 26	1917	April 21	1940	March 6	1971	March 23	1918	April 2	1941	March 14	1974	Feb. 26	1919	March 15	1942	March 19	1975	March 27	1921	March 29	1943	March 25	1976	March 22	1922	April 11	1945	April 1	1977	March 12	1924	April 28	1946	March 26	1978	March 23	1925	March 26	1948	March 27	1979	March 13	1926	April 1	1949	March 24	1980	March 8	1928	March 12	1951	April 5	1981	March 7	1929	April 9	1952	April 8	1985	March 9	1930	March 18	1953	April 19		
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5 April 1986	No smelt in Sandy River	<i>Oregonian</i> , p. 16, col. 1-2	No fish, they smelt net. By Web Ruble of the Oregonian Staff. TROUTDALE — Veteran watchers of the Sandy River said this week they doubted the unpredictable smelt will run this spring in the Sandy River. The annual smelt watch is fading. Dip nets have been returned to garages. ... The smelt annually enter the Columbia River in January and start migrating upstream to spawn in the Cowlitz and Lewis rivers in Washington and the Sandy River Oregon. The earliest they have hit the Sandy has been Feb. 26 in 1974, and the latest has been April 28 in 1924, according to records kept by the Troutdale Historical Society since 1913. Last year they arrived March 9. Smelt have arrived 13 times in April, but there have been no April arrivals since 1954. And for 13 years the smelt didn't appear at all — 1958 through 1970. ... Schulte said the biggest run was in 1974 when it lasted 30 days — the only year smelt didn't hit the Cowlitz — “and the run was so thick that small children dipped smelt out of the Sandy with their hands.”																																																																																				
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8 January 1987	Columbia River Cowlitz River	<i>Oregonian</i> , p. 45, col. 1-4	Steelhead success expected to pick up. By Bill Monroe of the Oregonian Staff. ... A few smelt patrols have been noted by commercial fishermen in the Cowlitz, but there haven't been enough fish yet for sport netting from the bank. Commercial smelt gill-netters on the main stem Columbia report only fair success so far.																																																																																				
13 January 1987	Portland, OR	<i>Oregonian</i> , p. 82, col. 3	Quality of imitation crab meat improved. Freshest of the fresh. ... Columbia River smelt have begun to show up in small quantities. Prices for the early fish will begin high but will fall off as the run develops and more smelt is available.																																																																																				

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15 January 1987	Columbia River	<i>Oregonian</i> , p. 38, col. 3-5	Rainstorm buoys hopes for steelheading. Fishing Forecast. By Bill Monroe of the Oregonian Staff. ... Felix Polasek at Columbia River Seafoods in Kelso said smelt were not making a strong showing yet, with even commercial gill-netters faring poorly. "They're bringing in just barely enough for bait, to keep the sturgeon fishermen from killing me," Polasek said.
20 January 1987	No smelt	<i>Oregonian</i> , p. 86, col. 3-5	Halibut low in fat, high in protein. Freshest of the fresh. ... The fresh Columbia smelt run has not materialized. What looked like a pilot run — a small number of males that are triggered to enter the river earlier than the regular run — last week, stopped. Smelt should appear in greater numbers in February.
22 January 1987	Columbia River	<i>Oregonian</i> , p. 72, col. 5-6	Warm rain needed to improve outlook. Fishing Forecast. By Bill Monroe of the Oregonian Staff. ... Even the smelt are holding back in the lower Columbia River, refusing to get too excited about water temperatures hovering around the 40-degree mark. Sturgeon anglers have the most to crow about these days, with fish hanging out underneath the recalcitrant smelt in the lower Columbia. ... Felix Polasek at Columbia River Seafoods in Kelso said there have been virtually no smelt into the Cowlitz River yet, and even commercial gill-netters are faring poorly in the main stem.
29 January 1987	Columbia River	<i>Oregonian</i> , p. 36, col. 2-4	Rain dampens anglers weekend. Fishing Forecast. By Bill Monroe of the Oregonian Staff. ... Meanwhile, the smelt — if they're there still are holding in the Pacific, waiting stubbornly for the temperature to rise a little and draw them in. Felix Polasek at Columbia River Seafoods in Kelso said the Cowlitz was running 36 degrees Wednesday and the Columbia was 39 degrees. No smelt to speak of have been netted from the Cowlitz to the mouth of the Columbia at Ilwaco, Wash., Where one commercial gill netter came up without a single fish on an overnight set Tuesday. Some slim pickings have been netted upriver close to Longview, Polasek said, but there aren't any fish in the Cowlitz and no one is even bothering to try dipping yet. It's not too late yet, though," he said. "They might still be holding out in the ocean." Dropping water in the next two weeks after the current round of warm fronts will tell the tale. Sturgeon apparently haven't been told the smelt aren't in and are biting well on fresh smelt baits in the St. Helens area. ... The fish are showing a distinct preference for fresh smelt, which are on limited markets from what commercial netters can scrape up in the mainstem Columbia.
3 February 1987		<i>Oregonian</i> , p. 82, col. 1-4	Winter sparks demand for smoked seafood. Freshest of the fresh. ... Columbia river smelt are expected in better quantities this week; however, only Mother nature and the seagulls know for sure. This year they're running late.
10 February 1987		<i>Oregonian</i> , p. 86, col. 4-6	Breaded fish differs in cost, taste. Freshest of the fresh. ... Columbia River smelt continue a no-show and remain anyone's guess if or when they will appear.
12 February 1987	Cowlitz River	<i>Oregonian</i> , p. 46, col. 1-4	Rogue only prospect in poor outlook. Fishing forecast. By Tom McAllister of the Oregonian Staff. ... A horde of smelt moved into the Cowlitz last Sunday night and dippers are taking their poundage limits. Take exit 30 off Interstate 5 at Kelso, Wash., for some of the best bank access along the west side of the Cowlitz.

Date	Place	Source	Quote
17 February 1987	Portland, OR	<i>Oregonian</i> , p. 91, advert	THRIFTWAY... Columbia River Fresh Smelt ... 79c LB.
17 February 1987	Portland, OR	<i>Oregonian</i> , p. 67, col. 1-2	Rich, flavorful Chinook begin spring season. Freshest of the fresh. ... Columbia River smelt have arrived and prices should drift downwards as the season unfolds. With the run being so late, no one is certain how long it will last. This year, it's anybody's guess.
17 February 1987	Portland, OR	<i>Oregonian</i> , p. 65, advert	KIENOW'S ... FRESH SMELT from the Columbia River ... pound 59c
19 February 1987	Cowlitz River	<i>Oregonian</i> , p. 63, col. 3-4	Salmon in lower Columbia; Cowlitz inundated by smelt. Fishing forecast. By Tom McAllister of the Oregonian Staff. ... A massive run of smelt is crowding the banks of the Cowlitz and bank dippers are taking poundage limits in a few net sweeps. Felix Polasek of Columbia River Sea Foods in Kelso, Wash., said it is the biggest volume of smelt he's seen in years on the Cowlitz. "Size is small but volume is great," remarked Polasek.
24 February 1987	Portland, OR	<i>Oregonian</i> , p. 64, col. 3-6	Increased lobster prices expected to continue. Freshest of the fresh. ... Fresh Columbia River smelt continue to be available. With lower prices, they represent a tremendous seafood value.
24 February 1987	Portland, OR	<i>Oregonian</i> , p. 86, advert	ALBERTSON'S ... FRESH SMELT Columbia River ... 44c lb.
26 February 1987	Cowlitz River Lewis River	<i>Oregonian</i> , p. 74, col. 1-3	Smelt dipping in Cowlitz River remains hot. By Bill Monroe of the Oregonian Staff. ... Smelt dipping continues unabated in the Cowlitz River up to and beyond Castle Rock, with 20-pound limits being taken in three or fewer dips in some areas and netters working harder in other parts of the river. The small Eulachons also have moved into the Lewis River, where bank access is limited, but boat dipping is fair to good in the lower river. No smelt have been seen yet in the Sandy River and no bets are being taken on whether they will appear there. The Sandy run is whimsical, with fish sometimes going for several years at a time without making an appearance.
3 March 1987	Portland, OR	<i>Oregonian</i> , p. 75, col. 3-6	Quotas, seasons affect availability. Freshest of the fresh. ... Columbia River smelt continue, but have begun to move farther upstream indicating the season may last only a few more weeks. The fish have finally appeared in good numbers the past few weeks, but this year the fish are smaller than usual.
4 March 1987	Lewis River	<i>Oregonian</i> , p. 21, col. 1	Sandy said high, right for smelt. By Web Ruble of the Oregonian Staff. TROUTDALE — It's that time of year again. The smelt vigil is on here at the Sandy River. ... reports from the Lewis River near Woodland, Wash. are that some smelt have been there since late last week. Fish biologists and smelt observers have noted that the smelt annually migrate up the Columbia River to spawn and traditionally enter the Cowlitz first, and when that gets overcrowded they come into the Lewis, and, if the Lewis is crowded, they come to the Sandy. ...
4 March 1987		<i>Oregonian</i> , p. 31, col. 1	Smelt watch starts. TROUTDALE — It's that time of year again. The smelt vigil is on at the Sandy River. ...
5 March 1987	Cowlitz River Lewis River	<i>Oregonian</i> , p. 39, col. 1-5	Warm rains, snowmelt muddy Willamette, kill fish outlook. Fishing forecast. By Tom McAllister of the Oregonian Staff. ... Sturgeon fishing is poor with all the dead and

Date	Place	Source	Quote
			dying smelt out of the Lewis and Cowlitz rivers making a huge feast for the sturgeon. ... The smelt run has faded in the Lewis River, but there was a surge of new fish in the Cowlitz at Kelso with the warm freshet.
15 March 1987	Cowlitz River	<i>Oregonian</i> , p. 125, col. 1-3	Canada geese get ready for move after fattening up on Sauvie Island. Tom McAllister. The end of the smelt run on the Cowlitz River culminated with the death spiral and drift of the oily little bodies on the river current during the past two weeks, and for a brief time there was a gathering of bald eagles that locked in from afar on the rich banquet. ... [the] highest count during the smelt run was 51 eagles (17 of them full-plumaged adults) between the mouth of the Cowlitz and Castle Rock. That's the largest number of bald eagles seen in any area on the lower Columbia River. The smelt run was the draw. Most of the eagles were on the gravel bars picking out the dying smelt at the river's edge.
22 March 1987		<i>Oregonian</i> , p. 49, col. 1-6	Troutdale merchants cross fingers for fish frenzy. By Kathleen Glanville, Correspondent, The Oregonian. TROUTDALE — Merchants in Troutdale yearn for the return of the smelt. The small, silvery fish travel in giant schools, moving up the Columbia like black, underwater clouds. The Oregon Fish and Wildlife Service [sic] tracks them from the air, following the dark shadow cast by millions of fish. This year great numbers of the smelt returned to the Cowlitz River. They returned to the Lewis River. But the fickle, unpredictable smelt have yet to return to the Sandy River. Troutdale merchants know there's no guarantee the smelt will arrive. The Troutdale Historical Society has kept track of the smelt runs, and in 74 years they've arrived only 41 times. And smelt skipped the 1960s entirely, not bothering to run up the Sandy for 13 years after they came to spawn in 1957. But when the smelt come, Troutdale is transformed. The small, slumbering community becomes a boom town overnight. Thousands of eager fishermen wielding 10-foot-long nets jostle each other for space on the banks of the Sandy to dip for a wriggling mess of smelt. ... A smelt run means the difference between a good year and a bad year for business in Troutdale, Winning said. ... Megar said when the smelt run was heavy, it only took one or two dips of the net to catch the 25-pound limit. ... "If they don't come in by March 29, I don't know," Galbreath said. "They last time they came in April it was 1954. Lately they've been arriving the first or second week in March. So far they are defying us. Where are those little buggers?" Little is known about the smelt or why they choose some rivers over others, Galbreath said. "Poor old Oregonians, the Sandy is the only river in Oregon they go into on occasion," he said. Some people catch smelt to eat, fresh, frozen or smoked. Others catch them to use as bait for sturgeon fishing. The biggest consumers of commercially caught smelt are marine animals in zoos and wildlife parks, according to Galbreath. ... "People go wild, that's one reason limits were established," Galbreath said. "When the fishing is good you can quickly have 50, 80 or 100 pounds. The state police were finding enormous loads of smelt just dumped along the road. People caught all

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			these smelt and when they got home they’d say, “What am I going to do with these things?” Troutdale merchants are content to profit from the smelt-inspired frenzy. “It’s the first draw to bring people to the town and to the river,” Winning said. Sandy River smelt runs. The Troutdale Historical Society has recorded the official start of the smelt runs in the Sandy River back to 1913. But the small fish don’t always show up, as was the case last year. The longest absence was 13 years from 1958 through 1970. Here are the dates and corresponding years when the smelt first poked their noses into the river. <table><tr><td>1913</td><td>April 8</td><td>1932</td><td>March 26</td><td>1954</td><td>April 1</td></tr><tr><td>1914</td><td>March 24</td><td>1934</td><td>March 4</td><td>1956</td><td>March 29</td></tr><tr><td>1916</td><td>April 4</td><td>1936</td><td>March 27</td><td>1957</td><td>March 26</td></tr><tr><td>1917</td><td>April 21</td><td>1940</td><td>March 6</td><td>1971</td><td>March 23</td></tr><tr><td>1918</td><td>April 2</td><td>1941</td><td>March 14</td><td>1974</td><td>Feb. 26</td></tr><tr><td>1919</td><td>March 15</td><td>1942</td><td>March 19</td><td>1975</td><td>March 27</td></tr><tr><td>1921</td><td>March 29</td><td>1943</td><td>March 25</td><td>1976</td><td>March 23</td></tr><tr><td>1922</td><td>April 11</td><td>1945</td><td>April 1</td><td>1977</td><td>March 12</td></tr><tr><td>1924</td><td>April 28</td><td>1946</td><td>March 28</td><td>1978</td><td>March 23</td></tr><tr><td>1925</td><td>March 26</td><td>1948</td><td>March 27</td><td>1979</td><td>March 13</td></tr><tr><td>1926</td><td>April 1</td><td>1949</td><td>March 24</td><td>1980</td><td>March 8</td></tr><tr><td>1928</td><td>March 12</td><td>1951</td><td>April 5</td><td>1981</td><td>March 7</td></tr><tr><td>1929</td><td>April 9</td><td>1952</td><td>April 8</td><td>1985</td><td>March 9</td></tr><tr><td>1930</td><td>March 18</td><td>1953</td><td>April 20</td><td></td><td></td></tr></table>	1913	April 8	1932	March 26	1954	April 1	1914	March 24	1934	March 4	1956	March 29	1916	April 4	1936	March 27	1957	March 26	1917	April 21	1940	March 6	1971	March 23	1918	April 2	1941	March 14	1974	Feb. 26	1919	March 15	1942	March 19	1975	March 27	1921	March 29	1943	March 25	1976	March 23	1922	April 11	1945	April 1	1977	March 12	1924	April 28	1946	March 28	1978	March 23	1925	March 26	1948	March 27	1979	March 13	1926	April 1	1949	March 24	1980	March 8	1928	March 12	1951	April 5	1981	March 7	1929	April 9	1952	April 8	1985	March 9	1930	March 18	1953	April 20		
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22 March 1987		<i>Oregonian</i> , p. 64, col. 1	Wanted: fickle fish. TROUTDALE — Merchants in Troutdale yearn for the return of the smelt. The small, silvery fish travel in giant schools, moving up the Columbia River like black, underwater clouds. The Oregon Department of Fish and Wildlife tracks them from the air, following the dark cloud of millions of fish. This year the smelt returned to the Cowlitz River in great numbers. They returned to the Lewis River. But the fickle, unpredictable smelt have yet to return to the Sandy River. Troutdale merchants know that there’s no guarantee the smelt will come. The Troutdale Historical Society has kept track of the smelt runs since 1931 [sic] and in 74 years they’ve arrived only 41 times. And smelt skipped the 1960s entirely, not bothering to run up the Sandy for 13 years after they came to spawn in 1957.																																																																																				
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21 January 1988	Portland, OR	<i>Oregonian</i> , p. D06, section: FISHING FORECAST	WEEKEND TO PROVIDE BEST IN STEELHEADING. By Bill Monroe of the Oregonian Staff. Sturgeon follow smelt into the river and the first few smelt have been netted in the Cowlitz by commercial boats. There haven't been enough smelt yet for a sport dip fishery, but another two weeks should see an improvement without additional major freshets. Commercial smelt gill-netters are doing well in the Cathlamet area, which means the run is in and moving upriver at its own pace. Oregon dipnetters should be																																																																																				

Date	Place	Source	Quote
			aware they will be required to purchase a new “personal use” license from the Washington Fisheries Department in order to dip fish in the Cowlitz or Lewis rivers. The license costs \$9.50 for non-Washington residents.
28 January 1988	Portland, OR	<i>Oregonian</i> , p. D04, section: FISHING FORECAST	BEST STEELHEADING IN BIG RIVERS. By Tom McAllister of the Oregonian Staff. Sturgeon catches are gaining along the Columbia between Rainier and St. Helens and off Covert's Landing and Horsetail Falls in the gorge. Fresh smelt is the bait for these sturgeon. Smelt dipping on the west bank of the Cowlitz is good in the Castle Rock area. Dippers need to put in their time to get a limit because the water is very clear now that the Corps of Engineer Dam on the Toutle River is trapping the volcanic ash. For the first time, smelt dippers must have a personal use food fish license in Washington. The resident license, good for the year, is \$3.50. The two-day license for a non-resident is \$3.50 or \$9.50 for the year. Already there is a move under way to have smelt removed from the license provision in the next Washington Legislature.
3February 1988	Portland, OR	<i>Oregonian</i> , p. D04, section: OUTDOORS	NEW LICENSE SNAGS COWLITZ SMELT RUN. By Bill Monroe of the Oregonian Staff. Smelt dippers are down, tempers are up and the fish are in the Cowlitz River. Felix Polasek, owner of Columbia River Seafoods in Kelso, Wash., said dip-netting for smelt has been excellent in the Cowlitz in the past week, with 20-pound limits the rule, which often have been met in less than half an hour. But, Polasek added, fewer people are showing up to reap the bonanza. Part of the blame, he said, lies with the new Washington personal-use license. “The crowds from the south (Portland) are not materializing,” Polasek said. “The Super Bowl was a part of it Sunday, but we didn't have that many people Saturday, either.” A new law that took effect Jan. 1 requires a personal-use license for all who take fish managed as commercial food by the Washington Fisheries Department. The license is a surcharge of sorts for salmon, already covered under other license requirements, but was new for bottomfish and smelt. It costs Washington residents \$3.50 annually or for a one-day, non-resident permit. An annual non-resident permit is \$9.50. “They made a mistake including smelt in that thing,” Polasek said. “We have an excellent run here, it's getting bigger every year and nobody has to do anything to manage it. There are no conservation measures needed. I don't think anyone should have to pay anything. People have a historical right to take these fish without paying.” The Washington Legislature conducted a hearing Tuesday evening on a bill that would eliminate smelt from the personal-use license requirement, but the bill is not out of the Washington Senate Natural Resources Committee and, if passed, would not take effect before next January. The license fee is “extremely small for the opportunity to get a day's limit of 20 pounds that will easily provide more than a week's worth of meals for a family,” said Tony Floor, a spokesman for the Washington Fisheries Department. “What's the price of a loaf of bread, a dozen eggs and a six-pack of pop?” Further, he added, the out-of-state fee also is fair. “If you're from Oregon, we ding Oregon like Oregon dings us,” he said. Which is not entirely true, because out-of-state residents are

Date	Place	Source	Quote
			not required to hold a license to dip smelt in Oregon. Non-resident angling fees for Oregon also are considerably cheaper than comparable licenses, tags and stamps required of non-residents in Washington for salmon, steelhead and sturgeon. OUTLOOK GOOD: The Sandy smelt run should show within a week or two if it is going to at all. The Sandy River has not had a good smelt run for several years, although small numbers of fish have been in from time to time in the traditional February period. Observers at Sportsmen's East in Sandy said there are reports from sturgeon fishermen and houseboat owners below the mouth of the Sandy that smelt have been seen swimming upriver close to the surface. Smelt, by the way, are easy to prepare, whether bought in a store or dipped from the river. They need only a quick removal of the head and innards, a coating of flour or cracker crumbs and a hot skillet with butter. They also make good bait for sturgeon.
4 February 1988	Portland, OR	<i>Oregonian</i> , p. D06, section: FISHING FORECAST	EARLY SPRING CHINOOK RUN GIVES HOPE OF GOOD WEEKEND SUCCESS. By Bill Monroe of the <i>Oregonian</i> Staff. Smelt are running strong on the Cowlitz River in southwest Washington, but have not yet shown in either the Lewis or Sandy rivers. However, they have been seen close to the surface of the Columbia near the mouths of those streams. With the smelt have come sturgeon ...
11 February 1988	Portland, OR	<i>Oregonian</i> , p. E04, section: FISHING FORECAST	GOOD SMELT RUNS HELP STIMULATE STURGEON CATCH IN COLUMBIA, UMPQUA RIVERS. By Tom McAllister of the <i>Oregonian</i> Staff. Sturgeon are munching fresh smelt baits, and catches have picked up sharply with milder weather along the lower Columbia River. The best sturgeon action is off Tongue Point and in the reach of the Columbia from Rooster Rock to Bonneville. ... The smelt run in the Cowlitz River thinned out, and dipping was reported as poor this week by Felix Plasek at Kelso, Wash. The river is down and clear, and the commercial dippers moved upstream to the deadline near Castle Rock.
11 February 1988	Cowlitz River	<i>Eugene Register-Guard</i> , p. 1D-2D	Cowlitz smelt a quick catch for dipnetters. By Pete Cornacchia, <i>The Register-Guard</i> . Smelt have been running bank to bank in Washington's Cowlitz River for three weeks, so it seemed many of the dipnetters around Kelso, Longview, and Castle Rock would have already had their fill and not been out in a light drizzle Monday morning. Right after a weekend, it was expected that only the commercial fishermen and a few smelt addicts wielding their long-handled nets would be out, leaving plenty of open spots along the bank. At the end of a 170-mile drive from Eugene, the light drizzle had given way to a blizzard of gulls swirling over the river for as far as fishermen could see, upstream or down. Millions and millions of gulls. Dipnetters lined along both banks and all were dumping fish into their buckets. ... A short time later the group was standing at the edge of a high cut bank [near Castle Rock], looking down at dark masses of smelt wriggling upstream at the edge of the water. Between there and the great dunes of volcanic ash on the opposite bank, which have come down the Toutle and Cowlitz from Mount St. Helens, the gull blizzard was almost to the whiteout stage. And in less than 30 minutes,

Date	Place	Source	Quote
			the three dipnetters had collected their smelt. All the fish were big males and extremely firm. ... many wonder why the hordes of smelt which enter the Columbia in mid-winter on their spawning run continue to charge up the Cowlitz and sometimes other Washington streams year after year but have virtually abandoned the Sandy. The Sandy is the only river on the Oregon side which they've ever entered in any significant number, though the runs have been sporadic. Though smelt have probably used the Sandy since the last glacial age, and were recorded by Lewis and Clark [but not in the Sandy, in particular], The Columbia tributary just east of Portland has drawn only 36 runs in the past 70 years. None from 1958 through 1970, or since 1981. ... For spawning, the Columbia strain seems to prefer streams with glacial origin and not more [than] 40 degrees in water temperature. The female is very prolific and will broadcast 25,000 to 30,000 eggs. Most smelt will die after spawning, but not all.
18 February 1988	Cowlitz River	<i>Oregonian</i> , p. E06, section: FISHING FORECAST	CLEARING COLUMBIA OFFERS IMPROVED SALMON PLAY. By Tom McAllister of the Oregonian Staff. STURGEON: Catches are good on fresh smelt baits, which are not easy to find with the fading Cowlitz smelt run now above the commercial dipping deadline. Sturgeon have marvelous smell and taste buds and they know the difference between a fresh smelt and a frozen, thawed bait. ... There were no reports of smelt in the Kalama or Lewis Rivers this week and dipping slowed rapidly in the Cowlitz.
26 February 1988	Columbia River	<i>Oregonian</i> , p. E04	SMELT IN COLUMBIA, NOT SANDY. By Web Rubble of the Oregonian Staff. Smelt are in the Columbia River in fair numbers, but so far they have yet to nose into the Sandy River. That signals the beginning of an annual pre-spring. Men and women are looking for silver hordes of spawning smelt that in some years have jammed the Sandy River from bank to bank. When it happens, rubber-booted crowds wade hip deep into the river or line its banks as they net hundreds of the little wiggly "oil fish" into waiting containers. Commercial dippers have bagged from 750,000 to 1 million pounds of smelt already this winter from the Cowlitz River in Washington, said Jim Galbreath, Clackamas, fish biologist for the Oregon Fish & Wildlife Department. But the smelt -- also called eulachon -- have been elusive since backing out of the Cowlitz a week ago, he said. They have yet to enter any other tributary. Nevertheless, smelt fanciers -- dippers and smelt-net merchants -- are eagerly watching the mouth of the Sandy for the telltale flocks of seagulls that follow the smelt. Smelt range from the Russian River in California through Oregon, Washington and British Columbia to the eastern Bering Sea and the Pribilof Islands off Alaska. Smelt are anadromous, annually entering the Columbia River system to spawn in the Columbia's tributaries. The first available large branch is the Cowlitz. If conditions aren't right, part or all of the run will go on to the Lewis River and occasionally the Kalama, too, both also in Washington, and then on to the Sandy. Occasionally they will enter Tanner Creek, which flows to the Columbia Gorge, and on rare occasions they'll even get into the pool behind Bonneville Dam and visit the Hood

Date	Place	Source	Quote
			River. The problem is, nobody knows whether the smelt will come or why. Smelt were expected last year. Fish biologists and other river watchers said the Sandy's water and weather conditions appeared perfect. But the silver hordes never arrived. The earliest they have arrived in the Sandy has been Feb. 26, according to the Troutdale Historical Society records, and the latest has been April 28. Not only did they not show in the Sandy last year, but they also failed to do so in 1986. The last run was in 1985, when smelt arrived March 9. That year, however, they visited only the lower river. Smelt lovers a few years ago thought that because of possible ecological changes, the eulachon were through with the Sandy forever. That's because they failed to show for 13 years -- from 1958 to 1970. Then in 1971, it happened. Just a few arrived for a teaser. It was another three years, 1974, before smelt arrived in large numbers. This year? "Things look favorable," said Roy Meger, veteran smelt watcher and proprietor of Troutdale General Store, 226 E. Historic Columbia River Highway, who each year hopes to rent out some 150 nets. "There's no sign of them yet, but I expect them most any time," he said. "The water looks in good shape. We're getting ready." Galbreath isn't so sure. "The flow is low on the Sandy," he said. "It's unattractive and they tend not to enter when there is no attraction. The last real big run -- a whopper -- was in 1977. In that year the smelt did not enter the Cowlitz. Water was low there because engineers had not released water downstream from Mayfield Dam." However, Galbreath said he is not predicting because he was certain there would be smelt in the Sandy last year and there wasn't. "We call them (smelt runs) homogeneous," he said. "They (the smelt runs) are like an amoeba with moving lumps and arms going in all directions."
3 March 1988	Cowlitz River Columbia River	<i>Oregonian</i> , p. D04, section: FISHING FORECAST	INDICATIONS OF BIG RUN STILL STRONG. By Bill Monroe of the Oregonian Staff. SMELT: Dipping is over in the Cowlitz River for the time being, although salmon gill-netters in the Columbia report continued sightings of smelt schools. If there is another hard rain, smelt may re-enter the Cowlitz, although there are no guarantees, according to Felix Polasek at Columbia River Seafoods in Kelso.
10 March 1988		<i>Oregonian</i> , p. F06, section: FISHING FORECAST	CHINOOK EXPECTED IN WILLAMETTE BY WEEKEND. By Tom McAllister of the Oregonian Staff. No smelt runs are reported from the Kalama, Lewis or Sandy rivers.
13 April 1988		<i>Oregonian</i> , p. B06, section: EAST ZONER	SANDY RIVER DROPPED FROM SMELT RUN ITINERARY. By Web Ruble of the Oregonian Staff. The smelt are not coming to the Sandy River this year. That seems to be the consensus about the noble "eulachon," which throughout history have had an erratic off-and-on pattern of visits to the Sandy River. "We won't see them now. I'm putting my nets away," said Roy Meger, veteran smelt watcher and proprietor of the Troutdale General Store. Meger has 150 dip nets to rent to fishermen. When the smelt run in the Sandy they swim in such schools that fishermen lining the banks or wading waist deep just dip nets into the dark swirling clouds of wiggling fish and empty nets straight into waiting containers. Each fisherman is limited to 50 pounds. "It's a mystery,"

Date	Place	Source	Quote
			said James Galbreath, fish biologist for the state Fish and Game Department in Clackamas. Some years they come and some they don't. If they come, it's usually a March arrival. But there have been years when they've arrived in April, even late April. In records kept since 1913, the earliest the smelt have entered the Sandy has been Feb. 26, in 1974. The latest has been April 28 in 1924. They did not come last year or the year before. The last three times they ran in the Sandy -- in 1985, 1981 and 1980 -- they arrived on March 9, March 7 and March 8, respectively. There was one no-show span of 13 years -- 1958 through 1970. Fish biologists and smelt fans have noted that the fish annually migrate up the Columbia River and make their first big stop in the Cowlitz. If the Cowlitz gets overcrowded or conditions are not right, they come into the Lewis (and once in a while the Kalama) rivers in Washington, and if the Lewis is jammed and conditions are less than ideal they move on up to the Sandy. The water conditions apparently have to be right. Smelt watchers have theories about water temperature, water depth, and turbidity but none knows exactly what the smelt demands are. In the Sandy, one of the favorite spawning holes is between the Historic Columbia River Highway Bridge at Troutdale and the Union Pacific Railroad bridge a few hundred yards north. That's where Ted Schulte, now of Sandy but formerly of Troutdale, used to scoop them from in front of his house. Schulte, who lived on the riverfront for 44 years before moving to Sandy, said many times the smelt entered the Sandy River at night to avoid the seagulls that were ready to pluck them as they crossed a shallow sandbar.
17 April 1988	Sandy River	<i>Oregonian</i> , p. C07, section: EAST ZONER	SMELT DIPPERS GET BIG TREAT ON THE SANDY. By Web Ruble of the Oregonian Staff. Oregon fishermen got a pleasant surprise Saturday [16 April] when smelt thronged the Sandy River here. The surprise arrival -- much later than usual -- confounded the experts who two weeks ago said the smelt would not be coming this year. "It just shows that you never know," said Roy Meger, veteran smelt watcher and proprietor of Troutdale General Store. Meger had put his rental dip nets away. Meger said a trout fisherman came into his store at 10 a.m. and had quit fishing because of the smelt. "I dashed out to go see for myself, and sure enough they were in there thick," Meger said. He said the smelt, which return to Columbia tributaries annually to spawn, entered the Sandy early Saturday. The smelt, in fair numbers, entered the Lewis River near Woodland, Wash. last Thursday. Smelt entered the Cowlitz in mid-January and were last seen there the first week in March. The pattern is to enter the Cowlitz River in Washington first, then the Lewis, and if there still are substantial numbers, the Sandy. Jim Galbreath, fish biologist for the Oregon Fish and Wildlife Department, said last week that he doubted the smelts would reach the Sandy. Smelt have had erratic off-and-on appearances in the Sandy. If they come, they usually arrive in March. Records show, however, their latest arrival was April 28 in 1924. They bypassed the Sandy in 1986 and again last year. Fishermen, who use dip nets to harvest smelt, are limited to 25 pounds in a single day. Meger said people who rented nets at his store Saturday were back in less

Date	Place	Source	Quote
18 April 1988	Sandy River	<i>Oregonian</i> , p. D06, section: OUTDOORS	than an hour. "They got their limits with just a few dips," he said. SMELT BEGIN MOVE UP SANDY RIVER. By Tom McAllister of the <i>Oregonian</i> Staff. One of the latest-ever runs of the unpredictable smelt moved into the Sandy River over the weekend. By noon Saturday the silvery stream of fish pressed upstream to the old Troutdale Bridge. Gay Quade of Sundial Marina, at the mouth of the Sandy, reported sighting several seals near the marina enjoying the smelt feast. Oregon State Police game officers on the scene Sunday morning said it took about an hour to net a 25-pound limit, so the run was not that dense or close to the bank. Smelt schools enter the lower Columbia River without fail every year starting in early January, and by February they are probing into the Cowlitz. But when, or if, they enter other tributaries to spawn--the Kalama, Lewis or Sandy rivers--is pure guesswork. Runs have come into the Sandy as early as March 4, in 1934, and as late as April 20, in 1953. That 1953 run lasted eight days, and the shoals of smelt were so thick in the Columbia that year that they also moved upstream and appeared in Tanner Creek and the fish ladders at Bonneville Dam. The longest-ever Sandy smelt run came in 1925, when the smelt started March 4 and continued through April 4. But there have been many years without a run. Smelt dippers in Oregon don't need a fishing license, but there is a 25-pound daily catch limit per person.
18 April 1988	Sandy River	<i>Oregonian</i> , p. D12, section: LOCAL STORIES	SMELT FINALLY RETURN TO SANDY RIVER. By Fran Gardner of the <i>Oregonian</i> Staff. Just last week, veteran smelt watchers, including those with the Oregon Department of Fish and Wildlife, were ready to write the Sandy River off as a smelt stream. But apparently nobody thought to tell the fish. The first gate-crashers moved into the Sandy from the Columbia River early Saturday, and by the time night had fallen, they were being avidly pursued by net-wielding humans and bright television lights. It was the first smelt run in the Sandy in three years and one of the latest on record. In 1924, the smelt waited until April 28 to appear, which stands as the record. By Sunday afternoon the run had thinned out a bit. Several hundred hopeful smelters, encumbered by large plastic buckets and with family members kibitzing on the beach, were swiping their nets through the river in a downstream motion, putting their backs into it. Watchers on the historic Columbia River Highway Bridge at Troutdale could see the slim forms of the smelt slipping along upstream, but many of the netters were bringing up nothing but rocks, mud and nets full of air. "They go deeper during the day," explained Troy King of Rockwood, who has been fishing for smelt for so many years that he lost a number of them this year through the holes in his worn-out net. Nevertheless, he managed to bag about 50 little fish in the space of half an hour. "It's all in the wrist," commented Darrin Welch of Milwaukie, one of several men cheerfully standing in the chilly water without waders and one of few men bringing up two or three wiggling fish each time. He tossed them to his grandmother, Irene Nelson of Portland, who was standing on the bank with the rest of his family. She was modest about her ability to field each slippery handful. "I

Date	Place	Source	Quote
			used to play ball when I was a kid,” she said. Although most smelt wind up being fried or smoked, King freezes his to use as bait for summer sturgeon. “I eat them sometimes,” volunteered his friend, Ron James of Clackamas, who had tagged along but was disinclined to get his feet wet. Everybody kept saying how good the fishing was -- someplace else. The most popular other place was under one of the two bridges, that bookend most of the smelt-scooping activity on the Sandy. “Dad! Hey, Dad,” shouted Brittny Welch, 4, as she scooped a few smelt from the brown kitchen trash bucket that was the family's smelt receptacle. “These are kind of cute fish!” Cute indeed. There was a time when Lower Columbia College, on the Cowlitz River, another stream notable for its smelt runs, crowned a “Miss Eulachon” each spring. Eulachon is the Chinook word for smelt. “This is going to be a long, long trip,” moaned another dipper. He already had stepped out too far for his waders, so that his pants were soaked, and his net kept coming up empty. Another man in waders was heading back to the water. “I can't wait to have my first beer,” he bellowed to the crowd.
19 April 1988	Lewis River Sandy River	<i>Oregonian</i> , p. D05, section: OUTDOORS	ARMY OF SPRING CHINOOK SENDS ITS TROOPS UPRIVER. By Bill Monroe of the <i>Oregonian</i> Staff. WASHINGTON SMELT: The tardy smelt run in the Sandy River is being equaled in Southwest Washington's Lewis River, where the little fish are up to Woodland. There has not been a late showing, however, in the Cowlitz. Both the Lewis and Sandy runs consist of large males, which biologists say is not particularly significant. Many smelt dippers on both rivers are gathering bait for sturgeon fishing ...
21 April 1988	Sandy River Tanner Creek Lewis River	<i>Oregonian</i> , p. D06, section: EAST ZONER SUBURB	LATE-ARRIVING RUN THRILLS SMELT DIPPERS. By Web Rubble of the <i>Oregonian</i> Staff. The opaque whorls of smelt clogging the Sandy River and Tanner Creek constitute more than a substantial fish run, fish biologists and smelt lovers said Wednesday. “It's a big run,” said Jim Kuskie, a fisheries biologist for the U.S. Army Corps of Engineers at Bonneville Dam. Swirling schools of the late-arriving eulachon were accumulating in numbers Tuesday and Wednesday at the entrances of the fishways at Bonneville Dam. “You can see a lot of sturgeon jumping for them,” he said, adding that the water flow down the fishways is so strong that the smelt have not tried to climb the fish ladders. Fishermen were along the banks of the Sandy on Wednesday still scooping up sizable numbers of smelt with their nets. Kuskie said the run -- which started Saturday and was still going strong Wednesday -- is becoming one of the larger ones in recent decades. “It is unusually far-ranging,” Kuskie said. “We don't see smelt at the dam all that often.” He said the slippery, wiggly “oil fish” were also in Tanner, Moffett and Hamilton creeks in substantial numbers Wednesday. Jim Galbreath, fish biologist for the Oregon Fish and Wildlife Department, called it “a fair-sized run, especially when you consider the number of days they have been here and that they are all the way to Bonneville Dam and still at the same time in the Lewis River,” near Woodland, Wash., where they arrived April 14. “And the females are yet to come,” said Roy Meger, proprietor of Troutdale General Store, which has been steadily renting dip nets to

Date	Place	Source	Quote
			fishermen ever since the smelt entered the Sandy River Saturday morning. “Fishermen tell me that their catches are almost all males,” Meger said. Galbreath said the first numbers of female smelt seen in the Sandy were in Wednesday’s waves of arrivals but that females still constituted only 30 percent of the schools. When the smelt barged into the Sandy on Saturday it was a surprise because most fish biologists and smelt watchers had decided that the oily “candlefish” were not coming this year. Meger and others had put their rental dip nets away, and hip waders had been put in attics.
4 May 1988	Columbia River	<i>Oregonian</i> , p. C07, section: OUTDOORS	PRAWNS PROVE POPULAR TO FISHERMEN SEEKING SPRING CHINOOK. By Bill Monroe of the <i>Oregonian</i> Staff. Many spring chinook boated this year have had bellies filled with late-run smelt that have choked the Columbia recently.
1989			
19 January 1989		<i>Oregonian</i> , p. F05, section: FISHING FORECAST	STEELHEAD PROSPECTS RISE AS STREAMS DROP. By Bill Monroe of the <i>Oregonian</i> Staff. ... Sturgeon anglers on the Columbia were doing all right from Longview to the mouth, with no fresh smelt showing yet ...
26 January 1989	Cowlitz River	<i>Oregonian</i> , p. E05, section: OUTDOORS FISHING FORECAST	COAST RIVERS IDEAL FOR STEELHEAD. By Tom McAllister of the <i>Oregonian</i> Staff. Coast rivers are in ideal shape for steelheading and sturgeon are stirring with the onset of the smelt run.... Scout runs of smelt entered the lower Cowlitz last week and a few boxes were taken by commercial dippers, but there were no smelt reported there Wednesday. The main body of the run is still in the Cathlamet area of the Columbia.
2 February 1989	Cowlitz River	<i>Oregonian</i> , p. D07, section: FISHING FORECAST	SPRING CHINOOK RUN APPEARS TO BE HOT ITEM IN COLD SNAP. By Bill Monroe of the <i>Oregonian</i> Staff. Smelt popped in and out of the Cowlitz River two weeks ago and now seem to have dropped out of the Columbia system altogether. Observers are hoping it was the traditional scout run and that the small fish will return.
16 February 1989		<i>Oregonian</i> , p. D05, section: OUTDOORS FORECAST	COLD WEATHER FREEZES OUTLOOK, BUT RAIN ON WAY. By Bill Monroe of the <i>Oregonian</i> Staff. There has been no sign of smelt in the Cowlitz or lower Columbia River with the cold weather.
23 February 1989		<i>Oregonian</i> , p. D05, section: FORECAST	ROGUE STEELHEAD CATCH GREAT. By Tom McAllister of the <i>Oregonian</i> Staff. The Columbia remains unusually cold, and a chill river temperature block of 35 degrees in the Astoria area has kept the shoals of smelt at sea. There was no sign of smelt off the Cowlitz this week.
27 February 1989		<i>Oregonian</i> , p. C08, section: OUTDOORS	SILENTLY WAITING FOR THE CHINOOK. By Bill Monroe of the <i>Oregonian</i> Staff. Galbreath said cold water out of the Snake River is keeping the Columbia temperature at 37 degrees close to Astoria, still two or three degrees below the temperature required to entice smelt into the river. Typically, spring chinook are gorged on smelt from feeding in the river on the way to Portland. The Cowlitz, which gets most spawning smelt, is a toasty 46 degrees and the Willamette, at 45 degrees Friday, also is ready for springers, but the cold water in the Columbia is like a barrier.
1 March 1989	Columbia River	<i>Oregonian</i> , p. D06, col. OUTDOORS	LOCAL ANGLERS PREPARE FOR RETURN OF SPRING SALMON RUN. By Tom McAllister of the <i>Oregonian</i> Staff. Unusual cold water conditions in the Columbia

Date	Place	Source	Quote
			are believed to have kept the salmon just outside the Columbia River entrance, along with the shoals of smelt that evacuated the frigid Columbia. On Tuesday, the Washington Fisheries Department reported that smelt were starting back into the Columbia and moving slowly upstream five miles east of Astoria. With the availability of all this smelt bait at the time they are starting their journey to the Willamette, the spring chinook continue to dine on smelt all the way home.
2 March 1989	Columbia River	<i>Oregonian</i> , p. D05, section: FORECAST	STEELHEADING PICKS UP INLAND. By Tom McAllister of the Oregonian Staff. Sturgeon catches are poor but will pick up as the smelt work their way upriver. Fresh smelt for bait became available when the schools reappeared off Cathlamet, Wash.
8 March 1989	Columbia River	<i>Oregonian</i> , p. E11, section: OUTDOORS	LATE FREEZE SPRINGS SURPRISE ON FLOCKS OF MIGRATING BLUEBIRDS. By Tom McAllister of the Oregonian Staff. SLOW SMELT: There is still nothing to dip in the Cowlitz River. The delectable smelt that sets off an annual stampede was in scattered schools and hardly available to commercial netters on Tuesday in the mainstem Columbia, according to Felix Placek, who has Columbia River Seafoods in Kelso, Wash. "The cold water has delayed them. They're only as far upstream as Puget Island. I hope they make their left turn into the Cowlitz," said Felix.
9 March 1989		<i>Oregonian</i> , p. D07, section: FORECAST	PROSPECTS FOR SALMON PUT ON HOLD. By Tom McAllister of the Oregonian Staff. The smelt are still in scattered schools near Puget Island and there has been no entry into the Cowlitz River.
14 March 1989	Cowlitz River	<i>Oregonian</i> , p. B01, section: Local Stories	SWARMING SMELT BRING OUT THRONG OF DIPPERS. By Web Ruble of the Oregonian Staff. The Cowlitz ran high and muddy Monday, but that didn't stop the hundreds of net dippers who flocked to the smelt-filled river. The annual run -- which started at least a month later than usual -- reached Kelso on Saturday. Swarming schools of the wiggly silvers, which some years appear as gray clouds in the water, were invisible in the brown muddy water. But smelt lovers knew they were there. All day Monday they arrived at the swollen Cowlitz, climbed down steep river banks, made a few dips, filled their five-gallon pails, and climbed back up -- all in about 10 minutes. Thorine Dykes, of Clatskanie, Ore., made four or five passes with her long-poled dip net and was at her 20-pound limit. "You mean that's it?" she said. "The fun's over before it starts." "The first dip was the funnest," said Leonard Koberstein, 71, of Forest Grove, Ore., who made four passes through the water and limited in five minutes. What bothered Koberstein was lifting the heavy nets full of fish and climbing back up to his car. His companion, Henry Weech, 70, of Kalama, Wash., said this year's dipping was "more fun than many other years." Bob and Dick Scroggins of Vernonia, Ore., were through after four dips in five minutes. So were Luanne and Mark Kreutzer, of St. Helens, Ore. Mark Kreutzer said he fished last year's Sandy River run at Troutdale, Ore., and limiting took him 10 minutes. The smelt annually run upstream to spawn, often entering the Columbia River in January. The Cowlitz is frequently the first substantial spawning stop for the silver swarms, usually arriving in late January. Hugh Fiscus, a fish

Date	Place	Source	Quote
			biologist for the Washington Department of Fisheries, said the full-scale invasion of the Cowlitz started this past weekend. He said lots of smelt had been taken from the Cowlitz -- by commercial and sports dippers -- and the run was still strong Monday. Commercial fisherman Mark Davison, of Longview, Wash., said he had "a good day." Standing in Davison's boat, which was heavy with fish and low in the water off Ostrander Bluff, William Handy announced they'd run out of more room. They put up their nets. Once the Cowlitz is jammed, the next wave of smelt may turn away, go back to the Columbia and enter the Lewis River near Woodland, Wash. The next favorite stream after that is the Sandy. However, the fish don't get to the Sandy every year. During a 13-year period from 1958 through 1970 they never showed in the Sandy and environmentalists believed the river's spawning beds had been destroyed. The smelt, however, returned in March 1971. Sandy River dippers are encouraged this year because of reports of the strong Cowlitz run, said Roy Meger, veteran Sandy River watcher and proprietor of Troutdale General Store, where he has 150 dip nets to rent. He said the Sandy run traditionally is two to three weeks later than the Cowlitz.
16 March 1989	Cowlitz River	<i>Oregonian</i> , p. E07, section: OUTDOORS FISHING FORECAST	STURGEON PROVIDE BEST PROSPECT. By Tom McAllister of the Oregonian Staff. Smelt dippers at Kelso on the Cowlitz River continued to take their 20-pound limits with five or six dips on Wednesday.
21 March 1989		<i>Oregonian</i> , p. B02, section: East Zoner	GET DIPPING NETS READY, SMELT VIGIL IS UNDER WAY. By Web Ruble of the Oregonian Staff. The smelt vigil is under way again at the Sandy River in Troutdale. The annual rite -- waiting and looking for the first signs of the arrival of spawning smelt -- has been triggered by the large-scale March 10-11 invasion of the Cowlitz River near Kelso, Wash., by the silver-sided fish. Adding to the smelt fever were reports Monday that the fish were on the move again. Hugh Fiscus, fish biologist for the Washington Department of Fisheries, said that intense seagull activity on the Columbia just north of Kalama, Wash., indicated that the smelt were once again headed upstream. Smelt fishermen like to smoke or fry the 6- to 8-inch fish for eating. Some use them for sturgeon bait. Others just like the sport of wading waist deep into the chilly water with dip nets on 7- to 10-foot-long poles to scoop the wiggly smelt out of the water by the hundreds. Spawning smelt arrive in throngs so great that they cram small streams bank to bank, making them easy prey to dippers. They enter the Sandy -- if they come at all -- usually two to three weeks after they arrive in large numbers in the Cowlitz, said Roy Meger, proprietor of the Troutdale General Store. Meger predicted the smelt would arrive in the Sandy either next week or the first week of April. The water in the Sandy is high, he said, but added that he thought the water would be ideal by April 1. The sea-going smelt run annually January through April searching for tributaries of the Columbia in which to spawn. Their arrival in the Cowlitz March 10-11 was about a month later than usual. They had been held up at the Columbia entrance and the lower river by unusually cold water, Fiscus said. The conditions have to be right for the smelt to enter:

Date	Place	Source	Quote
			The temperature must be between 40 and 44 degrees. Much of this winter the Columbia waters were 37 to 38 degrees, he said. If the Cowlitz is too full, the smelt will overflow to the Lewis River at Woodland, Wash., and if things aren't right there they move on to the Sandy. A 13-year period from 1958 through 1970 passed when they did not show in the Sandy, and environmentalists thought the river's environment had been destroyed and that the Sandy smelt runs were gone forever. However, a few entered the Sandy on March 23, 1971. Two more smeltless years passed and then came an avalanche run in 1974. In Troutdale Historical Society records dating to 1913, the earliest smelt arrival in the Sandy was Feb. 26 in 1974. The latest was April 28 in 1924. Last year the smelt invaded the Sandy on April 16 -- after river watchers had given up and put nets away. No license is required to dip smelt in Oregon. Washington, however, requires a \$3.50 license that is good for all bottom fish -- smelt, perch, herring, halibut, and rock fish. In Oregon the catch limit is 25 pounds. In Washington it's 20 pounds.
23 March 1989	Lewis River	<i>Oregonian</i> , p. D06, col. OUTDOORS FISHING FORECAST	STATES SET MEETING ON EXTENSION OF COLUMBIA RIVER SPORT ANGLING. By Bill Monroe of the <i>Oregonian</i> Staff. Smelt have all but dropped out of the Cowlitz River, but are moving into the Lewis River on the Washington side.
2 May 1989		<i>Oregonian</i> , p. B02, section: East Zoner	THIS YEAR'S SMELT BYPASS THE SANDY RIVER. By Web Ruble of the <i>Oregonian</i> Staff. The 1989 smelt run was large in the Cowlitz River of Washington, meager in the Umpqua River of Oregon, and non-existent in the Sandy River at Troutdale. Fish biologists Monday agreed that the smelt would not show in the Sandy this year. Troutdale Historical Society records dating to 1913 show that the latest Sandy arrival was April 28, in 1924. Biologists in the two states said Monday that the 1989 winter-spring smelt run may have been hampered by unusually cold water lasting unseasonably long, delaying the smelt's entry into the Columbia River system by a month. The 6- to 8-inch smelt make annual spawning runs in a few Northwest streams in February or March. The latest arrival in substantial numbers is the Sandy River, where the run sometimes is in April. Some years they never reach the Sandy. A 13-year span with no smelt was broken in 1971 when a few trickled into the Sandy. A huge run in 1974 resumed the pattern of runs. When the smelt do run, fishermen line the banks of rivers to dip the smelt with long-handled nets. That was the case in mid-March when the smelt crammed into the Cowlitz. Hugh Fiscus, fish biologist for the Washington Department of Fisheries, said that big run lasted one week. Wolf Dammers, another Washington fish biologist, said the fishery on the Cowlitz was terrific. In the Columbia system, he said, the 1989 commercial take was 3.1 million pounds, compared with the usual take of 2.2 million. Most of the 1989 catch, he said, was in the Cowlitz. Fiscus said that the smelt later nosed into the Lewis River at Woodland, Wash., but retreated before a substantial run could develop. The smelt spawned in the main stem Columbia, he said. Three or four years after hatching, smelt make annual upstream spawning runs in three river systems -- the Fraser of Canada, the Columbia and the Umpqua. John Johnson,

Date	Place	Source	Quote
			assistant district Oregon fish biologist at Gardner, said the Umpqua had a small smelt run this year, ``but there weren't enough for fishermen to dip them - the same as in the last seven years." Jim Galbreath, fish biologist for the Oregon Department of Fish and Wildlife, said that even though the Columbia smelt run was short it was enough to bring a record sturgeon run to the Columbia. Sturgeon feed on smelt and will follow them into an estuary, he said.
1990			
20 March 1990		<i>Oregonian</i> , p. C02, section: East Zoner	SMELT LOVERS HAVE EYE ON RIVER. By Web Ruble of the Oregonian Staff. Fish fever has hit Troutdale. Are the smelt coming? Smelt lovers want to know. They have been watching the Sandy River for weeks wondering whether the 6- to 8-inch wiggly silvers will show this season. Veteran river watchers scan the river bar several times a day looking for the telltale sign of circling seagulls. Late March is the time if the smelt are coming, said Roy Meger, veteran Sandy watcher and proprietor of the Troutdale General Store, where he has more than 100 dip nets to rent. Smelt are good eating when smoked or fried. They also can be frozen and used for sturgeon bait. Smelt lovers are eager to wade the Sandy and scoop the fish by sweeping the roily water with dip nets on 7- to 10-foot poles. On good years three or four net passes are enough to catch a limit. In Oregon that limit is 25 pounds. In Washington it's 20 pounds. No license is required. Smelt didn't show in the Sandy last year. But they did in 1988 -- on April 16, long after everyone decided they weren't coming and had stored their nets in attics. But smelt lovers have reason to be optimistic this year because of huge runs in January and February in Washington's Cowlitz and North Fork Lewis rivers, said Wolf Dammers, fish biologist for the Washington Department of Fisheries at Battle Ground. Dammers said 2 1/2 million to 3 million pounds of smelt have been harvested by commercial and sport fishers from the Cowlitz. Last year's take was a near-record 3.1 million pounds. Smelt hatch in tributaries of the Columbia River, go to sea for three to four years, then return to the Columbia system searching for a tributary in which to spawn. Every year migrating smelt invade the Cowlitz River at Kelso, Wash., Dammers said. If the Cowlitz gets jammed and conditions change, he said, subsequent arriving smelt choose other Columbia tributaries. They often enter the North Fork Lewis near Woodland, Wash., and less frequently, but still often, they enter the Sandy. On rare occasions they poke into the Kalama River in Washington and Tanner Creek in Oregon, just below Bonneville Dam. Records of the Troutdale Historical Society dating to 1913 show that smelt have arrived in the Sandy as early as Feb. 26 (1974), and as late as April 28 (1924). In 1926 they came twice, March 14 and April 9. Smelt boycotted the Sandy for 13 years -- 1957 through 1970 -- and everyone was convinced that the Sandy had become polluted and the smelt runs were history. Then on March 23, 1971, a few arrived to serve notice. Two more smeltless years passed, and then in 1974 they invaded the Sandy in overwhelming numbers. Fish biologists are almost certain that smelt prefer glacier-fed water from 40 to

Date	Place	Source	Quote
			44 degrees, Dammers said, adding that this is based on the only study done -- it was a federal one in the late 1940s and early 1950s -- on Columbia River smelt. But the smelt remain mostly a mystery. "They are impossible to predict," said Paul Hirose, fish biologist for Oregon Fish and Wildlife Department at Clackamas. Data are lacking, he said, because studying other fish has always been a higher priority.
1991			
23 February 1991	Cowlitz River	<i>Oregonian</i> , p. B01, section: LOCAL STORIES	DIPPERS DOUBLING EFFORT TO NET TRICKY SMELT. By Denise McVea of the <i>Oregonian</i> Staff. Eugene Bryan half-dragged his 91-year-old body down an incline to the water while balancing a long-handled net. Bryan was determined to dip for smelt. His two middle-aged sons stood nearby, buckets brimming with the small fish, determined not to help. "Two's all I got," muttered Bryan, clinging to the bank of the Cowlitz River. "They don't think I can do anything." As nearby smelt dippers shouted support, Bryan swooped the net in the water. Ignoring a hernia and the slippery shore, he pulled the net up with two glistening smelt inside. "That makes four," he declared proudly, "so I'm going to quit." To nearby dippers on the banks of the Cowlitz near Kelso, two smelt in one stroke was not a bad catch, all things considered. The smelt were there, but remained elusive. In good years, two or three dips would easily net the 25-pound Oregon limit or 20-pound Washington limit on smelt. Commercial fishermen often haul in a million pounds of the slim, silvery fish every year. As Corinne Morrow of Granger put it: "Last year, we came down, dipped our nets a few times and went home. This time, we're having to work at it." This year, cold waters kept the smelt moving in slow, harder-to-net pockets, and high waters distanced would-be waders from the fish. As a result, said dippers, smelt dipping started to feel like work. "We got a few, but we earned every damn one of them," said Jerry Scroggins, as he and a buddy marched to their cars with half-empty buckets. "We'd get one fish for every 10 dips." Dippers lined the Cowlitz River shore all day Friday, plunging the 10-foot poles in the murky water. More often than not, the nets came up empty. But most dippers persisted, and buckets slowly filled. Smelt are unpredictable creatures, despite the fact they don't readily evade clumsy, slow-moving traps that resemble swimming pool nets. Smelt hatch in tributaries of the Columbia River, go to sea for three to four years, then return to the Columbia system searching for a tributary in which to spawn. They may enter the Sandy River in Oregon in April, and how long the run will continue in the Cowlitz is anybody's guess, said Wolf Dammers, a fish biologist for the Washington Department of Fisheries at Battle Ground. As long as they run, people will dip, said Lou DeMeo, a worker at Columbia River Seafoods in Kelso. For the thousands of pounds of smelt they sell, the shop offers recipes: Deep Fried Smelt, Pan Fried Smelt, Broiled Smelt, Smelt Italian Style, Smelt Almandine and Smelt Au Gratin. "There's plenty of smelt out there," he said. "It's what you do with them that counts." And as the brisk afternoon wore on, more than one dipper remarked about one of the smelt's many natural enemies. Seagulls, the usual tell-tale sign

Date	Place	Source	Quote
			for smelt arrivals, were absent over the Cowlitz on Friday, even though the smelt were there. Last year, seagulls turned out in force over the Sandy River in Troutdale, but the smelt didn't. Perhaps the smelt are catching on.
24 February 1991		<i>Oregonian</i> , p. F07, section: OUTDOORS	GILL-NETTERS' CATCH LOW, EXTENSION A POSSIBILITY. By Bill Monroe of the <i>Oregonian</i> Staff. A SANDY SMELT RUN? No biologist would be willing to predict whether the Sandy River will get a smelt run this year. It's entirely hit-and-miss. Swartz said there have been 38 years in the past 77 (of which there are records kept) when smelt have not shown up in the Sandy. They could come anytime between mid-February and April. The last strong run was April 16, 1988, but there have been no runs in four of the past six years. There was a weak run in 1985. Swartz said smelt seem to key to rivers with lots of sandy bottoms at the mouths and into the lower reaches. In Washington, smelt run with consistency in the Cowlitz and lower Lewis rivers. Swartz added that the decreased smelt activity in the Sandy seems to have followed the eruption of Mount St. Helens, which deposited vast new accumulations of sand in the Cowlitz.
25 February 1991	Cowlitz River	<i>Oregonian</i> , p. D05, section: OUTDOORS	SMELT MOVEMENT INSTIGATES STURGEON AND HUMAN ACTIVITY. By Tom McAllister of the <i>Oregonian</i> Staff. Smelt runs activate sturgeon as well as the human stampede of dippers. The shoals of smelt that appear in the lower Columbia estuary starting in January push gradually upstream as river temperatures warm. They almost always enter the Cowlitz River to spawn, but the fickle smelt keep everyone guessing as to whether they'll try the Kalama, Lewis or Sandy rivers. They don't have to enter these Cascade-fed tributary rivers to spawn. They can broadcast their sticky eggs into the mainstem Columbia. Unlike salmon they don't make a nest into which to deposit their eggs, but like salmon they do die after spawning. Sturgeon have a massive feast on the oily bodies of the ``candlefish" as they twist and spin in the current that carries them seaward before they die. Pioneers called them candlefish because, when sun dried and threaded with a wick, the smelt could be burned as a candle... Cowlitz smelt dipping was excellent last week up to Kelso, Wash., with the schools running 80 percent male fish, but the smelt dropped back and it was slow dipping Sunday. However, there is a big congregation of smelt at the Cowlitz mouth and more waves of fish are expected as males and females mix and move upstream to spawn.
26 February 1991		<i>Oregonian</i> , p. B02, section: EAST ZONER	TROUTDALE READY FOR FICKLE SMELT. By Eric Goranson of the <i>Oregonian</i> Staff. Roy Meger, owner of the Troutdale General Store and resident smelt expert, is keeping tabs on reports of seagulls, seals and sturgeon moving up the Columbia River. The sturgeon, gulls, seals and sea lions herald the arrival of smelt in the river because they follow the smelt. The sturgeon have been known to mass in such numbers they turn the river white as they feast on the 5-to-9-inch long silvery fish. Meger has 150 smelt dip nets ready to rent if the smelt head for the Lewis and Sandy river spawning grounds. The smelt entered the Cowlitz River at Longview two weeks ago. Wherever the smelt go to spawn, they draw thousands of people who use long butterfly nets to dip them out of the

Date	Place	Source	Quote
			river. When the smelt come up the Sandy, business booms in Troutdale as fishermen flock to shores of the river. But, as often as not, the fish never reach the Sandy River. The last time the smelt entered the Sandy was 1988. That year the smelt ran from mid-January to late April. Meger said it is a little too early to expect smelt in the Sandy. The fish don't usually arrive until March, although in 1988 they didn't show up until April 15. That year, fish biologist Wolf Dammers said, the smelt went up the Columbia as far as Tanner Creek by Bonneville Dam. There were even reports of smelt as far upriver as Hood River. Dammers said smelt are fickle, and it is unlikely they will enter the Sandy this year. Hugh Fiscus, another Washington fish biologist, said water temperatures usually determine where the millions of smelt go to spawn. The optimum spawning temperature is about 42 to 44 degrees. He said glacier-fed rivers seem to be preferred. The amount of water in the Columbia's tributaries and the muddiness of the flow are believed to also affect the smelt run. The smelt have returned to the Cowlitz every year except 1977, when the river was extremely low. The smelt failed to show up in the Sandy, however, for 12 years -- from 1958 to 1970. Most people thought the run in the Sandy had ended for good when the smelt suddenly reappeared in 1970. Since then the smelt have shown up 12 out of the past 20 years, arriving as early as Feb. 26 in 1974 and as late as April 15 in 1988. The latest arrival ever was April 28 in 1924. When the smelt come, the dipping frenzy on the bank almost matches the feeding frenzy in the water. When the Washington Legislature voted to require a \$3.50 license to dip smelt in 1988, the protests were so widespread that lawmakers repealed it the following year. Oregon does not require a license, but the state has a daily limit of 25 pounds per person. Washington's daily limit is 20 pounds per person. Last year commercial dippers landed 2.8 million pounds of smelt, almost all out of the Cowlitz. This year, biologists said, the commercial catchers are having no problem filling orders, but sports dippers are not having as much luck. Most fishermen are netting between zero and five pounds per dip. Smelt are an inexpensive food fish. They also are used as bait for sturgeon and as food for penguins at Washington Park Zoo. They are an oily fish and were used to produce fuel for fires by Indians. As a result they also were called candlefish.
13 March 1991		<i>Oregonian</i> , p. E07, section: OUTDOORS	OBSERVATION SURVEY MAY HELP GILL-NETTERS GAIN 'CONTROLS' ON SEALS, SEA LIONS. By Bill Monroe of the <i>Oregonian</i> Staff. Brennan said the primary diet of the seals and sea lions in the lower Columbia this time of year is smelt. The small fish is easy to catch, and there are plenty of them.
2 May 1991		<i>Oregonian</i> , p. C02, section: EAST ZONER	LET RECORDS SHOW: SMELT DIDN'T RETURN TO SANDY FOR 3RD YEAR IN ROW. By Web Ruble of the <i>Oregonian</i> Staff. Roy Meger, proprietor of Troutdale General Store, put his dip nets in the attic Wednesday. "I'm giving up. The fish aren't coming," he said of the sea-going smelt that annually migrate back to the Columbia River system to spawn. Although the fish always return to the Columbia estuary in the spring, they don't always make it far enough upstream to enter the Sandy River. The

Date	Place	Source	Quote
			smelt have returned to the Sandy 45 times in 78 years, according to records of the Troutdale Historical Society. "It's over for this year," Meger said sadly. "Let the record show that they didn't come in 1991." Nor did they show up in 1990 or 1989. Most years when the fish enter the Sandy -- jamming the river channel in a silver cloud -- they arrive in late February or March. But Meger and anglers were surprised in 1988 when the fish came up the Sandy in large numbers on April 16 -- long after the experts decided they weren't coming that year. Smelt-lovers waded into the river and scoop the fish by sweeping the water with dip nets on 7- to 10-foot poles. Meger has 150 dip nets to rent to anglers. Smelt are considered good eating when they are smoked or fried. They also can be frozen and used for sturgeon bait. The sandbars near the bridge in Troutdale have been one of the favorite spawning areas for the returning smelt. However, in recent years the smelt's performance has been spotty -- "real spotty," Meger said. Meger put his nets in the attic this week because, according to records dating to 1913, there never has been a smelt run after April 28. The last time the smelt showed up that late in the year was 1924. "Time to put up the nets," Meger lamented.
1992			
25 February 1992		<i>Oregonian</i> , p. B02, section: EAST ZONER	ANNUAL SMELT WATCH STARTS IN SANDY RIVER. By Web Ruble of the Oregonian Staff. The smelt are in the Cowlitz River in Washington and Roy Meger, proprietor of Troutdale General Store, said the small oily fish are bound for the Sandy River. Meger, who is regarded as a smelt expert, said conditions in the Sandy River are good this year and he is almost certain that smelt will enter the Sandy in March. However, Oregon and Washington fish officials say it's too early to tell. Thus, the annual guessing game and smelt watch is under way. Smelt, which are silvery, oily fish from 5 to 8 inches long, are considered good eating when they are smoked or fried. They also can be frozen and used for sturgeon bait. Because schools of smelt jam the river from bank to bank, fishermen can scoop them up with dip nets on 7- to 10-foot poles. Meger has 150 of the poles to rent to anglers. The seagoing smelt return to the Columbia River system each year to spawn. But they don't always make it far enough upstream to enter the Sandy. Paul Hirose, fish biologist for the Oregon Department of Fish and Wildlife, said smelt are perplexing, their habits unfathomable, and that no one really knows what makes them decide to enter a Columbia tributary. Biologists, however, know that the fish have to be in substantial numbers and will pick a stream if conditions are right. Fish officials believe that the water has to be between 40 and 44 degrees and deep enough at the bar so they will be relatively safe from seagulls. The smelt have returned to the Sandy 45 times in the last 78 years, according to records of the Troutdale Historical Society. The last time was in 1988. The earliest recorded day of arrival was Feb. 26, 1974, and the latest was April 28, 1924. "This is the fourth year (since the smelt visited)," Meger said. "I'm sure they'll pop in this year . . . early. From March 15 on, we'll have to watch the river real close." He said seagulls circling at the river mouth are a

Date	Place	Source	Quote
			sure sign that the smelt are about to enter. Joe Hymer, a Battle Ground, Wash., fish technician for the Washington Department of Fisheries, said smelt arrived in large numbers in the Cowlitz on Feb. 6. Hymer said if the smelt are to move upstream toward the Sandy, they usually start appearing in the Lewis River at Woodland, Wash., and the Kalama River at Kalama, Wash. Hymer said this year, they have yet to be seen in those two streams. If the smelt do come into the Sandy, they usually do so in March. But it may be a longer wait. Meger and anglers were surprised in 1988 when the fish arrived in large numbers on April 16 -- long after smelt watchers decided they weren't coming.
1993			
23 February 1993	Cowlitz River	<i>Oregonian</i> , p. E06, section: SPORTS	A FEW SMELT HAVE BEGUN TO MOVE INTO THE COWLITZ. By Bill Monroe of the Oregonian Staff. Smelt have entered the Cowlitz River in Washington state. Larry Ponn, co-owner of Tri-River Smelt Co. in Longview, said smelt entered the river late Sunday and early Monday. ``There aren't many yet, but they are there," he said. Commercial netters working for Tri-River are finding most of the smelt deep in the center of the river. Ponn said the fish are in the Cowlitz upriver from the mouth to at least the commercial fishing deadline, halfway between Longview and Cowlitz. A Washington Department of Fisheries spokeswoman said smelt were up to the old train bridge, two miles upriver from Kelso. There is no deadline for sport dipping on the Cowlitz. No license is required, but dippers are allowed only 20 pounds per person in their own bucket. Ponn suggested dippers wait a few days for the bulk of the run to enter the river. Until then, dipping will be best after dusk and in dark hours when smelt stray closer to the shoreline of the river. So far, there have been no reports from either the Lewis River in Washington or the Sandy River in Oregon, both of which sometimes have smelt. The Oregonian will track the smelt run and issue reports on the Inside Line fishing report ...
10 March 1993		<i>Oregonian</i> , p. B02, section: EAST ZONER	WATCHERS FEAR SMELT WON'T SHOW THIS YEAR. By Web Ruble of the Oregonian Staff. Although Troutdale residents are pessimistic, they are keeping an eye on the Sandy River. The yearly smelt watch is on, but longtime observers have little hope that the fish will show up in the lower Sandy River. ``The chances are slim. It doesn't look good," said Roy Meger, proprietor of the Troutdale General Store, who has 150 dip nets to rent. Troutdale residents are pessimistic because so far the smelt run up the Columbia River to the Cowlitz River in Southwest Washington has been dismal. Smelt lovers are eager to wade the Sandy and scoop the 6- to 8-inch fish by sweeping the water with long-handled dip nets. Smelt are oily but still considered good eating when smoked or fried. They also can be frozen and used for sturgeon bait. Smelt fever on the lower Sandy the last few years has not been what it once was. It's been five years since the smelt entered the river. Even then they were late -- arriving on April 16, 1988 -- after everyone decided they weren't coming and stored their nets. However, records kept by the Troutdale Historical Society since 1913 show that smelt have arrived in the Sandy as

Date	Place	Source	Quote
			late as April 28 (1924) and as early as Feb. 26 (1974). In 1926, the smelt came twice -- March 14 and April 9. Smelt have come into the Sandy 45 times in 79 years. They disappeared for 13 years -- 1957 through 1970 -- convincing many people that the Sandy had become polluted and that smelt runs were history. Then on March 23, 1971, a few arrived. Two more smeltless years passed. Then in 1974, they invaded the Sandy in overwhelming numbers. The smelt hatch in the Columbia River or its tributaries, go to sea for three or four years, and then return to the Columbia system, searching for a tributary in which to spawn. They nose into tributaries of the lower Columbia, and then barge with gusto into the Cowlitz River at Kelso, Wash., in early or mid-February when the water is 40 to 44 degrees. Other smelt choose other tributaries -- the North Fork of the Lewis near Woodland, Wash., and the Sandy at Troutdale. On rare occasions they poke into the Kalama River in Washington and dip into Tanner Creek just below Bonneville Dam. The smelt entered the Cowlitz in February, but the river was low, the water cold and the run weak. And no smelt visited the Lewis. But there still is evidence of lots of smelt in the main stem of the Columbia below the Cowlitz River, said Kevleen Fennell, a fisheries biologist for the Oregon Department of Fish and Wildlife. "It's still early yet," Fennell said. "The water is still cold. If it warms up some, it should bring more smelt (into the Cowlitz)." Meger and lots of other smelt lovers scan the lower Sandy each day, looking for circling seagulls feeding on smelt. However, watching seagulls won't do any good this year, Meger said. "It's my fault," he said. "I've been feeding them (seagulls). And they've found out where I am and come all the way up into town, sit across the street and wait for me to come out and feed 'em."
18 March 1993	Columbia River	<i>Oregonian</i> , p. E02, section: EAST ZONER	SMELT MAY BE READY TO ENTER SANDY RIVER. By Web Ruble of the Oregonian Staff. Smelt, the elusive fish which hasn't entered the Sandy River for five years, may be at the mouth of the river. But don't grab that dip net and bucket quite yet. It's two miles from the mouth of the Sandy River to Troutdale, and the river is running high and muddy and it's windy and cold. All those could be deterrents to the little fish. "There must be some," said Roy Meger, veteran river watcher and proprietor of Troutdale General Store where he has 150 dip nets for rent. "I was down there for an hour this morning and there is something there attracting the seagulls. "There's some dippers but nobody has seen them catch anything," Meger said. "The smelt often come in at night. So we'll just wait for tomorrow (Thursday) morning." Jack Glass, a Sandy fishing guide, said he examined the river carefully and also believes the seagulls were being attracted by smelt. "They (Fish and Wildlife officials) released 150,000 Chinook smolt into the Sandy last Friday," Glass said. "But if the attraction was the Chinook smolt the seagulls wouldn't be just at the mouth. They would be all up and down the river." Curt Hutchison, owner of the H & H Bait & Tackle Shop in Gresham, said he thinks the smelt have arrived but have yet to enter the Sandy in large numbers. He said smelt this year have been in and out of the Cowlitz and Kalama rivers in Washington.

Date	Place	Source	Quote
			Hutchison and his father, Gil, talked to a relative who reported seeing silver clouds of smelt in the Columbia River Wednesday morning just below the Sandy mouth. Meger said that smelt will sometimes do that -- a few will enter the mouth but most of them will hold back. "It happened that way in the Sandy a long time ago," he said. "That year I remember a few came up as far as the highway (Interstate 84) bridge and no farther." He said no other smelt followed. And the run ended almost immediately.
1994			
27 January 1994	Columbia River	<i>Oregonian</i> , p. E02, column: FISHING	FIRST SPRING CHINOOK BROUGHT ASHORE FROM WILLAMETTE. By Bill Monroe of the Oregonian Staff. NO SMELT: The smelt run is late. Commercial netters say the typical scout run into the Cowlitz River never materialized this year and there have been few showing up in coastal rivers that seemed to be choked with smelt early last year. Some were dipped earlier in the main-stem Columbia, as many as a half-box per boat, but there have been no fishable numbers since the first of the year for either commercial or sport dipping. Boats typically take several boxes a day at the season's peak. Sport dippers are not out on the Cowlitz, where some locals fear there has been too much dipping from shore over the years. Female smelt tend to stay close to shore, while males stay in the middle of rivers.
24 February 1994		<i>Oregonian</i> , p. 13, column: FISHING	OUTDOORS MYSTERY OF '94: CASE OF THE MISSING SMELT. By Bill Monroe of the Oregonian Staff. Oregon and Washington biologists are wondering if the 1994 smelt run has crashed. ... "We don't know what's going on," said Don McIsaac, a harvest biologist in the Oregon Department of Fish and Wildlife. "We're starting to get a raised eyebrow about the smelt." Smelt haven't showed up anywhere in the lower Columbia or along the Washington coast, where the small fish once rendered for their oil by Native Americans usually appear even when the Columbia run is down. McIsaac said no records exist of years in which the smelt did not show up at all, although in 1984, the winter after the last major El Nino year, there were very few in the Columbia system. Smelt usually spawn in the Cowlitz River in southwest Washington, and have been dipped in some years from the Lewis River and the Sandy River on the Oregon side. Larry Ponn of Longview, Wash., owner of the Tri-River Smelt Co., said a small amount of smelt showed up in the lower Columbia in late January, but not enough to dip commercially. Even the Grays and Naselle rivers haven't had smelt this year, he said. Ponn cautioned, however, that smelt have shown up late before. He said he won't begin worrying seriously until after the second week of March. But McIsaac is worried, right now. "When the fish stay out this long, it's usually because of cold water," he said. "But this year, we've had the third warmest water in 25 years and they should have been here by now." McIsaac said he really began to worry when biologists checked sources in the shrimp trawl fishery. Trawls are large, open-ended drag nets pulled through schools of shrimp. Trawl fishermen usually report incidentally caught smelt. McIsaac said trawl fishermen have told Washington and Oregon officials they haven't seen any smelt since

Date	Place	Source	Quote
			they began dragging last fall. The situation is worse than the El Nino of 1983, McIsaac said. The dramatic decline in the wild and hatchery coho run is further evidence of the warm ocean current. "Those young fish (salmon and smelt) went out in a very warm ocean event," McIsaac said. "They're all plankton feeders at that age and they swam into crystal clear waters with not much plankton to eat."
5 March 1994	Cowlitz River	<i>Oregonian</i> , p. B03, section: LOCAL STORIES	COWLITZ SMELT RUN STARTS OFF SLOWLY. By Aaron Fentress of the Oregonian Staff. The smelt finally decided to show up for the annual big game on the Cowlitz River. Many of the shiny silver fish hit nothing but net. "There's not as many as there have been in the past," said Ray Reed, 57, from Tacoma. He pulled in only a handful of smelt per drag using a net as large as a basketball hoop attached to a 15-foot pole. "I used to have to empty some out of my net in order to pick it up. It's slow this year." Reed said he's been smelt fishing since 1967 so he knows a good smelt run when he sees one. Friday did not signal a good year. But considering that Oregon and Washington biologists were wondering if the 1994 run of the migrating smelt would happen at all, the fishermen seemed satisfied with their catch. Both professional and sport fishermen stationed themselves in a one and a half mile stretch on the west side of the Cowlitz River between the Kelso Bridge and Railroad Bridge near Kelso. While licensed fishermen who can catch unlimited quantities tried to fill 1,200 pound totes, sport fishermen were limited to a daily limit of 20-pounds per-person. It took Reed 30 minutes to snag just 15 pounds. Twenty yards to the north of Reed, Junior L. Greer, 62, was luckier. The 15-year veteran caught 20 pounds in the same time period. Both men planned to use most of their catch for sturgeon bait. Reed said he planned to eat some of the fish but Greer can't quite stomach the diet. "I can only eat about four a year," said Greer, who lives outside of Rainier. "But some people love 'em. I've seen people just bite their heads off after catchin' them." Next to veterans were newcomers such as four-year-old Jonathan Woods of Kelso, who got his feet wet and hands slimy for the first time while helping his dad, Dan. Father dragged the net, son placed the captured fish into a bucket. When Jonathan got his first chance to drag with the net, he came up empty. A couple of tries later he scored his first catch. In the past, however, it would have been impossible for Jonathan to miss at all. So where were all the smelt? Carol Y. Moon, spokeswoman for the Oregon Fish and Wildlife Service said that smelt are impossible to predict. "They are independent and do what they want to, when they want to," said Moon. "They could be all over the place and by the time you get there with a net they could be gone. Or, there could be none and then all of the sudden they are there in large numbers." Tom C. Maxwell, part owner of the Tri-River Smelt Co., said his company managed to get up to three 1,200 pound totes filled per boat on Friday. In a good year, he said, as many as six totes get filled with smelt. But Maxwell was optimistic that more smelt would show up for the game later in the week. "By midweek there should be plenty of fish around," said Maxwell. "It ain't boomin' fishin' yet but it's just started."

Date	Place	Source	Quote
11 April 1994		<i>Oregonian</i> , section: LOCAL STORIES	The nets will be waiting. SAGA OF THE SEA LION ROILS NORTHWEST WATERS. By Brian T Meehan of the Oregonian Staff. Winter is pinniped season in the Columbia. Harbor seals, which spend the summer pupping season in bays and estuaries, chase smelt up the Columbia. Male California sea lions leave Southern California and beat north into Oregon and Washington. March is the peak month with as many as 4,000 seals in the lower river. These marine carnivores are opportunists. And they are intelligent. Ron Schusterman, a scientist at the University of California at Santa Cruz, has studied learning patterns of sea lions for years. He says they are smarter than most dogs. In the wild, they return to productive sites, learn to raid gill nets, to answer the drone of a trawler's diesel as if it were a dinner bell. They eat what is abundant. Diet ranges from smelt, anchovies and lamprey to sculpin, flounder, bay shrimp, even Dungeness crab. Fishermen often see seals and sea lions shredding salmon on the surface. Such antics reinforce beliefs seals and sea lions prefer salmon. But scientists say pinnipeds consume most food underwater. They bring up only large fish. And studies show smelt is the chief prey in the Columbia, not salmon or steelhead. "Just about every food habit study shows smelt is the No. 1 food item of those animals while they are in the river," said Robin Brown, a marine biologist with the Oregon Department of Fish & Wildlife. "It is clear they do eat salmon and steelhead, too," he said. "But every study shows those species are a small part of their diet." A 1980s Columbia River study by the National Marine Fisheries Service showed eight of 10 seals took smelt during February. The percentage dipped to four of 10 in March as the smelt run ebbed. The animals switched to other prey in April such as starry flounder, prickleback, steelhead and salmon.
23 April 1994		<i>Oregonian</i> , p. D01, section: LOCAL STORIES	OFFICIALS SEE SMALL FISH RUN. By Bill Monroe of the Oregonian Staff. The technical team said Friday they also are worried about the disappearance this spring of the Columbia River smelt run, an important food source for salmon at sea, but also a significant indicator of poor ocean productivity.
5 May 1994	Chehalis River	<i>Oregonian</i> , p.E06, section: LOCAL STORIES	AN ABSENCE THAT SMELT OF MYSTERY. By Brian T Meehan of the Oregonian Staff. When he was a boy 70 years ago, Roy Meger watched for the cloud of gulls each spring. The raucous birds would gather by the hundreds on the lower Sandy River. They were the harbinger of a spring phenomenon: the endless run of Columbia River smelt. Meger would skip down to the rusting railroad bridge and stick a homemade dip net into the greenish river. Smelt invaded the glacial stream like silver tide. Farmers caught truckloads to fertilize fields. Crowds lined riverbanks and dipped the small fish with gunny sacks. "Over the weekends, it was like the Rose Parade in here," Meger's sister, Elsie Simnitt, said at the Troutdale General Store, which Meger has run since 1945. "After Christmas they would start calling the store," she added. "Do we know if the smelt are going to run? No one ever figured that one out." What was true then is true today. The loopy life cycle of this prolific little fish bewilders dippers and scientists

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			alike. "The thing about them," said Larry Ponn, a commercial fisherman from Longview, Wash., "just about the time you've got them figured, they make a liar out of you." The smelt didn't return to the Sandy this spring. There hasn't been a big Sandy run in nine years. But smelt have vanished before from the Sandy for long periods. What has fishery managers concerned is the failure on Washington's Cowlitz River, the backbone of the Columbia run. This spring, commercial fisherman landed less than 50,000 pounds of Cowlitz smelt; it's the smallest run on record. "I think there is some concern about what is going to be produced from this run," said Wolf Dammers, a biologist with the Washington Department of Fish and Wildlife. "It makes you wonder. This last go-round appears to have put the hammer on virtually everything. I wish we knew a little bit more. We're just looking at the tail end of things here." Scientists suspect that the notorious El Nino, which is partly blamed for the salmon crash, also has walloped smelt. Like salmon, smelt -- or eulachon (pronounced YOU-la-kon) -- are anadromous. They hatch in freshwater, go to sea and return to the Columbia to spawn. These plankton feeders are susceptible to El Nino's warming trend, which disrupts the ocean's food chain by thwarting the upwelling of cold, nutrient-rich water. Science knows relatively little about smelt. We don't know where they go in the ocean. We know they return to the Columbia, but not always to their natal tributary. We know they prefer rivers with glacial silt, but we don't know why. Despite their importance in the food chain, smelt have little commercial value. There is a small local market for fresh smelt; most of the commercial catch goes to zoos and marine parks to feed seals and dolphins. While smelt lack the constituency that attracts research dollars, they are important for other fish, seals and birds. And when they die after spawning, their carcasses sink nutrients back into the waters of their birth. Ponn, who has fished smelt for 25 years, said the drop off would ripple across the food chain. "It has big repercussions because of the food chain," he said. "Mother Nature put them there for the other fish. It's a vicious circle." Indians caught smelt in dip nets in early spring when winter stores were low. Pioneers dried the oily fish, inserted a wick and called them candlefish, which they were. In 1892, fish dealers in Kalama, Wash., shipped 20,000 pounds by rail to New York City. They sold the fish but soon discovered smelt turned noses when they thawed. The fresh market would stay close to home. Vast schools of smelt feed salmon in the ocean and estuary, sea lions and seals in the Columbia. Some gill-net fishermen say the spring chinook run is keyed to the upriver flush of smelt, which occurs between December and April. And the little fish are vital to sturgeon. "When smelt are in the river, sturgeon come up with their mouths stuffed with smelt," said Paul Hirose, a biologist with the Oregon Department of Fish and Wildlife. "This year, these fish are very, very slim," he added. "It will affect the condition of these fish no doubt." Biologists don't know what impact fewer smelt will have on the food chain. The runs always have been volatile. The Sandy River has not had a strong run since 1985, when commercial dippers netted 304,500

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			pounds. But Sandy River smelt have followed peculiar patterns. For 16 years between 1958 and '74, smelt avoided the Sandy. They have shown in seven of the 20 years since. Managers track smelt runs by commercial catch. The record run was 1945, when the Sandy yielded 1.4 million pounds, the Columbia, 5.7 million pounds. At 10 fish to the pound, that figures to more than 57 million little silver fish. Last year, a cold winter chilled Columbia water temperatures, and the finicky smelt hardly showed. But a big run of fish strayed into rivers off the Washington coast. For the first time in 30 years, smelt streamed into the Chehalis River. Smelt are what biologists call "broadcast spawners." They don't dig a nest like salmon. Instead, eggs and milt are discharged over sandy or gravel bottoms. Fertilized eggs settle and adhere to the bottom. The tiny fry hatch a month later. At 4 millimeters in length, they are at the mercy of the current, which sweeps them to the sea. They often show up in shrimp nets offshore, but their movements at sea are a mystery. The Columbia River smelt is different from the surf smelt or night smelt of coastal waters. Big runs of eulachon also flood the Fraser River in British Columbia, another huge salmon producer. Adults spend two to five years at sea before returning to spawn. Their arrival is keyed to water temperature; when the Columbia at Bonneville reaches 40 degrees, smelt usually will enter the lower river. Most returning spawners are 3 to 4 years old and about 7 inches long. As it always seems to be with smelt, they are sorted in odd ways. Males typically outnumber females 3 to 1. Nobody knows why. The little fish are powerfully fertile -- females drop 20,000 to 60,000 eggs -- and very resilient. Biologists worried that the eruption of Mount St. Helens, which choked the Cowlitz with ash and silt, would clobber the river's important smelt run. A year after the eruption, Wolf Dammers surveyed the river. "The water was so thick you could just about walk on it, and there was a run of smelt that entered the stream," he said. "The river was full of larva, even in this thick brown water. They do seem to be pretty adaptable." Biologists believe smelt runs will rebound, powered by the little fish's big talent for procreation. Even Roy Meger, who hasn't seen a smelt in years at the Troutdale General Store, won't count them out. He thought he'd seen the end of smelt once before. When they returned in 1975, he was glad he held on to the 100 dip nets he rents out when smelt are thick. "We just may not get them again, but you can't give up," said Meger, 78. "There's still a chance they could come back. They've been gone for long periods before."
5 May 1994	Chehalis River	<i>Oregonian</i> , p.E06, section: LOCAL STORIES	AN ABSENCE THAT SMELT OF MYSTERY. By Brian T Meehan of the <i>Oregonian</i> Staff. When he was a boy 70 years ago, Roy Meger watched for the cloud of gulls each spring. The raucous birds would gather by the hundreds on the lower Sandy River. They were the harbinger of a spring phenomenon: the endless run of Columbia River smelt. Meger would skip down to the rusting railroad bridge and stick a homemade dip net into the greenish river. Smelt invaded the glacial stream like silver tide. Farmers caught truckloads to fertilize fields. Crowds lined riverbanks and dipped the small fish with

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1995			
28 January 1995	Cowlitz River	<i>Oregonian</i> , p. B01,	SMELT FISHERMEN HEADING NORTH AS BEST RUN IN YEARS HITS

Date	Place	Source	Quote
		section: SPORTS	COWLITZ. By Bill Monroe of the Oregonian Staff. Smelt have entered the Cowlitz in the best run for several years. Larry Ponn at Tri-River Smelt Co. in Longview, said dippers are taking up to three pounds a dip from the Cowlitz in Longview and Kelso all the way up to the Railroad Bridge. "There appear to be fish all the way down to Astoria," Ponn said. "I'd say we're looking at the best run in four or five years." There are no guarantees that smelt will continue upriver to either the Lewis River in Washington or Oregon's Sandy River, both of which occasionally get runs of smelt. There is no license required in Washington to dip smelt, which are taken using long handled nets with fine mesh. There is a daily limit of 20 pounds per dipper. The Cowlitz River enters the Columbia at Longview and is approximately one hour north of Portland on Interstate 5.
1996			
29 February 1996	Columbia River	<i>Oregonian</i> , p. E08, column: FISHING	IF BOATERS GO OUT, THEY BETTER BEWARE. By Bill Monroe of the Oregonian Staff. SMELT A BUST?: Smelt have tantalized commercial dip-net fishermen on the Columbia and lower Cowlitz rivers for the past few weeks, but don't appear ready to enter the Cowlitz on their traditional spawning run. Dippers have taken some commercial quantities of smelt, but not enough of the fish have been in the Cowlitz for sport dipping.
14 March 1996		<i>Oregonian</i> , p. 01, section: EAST ZONER	FOCUS ON: TROUTDALE. By Suzanne Richards of the Oregonian Staff. THE SMELT RAN: Smelt, which came to the Sandy River annually for many years, disappeared in 1957; returned in 1971 and has been sporadic ever since. Last seen in 1993.
1997			
6 February 1997		<i>Oregonian</i> , p. E08, column: FISHING	A SHORT SEASON LOOMS FOR SPRING CHINOOK. By Bill Monroe of the Oregonian Staff. In the winter, sturgeon tend to move downriver in the Columbia to meet the annual smelt run and if they can't find it -- this year's run is another slim one -- they migrate into the ocean and forage up and down the coast. Smelt have been commercially gill-netted only on a limited basis, King said, and are so scarce that commercial fishermen are getting more for smelt than for salmon or sturgeon -- up to \$3 per pound. "I never thought I'd see the day when smelt prices would be better than salmon," King said.
16 February 1997		<i>Oregonian</i> , p. D06, column: SPORTS	SEALS, SEA LIONS AVOID MUDDY COLUMBIA. By Bill Monroe of the Oregonian Staff. The lack of smelt, in fact, might explain the absence of the sea lions, which normally follow them into the Columbia, then stick around for some spring chinook as dessert. ... Stomach samples from 100 marine mammals that died in winter gill nets between 1991 and 1994 showed smelt were the meal of choice 60 percent of the time, followed by salmon at 19 percent, then trailing to other fish such as lamprey eels, herring, anchovies, sand lances and various species of rockfish. The seals and sea lions were studied only during the winter fishing seasons, when smelt were abundant, Brown said. Their effect on salmon is possibly much higher at other times of the year.

Date	Place	Source	Quote
17 February 1997	Cowlitz River	<i>Oregonian</i> , p. D06, column: Outdoors	COWLITZ SMELT CONDITIONS BETTER. By Bill Monroe of the Oregonian Staff. Smelt dippers reported improved conditions Sunday in the Cowlitz River in southwest Washington and a few limits for those willing to spend a little time. Washington has extended the smelt sport-dipping season indefinitely from an announced closure. Dippers will be allowed on the river every day until further notice. No license is required for residents or non-residents to sport-dip for smelt. There is a 20-pound daily and possession limit. Traditional dipping areas are along a road on the northern side of the river between the Kelso-Longview bridge and Castle Rock. The Cowlitz is the traditional smelt stronghold. Smelt occasionally shows up in the Lewis and Sandy rivers. None have been reported in either river.
23 February 1997	Cowlitz River	<i>Oregonian</i> , p. C09, column: SPORTS	HERE'S THE DEAL FOR FISHING IN '97. By Bill Monroe of the Oregonian Staff. Quixotic surges of smelt in and out of the Cowlitz River last week were a daily source of frustration in the Kelso/Longview area of Washington. Felix Polasek of Longview said dipping was so bad Wednesday that no one showed up to rent his nets at \$2 an hour. "It was raining so hard, I decided to play golf," he said. "I can make more money on a good skins game."
27 February 1997	Cowlitz River	<i>Oregonian</i> , p. D02, column: FISHING	SPEY FLY-FISHING TECHNIQUE GAINS MOMENTUM. By Bill Monroe of the Oregonian Staff. SMELT UPDATE: Smelt dipping remains poor on the Cowlitz River, where the Washington Fish and Wildlife Department will close recreational dipping at midnight Friday. The season, originally scheduled to close Feb. 15, was extended when more smelt than expected returned to the lower Columbia. Commercial smelt harvests closed Monday.
1998			
1999			
1 January 1999		<i>Oregonian</i> , p. C02, column: CLOSE-UP ENVIRONMENT	BAFFLED SCIENTISTS ASK: WHERE HAVE THE SMELT GONE? By Jonathan Brinckman of the Oregonian Staff. Columbia River smelt -- a fish once caught by the millions in the Portland area and eaten whole in wintertime feasts -- are entering the seventh year of a deep and unexplained decline. This has led fish and wildlife authorities to sharply limit commercial smelt fishing, conducted by boaters who suspend long gill nets in the Columbia River. Recreational smelt fishing, which once brought tens of thousands of people a day with hand-held deep nets to the Cowlitz, Kalama and Sandy rivers, has almost ended. "This is unparalleled," said Steve King of the Oregon Department of Fish and Wildlife. "We've never seen it before, and we're very concerned." Like salmon and steelhead, smelt spend their adult lives in oceans and spawn in fresh water. But while salmon become large ocean predators, smelt grow to only 6 or 8 inches in length and are eaten by everything from sea bass to seals. Smelt are a high-protein fish that, in addition to being pan-fried or smoked for human consumption, are widely used as fish food at aquariums and marine parks. The fish swim

Date	Place	Source	Quote
			in large schools. They typically enter the Columbia in early to mid-January, finding tributaries in mid- to late January. Most tributary spawning is in the Cowlitz River, in Washington state. One to 3 million pounds of smelt were caught annually in the region's commercial smelt fishery from 1938 -- when record-keeping began -- until the sudden drop-off of 1993. Scientists don't know what triggered the drastic decline. One possible explanation is a shift in ocean conditions, brought in part by El Nino weather, which reduced in number the plankton on which smelt feed and introduced new predators such as mackerel. Another possibility is an increase in sedimentation in the Cowlitz and other rivers brought by dams or construction. The population decline could be part of a cyclical trend. Because no records exist before 1938, said Patrick Frizzier, a state biologist, it is possible that smelt numbers may have crashed before and then completely rebounded. But it also is possible that scientists have not identified a potentially more troubling reason for the smelt decline. "The biggest concern is that something has changed that we don't know about that is not letting the fish survive at the rate they did," Frizzier said. The National Marine Fisheries Service has no plans to add Columbia River smelt to the nation's list of threatened or endangered species. But the service will watch the situation closely, said Robert Bayley, an agency biologist. "This is not just a blip," Bayley said. "The prospects for Columbia River smelt do not look good right now."
30 March 1999		<i>Oregonian</i> , p. B02, section: EAST ZONER	ROY MEGER, A TROUTDALE CLASSIC, DIES AFTER YEARS OF STORE, SMELT. By Jackie Scott of the Oregonian Staff. Historically, smelt have appeared in the Sandy River as early as Feb. 26 and as late as April 28. "Smelt are unpredictable," said Patrick Frazier, Columbia River fisheries biologist with the Oregon Department of Fish and Wildlife. He said a few smelt entered the Sandy River in February, but not in large enough numbers to constitute a run. Still, biologists say the Sandy is an ideal stream for smelt because it's fed by a glacier and offers temperatures between 40 and 44 degrees. Frazier said it was impossible to say when or whether the ocean conditions would allow large smelt runs to return to the Sandy.
2000			
2001			
7 January 2001		<i>Oregonian</i> , p. A17, section: NORTHWEST	FOR DIPPERS, SMELT BECOME AN ELUSIVE CATCH OF THE DAY. By Erin Middlewood - Correspondent, The Oregonian. KELSO, Wash. -- A few hopeful smelt dippers showed up for opening day of the season Saturday. But the smelt didn't. Frustrated dippers reached their nets into the Cowlitz River, swept them downstream and pulled the nets up empty over and over again. "Not too much longer, and I'm going to say we're going to bag it," 30-year-old Dave Conrad told his buddy, Tony Blankenship. They had driven from the Tacoma area in hopes of netting smelt -- maybe not the limit of 10 pounds each, but some -- to use as bait for sturgeon fishing. "It's a long way to drive for nothing," said Blankenship, 37, of Auburn, Wash. "I remember the good old days. You could dip two or three times and you were done." In the really good old days, Kelso

Date	Place	Source	Quote
			proclaimed itself “smelt capital of the world.” Dippers' nets would come up heavy with the small, oily fish, less commonly known as eulachon. Smelt feeds and festivals were annual events. Those days are gone, but the state Department of Fish and Wildlife predicts a pretty good season, at least compared to recent years. It may even be better than the 2000 run, which was the strongest since 1993, department biologist Brad James said. Last year's surprisingly good run drew hundreds of people to the banks of the Cowlitz -- enough to tick off the neighbors. They complained that noisy smelt dippers kept them up all night, littered, parked in front of their houses and urinated in their yards. In response to residents' complaints, the Department of Fish and Wildlife changed the season from 24 hours a day Fridays and Saturdays to 6 a.m. to 10 p.m. Saturdays only. Kelso is providing trash bins and two portable restrooms. Remembering last year's crowds, Jack George drove up from Portland early Saturday expecting to jostle for a spot on the side of the river. Instead, he found the bank empty. “We came up on the first day so we'd have a rock to stand on,” said George, 46. “Last year we dipped here and did real well. We're hoping this year will be excellent as well.” Other dippers stayed away, waiting for word of the fickle fish. In December, commercial fishers caught hundreds of pounds of smelt in the Columbia River. Commercial dipping in the past week, however, yielded nothing, said Brad Schoenborn, manager of the fishing department at Bob's Merchandise. Eager smelt dippers stopped by the Longview sporting goods store, known as the place for local fishing information, to ask about the run. The smelt were not there yet, Schoenborn had to tell them. “The smelt come in and out. Eventually they'll come in and stay,” Schoenborn said. “With smelt, you can never tell.” Even when runs were strong, some years smelt were a no-show in the Cowlitz. Smelt, like salmon, are anadromous fish. They hatch in freshwater and ride currents to the Pacific Ocean. When they're 3 years old, they return up the Columbia River to lay their eggs in the gravelly bottoms of tributaries such as the Cowlitz. El Nino weather patterns in recent years have decreased smelt survival rates in the ocean, said James, the Fish and Wildlife biologist. El Nino slows the winds that power upwelling of nutrient-rich water to the ocean's surface, where smelt feed, James said. “The run seems to be rebounding,” said James, predicting it would turn up in the Cowlitz later in the month or early February. “We've gone from having no fishery to one day a week for multiple months. We're definitely in a low phase, but we suspect we're turning the corner.” The scarcity of smelt, which are prized for sturgeon bait, has driven up the price. In the 1980s, smelt cost as little as 5 cents a pound. Now it goes for about \$6 a pound at Bob's Merchandise. In Kelso's early days, smelt were plentiful. The Cowlitz River would shine with millions of the silvery fish swimming up the river, said Alan Slater, a 72-year-old Kelso native and city councilman. “They're very tasty fish,” Slater said. “People had smokers in their back yards, and local taverns would serve smoked smelt to go with your beer. The old-timers would eat the whole thing -- heads and tails. I was kind of a pansy. I'd clean mine.” Fish

Date	Place	Source	Quote
			companies lined the river. "Smelt fishing was an industry. It wasn't just a sport and recreational item. This was big business," Slater said. Even with a good run, the economic impact of smelt is negligible now, Slater said. The commercial fishery on the Columbia and its tributaries last year yielded 30,400 pounds of smelt instead of the millions of pounds it once did. As for sport fishermen, they might shell out money for a few hamburgers and a motel for the night, Slater said. But they do keep coming back, even after a disappointing day. Blankenship said he'll try again later in the season, which ends Feb. 24. After all, he said, "It's still early."
18 January 2001		<i>Oregonian</i> , p. C06, section: SPORTS OUTDOORS	FORECAST PORTLAND/NORTHWEST: STEELHEAD ARE MOVING INTO MOST. Seals are beginning to gather in the lower Columbia River, but there is no sign yet of smelt.
25 January 2001		<i>Oregonian</i> , p. C06, column: Forecast	FORECAST FISHING. Washington: There are no reports of smelt in the Columbia or Cowlitz rivers.
1 February 2001	Cowlitz River	<i>Oregonian</i> , p. C06, column: Forecast	THIS WEEK'S BEST BETS. Washington: Dippers are scoring a few scattered smelt on the Cowlitz River, but success is extremely limited and not yet worth the drive north from Portland or Vancouver. Dipping is limited to Saturdays only, between 6 a.m. and 10 p.m. Dippers may keep only 10 pounds each, but no limits have been taken yet.
8 February 2001		<i>Oregonian</i> , p. C09, section: SPORTS OUTDOORS	FORECAST FISHING. Washington: There is no sign of smelt in the Cowlitz River.
15 February 2001	Columbia River	<i>Oregonian</i> , p. C06, section: SPORTS	FISHING THIS WEEK'S BEST BETS. Washington: Commercial netters dipped smelt at the Columbia River mouth this week, but none have shown up in the Cowlitz. Sport dipping is allowed on Saturday only.
1 March 2001	Columbia River	<i>Oregonian</i> , p. D06, section: SPORTS	OUTDOORS FORECAST FISHING THIS WEEK'S BEST BETS. Washington: Sport dippers may now dip up to 10 pounds of smelt per person, per day in the mainstem Columbia River. The river will be open seven days a week, 24 hours per day through the end of March. The open area is the mainstem Columbia from Buoy 10 upriver to Bonneville Dam. Most of the fish are found from Cathlamet downriver. Ten pounds is about one quarter of a five-gallon bucket. All smelt must be kept until the daily limit is reached. No license is required to fish for smelt. The Cowlitz River remains open Saturdays only, from 6 a.m. to 10 p.m. through March 31.
8 March 2001	Cowlitz River	<i>Oregonian</i> , p. D08, column: Forecast	FISHING PORTLAND/NORTHWEST: FISHING HAS BEEN SLOW FOR SPRING. Washington: The Washington Department of Fish and Wildlife has expanded smelt dipping on the Cowlitz River to include two extra days. Dipping is allowed Wednesday, Saturday and Sunday, from 6 a.m. until 10 p.m. Dippers are allowed 10 pounds in Washington. No license is required. Ten pounds is about 160 smelt. Dipping was excellent last Saturday, but there is no prediction of how long smelt will stay in the Cowlitz. Rainfall and increased water flows would help keep them interested.
15 March 2001	Sandy River	<i>Oregonian</i> , p. B01,	SURPRISE RETURN OF BIG SMELT RUN NETS EXCITED DIPPERS ON THE

Date	Place	Source	Quote
		section: LOCAL STORIES	SANDY. By Doug Irving - The Oregonian. Thick schools of smelt have returned to the Sandy River after a mysterious disappearance for more than a decade, renewing the circus that once was smelt season. Biologists aren't sure why the fish vanished from the Sandy or why they suddenly reappeared this week. They suspect better ocean conditions produced a bumper run in the Columbia River. Frankie Geertz of Gresham remembers throngs of people in their waders lining the riverfront, reaching out with their nets and hauling in masses of writhing, oily smelt. For her, the tiny fish's homecoming meant digging out an old net and a plastic bucket. "It's the excitement of it. Here's this event, and it doesn't happen all the time, and here it's happening," said Geertz, 68. "We didn't get anything. But it was exciting knowing we might." The state confirmed that smelt had returned to the Sandy late Tuesday, [13 March] tipped off by a flock of sea gulls following the schools. By Wednesday morning, a small crowd had gathered at the Troutdale bridge to watch clouds of the silvery blue smelt dart through the deeper water. The fish used to pack the Sandy River almost every year, lured by the emerald-clear glacial waters. They arrived by the millions, and oldtimers said the fish seemed to swim on top of the water. A smelt run meant big business for Troutdale. Five thousand people crowded the riverfront one day in 1945. Hamburger shacks and popcorn vendors appeared on the roadsides. Neighborhood teens could fill their pockets with dollar bills for parking cars. The fish, each about the length of a hand, helped fertilize fields and lure sturgeon as bait. People ate them smoked or fried. In one contest, the winner downed 150 of them. Old pictures show men in starched white shirts and ties waist-deep in the river with their nets. Women used to use old bloomers for nets. And then, in 1988, the smelt runs dried up. The only smelt near Troutdale since then have been the plastic ones that children could catch at the Troutdale Historical Society's smelt exhibit. "It's the big mystery," said Tom Neill, a fisheries biologist with the Oregon Department of Fish and Wildlife. "In the last 10 years, there just haven't been enough of them around." Scientists blame El Nino, the plume of warm water that streamed along the Oregon coast. Plankton and algae need colder, nutrient-rich water to circulate, and smelt and other fish, in turn, feed on them. Fish populations have rebounded as El Nino broke up, said Jimmy Watts, another fisheries biologist. For smelt, this is "the biggest run in at least 15 years," he said. "There are millions." Broad schools of smelt move up the Columbia River from the ocean every year. They haven't felt the need to travel very far upriver in leaner years. They kept to lower rivers and tributaries, making Washington's Cowlitz River a top smelt destination. This year, though, crowds of smelt kept moving up the Columbia, and some took a right turn at the Sandy River. Biologists say this year's lower water levels caused by the dry winter might have affected their movement. But, Watts said, "A lot's not known about these critters." On Wednesday, people jogged down to the riverbank with their old wooden smelt nets, most about 16 feet long. Jeff Chambers, one of the dippers, predicted the next few days "will be like a festival -- the Quiver on the River." The

Date	Place	Source	Quote
			dipping Wednesday was mixed. The fish stuck to the middle of the river, out of reach of most nets. But the talk on the bridge was that these were pilot runs or that the fish would surge upriver in the evening. "I imagine you'll see a different Troutdale," said Len Otto, 48, who used to live near the riverbank and is the son of the deceased former Troutdale mayor and legislator. "You'll see cars from all over; you'll see businesses put small nets out front. I'm just thrilled that they're back. "I'm going to get back from work, put a net in the back and get out there."
15 March 2001	Sandy River Columbia River	<i>Oregonian</i> , p. D06, column: Forecast	FISHING THIS WEEK'S BEST BETS. On Tuesday, smelt entered the lower Sandy River for the first time since 1988. Biologists said smelt have moved up the Columbia River as far as Rooster Rock and have been followed by gulls and sea lions. Dippers should be aware that the fish have been in the Columbia for a long time and many already have spawned. There also is no guarantee of how long they will remain in the Sandy. Oregon doesn't require a license to dip, but there is a daily limit of 25 pounds. Every dipper must have a container. Dipping is allowed seven days a week and is legal during night hours, when smelt come closer to both the surface and the shoreline. Respect private property. The earliest smelt ran previously in the Sandy was Feb. 28, 1976. The latest was April 16, 1988, which also was the last year they appeared in the Sandy. The 1988 run was weak. A run that began on March 7, 1985, was the river's last major showing of smelt.
20 March 2001	Columbia River Bonneville Dam	<i>Oregonian</i> , p. B02, section: EAST ZONER	SHORT-LIVED SMELT HAVE COME, GONE ON SANDY. By Doug Irving - The <i>Oregonian</i> . The first crowds of the small, oily fish to reach the Sandy in more than a decade drifted away during the weekend, many of them exhausted and dying. Biologists aren't sure when to expect their next appearance. They think the smelt arrived and began spawning early last week, before anyone noticed. By the time the banks bristled with nets, those fish were living out their last days and too weary to fight the current. By Sunday, dippers weren't catching much more than water. "It's possible they will return to the Sandy," said Steve King, salmon fishery manager with the Oregon Department of Fish and Wildlife. "It's not unusual to have pulses of smelt. If they've entered the Sandy once -- and that did surprise us -- we've got another three weeks, maybe they'll come back." The smelt's short visit revived a fishing craze that used to seize Troutdale almost every year, as hundreds of people dug out old nets and hurried to the river. The fish also lured customers to downtown shops. An entire culture grew up around the smelt when their visit to the Sandy River was a near-annual gala event. Visitors from throughout the Portland area would arrive in Troutdale dressed in their finest and jostle for a spot on the river. During World War II, news of a smelt run ran just under dispatches out of Europe. But the smelt were always fickle guests, disappearing for years and then swarming the river without warning. They last visited the Sandy River in 1988. This year, though, an explosion of smelt filled the Columbia River as far as Bonneville Dam. Sea lions have been spotted chasing them in the Columbia River Gorge. And scientists think several

Date	Place	Source	Quote
			million veered into the Sandy River for a few days. They pushed upriver and scattered thousands of sticky eggs on the silty river bottom, said Patrick Frazier, the wildlife agency's Columbia River management program leader. Then they let the current wash them downriver. At the height of the run last week, dip-netters hefted five-gallon buckets filled with smelt from the riverbank. Most of the fish had already spawned, but some were "green smelt" on their way. The state biologists aren't sure why those fish left the river during the weekend. Rain might have swollen the river or washed too much mud into it or dropped its temperature. For whatever reason, smelt heading to the spawning grounds decided to turn back. "This was the strongest run (in years), and then it all fell apart on us," King said. "There are a lot of unknowns here. The fish are in charge." The Troutdale Chamber of Commerce hasn't begun to study what kind of economic effect the city enjoyed from its few giddy days of smelt excitement. Executive director Diane McKeel said the run kept her phones ringing. At Celebrate Me Home, a gift and furniture store, owner Mary Greenslade saw business increase by 25 percent, led by many folks from Portland's westside. Many asked her what a smelt looked like; she told them an overgrown minnow. "It wasn't that we had fishermen coming to shop," she said. "It was that Troutdale was in the news. This put Troutdale back in people's minds."
22 March 2001		<i>Oregonian</i> , p. D07, section: SPORTS OUTDOORS	FORECAST FISHING THIS WEEK'S BEST BETS PORTLAND/NORTHWEST: SMELT. Portland/northwest: Smelt have dropped out of the Sandy River. ... Washington: Smelt have disappeared from the Cowlitz and lower Columbia rivers.
29 March 2001		<i>Oregonian</i> , p. D06, column: Forecast	THIS WEEK'S BEST BETS. Biologists believe smelt are massing again in the lower Columbia, but cannot predict whether they will re-enter any tributaries.
2002			
20 December 2001		<i>Oregonian</i> , p. D07, section: SPORTS OUTDOORS	FORECAST THIS WEEK'S BEST BETS FISHING PORTLAND/NORTHWEST: CONDITIONS. There have been no further reports of scout runs of smelt.
27 December 2001		<i>Oregonian</i> , p. C06, section: SPORTS OUTDOORS	FORECAST FISHING PORTLAND/NORTHWEST: AS RIVERS DROP. Smelt still have not appeared in the Cowlitz River (it's very early), but sturgeon with smelt in their stomachs have been caught recently from the mouth of the Kalama downriver to County Line Park below Longview.
6 January 2002		<i>Oregonian</i> , p. B02, section: SPORTS	COMPUTERS DON'T ALWAYS MAKE IT EASY. By Bill Monroe - The Oregonian. Sense of smelt: A small pilot run of smelt entered the Cowlitz River last week and at least one sport dipper -- 17 smelt in 100 dips -- worked up a sweat. The main run isn't due until February, but with smelt, almost anything could happen at any moment. Washington's season for the Cowlitz is Saturday, Sunday and Wednesday, 6 a.m. to 10 p.m., through March 31. The Columbia River -- some smelt dipping from the bank occurs off rip-rap downriver from Longview -- is seven days a week. Washington dippers are limited to 10 pounds a day. No license is required.
15 February 2002		<i>Oregonian</i> , p. C01,	SMELT RUN A RIVERSIDE ATTRACTION. By Joel Davis - The Oregonian. A

Date	Place	Source	Quote
		section: PICTURE CAPTION NORTH ZONER	sizable smelt run this year has drawn fishermen to the North Fork of the Lewis River on Wednesdays, Saturdays and Sundays, the days it's legal to dip for the small, silvery fish in Washington.
21 February 2002		<i>Oregonian</i> , p. D06, section: SPORTS OUTDOORS	FORECAST FISHING THIS WEEK'S BEST BETS. Smelt have returned to the Cowlitz River in good numbers, according to employees at Bob's Merchandise in Longview. Smelt also are thick in the Grays and Lewis rivers. Best dipping is during the low light before dawn and after dusk, when smelt tend to move closer to shore.
7 March 2002		<i>Oregonian</i> , p. B02, section: EAST ZONER	SANDY ANGLERS ANTICIPATE A SMELT SEQUEL. By Gerald Ewing - The <i>Oregonian</i> . It's the Rubik's Cube of fishing. A piscatorial puzzle. When will the smelt return to the Sandy River? All signs at midweek point to the oily little fish making an appearance in the Sandy for a second year in a row. Olaf Langness, a Washington Department of Fish and Wildlife biologist in Vancouver, Wash., said he's heard rumors of a "smelt presence" in the Sandy in recent days from commercial fishermen. Jack Glass, fishing guide and proprietor of Jack's Snack & Tackle at Glenn Otto Community Park in Troutdale, saw dead smelt floating in the Columbia River around the Interstate 205 bridge last weekend. He's itching for a return so he can rent and sell smelt dipping gear. And Craig Foster, a state biologist on the Oregon side of the river, said it's the right time of year for smelt in the Sandy. Dippers could find smelt in the Sandy this weekend - or it could be a decade before the 6- to 8-inch fish make another visit. That's why biologists call them fickle and unpredictable. Smelt meant big business for Troutdale until the late 1980s. Hundreds of anglers from the Portland area would descend on the river town, rent long dip nets from Roy Meger, owner of the Troutdale General Store, and dip like crazy in the Sandy. Then in 1988, the smelt stopped coming, disappearing like smoke in the wind. Biologists blame poor ocean conditions for the decline but admit it could be part of a natural cycle. Then, out of nowhere last year, a thick school of smelt ventured up the Sandy on March 14. The smelt were back, but only for a few days. Locals are hoping for a repeat this year. "Historically, they were huge news," said David Ripma, a member of the Troutdale City Council and president of the Troutdale Historical Society. "It practically put us on the map. The town was flooded with fisherman." Marsha Gleason at the Troutdale Chamber of Commerce said the phone is already ringing with smelt dippers wanting the latest news. After conferring with Glass, she's telling anglers the smelt will be in the Sandy around March 14. That's based on an old timer's theory that it takes the smelt two weeks to travel from Government Island in the Columbia to the mouth of the Sandy. Smelt were seen at Government Island on Feb. 28. Smelt are like salmon. They hatch in fresh water, spend two to five years in the ocean and return to spawn in the Columbia River system. They are prime food for sturgeon. A small commercial fishery in the lower Columbia takes smelt, mostly for sturgeon bait for fishermen, and a few restaurants serve smelt. Langness said the best indicators are gulls, seals and sea lions feeding nearby in the Columbia and a bumper run of smelt in

Date	Place	Source	Quote
			Washington's Cowlitz River near Longview. The bigger the run on the Cowlitz, Langness said, the better the odds for a run on the Sandy. He called this year's run on the mainstem Columbia "a steady progression of fish," not a huge run. Troutdale Mayor Paul Thalhofer recalls a magical night in the 1980s when he and others dipped at night under a full moon. "I'll never forget it, the big moon, the light shimmering on the river," he said. "A lot of fairly new people to Troutdale don't understand the love affair we have with smelt fishing. "It's a celebration each time it happens."
7 March 2002		<i>Oregonian</i> , p. D07, section: SPORTS OUTDOORS	FORECAST FISHING PORTLAND/NORTHWEST: BOTH THE CLACKAMAS AND SANDY. No smelt have entered the Sandy, although dead smelt were reported in the Columbia River near the Interstate 205 Bridge and gulls are numerous on the river near Kelley Point Park.
14 March 2002		<i>Oregonian</i> , p. C06, section: SPORTS OUTDOORS	NOTEBOOK SERIOUSLY, NOW, SMELT WILL BE HERE ANYTIME. By Bill Monroe - The Oregonian. No, at press time Wednesday, smelt still hadn't entered the Sandy River. Yes, it could happen at any time -- in the next day, few weeks or few years. ... The smelt still are moving into the Cowlitz River in Longview, Wash., a short drive north. The Washington Department of Fish and Wildlife has opened the Cowlitz to dipping seven days a week, with a 20-pound daily limit. Oregon also allows dipping seven days a week, with a 25-pound daily limit. Licenses are not required in either state. "There are still fish in the lower Columbia, coming in batches," said Chuck Downer at the fishing counter at Bob's Merchandise in Longview. "Guys running salmon gill-nets say they're getting fresh smelt in the net folds." Cowlitz sport dippers, meanwhile, are getting about three smelt per dip, which usually translates into a limit in about an hour and a half. Almost any small-mesh net will work, but the long-handled smelt net has the advantages of length and a mesh size that prevents escape. Jack Glass of Troutdale, who runs a tackle shop that rents nets, said he and his employees are checking every few hours and that the Sandy is dropping and clearing. Smelt can, however, stall if the water gets too cold. Dipping for smelt, which swim steadily upriver, is best with a swing of the net downriver, slightly faster than the current, and close to the bottom. "Start close and swing a little farther out each time," Glass said. Smelt also tend to draw closer to the shoreline at, or just after, dark.
2003			
2 January 2003		<i>Oregonian</i> , p. D09, section: SPORTS	NOTEBOOK WASHINGTON OPENS SMELT SEASON TODAY. By Bill Monroe - The Oregonian. Wet and windy weather might raise the region's rivers too high to fish for steelhead, but it won't deter dippers from visiting the Cowlitz River. The Washington Department of Fish and Wildlife opened the 2003 smelt-dipping season today, anticipating a healthy run of the abundant small fish. No license is required to dip smelt, but dippers have to follow basic rules: The limit is 10 pounds a day (about a third of a five-gallon bucket), and dipping is limited to between 6 a.m. and 10 p.m. on the Cowlitz. Dipping is allowed 24 hours a day on the Columbia River, with the same limits. Dipping

Date	Place	Source	Quote
			is allowed from boat or bank, but most along the Cowlitz dip from the shore, usually finding the best results at night when fish seem to move closer to the surface and the shoreline. A long-handled net with small mesh is best. They are sold at most major sporting goods outlets. The best zones are usually between Longview/Kelso and Castle Rock. Observers in Longview report numerous harbor seals in the Cowlitz already, usually marking the arrival of an early "pilot run." Smelt numbers typically peak by late January and may show up in the Lewis River by then as well. Lewis River rules are the same as those on the Cowlitz. In some years -- it's unpredictable, but usually in February -- smelt move up the Columbia into the Sandy River, east of Portland. Oregon allows dipping 24 hours a day in tributaries and allows 25 pounds per person.
24 January 2003	Sandy River	<i>Oregonian</i> , p. B01, section: LOCAL STORIES	SMELT MAKE EARLY RUN ON SANDY. A silvery, shimmering school of smelt returned Thursday [23 January] to the Sandy River, causing a run on dip nets and old-timers to dust off a few nostalgic fish tales. Fish experts say it's the earliest run on record for the slender blue-gray fish, which -- depending on who's talking -- are great fried or smoked, or better left in the bait bucket. The previous earliest run was Feb. 28, 1974, said Kevleen Melcher of the Oregon Department of Fish and Wildlife. The last big run started March 13, 2001. Last year, the fish made it to the mouth of the river but never came upstream. Between 1988 and 2001, there were no runs in the Sandy. Melcher said two department employees were dispatched Thursday morning to the Sandy to check out the smelt rumors. They dipped 30 or so smelt at the mouth and talked to other dippers who had 15 or 20 apiece upriver at Lewis and Clark State Park. Word of the run got out early, said Jack Glass, the fishing guide who runs Jack's Snack 'N' Tackle in Troutdale. Glass called it a "pilot run" of smelt. "I think they will be back in late February or early March," he said. Glass heard about the run about 10 a.m. He said dippers were hauling in their limit -- 25 pounds -- in 30 dips or fewer. By noon, 50 people were trying their luck, using their own long-handled nets or renting one from Glass for \$5 an hour. Jeff Fahlman of Troutdale and a friend, Pete Marendish of Portland, rented two nets and tried their luck downstream near the railroad bridge. "When we first got here, they were running thick -- about 2 feet wide and 2 feet deep," Fahlman said. "When we finally got ready to start dipping, they were mostly gone." Total catch? "We got six . . . not even enough for sturgeon bait," Fahlman said. By 2 p.m., the run was over. Smelt and Troutdale go way back. Old-timers remember when the fish used to arrive by the millions, bringing thousands of people to the riverbanks. Thursday's run was a bit less. One group of three fishermen returned to Glass's shop carrying a 70-quart cooler. For a second, it looked like a huge haul. Then they laughed and opened the lid. Three fish. "We did twice as good," Fahlman said. "But I think I caught more rocks than fish." Melcher said water conditions, not the calendar, determine when smelt arrive in the Sandy. Steve King, salmon manager for state Fish and Wildlife, said he couldn't figure out why the smelt left their usual haunts, the Lewis and Cowlitz rivers on the Washington side of the Columbia.

Date	Place	Source	Quote
			He said it had to be because of the unseasonably warm weather -- the mainstem Columbia tops 40 degrees -- and the fact that there is no cold water filtering into the Columbia from Eastern Oregon. Dippers don't need a fishing license for smelt. The daily limit is 25 pounds.
28 January 2003	Sandy River Columbia River	<i>Oregonian</i> , p. B02, section: EAST ZONER	TACKLE SHOP OWNER SAYS SMELT WILL RETURN SOON. By Peter Farrell - The Oregonian. Dip netters found a few smelt Monday in the Sandy River, but the earliest run on record really ended Saturday, according to Jack Glass, fishing guide and proprietor of Jack's Snack 'N' Tackle. A dozen people were catching a few fish at the Interstate 84 bridge, Glass said. But most of the oily fish were gone, possibly pushed out by a rising river. Glass expects them back, perhaps in two weeks. "Traditionally, if you have a pilot run, there's going to be another run to follow," he said. "It's hard to say when, but sometime in mid-February to March." Glass said the run of the small fish was all males; he expects the females to show up next. The heavy weekend rain might have washed away the pilot run that started Thursday. When and why the smelt, silvery relatives of the salmon, come up the Columbia River and enter the Sandy at Troutdale is a mystery. Fifty years ago, the fish came by the millions, and large crowds came to then-tiny Troutdale to dip them with the long-handled nets that Glass now rents for \$5 an hour. Those huge runs are long gone. Most years there are no fish at all. The biggest catch in recent times was 592,000 pounds in 1979. Until the fish showed up Thursday, the earliest they had been recorded in the Sandy River was on Feb. 28 in 1974.
22 February 2003	Sandy River	<i>Oregonian</i> , p. D01, section: PICTURE CAPTION	SANDY SMELT REPRISE A RUN. By Michael Lloyd - The Oregonian. Caption: Color photo: Dick Trusky dips for smelt Friday in the Sandy River near Troutdale. His limit of around 25 pounds of smelt awaits a trip to his smoker back home in Portland. The smelt run that entered the Sandy on Friday was the second of the season. A pilot run in late January entered the river for a few days and then left. Trusky first noticed the smelt while steelhead fishing. Will the fickle smelt hang around longer this time? Who knows, said Jack Glass, a Sandy fishing guide. "These smelt are funny little guys."
23 February 2003	Lewis River Sandy River	<i>Oregonian</i> , p. C02, section: SPORTS	SMELT FISHING IS MORE THAN A FOOD THING. By Bill Monroe - The Oregonian. The next man downriver had my attention when he turned his smelt-choked net upside down and dumped its writhing contents back into the Lewis River instead of a bucket. "I'm just having fun," he said when I asked him about his catch-and-release dipping. "There's a limit in the bucket already, but my in-laws are in town, so I've got a lot of time to kill." Over the thunder of traffic on the Interstate 5 bridges above us, I managed to get only his hometown (Castle Rock, Wash.) and a smile instead of a name. There's something strangely satisfying about catching smelt. Probably a sense of accomplishment. Every time I dip up a wad of the oily little fish, I feel like a provider. They are, after all, easy to get, good to eat fried or smoked and by far are the premium sturgeon bait all year. And -- as I'm reminded by colleagues still scratching their heads over my Living Section piece in December about using potato chips as kindling -- there

Date	Place	Source	Quote
			is that perennial trivia contest winner about pioneers who learned from native Americans to burn dried smelt as candles by sticking twisted spruce bark into their mouths for wicks. ... My family won't eat smelt but nevertheless, all enjoy the family friendly outing to dip basically free fish (25 pounds daily in Oregon, 20 in Washington -- no license required in either state). At this writing Friday, a) smelt, a good percentage of them females for the first time this winter, have just re-entered the Sandy; b) masses of males have dropped out of the Cowlitz and Lewis; and c) Washington biologists say the main run still is in the Columbia River mainstem, where the stomachs of sport-caught salmon and sturgeon are stuffed with smelt. ... On Wednesday, I solicited bait orders from a few sturgeon-fishing friends and headed back to Woodland at dark with six buckets and a family member or friend for each. We found enough fish to ambush across a shallow sandbar and limit out in a couple of hours (more than a little after my grandson's bedtime, I was admonished by his mother). Kaitlyn Patterson of Gresham, my son's girlfriend, has not fished much but learned almost immediately that her flashlight seemed to attract the fish to young Bill's net. The team filled their buckets first, then coached the rest of us -- even ... sigh ... his dad. "That was just so cool," she chortled. "I touched them and everything."
14 January 2004	Sandy River	<i>Oregonian</i> , p. E13, section: GRAPHICS SCIENCE	YEAR IN REVIEW WEATHER WATCH OREGON ALMANAC 2003. By Stuart Tomlinson - The Oregonian, Pat McLelland - The Oregonian. JANUARY: One of the earliest smelt runs on the Sandy River is likely caused by unseasonably warm temperatures. January's average temperature in Portland is 47.7 degrees 4.8 degrees above average. Oregon and Washington's snowpack is the lowest in nearly 30 years, at just 48 percent of average.
2004			
11 December 2003	Columbia River	<i>The Clatskanie Chief</i> , p. 1, col. 2	Catch of Smelt Reported. Local commercial fisherman Bruce Jolma reported the first catch of smelt this season after snagging 21 fish Wednesday morning Dec. 3.
14 December 2003		<i>Oregonian</i> , p. B04, section: SPORTS	SPRING CHINOOK OUTLOOK BRIGHT. By Bill Monroe – The Oregonian. As if anyone needed any more good news, Washington biologists this week announced they're looking for another strong run of smelt, which typically enter lower Columbia tributaries in January and February.
25 December 2003		<i>Oregonian</i> , p. D05, section: SPORTS	THIS WEEK'S BEST BETS. Washington: No more smelt were taken in commercial nets this week, but Washington will open sport seasons Jan. 1 anyway. The mainstem Columbia will open seven days a week, 24 hours a day, and tributaries -- the Cowlitz and Lewis rivers are most popular – also will open seven days a week, but only from 6 a.m. to 10 p.m. Smelt typically begin showing in tributaries by mid-January.
6 February 2004	Columbia River Cowlitz River	<i>Oregonian</i> , p. C05, section: SPORTS	COLUMBIA SPRING CHINOOK SEASONS GET COMPLICATED. By Bill Monroe – The Oregonian. The best news Thursday was the announced arrival of a heavy smelt run into the Cowlitz and lower Columbia rivers
10 February 2004	Cowlitz River	<i>Oregonian</i> , p. E01,	BIG SMELT RUN ARRIVES, AND MIGHT STAY AWHILE. By Bill Monroe –

Date	Place	Source	Quote
	Columbia River	section: SPORTS	The Oregonian. The long-awaited smelt run surged into the lower Columbia River last week, finally oozing up the Cowlitz River at Longview, where Washington biologists expect an extended stay. Smelt were so thick in the Columbia between Longview and Astoria that individual commercial boats were dipping and netting thousands of pounds. "One boat was already so full he left the fish in his net on the reel and was afraid he might sink on his way in," said Joe Hymer, a biologist for the Washington Department of Fish and Wildlife in Vancouver. "Some years the run lasts until March or April, others it's just a short stay. Judging from the early reports, they should be in there at least a few weeks and maybe more." Smelt are small eulachons that return to lower Columbia tributaries by the millions in most winters, almost always first in the Cowlitz. They might show next in the Lewis River at Woodland, sometimes the Kalama River, then as far upriver as the Sandy at Troutdale, where dippers took fish home daily for more than two weeks in 2003. By Monday, smelt-eating gulls were thick off the mouth of the Kalama River, between Longview and Woodland and some have even concentrated in small isolated locations off Northeast Marine Drive. The Sandy run, though, isn't nearly as predictable as that in the Cowlitz. Sport dipping from the bank draws thousands who fry the oily fish to eat whole or gutted, smoke them to eat later or use them for sturgeon bait. Neither Washington nor Oregon requires a license to dip smelt, but both states limit dippers -- 20 pounds in Washington and 25 in Oregon. Dipping also is limited in Washington tributaries to between 6 a.m. and 10 p.m., but is legal all hours in Oregon. Every dipper is required to dip his or her own limit. Hymer said the Cowlitz smelt last week were a mix of sizes, including smaller, mature females, typical of the main run. Some years, he said, males come first in a "pilot run" that backs out of the river just as the public shows up to net them. A cold January might have kept smelt in the ocean a little longer, Hymer said. "The trigger for smelt seems to be about 42 degrees," he said. "The Cowlitz warmed up to 46 last week and I think that did it." High water or colder temperatures can cause smelt to back down tributaries into the Columbia, where they seem to range about and sometimes show up in other rivers. They also move around the river in thick schools, typically staying in deeper water during the daylight and moving closer to shore at night. Dipping is best at dusk. Good dippers also move often. Limits sometimes come in one or two dips, while someone just a few yards away isn't getting a thing. This run, Hymer said, appears strong enough to both remain in the Cowlitz and overflow into the Lewis and beyond. Sandy River smelt typically show up at least a week or two after those in the Cowlitz. Like seasoned smelt followers, Hymer watches gulls following smelt up the Columbia. Harbor seals also are a smelt indicator, with their diets up to 95 percent smelt this time of year. Larger sea lions don't eat as many smelt, but follow spring chinook and steelhead into the Columbia. "Or you can watch some of the large ships," Hymer said. "The propellers stir up fish, and gulls follow along behind looking for a free meal."

Date	Place	Source	Quote
9 March 2004	Cowlitz River	<i>Oregonian</i> , p. D03, section: SPORTS	GLANCE COLLEGE BASKETBALL: WOLFE WON'T BE BACK AS PSU WOMEN'S COACH. By Bill Monroe – The Oregonian. Smelt returned to the Cowlitz River on Sunday afternoon and by Monday spread upriver past the Kelso/Longview Bridge. “They're dipping limits in half an hour in some places,” said Carmell Pallesen at the Carnival Market on the Cowlitz River levee. “I think they'll stay around for a while.” No smelt have entered either the Lewis or Sandy rivers, but still could show up in either at any time. Washington allows dipping from 6 a.m. to 10 p.m. Dippers should call before driving from Portland to make sure smelt are still in the river.
2005			
23 December 2004		<i>Oregonian</i> , p. C08, section: SPORTS	NOTEBOOK TROUT ANGLERS GET CHRISTMAS GIFT IN FORM OF BROODSTOCK. By Bill Monroe – The Oregonian. Washington smelt seasons: Anticipating another low smelt run into the lower Columbia River, the Washington Department of Fish and Wildlife announced it will limit sport dipping to two days a week in popular Southwest Washington tributaries. Dippers will be allowed to take only 10 pounds each on Tuesdays and Saturdays from the Cowlitz, Lewis, Grays, and Kalama rivers, when and if the smelt show up. The daily limit on the mainstem Columbia remains 25 pounds and dipping will be allowed seven days a week at all hours. Oregon allows dippers 25 pounds a day when smelt make their way into the Sandy River.
13 January 2005		<i>Oregonian</i> , p. D07, section: SPORTS OUTDOORS	SMELT RUN IS LATE, LIKELY WILL BE POOR. The winter smelt run in the Columbia River is behind schedule this year. And when they do show up -- it won't be soon -- numbers will be down from past years, said Joe Hymer, a state fish biologist in Southwest Washington. The Columbia and its tributaries have been too cold for smelt, with water temperatures as low as 40.5 degrees at Bonneville Dam last weekend, Hymer said. Smelt prefer temperatures above 42 degrees. A couple of commercial fishermen caught a handful -- five or fewer -- about two weeks ago, but even those sightings have dried up, Hymer said. Among signs that this year's run will be poor is the low number of smelt landed as an incidental catch in the West Vancouver shrimp fishery this winter. As salmon do, smelt spend much of their lives at sea but return to fresh water to spawn and die. Runs on the Cowlitz River were abundant historically, prompting Kelso's claim to be “The Smelt Capital of the World.” But the smelt have been unpredictable recently, and last year's run was poor. Jan. 1 marked the beginning of the 2005 smelt season on the Columbia and tributaries, including the Cowlitz. Dipping is allowed Tuesdays and Saturdays only, from 6 a.m. to 10 p.m., through March 31. The limit is 10 pounds per person per day. Ten pounds is approximately one-fourth of a five-gallon bucket. No license is required.
16 March 2005		<i>Oregonian</i> , p. E03, section: SPORTS OUTDOORS	HUNGRY SEA LIONS DINE ON STURGEON. By Bill Monroe – The Oregonian. After the Marine Mammal Protection Act of 1972 put a halt to their killings, increasing numbers of harbor seals and sea lions discovered the Columbia River, Brown said, drawn mostly by the smelt run. In years of good smelt runs, studies of harbor seal stomachs --

Date	Place	Source	Quote
			from animals that died tangled in gill-nets -- showed 90 percent of their diet was smelt. But in low-smelt years such as 2004 and especially this winter, sea lions arrive and linger, waiting for salmon to arrive.
27 March 2005		<i>Oregonian</i> , p. C03, section: SPORTS	CLIMATE SHIFT? IT'S JUST WARMING UP. By Bill Monroe – The Oregonian. Smelt didn't even bother to show up [in the Columbia River] in the low, cold water that followed more than two months of dry weather.
2006			
2 January 2006		<i>Oregonian</i> , p. D06, section: SPORTS	NOTEBOOK: Smelt season not looking good. By Bill Monroe – The Oregonian. Washington's smelt season isn't likely to be very good, according to biologists for the Washington Department of Fish and Wildlife. Recreational smelt dipping opened Sunday on the Columbia River around the clock, but it won't be legal until Saturday on the Cowlitz River. Dipping will remain closed on all other southwest Washington streams until further notice. Oregon doesn't regulate smelt dipping other than imposing a daily limit of 25 pounds per person. Even if smelt do enter the Cowlitz, Washington will allow dipping only from 6 a.m. to 10 p.m. each Saturday through March 31, with a daily catch limit of 10 pounds per person. “Every indication points to another poor smelt return this year,” said Brad James, a department biologist. “But we'll be watching the run closely and will modify the season if it turns out to be stronger than expected.” Fishery managers are not as concerned about a seven-day-per-week season on the lower Columbia River because bank access is limited. Sport fishers can dip up to 25 pounds of smelt per day on the Columbia. Commercial smelt-netters also will be tightly regulated, with only two nine-hour seasons set thus far. In February 2004, Washington reduced the number of days open to smelt fishing on the Cowlitz River from two days to one when the run came in much weaker than expected. “We're hoping we can do it the other way around during the upcoming season, but the outlook is not good,” James said. Smelt in the Sandy? Not! Dippers who think all of those gulls along the lower Sandy River last week meant the smelt are in not only are wrong, but also might have done some real damage by dipping their nets, said Rob Brown of Jack's Snack and Tackle. “When the water is high and muddy, smolts (juvenile salmon and steelhead migrating to sea) tend to gather in quieter water next to shore and are very vulnerable,” Brown said. “It's typically a Valentine's Day thing if they even get up this far. The earliest we've seen them is mid- to late January. They'll always be in the Cowlitz River first.”
16 February 2006		<i>Oregonian</i> , p. B04, section: Local News	Troutdale tingles at chance fickle smelt will return. By Eric Mortenson – The Oregonian. TROUTDALE --Will they, or won't they? Smelt are in the Columbia River, but it's anyone's guess whether they will hang a right and swim up the Sandy River to spawn. Anglers are hoping for a run of smelt like in the old days, when people would line the bank with long-handled dip nets and take them home by the bucketful. The Sandy is running clear and cold, in great shape to receive a run of smelt, said fishing guide Rob Brown, owner of Jack's Snacks and Tackle in Troutdale. But that's no

Date	Place	Source	Quote
			guarantee, Brown acknowledged. Smelt are like the old friend from college who says he's thinking about passing through and might stop in to visit. Possibly. Someday. "They're the most finicky creatures we get out here," Brown said. Jimmy Watts, whose job with the Oregon Department of Fish and Wildlife includes tracking smelt, said he doubts the Sandy will see any smelt this year. Ocean conditions weren't favorable earlier in the year, last year's run was a bust, and Canadian shrimpers aren't reporting inadvertent smelt catches, which they do when the smelt are running strong. "But it would be like the historical nature of smelt to prove me completely wrong," Watts said. Smelt runs on the Sandy were strong from 1929 to 1957 but then tapered off. In the past 17 years there have been only two runs, in 2001 and 2003, Watts said. Smelt are about 6 to 8 inches long and by all accounts are oily, bony and more wiggle than meat. Some people swear they deep-fry smelt and crunch them down bones and all, but these days they are most popular as sturgeon bait. Like salmon and steelhead, smelt are born in freshwater and migrate to the Pacific Ocean. They return to spawn after three to six years at sea, but unlike the big boys, aren't particular about returning to their birth stream to do their business. They could go up the Cowlitz River in Washington, maybe the Sandy, or might just stay put in the Columbia. Smelt runs last 10 to 12 days, Brown said. They typically come in two stages: a "pilot run" followed by the major run. "It's like they come in, look around, and then go back and tell everyone else," Brown said. All of which is just part of the lore for smelt dippers. Brown said he gets thousands of calls --some from as far away as Montana --asking whether the smelt have returned. Part of the appeal may be the lack of regulation. On the Sandy, the smelt season is open seven days a week. No license is required, and dippers can take home 25 pounds a person a day. Dipping on the Cowlitz River is allowed from 6 a.m. to 10 p.m. Saturdays, with a daily limit of 10 pounds a person. The rule of thumb is that there are 10 smelt to a pound. Glenn Otto Community Park in Troutdale is a favored spot for smelt dippers. Bank access is good, allowing even net novices to scoop up smelt. Brown said the word spread rapidly among dippers when smelt were spotted recently in the Columbia off Northeast 138th Avenue. That's the farthest upriver they've traveled in three years, he said. Incidentally, it's easy to spot a school of smelt. "They're like a huge, black oil slick under the surface," Brown said, and seagulls are all over them. Brown's guide shack is adjacent to Glenn Otto Community Park. If smelt arrive, he'll stick a long smelt net in the umbrella hole of a picnic table as a sign to motorists. "If they're in the river, we're the first to see them," he said.
2 April 2006		<i>Oregonian</i> , p. C02, section: SPORTS	Despite bad news, good news is we're in Oregon. By Bill Monroe – The Oregonian. Sturgeon fishing continues to be amazingly slow in the lower Columbia River, following the absence of smelt and, perhaps, increased attention from sea lions.
2007			
11 December 2006		<i>Oregonian</i> , p. D06,	Restrictions are likely for smelt. By Bill Monroe – The Oregonian. Reports of early

Date	Place	Source	Quote
		section: SPORTS	smelt persist in the lower Columbia River, including firsthand observations from anglers finding fresh smelt in the stomachs of legal sturgeon they've caught. But fish biologists in Oregon and Washington seem far less optimistic and probably will recommend another restrictive winter dip-net season when they meet Thursday in Kelso, Wash., to set 2007 sturgeon and smelt seasons. The Columbia River Compact meeting is scheduled to begin at 10 a.m. in Kelso City Hall. ... Smelt dippers won't be as lucky. Columbia River returns have been low the past two years and probably will be the same in 2007, according to biologists for the Washington Department of Fish and Wildlife. All indications point to a general and continued collapse of smelt as far north as British Columbia, where Columbia River smelt also are caught during shrimp seasons. That bycatch, though, along with Fraser River smelt runs, has declined precipitously in the past few years, at the same time ocean-water temperatures have risen. Washington biologists suggest a season similar to last winter's, when dipping was restricted to Saturdays and only on the Cowlitz River; dippers were limited to 10 pounds each. There was little dipping, though, as a series of rainstorms left the Cowlitz high and muddy from much of January through early March.
18 December 2006		<i>Oregonian</i> , p. D11, section: SPORTS	Sturgeon rules should loosen. By Bill Monroe – The Oregonian. Smelt: Washington again will sharply curtail smelt dipping in the Cowlitz River. Sport dipping will be allowed only on Saturdays, from 6 a.m. to 10 p.m., from New Year's Day through March 31. No dipping will be allowed on other Washington tributaries of the Columbia River.
8 February 2007		<i>Oregonian</i> , p. D03, section: SPORTS	OUTDOORS - The Guide's Forecast. Recreational smelt dipping will continue to be disappointing on the Cowlitz River, with little luck reported by commercial boats downriver.
23 February 2007	Columbia River	<i>Oregonian</i> , p. D02, section: SPORTS	IN THE REGION Fishing: Smelt surge into Columbia. By Bill Monroe – The Oregonian. Commercial smelt dippers report an influx of schooled fish into the lower Columbia River as far upstream as Cathlamet, below the mouth of the Cowlitz River. Some netters dipped 400-pound limits Wednesday. Washington Department of Fish and Wildlife biologists began reporting increased smelt activity Monday. There's no telling yet whether smelt will reach the Cowlitz River by Saturday, they said. Sport dipping is only allowed in the Cowlitz between 6 a.m. and 10 p.m. on Saturdays. No license is required, but dippers are limited to 10 pounds. Sport dipping on the Columbia is allowed seven days a week, 24 hours a day, with a 25-pound limit.
24 February 2007	Cowlitz River	<i>Oregonian</i> , p. D02, section: SPORTS	IN THE REGION Big innings carry Beavers past Aggies. By Bill Monroe – The Oregonian. Outdoors: Smelt on move in Cowlitz. Washington fisheries officials reported shortly after noon Friday that smelt have entered the Cowlitz River. Test dipping Friday morning found up to four fish per dip (the average dip was one fish) from the mouth upriver to Lexington; none at Castle Rock. The best dipping, officials said, was near the shore, because the river is high and turbid. Catches slowed at Gearhart Park (near the mouth) after high tide at 7:30 a.m. Bright, unspawned males and females were dipped.

Date	Place	Source	Quote
			Seals and seagulls were also present at Gearhart Park, another sign of smelt. Water temperature was 43.7 degrees. Sport dipping on the Cowlitz does not require a license, but is allowed only on Saturdays, from 6 a.m. to 10 p.m. The daily limit is 10 pounds per person, or about one quarter of a five-gallon bucket. There are no reports of smelt in the Sandy River.
2008			
13 December 2007		<i>Oregonian</i> , p. D08, section: SPORTS	OUTDOORS - The Guide's Forecast. The winter smelt run is expected to be poor again, meaning little or none of the favorite sturgeon bait.
3 January 2008		<i>Oregonian</i> , p. D07, section: SPORTS	OUTDOORS - The Guide's Forecast. Smelt often show up on the Columbia River about this time but are absent this year.
10 January 2008		<i>Oregonian</i> , p. D03, section: SPORTS	OUTDOORS - The Guide's Forecast. Amid unconfirmed reports of fresh smelt for sale in Astoria-area fish markets, the season's commercial landings on the docks for the two openers total an estimated 126 pounds. ... No reports or signs of smelt in the Cowlitz River. Through March 31, sport smelt dipping is open from 6 a.m. to 10 p.m. Saturdays only. Daily limit is 10 pounds per person. No other Washington Columbia River tributary is open to fishing for smelt.
17 January 2008		<i>Oregonian</i> , p. D05, section: SPORTS	OUTDOORS - The Guide's Forecast. Commercial catches of smelt remain low. Although difficult to find, the baitfish is selling for \$6 a pound. Two sport dippers on the Cowlitz River reportedly caught several pounds each at the Gearhart Ramp on Saturday.
24 January 2008		<i>Oregonian</i> , p. C06, section: SPORTS	OUTDOORS - The Guide's Forecast. Southwest Washington: ... most anglers are more eager for the Cowlitz smelt run. Cold weather this time of year often drives schools of smelt back to the ocean. Washington Department of Fish and Wildlife smelt test dip-netting yielded no catch on Jan. 16.
31 January 2008		<i>Oregonian</i> , p. D05, section: SPORTS	The Guide's Forecast – OUTDOORS. Southwest Washington: There still is no sign of smelt in the Cowlitz and mainstem Columbia rivers. Temperatures in both rivers remain too cold for fish to migrate.
7 February 2008		<i>Oregonian</i> , p. D06, section: SPORTS	OUTDOORS: The Guide's Forecast. Until water temperatures rise above 40 degrees, smelt will be reluctant to migrate upstream. Cold water also is keeping sturgeon and salmon from being active in the mainstem Columbia. No salmon or smelt were landed in last week's commercial openers ... Southwest Washington: ... Smelt might make a showing in the lower Cowlitz with the coming warming trend as well, but don't expect great catches on the Saturday openers.
14 February 2008		<i>Oregonian</i> , p. C02, section: SPORTS	OUTDOORS - The Guide's Forecast. Smelt probably will show in the Cowlitz River on the Saturday sport opener. Water temperatures have topped 40 degrees, and commercial catches in the mainstem jumped last week, indicating a pilot run is in route. Check regulations before dipping Saturday.
21 February 2008	Cowlitz River	<i>Oregonian</i> , p. D02, section: SPORTS	OUTDOORS - The Guide's Forecast. Southwest Washington: Smelt was the targeted species last weekend on the Cowlitz River. Dippers had mixed results, some taking limits near Rocky Point. Males made up the bulk of the catch, indicating the females are soon

Date	Place	Source	Quote
			to follow. River conditions point to another productive weekend for dippers with a maximum of 10 pounds per person allowed.
28 February 2008		<i>Oregonian</i> , p. D02, section: SPORTS	OUTDOORS - The Guide's Forecast. Southwest Washington: Recreational smelt dipping tapered dramatically on the last Saturday opener. It appears the peak has come and gone, indicating another poor return for this sturgeon bait.
6 March 2008		<i>Oregonian</i> , p. C02, section: SPORTS	OUTDOORS - The Guide's Forecast. The 2008 smelt run is done.
26 June 2008		<i>Oregonian</i> , p. 01, section: Metro East Neighbors	Missing smelt in the Sandy. By Catherine Trevison – The Oregonian. The Oregon Fish and Wildlife Commission will consider a proposal to shut down smelt dipping on the Sandy River as part of an every-four year overhaul of state sport-fishing rules. The idea came from a passionate angler who grew up near the river and knows the federal government is studying whether to protect the fish as an endangered species. Although the deadline for that federal decision is months away, it has boosted public support for a Sandy River ban, even though the move would probably have little impact on overall smelt health, said Jimmy Watts, an Oregon Department of Fish and Wildlife biologist who tracks smelt for the agency. The ban would affect smelt dippers only if the fish ever return to the Sandy. The last measurable runs were in 2001 and 2003, and no one can predict when or if they'll return, said Rob Brown, owner of Jack's Snack and Tackle in Troutdale. "From a business perspective, when smelt show up in the Sandy, it brings a lot of people out --a lot of people," said Brown, who rents dip nets and other gear. "So I'd like to see it open. But if they need to protect them, protect them. Just look at it all the way around (to other rivers and to the commercial smelt harvest), not just the guy dipping smelt here. Because for the last few years, that hasn't had any impact." Historically, tens of millions of the slender, fatty, seagoing fish swarmed Columbia tributaries so thickly in late winter and early spring that there was no season or limit. News of a smelt run would draw Portlanders in droves to net them for frying, grilling or sturgeon bait. But in the past 15 years, smelt runs have been in sharp decline, the Cowlitz Indian Tribe said in a petition last year that asks the National Oceanic and Atmospheric Agency to protect smelt south of the Canadian border. From 1938 to 1992, the commercial smelt catch was typically at least 1 million pounds; since then, the median catch has been just 43,000 pounds, the tribe said. Why? Recent problems include the timing and strength of ocean "upwellings," which may be affected by climate change. The movement of cold water brings microorganisms to an area where larval smelt can eat them. But if an upwelling doesn't occur at the right time, the young smelt may die -- sometimes in their first few weeks of life, Watts said. Dams, pollution and other problems may also play a role, the Cowlitz Tribe said in its petition. "I've heard four or five explanations. Part of the reason to have the (NOAA) study is to know what happened," said Cowlitz Tribal Counsel Phil Harju. "The important thing is to get experts to review this so we know something before they're gone." Slender fish are

Date	Place	Source	Quote
			quirky. The Sandy last experienced significant smelt runs in 2001 and 2003. To understand why, Watts said, it's important to grasp how quirky smelt are. They spawn in rivers and grow in the ocean, returning when they are between 2 and 6 years old in search of cold, clear water over a sandy river bottom. Preferred areas include the main stem of the lower Columbia and its tributaries below the Bonneville Dam, especially the Cowlitz, Watts said. For decades, when runs were consistent and plentiful, the Sandy got its share. But there were no Sandy runs between 1958 and 1970, and none between 1989 and 2000, Watts said. Why not? The most likely reason makes the river sound like a singles bar at the end of a long night. "A lot of times, males linger after spawning in the Cowlitz, and wait for fresh females to arrive," Watts said. "And if there aren't any coming in, then they'll go up toward Bonneville Dam. There's probably a handful of females, and that's what's got their attention." By the time the fish reach the Sandy, most females have already spawned, and the males "aren't in prime condition anymore," he said. That means the Sandy isn't an important spot for reproduction, as the Cowlitz is, according to Watts. "It's not driving the sustainability of the resource," he said. "Leave them alone." That reasoning doesn't sound right to Bob Judkins, a Portland angler so passionate that he spends about 100 days a year fishing. As a child, he lived in Troutdale near the bridge over the Sandy, and "it was like carnival time when the smelt ran, like the Rose Festival," said Judkins, now 61. As a young father, he'd watch his own children catch smelt from the Sandy by hand. At the time, you could plunge hands into the river and feel their little bodies wriggling, he said. After Judkins attended a spring work group for warm-water fishing, he thought of the smelt and included the ban in his bundle of suggested rule changes. "I just thought it was a good thing to do," he said. "If they come back, why don't we leave them alone and let them make babies? We keep losing so many things that live in the river . . . sometimes you have to bite the bullet and not fish for some fish." Watts agrees that even a small number of smelt have tremendous regenerative power, with each female producing tens of thousands of eggs. Even in years when the Sandy hasn't had a measurable run of fish, biologists will later find smelt larvae in the system, Watts said. "Twenty smelt could produce a lot of eggs --that's the good news," he said. During a public hearing on proposed fishing regulations in May, 11 people voted in support of the Sandy ban, said Rhine Messmer, recreational fisheries program manager for the fish and wildlife department. The Oregon Fish and Wildlife Commission will consider the issue at its September meeting, Messmer said.
2009			
2010			
31 January 2010		<i>Oregonian</i> , section: SPORTS	Winter's steelhead season living up to expectations. By Bill Monroe – The Oregonian. Smelt dipping dives: Washington will limit its sport smelt dipping this year to four days in February. Faced with a potential listing of smelt under the federal Endangered Species

Date	Place	Source	Quote
			Act, Washington will allow sport dipping only on the Cowlitz River, only on Saturdays in February (Feb. 6, 13, 20 and 27) and only from 7 a.m. until 3 p.m. Dippers will also be limited to 10 pounds per person per day. Smelt dipping on the mainstem Columbia River will be allowed seven days a week, but the daily limit has been dropped to 10 pounds (from 25) by the states of Oregon and Washington. No changes have been decided for the Sandy River, which hasn't seen significant smelt returns for several years. Biologists expect a slightly improved smelt run this year, and gulls and sea lions were thick below the mouth of the Cowlitz River on Friday ...

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Table S5. Historical observations on eulachon in Oregon coastal rivers.

Date	Place	Source	Quote
1936			
14 February 1936	Umpqua River	<i>Roseburg News-Review</i> , p. 1, col. 7 (Roseburg, OR)	Smelt Running For First Time In the Umpqua. A heavy run of smelt, the first ever known in the Umpqua river, is prevalent in the tidewater section, as far upstream as Scottsburg. Smelt have never before been known to enter the Umpqua river in large quantities, although a few have been seen at intervals at Gardiner, lower river fishermen report. Fishermen are unable to explain the reason for the unprecedented appearance of the fish this year. The take so far has been comparatively small, as the fish are lying deep in the water. Some fishermen report having taken a bushel or more by use of long handled dip nets. Spectators are finding much entertainment in watching the great flocks of shags and seagulls that have followed the run. Fishermen believe the smelt will spawn in the lower river and will not attempt to travel upstream beyond tidewater, which extends two miles above Scottsburg.
1958			
	Siltcoos River	Rayner (1958, p. 241)	Reports of a smelt (eulachon) run in [the] Siltcoos [River] were verified. Larval smelt were taken in a plankton net at the bridge across the outlet at Westlake.
1969			
21 February 1969	Umpqua River	<i>Eugene Register-Guard</i> , p. C1	Streams Back in Shape, Fishing Slow. By Pete Cornacchia, Register-Guard Assistant Sports Editor. Smelt dippers at Scottsburg Park, downstream from the highway bridge across the Umpqua, hadn't netted much since early in the week, reported Hugh Smith at the Tackles Box in Reedsport. But, judging from past years, the migration up to spawning grounds somewhere above Elkton is expected to continue at least another two weeks and a new batch of smelt could show at any time. Lots of 25-pound limits were collected among the mob of dippers at the park last weekend, he said. Nearly all of the silvery fish were males, which usually are the first to show. Dipping was best along the bank and at night on the ebb tide.
21 February 1969	Umpqua River	<i>Oregonian</i> , p. 5, col. 2-3	Snow Melt Boosts Anglers' Chances by Don Holm, Wildlife Editor, The Oregonian. ... Smelt dippers on the Umpqua below Scottsburg are taking 25-pound limits readily ...
28 February 1969	Umpqua River	<i>Eugene Register-Guard</i> , p. 5B	Action slow on steelhead, smelt run. Long-handle Nets Ambush Smelt Migrating Close to Banks of Umpqua River By Pete Cornacchia, Register-Guard Assistant Sports Editor. ... The lower Umpqua has produced a few sturgeon recently in the Gardiner area but of [sic] been offering only a trickle of smelt to dippers up at Scottsburg Park. Regardless of reports in the Portland papers, Umpqua smelt-dippers aren't getting their 25-pound limits. Smelt traffic has been light ever since the opening surge two weeks ago and hopes of another buildup in the run are dwindling. Oldtimers point out that swarms of gulls always follow the smelt up the river but there is no great number of birds on the river now.

Date	Place	Source	Quote
28 February 1969	Umpqua River	<i>Oregonian</i> , p. 4, col. 2-5	Fishing In Transition Period by Don Holm, Wildlife Editor, The Oregonian ... Some smelt are still being dipped from the Umpqua near Scottsburg ...
6 March 1969	Umpqua River	<i>Oregonian</i> , p. 3, col. 5 both	Fishin' Good For Soul, Kids by Don Holm, Wildlife Editor, The Oregonian ... The smelt run in the Umpqua reportedly has petered out after a wild time was had by all.
20 April 1969	Big Creek Spencer Creek Neskowin Creek	<i>The Seattle Times</i> , p. 31. col. 3	Smelt Enter Coastal Streams in Oregon. NEWPORT, Ore., — (AP) — Columbia smelt have entered the coastal streams for the first time in Oregon Fish Commission records. The smelt, the type found in the Columbia River, have been sighted in Big Creek north of Newport, Spencer Creek at Beverly, and Neskowin Creek.
2 May 1969	Coquille River	<i>Oregonian</i> , p. 4, col. 2-5 Coquille	Big Weekend Due Fishermen by Don Holm, Wildlife Editor, The Oregonian ... Another sleeper is a huge run of smelt in the Coquille at Myrtle Point, Bill Roberts of Coos Bay reported. ...
22 May 1969	Oregon coast Yaquina Bay	<i>Oregonian</i> , p. 4, col. 1-2	Oregon Coast Awaits Visitors by Don Holm, Wildlife Editor, The Oregonian ... The bay [Newport] this year also had an unusual run of sole, plus an unexpected run of Columbia River smelt.
1970			
13 February 1970	Alsea River (last year)	<i>Oregonian</i> , p. 8, col. 5-8	Pick Big Rivers For Steelies, Weekend Forecast by Don Holm, Wildlife Editor, The Oregonian ... Dick Hahn at Reedsport said the stripers were also about to appear along with the sturgeon and smelt in the Umpqua. ... There was also a smelt run in the Alsea last year at this time, the first one in the memory of oldtimers ...
20 February 1970	Umpqua River	<i>Oregonian</i> , p. 4, col. 3-6	Steelhead Season Nearly Over ... Weekend Forecast ... The Umpqua is so full of smelt that the sturgeon run is at a standstill. Until the natural feed is gone, the prehistoric monsters will be slow to grab bait. ... Since smelt die after spawning, the bottom [of the Umpqua River] is now littered with carcasses which the sturgeon feed on.
27 February 1970	Umpqua River	<i>Oregonian</i> , p. 64, col. 6 also	Inland Steelheading Picks Up ... Weekend Forecast by Don Holm, Wildlife Editor, The Oregonian ... The [Umpqua] river is also full of smelt.
22 March 1970	Siuslaw River	<i>Eugene Register-Guard</i> , p. 2C	It's striper time. Story, photos by Pete Cornacchia, Register-Guard Assistant Sports Editor. ... About a month ago several Mapleton fishermen started catching big stripers which apparently had followed a previously unheard-of smelt run into upper tidewater on the Siuslaw.
1971			
5 February 1971	Umpqua River	<i>Eugene Register-Guard</i> , p. 3C	Umpqua yielding variety: steelhead, smelt, sturgeon. By Pete Cornacchia, Register-Guard Assistant Sports Editor. ... And if you've had enough steelhead and/or hang-ups for one winter, Umpqua tidewater offers a good but sporadic run of smelt for dippers in the Scottsburg vicinity ... The Umpqua appears to have a good smelt run, though they're coming through in spurts. Success for dippers on the banks at the state park below Scottsburg has varied from day to day.
5 February 1971	Umpqua River	<i>Oregonian</i> , p. 2, col. 3 col. 6	... Weekend Forecast by Don Holm, Wildlife Editor, The Oregonian ... The smelt are in the [Umpqua] river, too.
12 February 1971	Umpqua River	<i>Oregonian</i> , p. 2, col. 1-8	... Weekend Forecast by Don Holm, Wildlife Editor, The Oregonian ... Smelt dippers

Date	Place	Source	Quote
			were still getting fish below Scottsburg [on the Umpqua River].
19 February 1971	Umpqua River	<i>Oregonian</i> , p. 2, col. 1-8	Smelt Show In Lewis River ... by Don Holm, Wildlife Editor, The Oregonian ... Smelt dipping was good in the Scottsburg section [of the Umpqua River]. ... Sturgeon fishing has been excellent in the lower river, too, probably because of the smelt. ...
26 February 1971	Umpqua River	<i>Eugene Register-Guard</i> , p. 2B	Outlook poor for anglers, good for dippers, diggers. By Pete Cornacchia, Register-Guard Assistant Sports Editor. Get that dip net out again, for those sneaky smelt are back again. Bigger than ever. But if you're less than thrilled with the chase and taste of the eulachon ... tides are good ... for dredging bay clams. After most of the smelting fraternity on the lower Umpqua had put their nets away for the year, these unpredictable fish suddenly showed again last weekend. Dippers at Scottsburg State Park have done quite well every night this week, reported Jim DiBala at Echo Resort. More smelt than before and they're larger than usual.
1972			
12 January 1972	Umpqua River	<i>Oregonian</i> , p. 22, col. 1-2	Winter rains end low water fishing by Don Holm of The Oregonian staff ... Some sturgeon have been caught this week in the lower Umpqua, and the first smelt run has been observed — which probably accounts for the renewed sturgeon activity.
14 January 1972	Umpqua lower Columbia	<i>Oregonian</i> , p. 66, col. 5-6	Steelheading poor as flooding hits Northwest streams. By Don Holm of The Oregonian staff ... meanwhile, the early floods have brought in the first smelt runs. Reports of smelt have come from the lower Umpqua and the lower Columbia. Dippers said smelt were moving up the Cowlitz Thursday but the high water hindered catches. Best results were among the commercial smelt boats. In the Columbia they are up as far as Rainier. Along with the incoming smelt, the sturgeon fishing has also improved in the Columbia and lower Umpqua.
21 January 1972	Umpqua and Cowlitz rivers	<i>Oregonian</i> , p. 67, col 3-4	Fishing hampered by floods, slides. By Don Holm of the Oregonian staff. Almost all coast streams were out of shape by mid-week, and many were out of their banks. ... There are smelt in the Umpqua and Cowlitz, with some possible sturgeon fishing in the former, as a result.
8 February 1972	Umpqua River	<i>Eugene Register-Guard</i> , p. 3B	On the Outside. Passing the Word. By Pete Cornacchia, Register-Guard Assistant Sports Editor. ... When the smelt come up the Umpqua to spawn, usually about this time of year, I forget the steelhead and head for tidewater. Not to dip for smelt with all the others at Scottsburg State Park below the Highway 38 bridge, but to prey on the great white sturgeon and the striped bass which prey on the smelt as they move up the river. Sure enough, smelt are beginning to show in the lower Umpqua. Just a trickle as yet, however. Several persons have told recently of seeing stripers feeding on smelt at the surface, but dippers at the park haven't been collecting much in their long-handled nets. "Commercial netters have been getting a few from time to time," said Jim DiBala at Echo Resort. "But dipping has hardly been worth the effort. I fished about an hour yesterday and got three smelt, which is about how it's been. "They should be here any time now, though. Could be on the next tide." As in other streams, the smelt run in the

Date	Place	Source	Quote
			Umpqua is a very unpredictable thing which has been quite strong in some years and very weak in others. Sometimes the fish go through when the river is too high and muddy to get at them. Water conditions have been good for the past week, but the Umpqua was rising again Monday and probably will continue to climb if the thaw continues in the upper reaches. ...
25 February 1972	Umpqua River	<i>Eugene Register-Guard</i> , p. 1B	Smelt run picking up in Umpqua. By Pete Cornacchia, Register-Guard Assistant Sports Editor. The smelt run in the Umpqua, which for several weeks had been a slow walk rather than a run, came on strong Wednesday afternoon to spur hopes of both dippers and striped bass fishermen. "Dip-netters took several limits last night and were still taking smelt this morning," Mrs. Jim DiBala reported Thursday from Echo Resort. She was referring to the dippers at the state park below the Highway 38 bridge at Scottsburg. For personal use, daily limit on smelt is 25 pounds. How long the run would remain strong was anybody's guess.
27 February 1972	Umpqua River	<i>Eugene Register-Guard</i> , p. 3D	Smelt run draws many to Umpqua. Text, photos by Pete Cornacchia, Register-Guard Assistant Sports Editor. It had started raining again and the cold wind which had been whipping up whitecaps on the flats along the lower Umpqua had an awfully mean bite for a southwester. But the men, women, kids and dogs strung along the silty beach above and below the boat ramp at Scottsburg State Park didn't seem to mind. In shiny wet rain gear or soggy wool jackets and jackets [sic], some huddled by the spitting and sputtering fires while others knee-deep at the edge of the high and muddy river swung long-handle nets out into the chocolate flow. When they lifted the nets from the water after a long sweep downstream, usually a handful of silvery fish flashed in the bottom of the cords. The fish were dumped into a bucket or plastic container, then the dipper waded back into the water to make another sweep. The smelt were running strong at last and some of the dippers were getting their 25-pound limits, as had others the previous afternoon and night. The run had been light up to this last week of February, as it had been on other streams in Oregon and Washington. But now lots of the little fish were moving upstream to spawn and the dippers were there to get their share, no matter how raw the weather or how muddy the river. The strong run might continue for several more days, or it could be back to a sporadic trickle by tomorrow. Like the swarms of gulls which follow the smelt up the river and tell of their presence, the dippers can't count on tomorrows. For a host of anglers, the arrival of smelt raises hope not so much for a tasty meal as for the oncoming of voracious striped bass which also prey on the little fish as they travel upstream.
28 February 1972	Umpqua River	<i>Oregonian</i> , p. 37, col. 1-3	Smelt Dippers landing limits from Cowlitz. By Don Holm of the Oregonian staff. Dippers were still taking some smelt in the lower Umpqua near Scottsburg in Oregon, too. Sunday morning dipping featured pouring down rain and the Cowlitz was high and off color.
3 March 1972	Umpqua River	<i>Eugene Register-Guard</i> ,	High, muddy streams ruin angling hopes. LOWER UMPQUA

Date	Place	Source	Quote
		p. 5B	Smelt still in river; few limits.
3 March 1972	Umpqua River	<i>Oregonian</i> , p. 2	Streams reel with muddy flood waters. By Don Holm of the <i>Oregonian</i> staff. ... A few smelt were still being picked up in the lower Umpqua, but the river was high and I did not see anyone dipping on Tuesday. ...
17 March 1972	Umpqua River	<i>Oregonian</i> , p. 3, col. 1-8	Salmon angling poor, high water hampers smelt dippers. Weekend Forecast by Don Holm of The <i>Oregonian</i> staff. ... Smelt netters have been taking small salmon in the incidental catch [in the lower Umpqua].
21 April 1972	Umpqua River	<i>Eugene Register-Guard</i> , p. 3B	Fish prospects better as streams improve. By Pete Cornacchia, Register-Guard Assistant Sports Editor. ... Discovery of the very late smelt run brought the dipnetters back to Scottsburg Park, where several quick 25-pound limits were collected early in the week.
25 April 1972	Umpqua River	<i>Eugene Register-Guard</i> , p. 3B	On the Outside High Lakes By Pete Cornacchia, Register-Guard Assistant Sports Editor. ... weather was great but catches fell off sharply. So did smelt dipping on the Umpqua. The Chinook in the Umpqua apparently haven't done much reading and aren't aware that salmon don't eat much after moving into fresh water on their spawning runs, Dave noted. Many of the fish which he has checked recently were packed with smelt, just like the stripers. Dipnetters weren't doing quite that well on smelt, though Dave did check a 25-pound limit for one patient and persistent soul near Scottsburg Park. The man got his quota with about one smelt on each dip. At a few ounces per fish, that took a few dips.
1973			
2 February 1973	Umpqua River	<i>Oregonian</i> , p. 3, col. 1-8	... Weekend Forecast by Don Holm of The <i>Oregonian</i> staff. ... The spring smelt runs have started in the Umpqua and Columbia systems. The runs were heavy and already above Scottsburg on the Umpqua. The lower Cowlitz has been the scene of excellent commercial netting, although the dipping pressure has been light so far. ... Denny Hannah at Lakeside reported excellent smelt dipping at Scottsburg early in the week, and the campgrounds were filled with dippers. Below Gardiner, in the Big Bend area, schools of white sturgeon were feeding on the smelt. Smelt makes good bait for these, using 30 to 50-pound test line and 9 to 10-ounce sinkers. ...
4 February 1973	Umpqua River	<i>Eugene Register-Guard</i> , p. B1	Smelt: Tiny, tasty, unpredictable. Arrival of smelt draws gulls, stripers, sturgeon, anglers to lower Umpqua. By Pete Cornacchia, Register-Guard Assistant Sports Editor. "They were getting quite a few smelt here last weekend," remarked a man standing beside a fire. "Some came close to getting their 25 pounds, too. "Not much since then, though. We had a big crowd here last night, but nobody did much. But the unpredictable smelt might suddenly start showing again any time, he said. "Last year, the run faded out for several weeks and we figured that was it," he went on. "Then a lot of smelt came through in the middle of April. Wife and I caught two Chinook and a 30-pound striper that were stuffed with them. ..." For many anglers, the arrival of smelt in the Umpqua raises hope not so much for a tasty meal of them as for the oncoming of sturgeon and

Date	Place	Source	Quote
			striped bass. Like the gulls and the dippers, sturgeon and stripers also come running when the smelt are running.
9 February 1973	Umpqua River	<i>Eugene Register-Guard</i> , p. 3D	Lower Umpqua promising; angling slow on steelhead. By Pete Cornacchia, Register-Guard Assistant Sports Editor. Smelt keep coming up Umpqua tidewater in spurts ... The Umpqua has lost its winter tan and in turning green has cleared enough that most of the smelt are traveling well out in the middle of the river. At Scottsburg State Park, dippers in boats have been doing better than those on the banks.
16 February 1973	Umpqua River	<i>Eugene Register-Guard</i> , p. 3D	From smelt to sturgeon, prospects best on Umpqua. By Pete Cornacchia, Register-Guard Assistant Sports Editor. ... Smelt are still running in the lower Umpqua but they're staying well out in the middle of the relatively clear flow and dipnetters on the bank at Scottsburg State Park haven't been doing much.
16 February 1973	Umpqua River	<i>Oregonian</i> , p. 2, col. 1-8	... Weekend Forecast by Don Holm of The Oregonian staff. Smelt are still in the Cowlitz and Umpqua. ... Smelt dipping was spotty in the Umpqua. ... The little fish are smaller than usual this year.
20 February 1973	Umpqua River	<i>Eugene Register-Guard</i> , p. 3B	On the Outside. Wary Bass. By Pete Cornacchia, Register-Guard Assistant Sports Editor. In checking angling pressure and catch on the lower Umpqua from February into fall last year, Game Commission biologist Dave Anderson also did a lot of stomach content analysis on stripers. ... In the spring, from the middle of March through the middle of May, 46.7 per cent of the stomachs examined in the river above Reedsport had nothing in them. In that stretch and during that period, smelt were found in 50.7 per cent of the stomachs and made up 91 per cent of the springtime diet. ... In mid April, when anglers in the Scottsburg area were catching both spring Chinook and stripers, a late and large run of smelt suddenly showed up. Salmon or striper, most of the fish caught in the next couple weeks were stuffed with smelt.
23 February 1973	Umpqua River	<i>Oregonian</i> , p. 5, col. 1-8	... Weekend Forecast by Don Holm of The Oregonian staff. ... Sturgeon fishing was fair in the lower Umpqua. The smelt run there is about over. ...
27 February 1973	Umpqua River	<i>Oregonian</i> , p. 2, col. 6-8	Anglers can pickle, smoke or use smelt as later bait. By Don Holm of The Oregonian staff. The spring smelt runs in the Cowlitz and Umpqua rivers once again give rise to the oldie; what do you do with these darn critters after you've had one good meal of them? ...
1974			
31 January 1974	Umpqua River	<i>Eugene Register-Guard</i> , p. 3B	Outlook for Outside. Rivers Rising; Smelt Arrive By Pete Cornacchia of the Register-Guard. Arrival of smelt in the lower Umpqua has made dippers happy, but there's little good news to precede the bad for steelhead anglers. Swarming gulls pointed to the first waves of the Umpqua's smelt run the latter part of last week and dipnetters have been taking fish each day since then, according to Dave Anderson, State Wildlife Commission fisheries biologist at Reedsport. He said dippers along the banks at Scottsburg State Park below the highway 38 bridge have had varying success from day to day, with some 25-pound limits for the harder workers. The Umpqua like most coast streams remains

Date	Place	Source	Quote
			muddy and rather high. ...
1 February 1974	Umpqua River	<i>Oregonian</i> , section 4M, p. 3, col. 1-8	Fishing prospects for Oregon, Washington poor, getting worse. By Don Holm of The Oregonian Staff. ... The lower Umpqua and Smith are high and muddy. ... Smelt netters at Scottsburg are doing fairly well.
7 February 1974	Umpqua River	<i>Eugene Register-Guard</i> , p. 3B	Outlook for Outside. Hopes better for anglers. By Pete Cornacchia of the Register-Guard. Dip netters are still taking smelt from the Umpqua below Scottsburg, with success varying from day to day. Best hauls have come at low tide.
8 February 1974	Umpqua River	<i>Oregonian</i> , section 2M, p. 3, col. 5-6	Fishing Report. Steelheading good in Portland area ... On the Lower Umpqua, some smelt were still being dipped in fair numbers at Scottsburg. ...
15 February 1974	Umpqua River	<i>Oregonian</i> , section 3M, p. 4, col. 1-8	Cold rains hit fishing spots; Elkton reports first spring Chinook catch. By Don Holm of The Oregonian Staff. ... Smelt dippers have had some success in the Scottsburg area. The smelt should bring up the big stripers from the bay as the weather warms. ...
17 February 1974	Umpqua River	<i>Eugene Register-Guard</i> , p. 5B	Monsters lurk in Umpqua. By Pete Cornacchia of the Register-Guard. ... we had seen no sign of the big white sturgeon which usually follow close behind the smelt at this time of year. The smelt had been running for nearly three weeks and the dippers were still taking a few up at Scottsburg.
22 February 1974	Umpqua River	<i>Oregonian</i> section 3M, p. 3, col. 1-8	Continuous rain hampers steelhead streams; smelt run stays hot. By Don Holm of The Oregonian Staff. The smelt run in the Umpqua was reportedly over. ...
8 March 1974	Umpqua River	<i>Oregonian</i> , section 3M p. 6, col. 1-8	Cold front aids prospects for late run winter steelhead fishing. By Don Holm of The Oregonian Staff. ... The Umpqua has experienced another run of smelt, all big firm ones, which caught everyone by surprise. ...
26 March 1974	Umpqua River	<i>Eugene Register-Guard</i> , p. B1	On the Outside. Sun out, fish in. By Pete Cornacchia of the Register-Guard. ... The poor water conditions and long spell of foul weather didn't keep dipnetters from converging on a strong smelt run at Scottsburg ...
1975			
7 March 1975	Umpqua River	<i>Oregonian</i> , p. C4	Weekend Forecast by Don Holm of The Oregonian staff. ... Smelt were being taken at Scottsburg [on the Umpqua River].
24 March 1975	Umpqua River	<i>Oregonian</i> , p. G29	Shake off 'November of soul' — fish! By Don Holm of The Oregonian staff. ... As this is being written, the ubiquitous and delicious little smelt or eulachon is already engaged in its nuptial migrations up the Cowlitz and Umpqua;
1976			
23 January 1976	Umpqua River	<i>Oregonian</i> , p. 59, col. 1-2	Oregon coast offers best weekend fishing prospects. By Don Holm of The Oregonian Staff. ... A good smelt run was in the Umpqua at Scottsburg. ...
29 January 1976	Umpqua River	<i>Eugene Register-Guard</i> , p. 2D	On the Outside. Sturgeon following smelt into Umpqua fishing holes. By Pete Cornacchia of the Register-Guard. [Sturgeon are] gathering in the murky depths near Gardiner and above Reedsport to feed on spawned-out smelt. ... As for the smelt, the run has shriveled to a trickle and dip-netters at Scottsburg have had to work hard for the few fish they've panned this week.

Date	Place	Source	Quote
30 January 1976	Umpqua River	<i>Oregonian</i> , p. 36, col. 1-2	Most rivers dropping; fishing poor to fair. By Don Holm of The Oregonian Staff. ... OREGON COAST ... Keith Stewart at Coos Bay said sturgeon fishing was fair in the lower Umpqua; smelt dipping at Scottsburg fair to good.
6 February 1976	Umpqua River	<i>Oregonian</i> , p. 60, col. 1-6	Most streams are now too low, clear for steelhead fishing. By Don Holm of The Oregonian Staff. ... OREGON COAST ... Smelt and green sturgeon fishing are fair on the lower Umpqua
8 February 1976	Umpqua River	<i>Eugene Register-Guard</i> , p. 3B	Waiting for the big ones. Like the gulls, the great white sturgeon comes running when smelt are running. By Pete Cornacchia of the Register-Guard. Like the gulls that were cruising back and forth, the several people who were standing knee deep near the bank weren't finding much in the green waters of the lower Umpqua. Like the white and grey birds winging along or resting in the eddies, they had gathered where the river rolls past Scottsburg State Park in hopes of scooping up smelt. But not since the arrival of a good run three weeks ago had there been much sign of the silvery little fish. Time after time, the men dipped their long-handled nets into the water, lifted, and dipped again. Neither was there much reward for the efforts of the two men who were dipping from a boat anchored in the middle of the river. Still, the dippers knew, the smelt could suddenly show again at any time. For many-anglers, however, the arrival of smelt in the Umpqua raises hope not so much for a tasty fried meal as the oncoming of the great white sturgeon. Like the gulls and the people, these huge fish come running when the smelt are running.
10 February 1976	Umpqua River	<i>Oregonian</i> , p. 32, col. 2-8	Low water, poor steelheading continue; smelt run hot. By Don Holm of The Oregonian Staff. ... Low water and poor steelheading continue through the weekend in most parts, with the best fishing prospects being the smelt run in the ... in the lower Umpqua.
13 February 1976	Umpqua River	<i>Oregonian</i> , p. 48, col. 1	Streams still low, Steelheading generally poor. By Don Holm of The Oregonian Staff. ... OREGON COAST ... Sturgeon and smelt fishing on the lower Umpqua is slow to poor.
26 February 1976	Umpqua River	<i>Eugene Register-Guard</i> , p. 2B	On the Outside. Conditions remain lousy for anglers. By Pete Cornacchia of the Register-Guard. ... Smelt are running again in the lower Umpqua ... Smelt were back in the Umpqua at Scottsburg early in the week but they were running deep and in the middle of the river. Dippers in boats took some 25-pound limits on the evening low tides.
1977			
25 January 1977	Siuslaw River	<i>Eugene Register-Guard</i> , p. B1	Steelies in mind, smelt in net. By Pete Cornacchia of the Register-Guard. ... And that's where we finally came upon a gathering of fish [on the Siuslaw River]. Scattered over the sand and gravel along the shallow edges, like purplish noodles, were rafts of smelt. O'Neal grabbed the big landing net and went splashing and slashing through the shallows like an Alaskan brown bear ankle-deep in sockeyes. But the mesh, of course, was too wide for dipping fish six to seven inches long. So he folded the cords over in a

Date	Place	Source	Quote
			wad and tied them so that the net looked more like King Kong's fly swatter. Then he stood in one spot while I circled around and drove the scurrying groups of smelt past him, where he flipped them onto the bank in quick scoops. Before the little devils finally tired of all this nonsense and departed, we managed to gather enough for a meal or two. ... For either steelhead or smelt, however, the much larger Umpqua should offer better prospects than the Siuslaw in the next month. While the unpredictable smelt usually are beginning to arrive in both streams about this time, the Umpqua normally draws a much greater run over a longer period.
3 February 1977	Umpqua River	<i>Eugene Register-Guard</i> , p. 2B	Outlook for Outside. Prospects remain poor for anglers. By Pete Cornacchia of the Register-Guard. No smelt are evident yet in the Scottsburg vicinity on the Umpqua, reports Ben Carlson at Greenacres.
11 March 1977	Umpqua River	<i>Oregonian</i> , p. 40, col. 1-6	Seagulls see them, but smelt still confound would-be dippers. By Don Holm of The Oregonian Staff. ... OREGON COAST ANGLING ... A few sturgeon have been taken from the Umpqua River, where the smelt have appeared also.
18 March 1977	Umpqua River	<i>Oregonian</i> , p. 42, col. 1-6	Smelt run on Sandy River to provide weekend's most exciting fishing. By Don Holm of The Oregonian Staff. ... The lower Umpqua also was empty of smelt at midweek. ...
24 March 1977	Umpqua River Sandy River	<i>Eugene Register-Guard</i> , p. 3B	Outlook for Outside. Chinook caught in lower rivers. By Pete Cornacchia of the Register-Guard. ... Still no sign of smelt in the Scottsburg area. ...
1978			
27 January 1978	Umpqua River	<i>Oregonian</i> , p. 75, col. 1-7	Coast streams, Sandy top steelhead prospects. By Don Holm of the Oregonian Staff. ... OREGON COAST ANGLING ... The lower Umpqua was muddy, but some smelt were being dipped at Scottsburg.
2 February 1978	Umpqua River	<i>Eugene Register-Guard</i> , p. 2B	Outlook for Outside. Lower Umpqua good for smelt, sturgeon. By Pete Cornacchia of the Register-Guard. ... Smelt dippers are still doing well around Scottsburg State Park, according to Ben Carlson in Ben's Bait and Tackle Shop at Green Acres. He reported that 25-pound limits have been rare but dipping has been better from boats in midstream than from the bank.
3 February 1978	Umpqua River	<i>Oregonian</i> , p. 32, col. 1-6	Steelhead prospects hold up despite weather; smelt running. By Don Holm of the Oregonian Staff. ... Smelt are running in a couple of places. ... OREGON COAST ANGLING ... Smelt dippers were launching boats at the park below the Scottsburg bridge and running up under the bridge, where dipping a limit from a boat was no problem at all.
23 February 1978	Umpqua River	<i>Eugene Register-Guard</i> , p. 6B	Outlook for Outside. Bay catches better, but streams stingy. By Pete Cornacchia of the Register-Guard. ... The Umpqua ... has been slow for ... smelt at Scottsburg.
24 February 1978	Umpqua River	<i>Oregonian</i> , p. 34, col. 1-2	Weather offers Metro anglers best spring Chinook fishing yet. By Don Holm of the Oregonian Staff. ... OREGON COAST ... The smelt run is about over [in the lower Umpqua River].
12 March 1978	Umpqua River	<i>Oregonian Northwest Magazine</i> , p. 256-257	Outdoors. A TIME THAT VERITABLY SMELTS OF SPRING. By Don Holm. The 1978 run of smelt has been in the Cowlitz since January — one of the earliest runs on

Date	Place	Source	Quote
			record there — and in the lower Umpqua River down on the coast.
1979			
2 February 1979	Umpqua River	<i>Oregonian</i> , p. 73, col. 1-2	Cold, dry weather puts streams out of sorts, all but halts fishing. Don Holm of the <i>Oregonian</i> Staff. ... OREGON COAST ... A few smelt are in the Umpqua.
9 February 1979	Umpqua River	<i>Oregonian</i> , p. 80, col. 1-2	Angling outlook bleak in all areas of Oregon. ... SOUTHERN OREGON ... Smelt have not arrived in Scottsburg in reasonable numbers in the lower Umpqua. ...
15 February 1979	Umpqua River	<i>Eugene Register-Guard</i> , p. 2C	Outlook for Outside. Smelt make their move, but not the steelhead. By Pete Cornacchia of the <i>Register-Guard</i> . The slowly receding waters have brought a new batch of smelt to the lower Umpqua but no great upswing in catches for steelhead anglers on most other streams. ... The Umpqua was high and muddy Wednesday after rising five feet from the previous day but smelt dippers on the bank and in boats were doing well at Scottsburg Park, reported John Johnson, state fisheries biologist at Reedsport.
23 February 1979	Umpqua River	<i>Oregonian</i> , p. 76, col. 1-4	Rain muddies prospects for salmon, steelhead. Don Holm of the <i>Oregonian</i> Staff. ... OREGON COAST ... there is a heavy run in the Umpqua in the Scottsburg section. A heavy smelt run is in the Scottsburg section [of the lower Umpqua River]. Dipping is best from boats.
2 March 1979	Umpqua River	<i>Oregonian</i> , p. 75, col. 1-8	Spring Chinook fishing slow; smelt absent; sturgeon best bet. Don Holm of the <i>Oregonian</i> Staff. ... Smelt have not appeared in the Columbia tributaries, but the run in the lower Umpqua at Scottsburg continues to improve.
9 March 1979	Umpqua River	<i>Oregonian</i> , p. 35, col. 1	Smelt plentiful at St. Helens. Don Holm of the <i>Oregonian</i> Staff. ... OREGON COAST ... The fantastic smelt run in the lower Umpqua is about over. ...
27 March 1979	Siltcoos River	<i>Oregonian</i> , p. 47, col. 1-3	Bass fishing heats up as spring warms land. By Don Holm of the <i>Oregonian</i> Staff. ... Retired sea captain Lee Elliott, who lives at 7106 E.E. Grant St., spends a lot of time at his favorite bass waters — Siltcoos Lake. ... “This might surprise you — the first part of March a moderately heavy smelt run was in the very short Siltcoos River — only about 2 miles in length.”
1980			
1 February 1980	No smelt on Umpqua	<i>Oregonian</i> , p. 72, col. 1-4	Ice fishing spots available; steelhead hard to get. Don Holm. ... The lower Umpqua was fair for sturgeon in the Big Bend hole. Smelt have not yet arrived at Scottsburg.
7 February 1980	Umpqua River	<i>Eugene Register-Guard</i> , p. 2D	On the Outside. Siuslaw good steelhead bet. By Pete Cornacchia of the <i>Register-Guard</i> . Increasing sturgeon activity at Gardiner on the lower Umpqua points to the arrival of smelt, though dippers have not found much sign of the latter up at Scottsburg. LOWER UMPQUA AND SMITH RIVERS ... Some smelt are showing. The run is not large enough to dip. ...
8 February 1980	Umpqua River	<i>Oregonian</i> , p. 73, col. 2-5	Smelt make early appearance in NW. Don Holm. ... OREGON COAST ... A few smelt in the lower Umpqua [River].
15 February 1980	Umpqua River	<i>Oregonian</i> , p. 54, col. 1-2	Prospects seem good for steelhead angling. Don Holm. ... OREGON COAST ... Some smelt have been showing in the Umpqua [River].

Date	Place	Source	Quote
28 February 1980	Umpqua River	<i>Eugene Register-Guard</i> , p. 4B	On the Outside. Streams are high, fish are dark. By Pete Cornacchia of the Register-Guard. ... The lower Umpqua remains slow ... and smelt dippers at Scottsburg no longer have much hope of getting a run this winter.
29 February 1980	No smelt in Umpqua River	<i>Oregonian</i> , p. 92, col. 1-2	30-pound Clackamas Chinook reported caught on Willamette. Don Holm. ... OREGON COAST ... Some sturgeon were being caught in the lower Umpqua, but no smelt-dipping was reported yet.
7 March 1980	No smelt in Umpqua River	<i>Oregonian</i> , p. 80, col. 4-5	Sturgeon fishing excellent. Don Holm. ... OREGON COAST ... No smelt reported yet [in the lower Umpqua River].
21 March 1980	No smelt in Umpqua River	<i>Oregonian</i> , p. 88, col. 1	Outlook dismal for fishermen. Don Holm. ... OREGON COAST ... No smelt yet [on the Umpqua River].
1981			
30 January 1981	No smelt in Umpqua River	<i>Oregonian</i> , p. 42, col. 1-4	Rains take care of fishing for weekend. Don Holm. ... OREGON COAST ... No smelt have appeared at this writing in the lower Umpqua [River].
6 February 1981	No smelt in Umpqua River	<i>Oregonian</i> , p. 22, col. 3-4	Midweek rains may improve weekend steelhead prospects. Don Holm. ... OREGON COAST ANGLING ... No smelt yet [in the lower Umpqua River].
13 February 1981	Umpqua River	<i>Oregonian</i> , p. 79, col. 3-4	Bay crabbing good; fishing on coast spotty. Don Holm. ... Fair dipping was reported from the lower Umpqua. ... OREGON COAST ... The lower Umpqua was producing some smelt for dippers from Scottsburg Park to the rapids.
19 February 1981	Umpqua River	<i>Eugene Register-Guard</i> , p. 2B	Brood rainbows planted in ponds. By Pete Cornacchia of the Register-Guard. ... smelt could be pleasing dippers near the head of tidewater at Scottsburg before long. A big rise often will bring a rush of these unpredictable fish, which may arrive any time from January into spring and sometimes never show. Dippers on the bank usually will do better when the river is up and colored, rather than low and clear, for the smelt frequently will be running along the edge of the water instead of deep in midstream.
27 February 1981	No smelt in Umpqua River	<i>Oregonian</i> , p. 73, col. 1-2	Spring Chinook run 'still downstream.' Don Holm. ... OREGON COAST ... The lower Umpqua was slow for sturgeon, with no smelt reported yet.
5 March 1981	Umpqua River	<i>Eugene Register-Guard</i> , p. 7B	Cold water hasn't helped fishing prospects. By Pete Cornacchia of the Register-Guard. ... LOWER UMPQUA ... No smelt showing
13 March 1981	Umpqua River	<i>Oregonian</i> , p. 89, col. 1-4	Wet forecast favors weekend smelt-dippers. Don Holm. ... OREGON COAST ... no smelt have appeared yet [in the lower Umpqua River].
20 March 1981	Umpqua River	<i>Oregonian</i> , p. 64, col. 2-6	Spring chinook making serious run into Willamette River. Don Holm. ... OREGON COAST ... The Umpqua and Smith were slow. No smelt have appeared yet.
1982			
11 February 1982	Umpqua River Smith River	<i>Oregonian</i> , p. 50, col. 5-6	Cold water slows steelhead fishing. Forecast. ... SOUTHWEST ... Umpqua [River] anglers are finding smelt and striped bass in the lower river and in Smith River.
11 February 1982	Umpqua River	<i>Eugene Register-Guard</i> , p. 2C	Outlook for Outside. It depends on the weather. By Pete Cornacchia of the Register-Guard. ... Smelt dippers are still waiting for another batch to show near the head of tidewater at Scottsburg [on the Umpqua River], where a small run faded soon after

Date	Place	Source	Quote
			appearing about two weeks ago.
1983			
17 February 1983	Umpqua River	<i>Eugene Register-Guard</i> , p. 2C	Outlook for Outside. Steelhead there, but fishing isn't. By Pete Cornacchia of the Register-Guard. ... Little sign of smelt has been reported in the Scottsburg area.
15 March 1983	Umpqua River	<i>Eugene Register-Guard</i> , p. D1	Spring fever. Pete Cornacchia. ... The only smelt seen in the Umpqua this winter have come from the market, which may be the chief reason for the generally poor response from sturgeon.
1984			
23 February 1984	Umpqua River	<i>Eugene Register-Guard</i> , p. 6C	Outlook for Outside. Lake Creek fishing good. By Pete Cornacchia of the Register-Guard. ... The high water has brought no sign of smelt in the lower Umpqua or in the Sandy on the Columbia.
1 March 1984	Umpqua River	<i>Oregonian</i> , p. 73, col. 1	Forecast. Washington lakes, coast rivers tops. By Tom McAllister of the Oregonian Staff. ... Lower Umpqua reports show no smelt run ...
1985			
14 February 1985	Umpqua River	<i>Eugene Register-Guard</i> , p. 2C	The coastal streams too full to fish. By Pete Cornacchia of the Register-Guard. ... Very little sign of smelt in the Columbia, Sandy and Umpqua. ...
7 March 1985	Umpqua River	<i>Eugene Register-Guard</i> , p. 2B	Outlook for Outside. State's angling action is better on the coast. By Pete Cornacchia of the Register-Guard. ... Despite a lack of smelt as attractive forage, the lower Umpqua has been yielding a fair number of sturgeon ...
14 March 1985	Umpqua River	<i>Eugene Register-Guard</i> , p. 2B	Outlook for Outside. Trout plants spice action. By Pete Cornacchia of the Register-Guard. ... Apparently this will be another year in which smelt dippers will not be taking very many fish from the Sandy or Umpqua.
1986			
30 January 1986	Umpqua River	<i>Oregonian</i> , p. 72, col. 3-4	Smelt outlook in Cowlitz good; first spring Chinook reported. By Bill Monroe and Tom McAllister of the Oregonian Staff. Fishing forecast. ... No reports of smelt have been heard from either the Lewis or the Sandy rivers. Likewise for the Umpqua River.
30 January 1986	Umpqua River	<i>Eugene Register-Guard</i> , p. 3C	Outlook for Outside. ... LOWER UMPQUA ... No smelt reported.
1987			
19 February 1987	Umpqua River	<i>Eugene Register-Guard</i> , p. 2B	Outlook for Outside. Coast rivers improve but not fishing. By Pete Cornacchia, The Register-Guard. ... LOWER UMPQUA ... No smelt have shown so far.
1988			
21 January 1988	Umpqua River	<i>Eugene Register-Guard</i> , p. 2D	Outlook for Outside. Conditions improve for steelhead anglers. By Pete Cornacchia, The Register-Guard. ... LOWER UMPQUA ... No smelt have shown.
11 February 1988	Umpqua River	<i>Oregonian</i> , p. E04, col. Fishing Forecast	GOOD SMELT RUNS HELP STIMULATE STURGEON CATCH IN COLUMBIA, UMPQUA RIVERS. By Tom McAllister of the Oregonian Staff. Sturgeon fishing in the lower Umpqua River off Reedsport was stimulated by the smelt run.

Date	Place	Source	Quote
11 February 1988	Umpqua River	<i>Eugene Register-Guard</i> , p. 1D-2D	Cowlitz smelt a quick catch for dipnetters. By Pete Cornacchia, The Register-Guard. ... Smelt also used to make frequent January-April appearances in Oregon's Umpqua but have forsaken this river in recent years.
1989			
2 March 1989	Umpqua River	<i>Eugene Register-Guard</i> , p. 2D	Angling. ... LOWER UMPQUA ... No smelt have shown yet.
23 March 1989	Umpqua River	<i>Eugene Register-Guard</i> , p. 2D	Angling. ... LOWER UMPQUA ... no harvestable numbers of smelt.
2 May 1989		<i>Oregonian</i> , p. B02, section: East Zoner	THIS YEAR'S SMELT BYPASS THE SANDY RIVER. By Web Ruble of the Oregonian Staff. The 1989 smelt run ..., meager in the Umpqua River of Oregon ... Three or four years after hatching, smelt make annual upstream spawning runs in three river systems -- the Fraser of Canada, the Columbia and the Umpqua. John Johnson, assistant district Oregon fish biologist at Gardner, said the Umpqua had a small smelt run this year, "but there weren't enough for fishermen to dip them - the same as in the last seven years."

References

Rayner, H. J. (editor). 1958. 1957 Annual Report Fishery Division. Oregon State Game Commission, May 1958.

Table S6. Historical observations on eulachon in California coastal rivers.

Date	Place	Source	Quote
1879			
5 December 1879	Klamath River	<i>Daily Evening Bulletin</i> , p. 1, col. 1 (San Francisco, CA)	Candle Fish of the Klamath —A very odd fish is found in large numbers in the Klamath, near its mouth. They are called candle fish. When grown, they are only six or eight inches long. They are very full of oil, which seems to be distributed all through their bodies. Dry them thoroughly and light either end and they will burn with as bright a light as a candle, and for about as long a time. Hence their name. They can be caught abundantly with seines. In their dry state they are quite pleasant to eat, the oil in them not having an odor or disagreeable flavor.
27 December 1879	Klamath River	Wainwright (1965)	From <i>The Humboldt Times: A Queer Fish</i> . — Somebody reports to the <i>San Francisco Chronicle</i> the finding of a queer fish in the Klamath river which is called the “candle fish.” It is only about eight inches long when grown, is impregnated with oil throughout, and when thoroughly dried can be lighted at either end and will burn like a candle and give an excellent light. It also makes a palatable food.
1890s			
	Klamath River	Autobiography of Clarence E. Pearsall (Pearsall 1928, p. 1614)	At other times, with a single haul of their dip nets they [the Yurok fishers] caught fifteen or twenty pounds of quah-rah [candlefish], a small fish that when thoroughly dried burns like a candle.
1893			
8 April 1893	Klamath River	<i>Del Norte Record</i> , p. 2, col. 3 (Crescent City, CA)	Requa Notes. ... Sea lions have been coming inside of the jaws of the river. Indians say this is the first time they have been known to venture so far in, in years. They are after candle fish.
1894			
1895			
2 March 1895	Klamath River	<i>Del Norte Record</i> , p. 2, col. 4 (Crescent City, CA)	Klamath Squibs. Requa, Cal., Feb. 28, 1895. ... There is no danger of starvation here as eels and candle fish are plentiful, and if one knows how to wield a spear, and is sufficiently' lively and fearless he can catch a sealion occasionally.
8 March 1895	Klamath River	<i>The Humboldt Times</i> , p. 1, col. 4 (Eureka CA)	Del Norte Recordings. Eels and candle fish are said to be plentiful in Klamath river, and occasionally a sea-lion is seen.
1901			
26 January 1901	Klamath River	<i>Del Norte Record</i> , p. 2, col. 3 (Crescent City, CA)	Requa Budget. ... —Candle fish are swarming the river and some eel have been captured—
9 March 1901	Klamath River	<i>Del Norte Record</i> , p. 3, col. 3 (Crescent City, CA)	REQUA BUDGET. All is quiet at Requa except the candle fish which are very numerous and somewhat on the wiggle.

Date	Place	Source	Quote
13 April 1901	Klamath River	<i>Del Norte Record</i> , p. 2, col. 4 (Crescent City, CA)	Requa Budget. ... There are more candle fish in the river this year than ever known before.
1902			
22 March 1902	Klamath River	<i>Del Norte Record</i> , p. 3, col. 2 (Crescent City, CA)	LOCAL ITEMS IN BRIEF. ... Candle fish and eels are now coming into the Klamath River. The Klamath we believe is the only stream on the coast into which candle fish enter. The fish are similar to smelt, and when dried are used by the Indians for eating and lighting purposes. A dried candle fish burns like a candle when lighted, hence their name.
1903			
1904			
1905			
1906			
10 February 1906	Klamath River	<i>Del Norte Record</i> , p. 3, col. 3 (Crescent City, CA)	Requa Topics. ... Candle fish are coming into the river, and eels are plentiful.
10 March 1906	Klamath River	<i>Blue Lake Advocate</i> , p. 2, col. 2 (Blue Lake, CA)	AFFAIRS AT THE MOUTH OF KLAMATH. Interesting Items from Requa by Our Regular Correspondent. ... It has been very stormy here for the last week or two. The creeks have been very high but are going down some now. Candle fish have began (sic) to come into the Klamath River since the storm.
1907			
1908			
2 May 1908	Redwood Creek	<i>San Francisco Call</i> , p. 12, col. 5	Redwood City , May 1—The local Izaak Waltons, who have been pressed for time, have been enjoying good fishing within the city limits. Redwood Creek, especially, near the works of the Alaska Codfish Company, is teeming with smelt, some of those recently caught running over a foot in length.
1909			
18 February 1909	Klamath River	<i>The Humboldt Times</i> , p. 7, col. 7 (Eureka CA)	LATE HAPPENINGS AT REQUA. REQUA, Feb, 16. ... Candle fish are now being caught in the Klamath river.
1910			
1911			
10 February 1911	Klamath River	<i>Daily Humboldt Standard</i> , p. 3, col. 3 (Eureka, CA)	Requa. – Feb. 6. -- ...Candlefish and eels are beginning to come in the [Klamath] river.
1912			

Date	Place	Source	Quote
1913			
1914			
10 April 1914	Klamath River	<i>Del Norte Triplicate</i> , p. 1, col. 3 (Crescent City, CA)	BREEZY REPORT FROM REQUA. April 6. ... Mrs. Frank Thurston and Miss Dungan caught about a hundred pounds of candle fish last Saturday near the Terwah Ferry.
1915			
25 April 1915	Klamath River	<i>The Humboldt Times</i> , p. 14, col. 5 (Eureka CA)	REQUA NOTES (Special to The Times). REQUA, April 24. ... The Klamath river is full of candle fish and are being caught by the boat load.
1916			
1917			
27 April 1917	Klamath River	<i>Del Norte Triplicate</i> , p. 1, col. 2 (Crescent City, CA)	Newsy Notes From The Klamath. ... Requa , April 21. — There are a great many candlefish in the Klamath River at present.
1918			
28 February 1918	Klamath River	<i>The Humboldt Times</i> , p. 5, col. 7 (Eureka CA)	REQUA NOTES (Times Special Service). REQUA, Calif., Feb. 25. ... The annual run of candle fish has started in the Klamath river.
1919			
8 February 1919	Klamath River	<i>Blue Lake Advocate</i> , p. 4, col. 2 (Blue Lake, CA)	Breezy Brevities. The candle fish are now running up the Klamath River in great numbers.
15 February 1919	Klamath River	<i>San Jose Mercury Herald</i> , p. 5, col. 4	Candle Fish Run Opens in the North. Eureka, Cal., Feb. 14—The yearly run of candle fish has begun in the Klamath River and fishermen state that it exceeds in volume anything heretofore recorded. It is said that if any means could be found of canning this fish a new product of high food value could find its way to the market. The candle fish is particularly rich in valuable oils.
1920			
1921			
8 April 1921	Klamath River	<i>The Humboldt Times</i> , p. 5, col. 7 (Eureka CA)	CANDLE FISH ARE RUNNING AT REQUA. REQUA, April 6.— The "candle fish" which come in the Klamath River for several months each year, have been very scarce this year, until last week—when they came in by the hundreds. They continue to come so far this week and Mr. Gibbons, our local butcher, dipped over five hundred pounds of them out last night and left early this morning for Crescent City to offer the fish for sale.
12 April 1921	Klamath River	<i>The Humboldt Times</i> , p. 2, col. 7 (Eureka CA)	PERSONAL MENTION OF REQUA PEOPLE (Times Special Service). REQUA, April 9. ... Mr Gibbons has again left for Crescent City with a load of candle fish. This is the second time he has taken fish up.
1922			

Date	Place	Source	Quote
10 February 1922	Klamath River	<i>Del Norte Triplicate</i> , p. 1, col. 4 (Crescent City, CA)	REQUA ITEMS. ... Candle fish are starting to run but not very plentiful. Eels are running up the river fairly well.
24 February 1922	Klamath River	<i>Del Norte Triplicate</i> , p. 3, col. 4 (Crescent City, CA)	Requa Items. The Klamath River has raised and is quite swift. Eels are coming n good and Candle Fish will be plentiful soon.
28 April 1922	Klamath River	<i>Del Norte Triplicate</i> , p. 3, col. 2 (Crescent City, CA)	Requa Item. There are a few salmon in the [Klamath] river but not enough to justify fishing. Candlefish are plentiful.
1923			
1924			
1925			
14 February 1925	Klamath River	<i>Blue Lake Advocate</i> , p. 3, col. 4 (Blue Lake, CA)	Del Norte County Notes. CRESCENT CITY, Feb. 7. ... We are informed by Game Warden Prescott that both eels and candle fish are beginning to run in the Klamath and the Indians are having rich pickings.
17 February 1925	Klamath River	<i>The San Francisco Examiner</i> , p. 31 (San Francisco, CA)	We are informed by Game Warden Prescott that both eels and candle-fish are beginning to run in the Klamath river, and the Indians are having rich pickings. The candle-fish is a peculiar species, not known in many parts of the country, and if we are correctly informed, the Klamath is its most southerly range. It is so full of oil that, when dried, it can be lighted and burns freely but slowly, making a good light, hence its name. It is a scaleless fish, about the size of a smelt, not more than seven inches long, but, unlike many other fish has no slimy protection to its outer skin and may readily be caught with the bare hand.—From the Crescent City “Courier”.
1926			
1927			
1928			
1929			
8 March 1929	Klamath River	<i>Del Norte Triplicate</i> , p. 6, col. 2 (Crescent City, CA)	Candle and Eel Fishing Good. Candle and eel fishing has been especially good for the past week. Large crowds line the mouth of the river each evening, the many lights of the fishermen glowed from a distance giving ... [unreadable].
1930			
14 February 1930	Klamath River	<i>Del Norte Triplicate</i> , p. 8, col. 4 (Crescent City, CA)	CRESCENT CITY NEWS OF GENERAL INTEREST. RUN OF CANDLEFISH. It is reported that there is a heavy run of candlefish now running in the Klamath River. The eels have been running for some time.
21 February 1930	Klamath River	<i>Del Norte Triplicate</i> , p. 6, col. 2 (Crescent City, CA)	News of Klamath Section. Heavy Run Of Candlefish. The ocean beach at the mouth of the river is lined with enthusiastic fishermen each evening since the heavy run of candlefish started. Hundreds are picked up each evening off the beach as the waves wash

Date	Place	Source	Quote
			them in from the ocean. Dip nets are being used and everyone is indulging in the exciting pastime.
1 March 1930	Klamath River	<i>Blue Lake Advocate</i> , p. 3, col. 6-7 (Blue Lake, CA)	Requa and Klamath. KLAMATH, Feb. 22. ... The annual run of candle fish has started in the Klamath river and many beach parties have been staged recently while fishing for this delicious little fish.
1931			
12 February 1931	Klamath River	<i>Del Norte Triplicate</i> , p. 6, col. 4 (Crescent City, CA)	CRESCENT CITY NEWS OF GENERAL INTEREST. GOOD FISHING AT KLAMATH. Candle fish and eel are running at Klamath this past week. Large crowds are seen nightly after the candle fish which are very delectable. Catching eel is also a favorite pastime in which many local folks participate.
1932			
22 January 1932	Klamath River	<i>Del Norte Triplicate</i> , p. 4, col. 2 (Crescent City, CA)	KLAMATH NEWS. SPRING RUN OF CANDLE FISH NOW ON AT KLAMATH. The spring run of candle fish is now on, and a few good catches have been reported from the mouth of the river. These members of the smelt species are distinctly related to the salmon family, resembling them in their spawning habits, in that they make their way up fresh water streams during high-water periods to propag[a]te their young. The name, which is a local one, is said to come from their extreme fatness, it being, it being claimed that when strung on a candlewicking, and dried, they make a passable substitute for candles. This would seem to be a waste of an excellent food to provide a doubtful light, however. The approved method of taking this delicacy is with a dip net during freshets. The swift current drives the schools close inshore where they rest in the eddies. Several pounds are sometimes taken at a single dip of the net. Catches of fifty to a hundred pounds are often made in a single night, which is the best time to take them, unless the water is extremely muddy, since they appear to have very keen eyesight, and avoid the net in daylight. Many are taken at night at the mouth of the river where they are thrown up on the beach by the breakers as they struggle against the current of the river. The fisherman, if he can be called such, picks up such fish as have been left stranded by the receding waves, which all sounds simple but is at times decidedly hazardous, as the succeeding breaker often carries the fish back into the water, thoroughly dousing the unwary of over anxious. During the height of the run scores of gasoline lanterns dot the beach at night as whites and Indians alike seek to reap a harvest of these graceful cousins of the mighty Chinook.
1933			
1934			
24 February 1934	Klamath River	<i>Blue Lake Advocate</i> , p. 5, col. 6 (Blue Lake, CA)	News Event Front the Klamath Section. KLAMATH, Feb. 19. ... The candlefish and eels are beginning to come into the river. Quite a few have been caught at the river mouth.

Date	Place	Source	Quote
1935			
5 April 1935	Klamath River	<i>Del Norte Triplicate</i> , p. 5, col. 4 (Crescent City, CA)	NEWS NOTES FROM KLAMATH. Mabel De Bernardi, Correspondent. The beach at the mouth of the Klamath river has been lined every evening for the past week with large crowds who have been catching candle fish with dip nets. Many eels are being caught, too.
1936			
20 March 1936	Klamath River	<i>Del Norte Triplicate</i> , p. 4, col. 4 (Crescent City, CA)	NEWS NOTES FROM KLAMATH. Mabel De Bernardi, Correspondent. Many candle fish have been taken at the mouth of the river this week and last.
1937			
26 March 1937	Klamath River	<i>Del Norte Triplicate</i> , p. 4, col. 4 (Crescent City, CA)	NEWS NOTES FROM KLAMATH. Candle Fish Running. Delectable candle fish, found only in the Klamath river, offer the incentive for rainy day fishing, as catches have been heavy and the fish a popular piece de resistance [sic] this time of the year.
1938			
18 March 1938	Klamath River	<i>Del Norte Triplicate</i> , p. 1, col. 3 (Crescent City, CA)	NEWS NOTES FROM KLAMATH. Edythe Lockwood, Correspondent. Candlefish Run on Now. The heaviest run of candlefish reported this year is on in full force now with everyone enjoying the sport.
1939			
31 March 1939	Klamath River	<i>Del Norte Triplicate</i> , p. 2, col. 3 (Crescent City, CA)	NEWS NOTES FROM KLAMATH. Edythe Lockwood, Correspondent. ENJOYING FISHING. Candle fish have been running in the Klamath river the past several weeks and have been the incentive for a number of evening parties at the river beach; where groups take their lunch, fish a while and later enjoy a sandwich and a welcome cup of coffee.
1940			
1941			
31 January 1941	Klamath River	<i>Del Norte Triplicate</i> , p. 4, col. 4 (Crescent City, CA)	CANDLE FISH RUNNING. Candle fish are running in the Klamath river. It is quite a winter sport and the banks of the river are lined with people dipping for the fish.
1942			
20 February 1942	Klamath River	<i>Del Norte Triplicate</i> , p. 5, col. 2 (Crescent City, CA)	CANDLEFISH TIME. Candlefish have been running in the Klamath river the past two weeks [since 6 February] and the popular delicacy has appeared on local tables quite often. The best place to fish is just above the Klamath bridge.
1943			
29 January 1943	Klamath River	<i>Del Norte Triplicate</i> , p. 5, col. 2 (Crescent City, CA)	SEEK CANDLEFISH. Ray Davidson and grandson, Richard Majors, were in Klamath Sunday to dip for candlefish, with no success, the river being a little too high.

Date	Place	Source	Quote
1944			
21 January 1944	Eels - Klamath River	<i>Del Norte Triplicate</i> , p. 5, col. 5 (Crescent City, CA)	RECORD RUN OF EELS. “Eeling” is a very popular sport now at the mouth of the Klamath and the beach is full of eel fishermen every day. The largest run of eels that has ever been known in the Klamath is on at present. Lots of fun to hold them on your hook; save meat points too!
1945			
13 April 1945	Klamath River	<i>Del Norte Triplicate</i> , p. 5, col. 5 (Crescent City, CA)	EELS RUNNING. Many campfires are burning on the beach these days in the vicinity of the mouth of the Klamath river where the eels are running good. Also a few candlefish are coming in and a number of Klamath people are roasting eels and enjoying picnic suppers on the beach at the river entrance
1946			
16 March 1946	Klamath River	<i>Blue Lake Advocate</i> , p. 2, col. 3 (Blue Lake, CA)	Notes From Klamath. KLAMATH, March 9 ... Candle fishing is the main diversion on the Klamath river, the fish are running and many fish are being caught.
1947			
21 March 1947	Klamath River	<i>Del Norte Triplicate</i> , p. 10, col. 3 (Crescent City, CA)	The candlefish are running now and our people are having a lot of fun catching the luscious little fish.
1948			
5 March 1948	Klamath River	<i>Del Norte Triplicate</i> , p. 6, col. 5 (Crescent City, CA)	Klamath Events. The candlefish are running in the Klamath River now, but up to date no large catches have been made.
1949			
11 March 1949	Klamath River	<i>Del Norte Triplicate</i> , p. 7, col. 2 (Crescent City, CA)	Klamath Events. Mr. and Mrs. Mark Bosch and Mr. and Mrs. Keith Bressee. All of Arcata, were among the jolly crowds who were fishing for candlefish Saturday [5 March] evening. The succulent little fish are running now and many fine catches have been made.
18 March 1949	Klamath River	<i>Del Norte Triplicate</i> , p. 3, col. 4 (Crescent City, CA)	Klamath Events. Mr. and Mrs. Floyd Maher, of Hunter’s Creek, joined the candlefish club Sunday night at Klamath Glen riffle, with fair results as to catches of these tasty little fish.
25 March 1949	Klamath River	<i>Del Norte Triplicate</i> , p. 3, col. 2 (Crescent City, CA)	Klamath Events. Axel Anderson, of Arcata, was a business visitor in Klamath Saturday. While here he enjoyed some candle fishing with Ray Chaffey. The succulent little fish are running full blast now and every day and evening the river is lined with fishermen.
9 April 1949	Klamath River	<i>Blue Lake Advocate</i> , p. 6, col. 4-6 (Blue Lake, CA)	In Del Norte County. CRESCENT CITY, April 2. ... Mr. and Mrs. Lewis Baker returned Sunday from a fishing expedition to Klamath Glen with a full quota of candle fish.
1 May 1949	Klamath River	<i>The Humboldt Times</i> , p.	[Picture caption:] Candlefish Caught In Klamath River. Three residents of Klamath

Date	Place	Source	Quote
		2 (Eureka, CA)	... are shown above fishing for candlefish in the Klamath River. The fish are unique in that they run only in the Klamath river and the Fraser River, Canada. The candlefish is a marine fish allied to the smelt, found on the north Pacific Coast. It is also called eulachon. ...
1950			
17 March 1950	Klamath River	<i>The Humboldt Times</i> , p. 12, col. 4 (Eureka, CA)	Candlefishing at Klamath River Mouth. Requa, March 16. — A large number of candlefish and eels were caught at the mouth of the Klamath this week. Enjoying the fishery on Sunday [12 March] were ...
1951			
11 March 1951	Klamath River	<i>The Humboldt Times</i> , p. 5 (Eureka, CA)	Candle Fishing Time on the Klamath. Annual Run of Tasty Fish Here Attracts People From Oregon Border to Humboldt. By Ed Neumeier (Photos by Bob Robinson). It's candlefishing time on the Klamath once more, a big annual event for the people in our north country, and the nets are being dragged from attics and garages, put into repair, and the bonfires burn brightly by the bridge at Klamath Glen, and at the mouth of the river. The candlefish is a unique thing for this area, not so for the more northerly parts of the continent, perhaps, but surely for this region; for the Klamath river is the southernmost boundary of their range and when they run here it is a big thing. Lockers are being filled and smokehouses readied by people from the town of Klamath to Smith river and points east. "Man, you ain't lived until you've eaten smoked candlefish," this avid fisherman will tell you. "Hell, he ain't lived until he's eaten 'em fried, you mean," the other might say. They argue from smoked to fried to pickled, maybe, but one thing they agree—candlefish are tasty. Each year the candlefish, like the salmon, come up the Klamath to spawn, come in from the ocean, and then someone will spot a whale at the mouth of the Klamath, maybe, around the first of March it might be. "The candlefish are running," says someone in town and the shout's taken up, for it's believed that the whales feed on them and sit at the mouth of the river to gulp hundreds of the little fish as they flock upstream to spawn. So the cry is soon reverberating all the way from Klamath to Smith river, and out come the nets and out flock the fishermen and soon, at dusk, campfires dot the banks of the great Northern California river. And on the banks you might hear the loud barking of sea lions, in the river close to shore, and then the fishermen swear that the fish are running for the lions too feed on the little fish. And so in go the nets with graceful swoops, dipping along the shore, dipped by hip-booted fishermen bundled well against the late winter cold at night, and if luck is good, then up come the fish by the net full, little shimmering creatures that look like smelt though not so translucent and are, for a fact, of the smelt family. They're not a fighting fish by any means. They are caught in the net in the graceful swoops of the experienced candlefisher and brought up to shore, not flopping too much, only a little as they're dumped into buckets and boxes and tubs and soon they're dead. And sometimes the fishermen will go

Date	Place	Source	Quote
			home with hundreds, too many to count, but sometimes too, he will go home with only a handful or so, like the night we were there. From John DeWitt, fisheries professor at Humboldt State college, we get this information on the candlefish: They come from the family Osmeridae, or smelts; an Indian name for them is eulachon and the scientific classification for them is Thaleichthys pacificus, first so classified by Richardson in 1836. The range of the candlefish is from the Klamath river south to Alaskan rivers north and they are quite common in British Columbia rivers and inlets. They're anadromous, that is, they spawn in fresh water, and ordinarily spawn during March, April and May, varying in the different areas. The candlefish matures in two or three years, and dies after spawning. The female produces some 25,000 eggs on average, actually ranging from 17,000 to 10,000 [sic]. The eggs become attached to particles of sand and the size of the sand grains may determine where the fish choose to spawn. The eggs hatch in two or three weeks. The fish do not eat during their freshwater migration tour. When the young fish [appear] they are carried to sea by the current. The candlefish feed on small shrimps, crabs and other sea creatures. And they serve as food for salmon and other species of ocean life. The name candlefish comes from the fact that Indians have used them as candles. They are rich in grease content and when dried can be used as a candle, some claiming that a wick may be drawn through the dried fish and lighted. The Indians also use the fish oil for cooking. DeWitt says the fish cannot be frozen for a very long period and therefore are not marketable at any great distances from where they are caught. No satisfactory canning method has yet been developed, either. In the Frazer [sic] river, British Columbia, the run of candlefish is hailed by a downstream movement of gulls which later follow the fish back upstream. Males predominate in the first part of the run while females may predominate later. Little is known about their ocean life. DeWitt points out that in British Columbia the eulachon is of great importance to the Indians because of the grease that can be extracted from it. The use of this grease, or "kleena," was not confined to coastal tribes but also used by interior people who traveled great distances to obtain it. Thus the grease became an important article for bartering and gave rise to the famous "grease trails" along the northern rivers. It was down the grease trail that followed the Bella Coola river to the sea where Alexander MacKenzie [sic; Mackenzie] traveled in 1793 to become the first white man to cross the American continent north of Mexico, DeWitt tells us. And from Al Strachan of Eureka, lately from Canada, a man who has lived the fish business these several decades, we glean a few more items about the candlefish. Strachan says that the Indians he knew in British Columbia, his home territory, called them "oolichan." On the Skeena river there the Indians make much grease from the fish and a substantial part of their diet is made up of potatoes which they dip into these pots of fish grease at the table. He said he had seen this operation many a time and it never failed to turn his Canadian stomach a bit. These Skeena river Indians, says Strachan, use little seine nets to take the candlefish. And he

Date	Place	Source	Quote
			tells of the “greasy trail,” too ... [unable to transcribe].
15 April 1951	Klamath River	<i>The Humboldt Times</i> , p. 15 (Eureka, CA)	[Picture caption:] Huge Candlefish Catch Made at Klamath. Klamath April 14. – The candlefish at Klamath are really on the run now with one of the best catches made by the trio above. ... The candlefish are thick in this area now with smoke houses around Klamath and Requa full.
1952			
21 February 1952	Klamath River	<i>Humboldt Standard</i> , p. 9, col. 7–8 (Eureka, CA)	Around Our Town , by Scoop Bean. Scattered Notes—Candle fish are running in the Klamath River—they are caught at night with dip nets—the fish are said to have received their present name from early white settlers who sometimes inserted a wick in the smoked fish for a source of candlelight.
1953			
26 March 1953	Klamath River	<i>The Humboldt Times</i> , p. 3, col. 4–5 (Eureka, CA)	[Picture caption:] Fish in a Knothole Caught Sunday. Walter Salgoski, of Eureka, will henceforth be able to hold his own when friends gather to swap “fish yarns.” Sunday morning Salgoski, fishing with three companions on the Klamath river near Klamath Glen, caught a candlefish that had a ring of wood (arrow) encircling it’s body between the two sets of ventral fins. Speculation among the fishermen varied as to how the fish, nearly eight inches in length, became involved with the loose knothole.
1954			
1955			
1 April 1955	Klamath River	<i>Humboldt Standard</i> , p. 10, col. 3–5 (Eureka, CA)	How’re They Biting? By Chet Schwarzkopf. ... Jack Morris, maestro at Blue Creek Lodge on the Klamath ... says ... “I guess you know we also have a big run of candlefish each spring that affords the people here lots of fun as well as good eating.”
1956			
1957			
1958			
27 March 1958	Klamath River	<i>Humboldt Standard</i> , p. 27, col. 3 (Eureka, CA)	Some candlefish are into the Klamath river, but no noteworthy catches have been made.
1959			
1960			
8 April 1960	Klamath River	<i>Humboldt Standard</i> , p. 8, col. 8-9	SIDELINE SLANTS By DON TERBUSH. ... A few candlefish and eel are being supplied by the mouth of the Klamath river ...
22 April 1960	Klamath River	<i>Humboldt Standard</i> , p. 28, col. 1-2	SIDELINE SLANTS By DON TERBUSH. ... The lower Klamath river is housing a few eel and candlefish are being nabbed in the lower portion of the stream.
1961			
17 March 1961	Klamath River	<i>Eureka Humboldt Standard</i> , p. 13, col. 1	... a run of candle fish was in progress in the Klamath River. However, high water has probably sent them upstream.

Date	Place	Source	Quote
31 March 1961	Klamath River	<i>The Humboldt Times</i> , p. 19, col. 6 (Eureka, CA)	Candlefish Run Heavy In Klamath. KLAMATH - The Klamath River teemed with candlefish Wednesday, March 29, from the mouth of the river past the Klamath Glen area. Fishermen in the area netted so many of the creatures that each dip of the large nets often were impossible to lift from the water with their loads. Makeshift nets were used by young fishermen in the Terwer Valley and Klamath areas to catch the fish. Some youngsters went so far as to use the shirts off their backs. With the tradition of “a good candlefish run indicating a good salmon run later,” oldtimers report this run is seldom equaled and are preparing for a busy summer fishing season.
6 April 1961	Klamath River	<i>Blue Lake Advocate</i> , p. 7, col. 3-4 (Blue Lake, CA)	Del Norte County. CRESCENT CITY, April 4 ... An exceptionally heavy run of candlefish were reported in the Klamath River the middle of this week, from the mouth clear up past the Klamath Glen area, where it was reported they could be scooped up without the usual large net, even.
14 April 1961	Klamath River	<i>Humboldt Standard</i> , p. 13, col. 1 (Eureka, CA)	SIDELINE SLANTS By DON TERBUSH. ... Candlefish are being bagged up along the Klamath and Klamath Glen areas.
21 April 1961	Klamath River	<i>Humboldt Standard</i> , p. 15, col. 1 (Eureka, CA)	SIDELINE SLANTS By DON TERBUSH. ... And this has reportably [sic] been one of the biggest years yet for candlefish. One fisherman was quoted as saying, “You don’t need a net. Just use your bare hands. Other people have.”
1962			
20 April 1962	Klamath River	<i>Humboldt Standard</i> , p. 13, col. 1 (Eureka, CA)	SIDELINE SLANTS By DON TERBUSH. ... Candlefish are cooperating at Klamath Glen and night fish are running.
1963			
10 April 1963	Klamath River	<i>Humboldt Standard</i> , p. 10, col. 3 (Eureka, CA)	Heavy Candlefish Run in Klamath. Klamath—Meat market sales showed a sharp decline around Klamath over the weekend and Monday. Almost everyone was eating crisp-fried candlefish. Awaited by the old-timers, as a heavy run of candlefish seems to herald a good salmon and steelhead fishing season to come, word spread fast, when the “run” started, a little late this year. Most popular “dipping” area was near the public boat ramp in the Klamath Glen area, perhaps due to easy accessibility. Owners of the large nets needed to dip for these small fish reported a “turn-over” practically every hour, as each one borrowing it returned the net within a very short time. A few dips netted each one their limit in pounds, and more than enough to feed their families.
10 April 1963	Klamath River	<i>The Humboldt Times</i> , p. 9, col. 4 (Eureka, CA)	Candlefish On Menu At Klamath. Meat market sales showed a sharp decline around Klamath over the weekend and Monday. Almost everyone was eating crisp-fried candlefish. Awaited by the old-timers, as a heavy run of candlefish seems to herald a good salmon and steelhead fishing season to come, word spread fast, when the “run” started, a little late this year. Most popular “dipping” area was near the public boat ramp in the Klamath Glen area, perhaps due to easy accessibility. Owners of the large nets needed to dip for these small fish reported a “turn-over” practically every hour, as each one borrowing it returned the net within a very short time. A few dips netted each one

Date	Place	Source	Quote
			their limit in pounds, and more than enough to feed their families.
12 April 1963	Klamath River	<i>The Humboldt Times</i> , p. 49 (Eureka, CA)	Anglin' Around by Doug Wilson. ... Dip netters have been having a heyday with the candlefish at Klamath Glen this past week according to Ruby Rook at Terwer. The river is fairly high but hasn't risen to a level that will send the small smelt on an express type journey upriver as yet. Whether the river will raise more before the weekend is hard to determine. The run has been on for slightly over a week and may continue for another week, depending on the water conditions. The best spot for dipping has been at the Public Access boat ramp near the Riffles Trailer Park at Klamath Glen. Candle fish may be taken day or night with a hand dip net in the Klamath River and the main stem of the Trinity River from the mouth to the Humboldt Trinity county line. Limit is 25 pounds of fish per day and in possession.
13 April 1963	Redwood Creek	<i>Humboldt Standard</i> , p. 3, col. 4 (Eureka, CA)	Heavy Candlefish Run Near Orick. A rare and heavy run of candlefish up Redwood Creek near Orick was reported yesterday. The small fish, which normally only run up the Klamath and Columbia Rivers, were so thick in the streams that net fishermen were pulling in their limits with one and two casts. The most popular fishing spot was just south of Redwood Creek Bridge where a crowd of sportsmen gathered as soon as the run was reported.
14 April 1963	Klamath River Redwood Creek	<i>The Humboldt Times</i> (Eureka, CA)	Candlefish Running In Redwood Creek! [Photo caption 1:] The candlefish are running. By the thousands they are swarming up the muddy waters of the Klamath River at Klamath and Redwood Creek near Orick. Everyone is turning out, the small fry included, to dip out limits of the silvery little smelt that are headed upstream to spawn. Here a group of candlefish netters work from the bank of Redwood Creek with long, two-handled dip nets. [Photo caption 2:] Fresh caught candlefish lie flopping in a dip net. An extremely large run up Redwood Creek is in progress now. According to local Fish and Game authorities and commercial fishermen, this is the first time candlefish have run up Redwood Creek in large numbers. Normally the fish are found only in the Klamath River and a few other northern rivers. [Photo caption 3-5:] Young Frank Lare of Big Lagoon industriously works at dipping near the mouth of Redwood Creek. The fish were so thick that Frank had difficulty racing his filled net out of the water (center photo). Frank quickly filled his limit of 25 pounds of the small silvery smelt that are delicious friend [sic] or smoked. Called Columbia River smelt in most waters, candlefish derived their local name from the fact that local Indians dried the oily fish and used them for candles to light their dwellings. A note of caution to the prospective candlefish dipper: a fishing license is required of anyone over the age of 16. [Photo caption 6:] Three commercial fishermen stand in the waist-deep surf to net the fish at the mouth of

Date	Place	Source	Quote
			Redwood Creek. Commercial fishing for the smelt is illegal in the Klamath River, but the fish may be taken commercially in the ocean or at the mouth of a stream. This is the first time that commercial fishermen have ever been able to take the smelt in this area, according to Lawrence Lazio, local manager of the Tom Lazio Fish Company of Eureka. [Photo caption 7:] Commercial netter raises his smelt filled net as he works at the mouth of the creek. Many people were using small dip nets as well as the widemouthed A-frames, which are commonly used in the surf for day and night fish. A few hardy dippers found regular trout landing nets sufficient for landing a limit of the fish in a few minutes of dipping. [Photo caption 8:] “Look, you can even catch them with your hands,” exclaims Larry Lazio as he tosses a bunch of candlefish from the edge of the surf. Many people lacking nets did just that and quickly caught enough of the fish for one or more large fish fries. The fish were so thick that you could feel them bumping into your boots as you stood dipping, Lazio said.
15 April 1963	Redwood Creek Klamath River	<i>Humboldt Standard</i> , p. 13 (Eureka, CA)	Thousands of Candlefish in Heavy Redwood Creek Run. [Photo caption 1:] Joe January of Sacramento dips up a net load of candlefish at the mouth of Redwood Creek near Orick. Thousands of the silvery fish, called Columbia River smelt in most waters, are running in the creek and the Klamath River, heading upstream to spawn. According to local Fish and Game authorities, this is the first time candlefish have run up Redwood Creek in large numbers. Normally the fish are found only in the Klamath River and a few other northern rivers. [Photo caption 2:] Commercial fishermen net candlefish in the ocean at the mouth of Redwood Creek. Left to right are Fred Shipman, Stanley Dombek and Lawrence Lazio. Commercial catches must be made in salt water. [Photo caption 3:] A herd of sea lions enjoys a feast of candlefish as the silvery smelt run by the thousands at Redwood Creek. Fish derive their local name from the fact Indians dried them and used them for candles. [Photo caption 4:] Silvery candlefish measure five to six inches in length, with a few up to nine inches. Thousands of the small smelt are running up Redwood Creek and the Klamath River to spawn. [Photo caption 5:] Lawrence Lazio of Eureka demonstrates the density of the current candlefish runs by catching them with his hands. Many people lacking nets did just that and caught enough fish for a large fish fry. [Photo caption 6:] Fred Shipman, left, and Stanley Dombeck deliver a large commercial catch of candlefish to a local fish company. The smelt will be sent to the Bay Area and Los Angeles.
16 April 1963	Klamath River Redwood Creek Mad River	<i>Humboldt Standard</i> , p. 7 (Eureka, CA)	Candlefish Running in Mad River. [Photo captions:] Local fishermen use nets for an unusual run of silvery candlefish in the Mad River. In top photo, two unidentified men watch as Bill Damgaard, left, and Bob Hoffman, both of McKinleyville, wade into the

Date	Place	Source	Quote
			water to net the fish. Mrs. Sarah Gillman, below, of McKinleyville, empties her net laden with candlefish into a bucket. Heavy runs of the fish, also known as Columbia River smelt, also are reported in Redwood Creek and the Klamath River.
16 April 1963	Redwood Creek Mad River	<i>The Humboldt Times</i> , p. 21 (Eureka, CA)	Sea Gulls Get Into Act As Candlefish Run Crowds Into Redwood Creek. ORICK — Fishermen, and those who enjoy “fry in’ fish,” weren't the only ones crowding the mouth of Redwood Creek this week, as tons of candlefish make their way from sea into the small stream. Here are hundreds of sea gulls, a small part of many more, making the most of the glut of candlefish. Al Wilson, Eureka Newspapers photographer, who shot this picture, phoned yesterday afternoon, saying a similar run of candlefish is taking place at the mouth of Mad River. In a few minutes, it was possible to fill a large bucket with fish, he said. A large number of fishermen are taking advantage of the early spring sport on the River Mad.
20 April 1963	Klamath River Redwood Creek Mad River	<i>The Humboldt Times</i> , p. 9 (Eureka, CA)	Anglin’ Around by Doug Wilson. I t looks like there’s been a population explosion hereabouts. At least that seems to be the story with the candlefish. The silvery little smelt have created quite an uproar with their runs up Redwood Creek and the Mad River during the past week. They’ve kept dip-netters busy on the Klamath too. Everyone expected the run on the Klamath, but when reports of fish running up Redwood Creek and then the Mad River came in, all the ingredients for a first class mystery came on hand. What caused the fish to run up Redwood Creek and the Mad River? It’s a good question. Maybe the F&G fisheries biologist can provide an answer or two after a little research is instigated. ‘Til then, who knows? The important point is that the fish are there and that local sportsmen have been making a real haul. Just how long they will run is hard to say. It may be for a few more weeks, or it might only last a day or two more. During the early part of the week the fish were running well during the day but the last night or two seems to have been more productive than the daylight hours. This could be caused by the fact that high tide is running during the afternoon and early evening hours at present. Since these fish are a little unpredictable, it’s best to check the experts in candlefishery. If the gulls are working the mouth of the river in large flocks, you’ve got it made.
23 April 1963	Redwood Creek Mad River	<i>Humboldt Standard</i> , p. 20 (Eureka, CA)	Surf Netters Catch Candlefish near Redwood Creek. [Photo caption:] Countless candlefish are still running at Redwood Creek, this time in the Pacific surf. Scores of fishermen took advantage of Sunday’s spring weather to enjoy the sport and prepare for a fish fry. The silvery fish, commonly called Columbia River smelt, derived their local name from the fact Indians used them as candles. The fish normally run only in the Klamath River and other northern streams but recently heavy runs have been reported in Redwood Creek and Mad River and now in the surf.
3 May 1963	Redwood Creek	<i>Humboldt Standard</i> , p. 13, col. 1-2	SIDELINE SLANTS By DON TERBUSH. ... A few candlefish are still being taken at Redwood Creek. ...
11 May 1963	Redwood Creek	<i>Humboldt Standard</i> , p.	SIDELINE SLANTS By DON TERBUSH. ... The runs of candlefish at Redwood

Date	Place	Source	Quote
	Mad River	8, col. 1	Creek and Mad River have stopped.
1964			
21 March 1964	Klamath River	<i>Humboldt Standard</i> , p. 8, col. 1-2	SIDELINE SLANTS By DON TERBUSH. In the Klamath area a few candlefish are starting to run ...
17 April 1964	Klamath River	<i>Humboldt Standard</i> , p. 15, col. 1	SIDELINE SLANTS By DON TERBUSH. ... A few candlefish are running at the mouth of the Klamath River.
24 April 1964	Klamath River	<i>Humboldt Times</i> , p. 21, col. 6	Candlefish Run On In The Klamath. KLAMATH (Del Norte Co.)—Candlefish runs are on again in the Klamath River, local fishermen report. Large catches of candlefish were made in the Klamath River, Wednesday. The run, which usually occurs during late February or early March, has been awaited by Klamath residents, who make the catches by dipping with large nets especially made for this purpose. Besides using the fish fresh, many people smoke them in the same manner as steelhead or salmon, preserving them for later use. Because of their oil content, Indians in the past used the fish, just as settlers used candles, thus the name, “candlefish.”
1965			
12 March 1965	Klamath River	<i>Humboldt Standard</i> , p. 17, col. 1-2	SIDELINE SLANTS By DON TERBUSH. Candlefish, Abalone Best Fishing Bets. ... Candlefish are beginning to show at the mouth of the Klamath River.
19 March 1965	Klamath River	<i>Humboldt Standard</i> , p., 17 col. 1-2	SIDELINE SLANTS By DON TERBUSH. ... The mouth of the Klamath River is still supplying candlefish and eels, and a few fish have been spotted upstream.
26 March 1965	Klamath River	<i>Humboldt Standard</i> , p. 15, col. 1-2	SIDELINE SLANTS By DON TERBUSH. ... The mouth of the Klamath River looms as the chief attraction. A few redbtail perch are showing as well as candlefish. “Sea lions are also playing in the area,” wardens noted.
2 April 1965	Klamath River	<i>Humboldt Standard</i> , p. 13, col. 1-2	SIDELINE SLANTS By DON TERBUSH. ... Candlefish are not as abundant, but are still being taken at the mouth of the Klamath to Klamath Glen.
8 April 1965	Klamath River	<i>Humboldt Standard</i> , p. 6, col. 1	Candlefish Run On In Klamath. The annual spawning run of candlefish is on in the Klamath River, reportedly in heavy supply. Sportsmen are netting the oily fish, which are so named because the Indians in early days used them as candles after drying. The Klamath is one of the few places in the world where they appear. Big runs of the candlefish are usually followed by large runs of salmon, veteran fishermen along the Klamath report. A valid fishing license is required.
8 April 1965	Klamath River	<i>Humboldt Times</i> , p. 5, col. 8	Candlefish Return To Klamath. KLAMATH – Klamath River, which takes much away from week, “atoning” filling smoke hundreds of seagulls lining the houses and dinner tables with the annual candlefish run. One of the sure signs of the bountifulness of the run is the hundreds of seagulls lingering [sic] the air along the shores, and swooping down to the plentiful supply of fish in the river. A good run of the candlefish, so-named because of their use as candles, after drying, by the Indians long ago, is also hailed as a welcome sign of a large run of salmon to follow within a few months. Candlefishing,

Date	Place	Source	Quote
			which in just the last few years has required a fishing license, is done mostly at night.
9 April 1965	Klamath River	<i>Humboldt Standard</i> , p. 13, col. 1 (Eureka, CA)	Sideline Slants. Candlefish Run Top Weekend Prospect. By Don Terbush. The annual spawning run of candlefish is on in the Klamath River and the oily rascals are said to be numerous. Big runs are usually followed by large runs of salmon, according to veteran anglers along the river. Don't forget—a valid fishing license is required.
9 April 1965	Klamath River	<i>Humboldt Times</i> , p. 21, col. 1-2	RFD By Andrew Genzoli. CANDLEFISH TIME – Clarice Myers, our Klamath River correspondent, provides us with good news. She reports the candlefish are running in the Klamath River.
1966			
1 April 1966	Klamath River	<i>Humboldt Standard</i> , p. 11, col. 1-2	SIDELINE SLANTS By DON TERBUSH. ...Last but certainly not least—there is a run of candlefish on at Klamath Glen.
15 April 1966	Klamath River	<i>Humboldt Standard</i> , p. 9, col. 1-2	Anglin' Around By Ray Pearl. CANDLEFISH are running in the Klamath. They have been for a week, with a lot of action around Klamath Glen.
22 April 1966	Klamath River	<i>Humboldt Standard</i> , p. 9, col. 1-2	Anglin' Around By Ray Pearl. WANT TO BRIGHTEN YOUR LIFE? Scoop some of the candlefish at Klamath glen. Last week they were running hot and heavy—you could get a limit (25 lbs.) in five minutes. They probably will still be running—so take the children and stop by on your way to Smith River.
29 April 1966	Redwood Creek	<i>Humboldt Standard</i> , p. 17, col. 1-2	SIDELINE SLANTS By DON TERBUSH. ...The candlefish run at Orick has fallen off. Fishing is slow.
1967			
17 March 1967	Klamath River	<i>Humboldt Standard</i> , p. 15, col. 1 (Eureka, CA)	SIDELINE SLANTS By DON TERBUSH. ...Candlefish were beginning to appear on the Klamath just prior to the storm, but high water and debris have blotted out any prospects for awhile.
2 April 1967	Redwood Creek	<i>Humboldt Times</i> , p. 17, col. 8	Candlefish In Redwood. ORICK—A light run of candlefish has been observed on Redwood Creek the past few days and local fish fans, who hope it will develop into a heavier run. Ravens signaled the run by “fishing” along the eddies in the creek bed, north of the Redwood Creek bridge. They have been joined by the seagulls. White cranes were seen wading and waiting for the fish. Since Redwood Creek is closed to all fishing to a mile upstream from the mouth of Prairie Creek, Bill Davis, local game Warden, called Sacramento fish and Game Department, and made arrangements, legalizing “candlefishing” only at the mouth, from the Cal-Pacific mill log deck to the sea. Redwood creek had a heavy run of fish three years ago that was the heaviest ever seen—that even the seagulls couldn't look at another fish—but the ravens cleaned up the thick mass of fish along the shores.
1968			
22 February 1968		<i>Times-Standard</i> , p. 10, col. 5-6 (Eureka, CA)	“68 Sport Fishing Regs Are Effective March 1; Printing Errors Noted. ... Of special interest to local anglers is the extension of the areas where candlefish may be taken. Effective March 1, candlefish may be taken in Redwood Creek, Mad River and Eel

Date	Place	Source	Quote
			River. ...
14 March 1968	Klamath River	<i>Humboldt Standard</i> , p. 19, col. 1 (Eureka, CA)	Anglin' Around , by Ray Peart. Candlefish at Klamath —It has started. The small fish called candlefish or eulachon are making their spawning run up the Klamath and should be found in Redwood Creek and Mad River soon. Eulachon normally die after spawning, but Marine Resources biologists tell me they have recovered a few spawned-out fish in the ocean while conducting shrimp sampling cruises. The eulachon (<i>Thaleichthys pacificus</i>) was first recorded from British Columbia waters in 1866 by A. Gunther on the basis of four specimens eight to nine inches in length, collected near Vancouver Island by C. B. Wood, surgeon on HMS Plumper, and presented to the British Museum. The fish is common along the whole coast of British Columbia, and enters large rivers during March, April and May to spawn. It matures at two to three years of age and usually dies after spawning. The average female spawns 25,000 eggs which hatch in two to three weeks. The young are then carried by the current to the sea where they mature. In the old days, eulachon were used extensively by Indians for food and production of oil for cooking. Previous to the advent of manufactured candles and other lighting devices, these fish were dried, fitted with wicks and used as candles, hence the frequently used name, candlefish. Most people now smoke the fish, and some of the oil is worked out this way. They are very rich. Others pickle them. A gourmet treat is the roe from females mixed with salami and eggs, made into patties and fried. Last year there was a huge run of candlefish in Redwood Creek. For eight days, these small dry-feeling fish swam up past Orick in a continuous school from bank to bank. That was around the first week in April. It's fun to net these fish. Take the family for a day at the beach. The limit is 25 pounds and you do need a license. Check the 1968 Sport Fishing Regulations for new rules concerning netting candlefish in Redwood Creek and Mad River.
1969			
16 April 1969	Klamath River	<i>Times-Standard</i> , p. 21, col. 5 (Eureka, CA)	Candlefish Run Again in Klamath . Klamath—Large catches of candlefish have been taken from the Klamath River this past week, and were still running heavily Sunday evening. Quite a number of fish are brought up each dip of the large nets used. The heavy run is late this year, as usually the month of March is the time of most of the run. A number of the local people smoke large quantities of the fish, as well as those who enjoy them just fried very crisp. Candlefish are similar to the Columbia River smelt. A heavy concentration of seagulls and large groups of sea lions accompany the run. Several days last week, the sand spit at the mouth of the river was covered with the sea lions, as they sunned themselves, after dining on the fish, no doubt.
1970			
1971			
19 March 1971	Klamath River	<i>Times-Standard</i> , p. 11, col. 1 (Eureka, CA)	Sideline Slants. Candlefish Running , by Don Terbush. "Candlefish are running at the mouth of the Klamath River," was Bill Dimmick's comment from Orick. "I've seen a lot

Date	Place	Source	Quote
			of nets heading that way.”
1972			
5 May 1972	Klamath River	<i>Times-Standard</i> , p. 19, col. 1 (Eureka, CA)	Sideline Slants , by Don Terbush. ... Mrs. Paul observes from Klamath that “this has been a wonderful candlefish year and that usually means a good salmon year on the Klamath River.”
1973			
20 April 1973	Redwood Creek	<i>Times-Standard</i> , p. 12, col. 1 (Eureka, CA)	Sideline Slants, by Don Terbush. ... FLASH! “Redwood Creek is absolutely full of candlefish,” reported Steve. “The creek is just black with them. And the mouth of Redwood Creek to the mouth of Prairie Creek is open to sportfishing.”
1974			
1975			
1976			
16 April 1976	Redwood Creek	<i>Times-Standard</i> , p. 13, col. 1 (Eureka, CA)	Sideline Slants , by Don Terbush. ... Humboldt County Fish hatchery chief Steve Sanders ... noted that “they are still picking up candlefish at Redwood Creek. The catches are light although some limits are being taken.”
23 April 1976	Klamath River Redwood Creek Mad River	<i>Times-Standard</i> , p. 9, col. 1 (Eureka, CA)	Sideline Slants , by Don Terbush. Candlefish in the Klamath, Redwood Creek and Mad River ... are the major items of interest to North coast sports anglers this weekend. “There are lots of candlefish in the Mad River,” reports hatchery superintendent Bob Will. “Last weekend it was hot. They are higher up than I’ve ever seen them—clear up to Blue Lake which is unusual. Of course, the fishing area is only open to the railroad bridge at Essex. “About every third year there are always a few,” Bob added. “This year it seems there is an extraordinary amount.” “They are still picking up candlefish in Redwood Creek, said Humboldt County Fish Hatchery chief Steve Sanders. “And I would recommend Stone Lagoon for fishing. There’s not much pressure and I’m sure there are fish in there. If they (anglers) have a boat all the better.”
30 April 1976		<i>Times-Standard</i> , p. 16, col. 1 (Eureka, CA)	Sideline Slants , by Don Terbush ... The candlefish run is over ...
1977			
1978			
14 April 1978	Klamath River	<i>Times Standard</i> , p. 13, col. 1-2	SIDELINE SLANTS By DON TERBUSH. Klamath yielding many candlefish. ... Candlefish are running in the Klamath River ... “There is the biggest run of candlefish on the Klamath that we’ve had in a long time,” reported Margaret Paul. “The seagulls are screaming and the locals are getting a lot of candlefish from the mouth on up to Klamath Glen.”

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Table S7. Dates of initial commercial landings and of first landing of 1,000 pounds (454 kg) in the Columbia River and its major Washington State tributaries (1949–2008). The first landing of 1,000 pounds (454 kg) is here and in the text referred to as the “first large catch.”

Year	Columbia River		Grays River		Cowlitz River		Kalama River		Lewis River	
	Date of initial landing	Date of first large catch	Date of initial landing	Date of first large catch	Date of initial landing	Date of first large catch	Date of initial landing	Date of first large catch	Date of initial landing	Date of first large catch
1949	21 Feb	7 Mar	20 Feb	20 Feb	11 Mar	--			1 Mar	3 Mar
1950	27 Jan	11 Feb	12 Feb	12 Feb	23 Feb	23 Feb	13 Mar	--	22 Feb	8 Mar
1951	7 Jan	21 Jan			No run in Cowlitz		1 Apr	--	7 Mar	7 Mar
1952	28 Jan	5 Feb			18 Feb	18 Feb	25 Mar	25 Mar	9 Apr	9 Apr
1953	5 Jan	13 Jan	6 Jan	7 Jan	7 Jan	7 Jan	14 Feb	19 Feb		
1954	6 Jan	10 Jan			3 Jan	3 Jan	14 Jan	14 Jan	22 Mar	28 Mar
1955	10 Jan	6 Feb			3 Feb	3 Feb				
1956	16 Jan	22 Jan			29 Feb	29 Feb	20 Mar	20 Mar		
1957	7 Jan	17 Feb	12 Feb	--	3 Mar	9 Mar				
1958	1 Jan	14 Jan			19 Jan	22 Jan				
1959	8 Jan	18 Jan			10 Feb	7 Apr	8 Mar	8 Mar	12 Mar	12 Mar
1960	26 Jan	21 Mar	17 Feb	--	2 Feb	7 Feb				
1961	15 Jan	17 Jan			17 Jan	19 Jan				
1962	2 Jan	10 Jan			20 Feb	15 Mar				
1963	6 Jan	7 Jan	15 Jan	16 Jan	7 Feb	7 Feb				
1964	30 Dec	7 Jan			8 Jan	8 Jan				
1965	8 Jan	10 Jan			No run in Cowlitz				29 Mar	29 Mar
1966	3 Jan	18 Jan			6 Mar	6 Mar				
1967	28 Dec	10 Jan	9 Jan	11 Jan	22 Jan	22 Jan				
1968	3 Jan	21 Jan	31 Jan	4 Feb	12 Jan	14 Jan				
1969	15 Jan	19 Jan	9 Feb	9 Feb	13 Feb	13 Feb				
1970	30 Dec	27 Jan	22 Jan	25 Jan	18 Jan	21 Jan	19 Feb	19 Feb	25 Feb	25 Feb
1971	21 Dec	23 Dec			27 Dec	27 Dec			14 Feb	14 Feb
1972	20 Dec	17 Jan			1 Jan	8 Jan				
1973	27 Dec	2 Jan			2 Jan	4 Jan				
1974	17 Dec	2 Jan	9 Jan	14 Jan	3 Jan	19 Jan			27 Feb	--
1975	5 Jan	13 Jan			4 Jan	4 Jan				
1976	8 Jan	--			18 Dec	18 Dec				
1977	8 Feb	9 Feb			No run in Cowlitz		4 Mar	4 Mar		
1978	26 Dec	26 Dec			27 Dec	27 Dec			17 Mar	17 Mar

Year	Columbia River		Grays River		Cowlitz River		Kalama River		Lewis River	
	Date of initial landing	Date of first large catch	Date of initial landing	Date of first large catch	Date of initial landing	Date of first large catch	Date of initial landing	Date of first large catch	Date of initial landing	Date of first large catch
1979	13 Jan	13 Jan			23 Feb	25 Feb			24 Feb	24 Feb
1980	13 Dec	16 Dec	3 Jan	3 Jan	13 Dec	26 Dec	12 Feb	--	5 Jan	5 Jan
1981	7 Jan	12 Jan			5 Jan	9 Jan			22 Feb	22 Feb
1982	17 Jan	17 Jan			27 Dec	27 Dec	17 Feb	17 Feb	21 Feb	21 Feb
1983	21 Dec	3 Jan			3 Jan	3 Jan			31 Jan	31 Jan
1984	4 Jan	4 Jan			10 Jan	13 Jan				
1985	14 Dec	29 Jan	14 Feb	14 Feb	2 Feb	2 Feb				
1986	17 Jan	25 Jan			12 Jan	14 Jan			5 Mar	5 Mar
1987	29 Dec	6 Feb			2 Jan	3 Jan	12 Mar	--	23 Feb	23 Feb
1988	18 Dec	18 Jan			17 Jan	18 Jan			15 Apr	15 Apr
1989	19 Jan	3 Mar			20 Jan	9 Mar				
1990	14 Jan	22 Jan			15 Jan	16 Jan			6 Mar	6 Mar
1991	22 Jan	11 Feb			18 Jan	19 Jan				
1992	1 Feb	--			6 Feb	6 Feb				
1993	27 Jan	20 Feb			22 Feb	22 Feb	12 Mar	12 Mar		
1994	8 Jan	--			1 Mar	4 Mar				
1995	1 Jan	25 Jan			3 Jan	28 Jan	6 Feb	--		
1996	1 Jan	26 Jan			8 Jan	--				
1997	9 Jan	--			19 Feb	19 Feb				
1998	19 Jan	20 Jan			22 Jan	--	fishery closed		fishery closed	
1999	15 Dec	27 Jan					fishery closed		fishery closed	
2000	20 Dec	12 Jan								
2001	28 Dec	14 Feb			1 Mar	1 Mar				
2002	16 Jan	16 Jan			3 Jan	3 Jan			6 Feb	6 Feb
2003	7 Jan	10 Jan			6 Jan	8 Jan			12 Feb	12 Feb
2004	29 Jan	6 Feb			4 Feb	4 Feb				
2005	5 Jan						fishery closed			
2006	28 Dec	23 Jan	fishery closed		fishery closed		fishery closed		fishery closed	
2007	3 Dec	--	fishery closed		26 Feb	26 Feb	fishery closed		fishery closed	
2008	11 Dec	11 Feb	fishery closed		17 Feb	17 Feb	fishery closed		fishery closed	

Table S8. Dates of initial arrival of eulachon in the Sandy River, Oregon from 1881–2015. Newspaper data from Table S4.

Year	Initial arrival (Newspaper data, Table S1)	Initial arrival, Troutdale Historical Society (Nesbit 2007)
1881	April 7	
1882	April 12	
1883		
1884		
1885		
1886		
1887		
1888		
1889		
1890		
1891		
1892		
1893	April 8	
1894		
1895	March 24	
1896		
1897		
1898		
1899		
1900		
1901		
1902	March 26	
1903	April 23	
1904		
1905		
1906		
1907		
1908		
1909		
1910		
1911		
1912	March 29	
1913	April 12	April 8

Year	Initial arrival (Newspaper data, Table S1)	Initial arrival, Troutdale Historical Society (Nesbit 2007)
1914	March 30	March 24
1915		
1916		April 4
1917	April 26	April 21
1918	March 30	April 2
1919	March 29	March 29
1920	April 24	
1921		March 29
1922	April 12	April 11
1923	April 4	April 6
1924	March 27	April 28
1925	March 16	March 26
1926		April 9
1927		March 28
1928	March 19	March 12 ³
1929		April 9
1930	March 18	March 18
1931		
1932		March 26
1933		
1934	March 4	March 4
1935		
1936	March 31	March 27
1937		
1938		
1939		
1940		March 6
1941	March 14	March 14
1942	March 19	March 19
1943	March 25	March 25
1944		
1945	April 1	April 1
1946	March 28	March 28
1947		
1948	March 27	March 27
1949	March 24	March 24

Year	Initial arrival (Newspaper data, Table S1)	Initial arrival, Troutdale Historical Society (Nesbit 2007)
1950		
1951	April 5	April 5
1952		April 8
1953	April 19	April 20
1954	April 1	April 1
1955		
1956	March 29	March 29
1957	March 26	March 26
1958		
1959		
1960		
1961		
1962		
1963		
1964		
1965		
1966		
1967		
1968		
1969		
1970		
1971	March 22	March 23
1972		
1973		
1974	February 26	February 26
1975	March 29	March 27
1976	March 24	March 23
1977	March 12	March 12
1978		March 23
1979	March 13	March 13
1980	March 8	March 8
1981	March 9	March 7
1982		
1983		
1984		
1985	March 7	March 9

Year	Initial arrival (Newspaper data, Table S1)	Initial arrival, Troutdale Historical Society (Nesbit 2007)
1986		
1987		
1988	April 16	April 16
1989		
1990		
1991		
1992		
1993		
1994		
1995		
1996		
1997		
1998		
1999		
2000		
2001	March 11	March 13
2002		
2003	January 23	January 23; February 21
2004		
2005		
2006		
2007		
2008		
2009		
2010		
2011		
2012		
2013	March 24	
2014	March 15	
2015	March 2	

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Table S9. Historical eulachon catch in Fraser River (District No. 1), British Columbia, Canada. Data in original sources variously reported as short hundred weight (cwt), pounds (lb), barrels (200 lb salted eulachon/barrel), and boxes (10 lb smoked eulachon/box) have been summed by year and converted to metric tons (t). When catch data in original sources differs for the same years (1941–46, 1951–53) the largest estimate is herein reported.

Year	Fresh eulachon (lb)	Salted eulachon in barrels (lb)	Smoked eulachon (lb)	Home consumption fresh eulachon (lb)	Home consumption smoked eulachon (boxes = 10 lb)	Total eulachon (lb)	Total eulachon (t)	Source
1881	3,100					3,100	1.41	1
1882	5,400			5,000		10,400	4.72	2
1883	5,000			3,000	5,500	13,500	6.12	3
1884	12,500			8,000		20,500	9.30	4
1885	6,550			5,000		11,550	5.24	5
1886	1,000			17,500	5,000	23,500	10.66	6
1887	6,000	2,000				8,000	3.63	7
1888	9,000	1,400				10,400	4.72	8
1889	53,500	11,000	1,000			65,500	29.71	9
1890	10,500	4,600	500			15,600	7.08	10
1891	33,000	55,000	2,700			90,700	41.14	11
1892	45,500	5,000	15,000			65,500	29.71	12
1893	46,000	5,000	10,000			61,000	27.67	13
1894	250,000	11,200	1,000			262,200	118.93	14
1895	240,000	30,000	1,000			271,000	122.92	15
1896	235,000	20,000	1,000			256,000	116.12	16
1897	250,000	50,000	1,000			301,000	136.53	17
1898	250,000	50,000	2,500			302,500	137.21	18
1899	250,000	55,000	2,500			307,500	139.48	19
1900	250,000	55,000	2,500			307,500	139.48	20
1901	240,000	60,000	3,000			303,000	137.44	21
1902	200,000	61,000	11,500			272,500	123.60	22
1903	284,320	70,000	10,000			364,320	165.25	23
1904	285,000	60,000	10,000			355,000	161.03	24
1905	50,000	30,000	2,000			82,000	37.19	25
1906	30,000	14,000	1,200			45,200	20.50	26
1907	15,000	7,000	1,000			23,000	10.43	27
1908	22,500	10,000	2,000			34,500	15.65	28
1909	70,000	20,000	5,000			95,000	43.09	29
1910	93,700					93,700	42.50	30
1911	72,000					72,000	32.66	31
1912	80,000					80,000	36.29	32
1913	23,200					23,200	10.52	33
1914	14,200					14,200	6.44	34
1915	27,200					27,200	12.34	35
1916	27,600					27,600	12.52	36
1917	38,100					38,100	17.28	37

Year	Fresh eulachon (lb)	Salted eulachon in barrels (lb)	Smoked eulachon (lb)	Home consumption fresh eulachon (lb)	Home consumption smoked eulachon (boxes = 10 lb)	Total eulachon (lb)	Total eulachon (t)	Source
1918	33,500					33,500	15.20	38
1919	13,100					13,100	5.94	39
1920	11,500					11,500	5.22	40
1921	18,800					18,800	8.53	41
1922	17,600					17,600	7.98	42
1923	43,800					43,800	19.87	43
1924	80,500					80,500	36.51	44
1925	35,700					35,700	16.19	45
1926	38,000					38,000	17.24	46
1927	28,600					28,600	12.97	47
1928	41,300					41,300	18.73	48
1929	21,400					21,400	9.71	49
1930	77,900					77,900	35.33	50
1931	13,900					13,900	6.30	51
1932	11,100					11,100	5.03	52
1933	15,300					15,300	6.94	53
1934	22,600					22,600	10.25	54
1935	34,100					34,100	15.47	55
1936	22,200					22,200	10.07	56
1937	9,000					9,000	4.08	57
1938	16,900					16,900	7.67	58
1939	45,400					45,400	20.59	59
1940	75,300					75,300	34.16	60
1941 ¹	132,168					132,168	59.95	61, 67
1942 ²	308,400					308,400	139.89	62, 67
1943 ³	262,900					262,900	119.25	63, 67
1944 ⁴	148,700					148,700	67.45	64, 67
1945 ⁵	205,411					205,411	93.17	65, 67
1946 ⁶	170,219					170,219	77.21	66, 67
1947 ⁷	284,916					284,916	129.24	67
1946 ⁷	363,042					363,042	164.67	67
1949 ⁷	298,167					298,167	135.25	67
1950 ⁷	188,745					188,745	85.61	67
1951 ⁸	381,800					381,800	173.18	67, 68
1952 ⁹	912,600					912,600	413.95	67, 68
1953 ¹⁰	344,900					344,900	156.44	67, 68
1954	334,200					334,200	151.59	68
1955	625,300					625,300	283.63	68
1956	518,400					518,400	235.14	68
1957	73,200					73,200	33.20	68
1958	203,100					203,100	92.12	68
1959	291,000					291,000	132.00	68
1960	185,200					185,200	84.01	68
1961	478,100					478,100	216.86	68

Year	Fresh eulachon (lb)	Salted eulachon in barrels (lb)	Smoked eulachon (lb)	Home consumption fresh eulachon (lb)	Home consumption smoked eulachon (boxes = 10 lb)	Total eulachon (lb)	Total eulachon (t)	Source
1962	393,000					393,000	178.26	68
1963	351,100					351,100	159.26	68
1964	232,500					232,500	105.46	68
1965	193,500					193,500	87.77	68
1966	224,400					224,400	101.79	68
1967	191,300					191,300	86.77	68
1968	101,200					101,200	45.90	68
1969	65,700					65,700	29.80	68
1970	150,400					150,400	68.22	68
1971	76,100					76,100	34.52	68
1972	117,200					117,200	53.16	68
1973	117,000					117,000	53.07	68
1974	166,000					166,000	75.30	68
1975	61,000					61,000	27.67	68
1976	81,000					81,000	36.74	68
1977	71,000					71,000	32.21	68
1978							38.00	68
1979							22.00	68
1980							24.00	68
1981							20.90	68
1982							13.50	68
1983							10.80	68
1984							11.80	68
1985							29.20	68
1986							49.60	68
1987							19.30	68
1988							28.60	68
1989							18.70	68
1990							20.00	68
1991							12.00	68
1992							19.60	68
1993							9.00	68
1994							6.10	68
1995							26.00	68
1996							29.56	69
1997							0.16	69
1998							0.25	69
1999							n/a	
2000							n/a	
2001							0.88	69
2002							7.35	69
2003							0.56	69
2004							1.07	69
2005							0.14	69

(1) – Data from Ricker et al. (1954, source 67), Dominion Bureau of Statistics (source 61) lists 14.06 mt in 1941; (2) – Data from Dominion Bureau of Statistics (source 62), Ricker et al. (1954, source 67) lists 96.97 mt in 1942; (3) – Data from Dominion Bureau of Statistics (source 63), Ricker et al. (1954, source 67) lists 95.33 mt in 1943; (4) – Data from Dominion Bureau of Statistics (source 64), Ricker et al. (1954, source 67) lists 60.21 mt in 1944; (5) – Data from Ricker et al. (1954, source 67), Dominion Bureau of Statistics (source 65) lists 54.11 mt in 1945; (6) – Data from Ricker et al. (1954, source 67), Dominion Bureau of Statistics (source 66) lists 68.72 mt in 1946; (7) – Data from Ricker et al. (1954, source 67), Dominion Bureau of Statistics data not located; (8) – Data from Department of Fisheries of Canada (source 68), Ricker et al. (1954, source 67) lists 141.21 mt in 1951; (9) – Data from Department of Fisheries of Canada (source 68), Ricker et al. (1954, source 67) lists 337.54 mt in 1952; (10) – Data from Department of Fisheries of Canada (source 68), Ricker et al. (1954, source 67) lists 98.86 mt in 1953.

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Table S10. Historical eulachon catch in mainland British Columbia north of the Fraser River (i.e., District No. 2) (reporting areas include Nass River, Skeena River to Alaska boundary, Skeena River, North Coast, Rivers Inlet to Skeena River, Rivers Inlet, and Howe Sound to Rivers Inlet). Data in original sources variously reported as short hundred weight (cwts), pounds, barrels (200 lb salted eulachon/barrel), half-barrels (100 lb salted eulachon/half-barrel), kitts (20 lb salted eulachon/kitt), boxes (10 lb smoked eulachon/box), and gallons of eulachon oil (14.08 gallons/t of eulachon) have been converted to metric tons (t). Moody and Pitcher (2010) provided the estimate that one t of eulachon would yield 14.08 gallons of eulachon oil.

Year	Fresh eulachon (lb)	Salted eulachon in barrels (lb)	Salted eulachon in half-barrels (lb)	Salted eulachon in kitts (lb)	Smoked eulachon (lb)	Total eulachon (lb)	Eulachon rendered into oil (t)	Total eulachon (t)	Source
1877 ¹		-			-		710.23	710.23	1
1878 ¹		23,600			-	23,600	113.64	124.34	2
1879 ¹	-	85,000			-	85,000	17.76	56.31	3
1880 ¹	-	-	14,500		1,800	16,300	90.48	97.88	4
1881 ¹	-	47,000	23,000	1,000	5,000	76,000	115.77	150.24	5
1882 ¹	-	23,200	4,400	740	12,610	40,950	227.27	245.85	6
1883 ¹	-	-			25,000	25,000	35.51	46.85	7
1884 ¹	-	-			130,000	130,000	3.05	62.02	8
1885 ²	4,800	4,500			-	9,300	31.96	36.18	9
1886 ²	-	4,000			2,000	6,000		2.72	10
1887 ²	-	4,000			900	4,900	0.71	2.93	11
1888 ³	1,200	45,000			200	46,400		21.05	12
1889 ³	2,000	60,000			5,500	67,500		30.62	13
1890 ³	1,000	70,000			500	71,500		32.43	14
1891 ⁴	14,000	125,000			2,100	141,100		64.00	15
1892 ⁴	70,000	160,000			2,800	232,800		105.60	16
1893 ⁴	80,000	174,600			2,500	257,100		116.62	17
1894 ⁴	70,000	152,000			2,500	224,500		101.83	18
1895 ⁴	70,000	170,000			3,500	243,500		110.45	19
1896 ⁵	65,000	177,000			3,500	245,500		111.36	20
1897 ⁵	110,000	245,000			20,000	375,000		170.10	21
1898 ⁵	110,000	305,000			20,000	435,000		197.31	22
1899 ⁶	135,000	305,000			20,000	460,000		208.65	23
1900 ⁶	460,000	304,000			21,000	785,000		356.07	24

Year	Fresh eulachon (lb)	Salted eulachon in barrels (lb)	Salted eulachon in half-barrels (lb)	Salted eulachon in kitts (lb)	Smoked eulachon (lb)	Total eulachon (lb)	Eulachon rendered into oil (t)	Total eulachon (t)	Source
1901 ⁷	580,000	382,000			25,500	987,500		447.92	25
1902 ⁷	690,000	640,000			29,500	1,359,500		616.66	26
1903 ⁷	740,000	744,000			35,200	1,519,200		689.10	27
1904 ⁷	540,000	760,000			7,000	1,307,000		592.85	28
1905 ⁷	460,000	440,000			7,500	907,500		411.64	29
1906 ⁷	512,000	342,000			5,800	859,800		390.00	30
1907 ⁷	410,000	100,000			7,800	517,800		234.87	31
1908 ⁷	459,000	116,000			9,900	584,900		265.31	32
1909 ⁷	510,000	160,000			13,000	683,000		309.80	33
1910 ⁸	1,402,000					1,402,000		635.94	34
1911 ⁸	1,500,000					1,500,000		680.39	35
1912 ⁸	1,380,000					1,380,000		625.96	36
1913 ⁸	1,395,000					1,395,000		632.76	37
1914 ⁸	1,270,000					1,270,000		576.06	38
1915 ⁸	1,095,000					1,095,000		496.68	39
1916 ⁸	1,095,000					1,095,000		496.68	40
1917	-					-			
1918	-					-			
1919 ⁹	4,200					4,200		1.91	41
1920 ¹	200,000					200,000		90.72	42
1921	-					-			
1922	-					-			
1923	-					-			
1924 ¹⁰	46,500					46,500		21.09	43
1925	-					-			
1926 ⁹	2,500					2,500		1.13	44
1927 ⁹	20,000					20,000		9.07	45
1928	-					-			
1929 ¹¹	14,600					14,600		6.62	46
1930 ⁹	12,000					12,000		5.44	47
1931 ⁹	5,900					5,900		2.68	48

Year	Fresh eulachon (lb)	Salted eulachon in barrels (lb)	Salted eulachon in half-barrels (lb)	Salted eulachon in kitts (lb)	Smoked eulachon (lb)	Total eulachon (lb)	Eulachon rendered into oil (t)	Total eulachon (t)	Source
1932 ⁹	7,300					7,300		3.31	49
1933						-			
1934						-			
1935 ⁹	2,000					2,000		0.91	50
1936						-			
1937	-	-				-			
1938	-	-				-			
1939	-	-				-			
1940	-	-				-			
1941 ⁹	2,200	-				2,200		1.00	51
1942 ⁹	6,000					6,000		2.70	52
1943 ⁹	4,600					4,600		2.09	53
1944 ⁹	9,300					9,300		4.22	54
1945 ⁹	162,200					162,200		73.57	55
1946 ⁹	3,500					3,500		1.59	56
1947									
1948									
1949									
1950									
1951	35,500					35,500		16.10	57
1952	15,500					15,500		7.03	57
1953	4,700					4,700		2.13	57
1954									
1955	300					300		0.14	57
1956									
1957									
1958									
1959									
1960									
1961									
1962									

Year	Fresh eulachon (lb)	Salted eulachon in barrels (lb)	Salted eulachon in half-barrels (lb)	Salted eulachon in kitts (lb)	Smoked eulachon (lb)	Total eulachon (lb)	Eulachon rendered into oil (t)	Total eulachon (t)	Source
1963									
1964									
1965									
1966									
1967									
1968									
1969									
1970	7,700					7,700		3.49	57

(1) Nass River; (2) Rivers Inlet to Skeena River; (3) Skeena River to Alaska Boundary and Rivers Inlet to Skeena River; (4) Skeena River to Alaska Boundary, Rivers Inlet to Skeena River, and Howe Sound to Rivers Inlet; (5) Nass River, Skeena River, and Rivers Inlet; (6) Nass River and Skeena River; (7) Nass River, Skeena River, and North Coast; (8) Nass River, Skeena River, North Coast, and Rivers Inlet; (9) Skeena River; (10) Skeena River and Rivers Inlet to Skeena River; (11) Skeena River to Alaska Boundary

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Table S11. Summaries of historical quantitative comments on eulachon fisheries catch in the Columbia River Basin, as reported in local newspapers, and in eulachon catch reports of government fisheries agencies—converted from pounds to metric tons (t)—from the Columbia River and tributary commercial fisheries [sources for yearly eulachon catch can be found in Gustafson et al. (2010, their table 7)]. ND, no data.

Run year	Quantitative anecdotal newspaper comments on Columbia River catch [converted to t]	Comment source (see Table S4)	Columbia River Basin commercial catch (t)
1871	6 tons [5.44 t] shipped to Portland, OR in one day	<i>Daily Oregonian</i> (1 Feb 1871)	ND
1872			ND
1873	7 tons [6.3 t] shipped to Portland, OR on one boat	<i>Kalama Beacon</i> (8 Feb 1873)	ND
1874			ND
1875			ND
1876	1,000 lb [0.45 t] at one Portland, OR fish dealer	<i>Daily Oregonian</i> (25 Feb 1876)	ND
1877			ND
1878	5 barrels [0.45 t] taken in one fish trap in one day	<i>Vancouver Independent</i> (14 Feb 1878)	ND
1879	2,100 lb [0.95 t] shipped by one firm to Portland, OR	<i>Daily Astorian</i> (2 Mar 1879)	ND
1880	One cannery put up 8,000 lb [3.63 t]	<i>Morning Oregonian</i> (5 Feb 1880)	ND
1881	6 barrels [0.54 t] caught in one night by one fisherman	<i>Vancouver Independent</i> (24 Mar 1881)	ND
1882	2 tons [1.81 t] on the dock at Eagle Cliff	<i>Daily Astorian</i> , (28 Feb 1882)	ND
1883	10 tons [9.07 t] dipped at Vancouver, WA in 6 days	<i>Vancouver Independent</i> (22 Mar 1883)	ND
1884			ND
1885			ND
1886	4,000 lb [1.81 t] received by one fish dealer in one day in Portland, OR	<i>Morning Oregonian</i> (2 Feb 1886)	ND
1887	4,000 lb [1.81 t] , one day's catch received in Portland, OR	<i>Morning Oregonian</i> (11 Mar 1887)	ND
1888	Several tons [2.72 t] received in Portland, OR	<i>Oregonian</i> (9 Feb 1888)	68.04
1889	Over 70,000 lbs [31.75 t] received in 2 days from Kelso, WA	<i>Capital Journal</i> (4 Mar 1889)	27.22

Run year	Quantitative anecdotal newspaper comments on Columbia River catch [converted to t]	Comment source (see Table S4)	Columbia River Basin commercial catch (t)
1890			0.45
1891	2 tons [1.81 t] from Cowlitz River received in Portland, OR in 1 day	<i>Oregonian</i> (2 Jan 1891)	68.04
1892			283.50
1893			ND
1894			136.08
1895	1,500–2,000 tons [1,361–1,814 t] caught in Sandy River (Commercial plus recreational catch)	<i>Morning Oregonian</i> (7 Apr 1895)	128.03
1896	2,500 lbs [1.13 t] shipped on one boat to Portland, OR	<i>Oregonian</i> (8 Mar 1896)	307.24
1897	25,000 boxes [566.99 t] brought to Portland, OR from Cowlitz River in February	<i>Oregonian</i> (25 Feb 1897)	463.34
1898			334.30
1899	2,000 boxes [45.36 t] shipped to Portland, OR from Cowlitz River in one day	<i>Oregonian</i> (27 Feb 1899)	254.43
1900			221.17
1901	500 boxes [11.34 t] shipped to Portland, OR in one day	<i>Oregonian</i> (27 Mar 1901)	120.37
1902			259.66
1903			182.34
1904			199.79
1905	400 tons [362.87 t] shipped from Kelso, WA in 1905	<i>Pacific Fisherman</i> (Apr 1905)	219.09
1906	700 tons [653.03] shipped from Cowlitz River in 1906	<i>Pacific Fisherman</i> (Apr 1906)	228.16
1907	3,000 boxes [68.04] shipped from Cowlitz River through January	<i>Twice a Week Kelsonian</i> (6 Feb 1907)	77.02
1908	500 boxes [11.34 t] delivered to Rainier, OR in one day	<i>Morning Oregonian</i> (24 Jan 1908)	273.07
1909			249.30
1910	15,000 boxes [340.19 t] shipped to date from Kelso, WA	<i>Sunday Oregonian</i> (13 Feb 1910)	282.35

Run year	Quantitative anecdotal newspaper comments on Columbia River catch [converted to t]	Comment source (see Table S4)	Columbia River Basin commercial catch (t)
1911	25,000 boxes [566.99 t] shipped from Kelso, WA in 1911	<i>Twice a Week Kelsonian</i> (1 Apr 1911)	158.59
1912	150 tons [136.08 t] caught in 1 day in the Cowlitz River	<i>Morning Oregonian</i> (8 Feb 1912)	224.68
1913	60 tons [54.43 t] caught in 1 day in the Cowlitz River	<i>The Coos Bay Times</i> (11 Feb 1913)	90.72
1914	1,200-1,500 boxes [27.22-34.02 t] delivered to Portland, OR in one day	<i>Morning Oregonian</i> (5 Feb 1914)	ND
1915			737.36
1916			291.02
1917	125,000 boxes [2,834.95 t] shipped from Cowlitz River in 1917	<i>St. Helens Mist</i> (4 May 1917)	1,272.84
1918			741.03
1919			1,091.05
1920			443.20
1921			476.85
1922			621.96
1923			466.94
1924	1,000-2,000 boxes [22.68-45.36 t] shipped from Kelso, WA per day for 2 weeks	<i>Twice a Week Kelsonian</i> (20 Feb 1924)	456.41
1925	Estimated 2,500 tons [2,267.96 t] caught by recreational fishers in Sandy River in 1925	<i>Rainier Review</i> (27 Mar 1925)	635.35
1926	Columbia River Smelt company shipping on an average of 500 boxes [11.34 t] daily	<i>Pacific Fisherman</i> (March 1926)	574.80
1927			586.52
1928	30,000 boxes [680.39 t] shipped by rail and truck from Lewis River	<i>Morning Oregonian</i> (21 Mar 1928)	530.17
1929	2,500 boxes [56.79 t] shipped from Kelso, WA in one day	WDF (1929) SR-1: p. 165	548.16
1930			659.74
1931			887.80

Run year	Quantitative anecdotal newspaper comments on Columbia River catch [converted to t]	Comment source (see Table S4)	Columbia River Basin commercial catch (t)
1932			718.47
1933			631.67
1934	Catch of 2200 boxes [49.90 t] a day in the Lewis River	<i>Daily Tribune-Kelsonian</i> (13 Mar 1934)	701.10
1935			1,057.76
1936			1,398.81
1937			1,106.06
1938			472.46
1939			1,404.50
1940			1,398.20
1941			1,148.41
1942			1,218.35
1943			1,804.07
1944			1,028.97
1945			2,594.23
1946			1,485.97
1947			700.75
1948			1,802.62
1949			1,512.10
1950			672.45
1951			688.05
1952			578.28
1953			776.10
1954			854.70
1955			1,014.73
1956			763.80
1957			716.22

Run year	Quantitative anecdotal newspaper comments on Columbia River catch [converted to t]	Comment source (see Table S4)	Columbia River Basin commercial catch (t)
1958			1,186.78
1959			796.55
1960			531.70
1961			477.32
1962			668.41
1963			488.56
1964			381.83
1965			413.09
1966			466.43
1967			453.96
1968			429.78
1969			491.56
1970			537.01
1971			805.90
1972			745.48
1973			1,104.23
1974			1,071.29
1975			942.38
1976			1,394.84
1977			795.15
1978			1,215.76
1979			524.67
1980			1,456.71
1981			758.54
1982			1,002.44
1983			1,238.49
1984			225.89

Run year	Quantitative anecdotal newspaper comments on Columbia River catch [converted to t]	Comment source (see Table S4)	Columbia River Basin commercial catch (t)
1985			924.42
1986			1,741.25
1987			859.88
1988			1,300.77
1989			1,391.08
1990			1,262.89
1991			1,338.28
1992			1,666.41
1993			233.10
1994			19.69
1995			199.58
1996			4.13
1997			26.58
1998			5.49
1999			9.48
2000			14.06
2001			142.02
2002			327.13
2003			493.00
2004			105.31
2005			0.09
2006			5.94
2007			3.78
2008			7.84
2009			8.00
2010			1.64
2011			closed

Run year	Quantitative anecdotal newspaper comments on Columbia River catch [converted to t]	Comment source (see Table S4)	Columbia River Basin commercial catch (t)
2012			closed
2013			closed
2014			8.42
2015			7.51
2016			2.19
2017			2.31
2018			0.05
2019			closed