A LISTING OF PACIFIC COAST SPAWNING STREAMS AND HATCHERIES PRODUCING CHINOOK AND COHO SALMON

with

Estimates on Numbers of Spawners
and Data on Hatchery Releases

by

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ABSTRACT

Information on chinook, Oncorhynchus tshawytscha, and coho, O. kisutch, salmon spawning streams and hatcheries along the west coast of North America was compiled following extensive consultations with fishery managers and biologists and thorough review of published and unpublished information. Included are a listing of all spawning streams known as of 1984-85, estimates of the annual number of spawners observed in the streams, and data on the annual production of juvenile chinook and coho salmon at all hatcheries.

Streams with natural spawning populations of chinook salmon range from Mapsorak Creek, 18 miles south of Cape Thompson, Alaska, southward to the San Joaquin River of California's Central Valley. The total number of spawners is estimated at 1,258,135.

Streams with coho salmon range from the Kukpuk River, 12 miles northeast of the village of Point Hope, Alaska, southward to the San Lorenzo River in the Monterey Ray region of California. The total number of natural spawners is estimated at 3,544,545.

Chinook salmon are reared at 183 hatchery facilities and coho salmon at 127. In 1984-85, a total of 314,Ø1Ø,OOO chinook and 137,32Ø,OOO coho were released by these facilities.

CONTENTS

INTRODUCTION

Each year, millions of juvenile chinook, Oncorhynchus tshawytscha, and coho, O. kisutch, salmon leave about 2,000 island or coastal rivers along the west coast of North America and migrate to feeding areas in the North Pacific Ocean and Bering Sea (Aro and Shepard 1967; Atkinson et al. 1967). A small percentage of these fish survive to return as adults to spawn in their river of origin. Some are taken in fisheries while feeding in the ocean or on their return to their natal rivers to spawn. All of these fish begin their lives in fresh water, either in gravel nests in river beds or in hatchery troughs, and information on the extent of this production is needed by fishery managers to help determine optimum catches and spawning escapements.

Data are available on hatchery production of juvenile chinook and coho salmon, but accurate information on the spawning of wild fish has been extremely difficult for fishery managers to obtain. For decades, federal and state fishery agencies of the United States and Canada have surveyed as many rivers as possible to answer the questions "What streams are used for spawning?" and "How many spawners are there?" The results of these surveys as well as information from other sources have been compiled into catalogs that are used to help manage salmon runs. However, the information in these catalogs is often out of date and incomplete. In addition, there is very little published information on chinook and coho salmon in some large geographic areas (particularly in Alaska) that contain numerous streams. Indeed, parts of Alaska have not been geographically surveyed, and new salmon-producing streams are found yearly.

The purpose of this report is to provide an up-to-date (1984-85) listing of all known chinook and coho salmon spawning streams on the west coast of North America and to give estimates of the number of spawners observed annually in these streams. Also included are data on the annual production of juvenile chinook and coho salmon at all hatcheries. In our text and tables, information on Alaskan streams and hatcheries is presented first followed by those of Canada, Washington, the Columbia River Basin, Oregon, and California.

SOURCES OF DATA

Alaska

Some information has been published on the streams used by chinook and coho salmon spawning in Alaska. From the late 1950's to the early 1970's, the U.S. Bureau of Commercial Fisheries (BCF, now the National Marine Fisheries Service) published a series of catalogs that contained information on northeastern Alaskan streams (Martin 1959; Orrell and Klinkhart 1963; Orrell et al. 1963; Johnston 1965; Rosier et al. 1965; Huizer and Richardson 1970; Huizer et al. 1970a; Huizer et al. 1970b; Parker 1970). The BCF also published catalogs on the Kvichak and Wood River systems of Bristol Bay (Demory et al. 1964; Marriott 1964) and the Chignik River system of the Alaska Peninsula (Phinney 1970l, but these catalogs centered on the production of sockeye salmon, O. nerka, and contained little information on chinook or coho. In 1978, the Alaska Department of Fish and Game produced an atlas showing streams used by all species of salmon in all parts of the state: recently, this agency also published information on the Yukon River Basin (Barton 1984).

The numbers of fish released via artificial propagation were usually provided by managers who were directly involved with current hatchery operations.

When we compiled the data for this report, we used the Alaska Department of Fish and Game (1978) atlas as a basic reference and then incorporated additional information provided by the Alaskans listed in the Appendix. This additional information included names and locations of all known spawning streams not shown in the atlas, names of streams incorrectly shown in the atlas as being used for spawning, estimates of the current number of spawners observed in the streams, and data on current hatchery production of chinook and coho salmon. Additional comments by these sources on the derivation and accuracy of survey data are presented as footnotes in our tables.

Canada

Considerable information is also available on the Canadian streams used for spawning. Fraser et al. (1982) published a report on the Fraser River system, and the Canadian Department of Fisheries and Oceans (CDFO) has produced several catalogs for management districts of the Fraser River and coastal regions of British Columbia. A sampling of these reports includes the following: Marshall et al. 1976a; Marshall et al. 1976b; Marshall et al. 1976c; Marshall et al. 1976d; Brown et al. 1977; Marshall et al. 1977a; Marshall et al. 1977b; Marshall et al. 1977c; Marshall et al. 1977d; Marshall et al. 1978a; Marshall et al. 1978b; Brown and Musgrave 1979a; Brown and Musgrave 1979b; Brown et al. 1979a; Brown et al. 1979b; Brown et al. 1979c; Brown et al. 1979d; Brown et al. 1979e; Marshall et al. 1979; Britton and Marshall 1980; Manzon and Marshall 1980a; Manzon and Marshall 1980b; Marshall and Manzon 1980; Marshall et al. 1980a; Marshall et al. 1980b; Manzon and Marshall 1981a; Manzon and Marshall 1981b; Britton et al. 1982; Leaney-East et al. 1982; Hancock et al. 1983a; Hancock et al. 1983b; Hancock and Marshall 1984.

The Canadian Department of Fisheries and Oceans has combined all of the survey reports plus other available data sources into a data base known as the Salmon Escapement Data System (SEDS). The data base resides on CDFO's VAX computer in Nanaimo. Mean escapement values for years 1974-83 were used for the Canadian portion of this report.

Washington

Under "Washington," we have-listed the river systems of Puget Sound and Hood Canal, the Strait of Juan de Fuca, and the Washington coast. (The rest of the state is included under "Columbia River Basin.") Catalogs for these regions have been prepared by the Washington Department of Fisheries (Williams 1975; Williams et al. 1975; Ames and Bucknell 1981; Bucknell and Ames 1981).

The Washingtonians listed in the Appendix provided the data for our report. They used the Washington Department of Fisheries catalogs as basic references, then included the same type of additional information that the Alaskans and Canadians provided.

Columbia River Basin

The Columbia River Basin includes large parts of Washington, Idaho, Oregon, and British Columbia. Our report covers the basin's spawning areas and hatcheries in Washington, Idaho, and Oregon. Spawning areas in the Canadian basin have not been used since 1939, when Washington's Grand Coulee Dam, which did not have facilities for fish passage, blocked upstream migration. Although catalogs of present spawning stream escapements are not available for the basin, some information has been published on the chinook and coho salmon runs (e.g., Fulton 1968, 197Ø).

Preliminary lists of known or possible spawning streams in the basin were used as basic references in lieu of catalogs, with corrections and additions made by the Washington specialists shown in the Appendix.

Oregon

Sections titled "Oregon" cover the coastal river systems. (Systems in the rest of the state are discussed under "Columbia River Basin.") Catalogs similar to those of Alaska, Canada, and Washington have not been prepared for this region. Our data were provided by the Oregonians listed in the Appendix.

California

The data for this report were provided by the Californians listed in the Appendix. No catalogs are available for California. However, a report has been published by Hallock and Fry (1967) on the Sacramento River system which produces far more chinook salmon than any other river system in California.

SPAWNING STREAMS AND HATCHERIES

Regions, and streams within regions, are listed starting on the coast at the northernmost region (or river mouth within a region) and moving southward to the next region (or river mouth) (Fig. 1). Where the north to south direction is not logical, lists start at the most westerly region (or river mouth) and move eastward. For islands, tables begin at the northernmost river mouth and move counterclockwise along the coast.

Alaska

The state of Alaska was divided into the following regions which are shown in Figure 1:

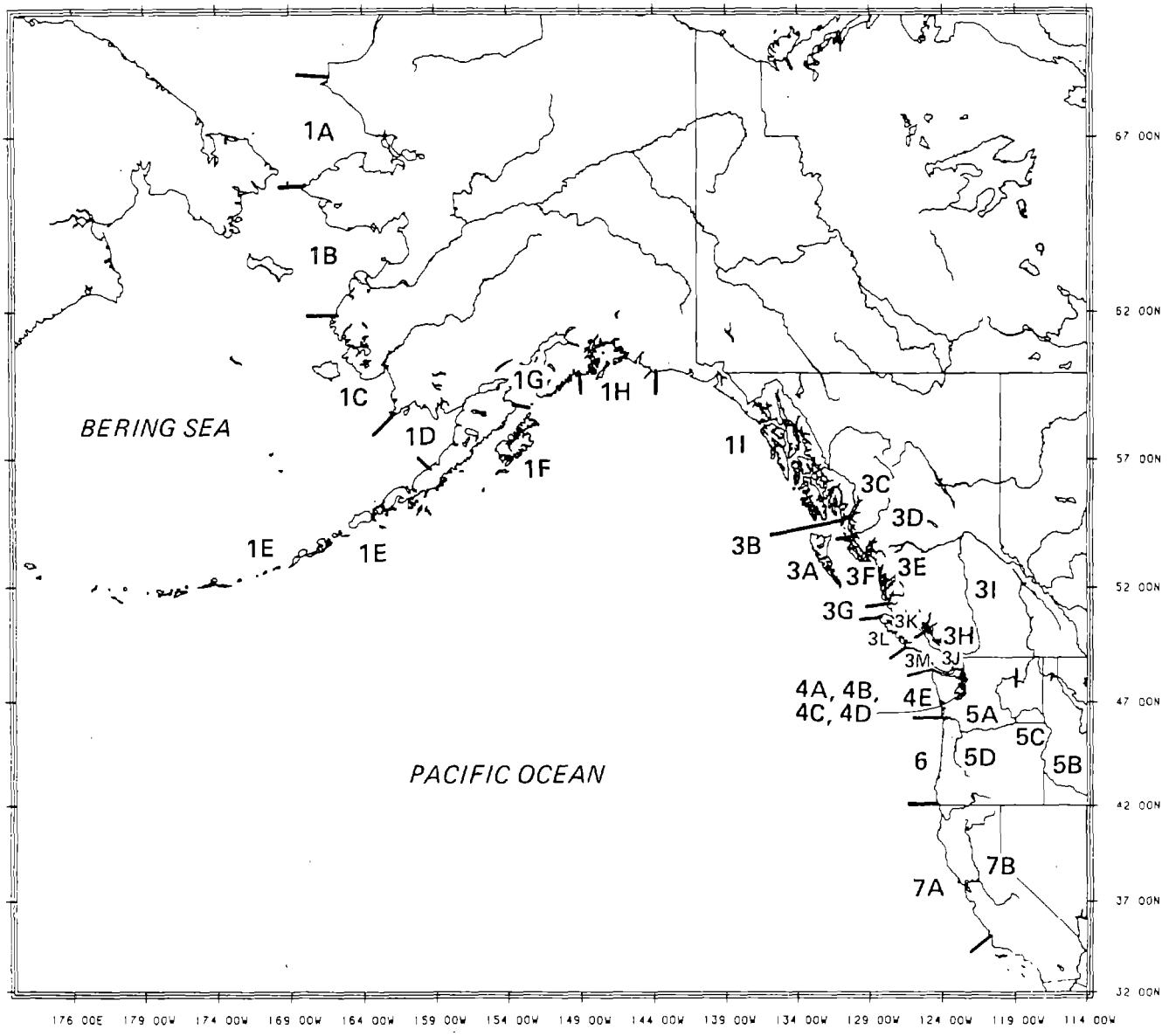


Figure 1.--Locations of spawning and hatchery regions for chinook and coho salmon in North America.

LEGEND

ALASKA
1A – Chukchi Sea and Kotzebue Sound
1B – Norton Sound and St. Lawrence Island
1C – Kuskokwim Bay
1D – Bristol Bay
1E – Alaska Peninsula and Aleutian Islands
1F – Kodiak Archipelago
1G – Cook Inlet and Kenai Peninsula
1H – Prince William Sound
1 I – Yakutat Bay and southeastern Alaska
2A – Transboundary region (see Figure 2)

CANADA
2B – Transboundary region (see Figure 2)
3A – Queen Charlotte Islands
3B – Northern islands and mainland
3C – Nass River
3D – Skeena River
3E – North-central mainland
3F – North-central islands
3G – South-central islands and mainland
3H – Southern islands and mainland
3 I – Fraser River
3J – Southeast Vancouver Island
3K – Northeast Vancouver Island
3L – Northwest Vancouver Island
3M – Southwest Vancouver Island

WASHINGTON
4A – Eastern Puget Sound
4B – Western Puget Sound
4C – Hood Canal and Port Townsend Bay
4D – Strait of Juan de Fuca
4E – Coast

COLUMBIA RIVER BASIN
5A – Washington
5B – Idaho
5C – Oregon (other than Willamette River)
5D – Willamette River

OREGON
6 – Coast

CALIFORNIA
7A – Coast
7B – Central Valley

Figure 1 .--Continued.

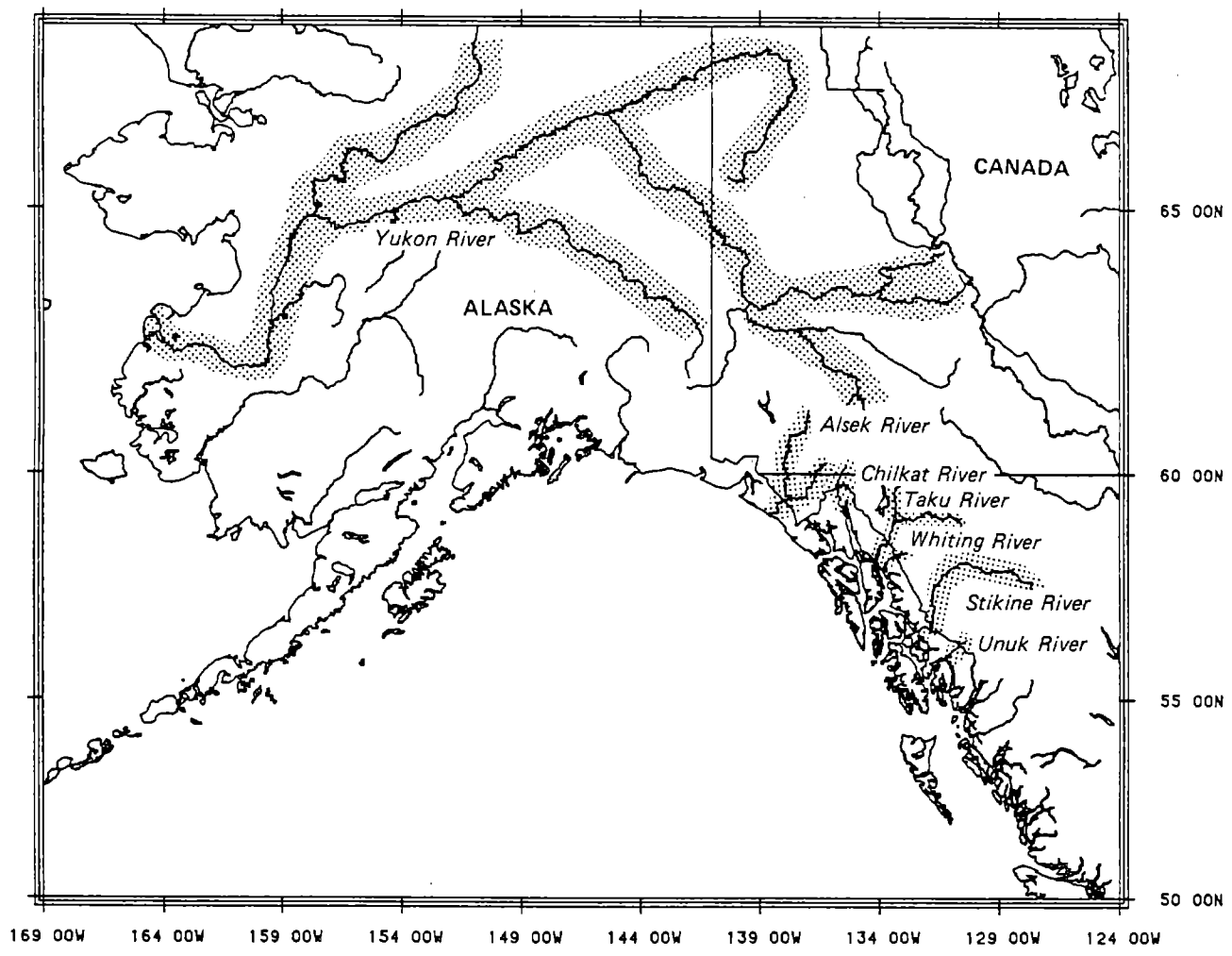


Figure 2.--Locations of spawning rivers for chinook and coho salmon in the transboundary area of Alaska and Canada.

A) Chukchi Sea and Kotzebue Sound (Marryat Inlet to Cape Prince of Wales);

B) Norton Sound and St. Lawrence Island (Cape Prince of Wales to Cape Romanzof);

C) Kuskokwim Bay (Cape Romanzof to Cape Newenham);

D) Bristol Bay (Cape Newenham to Cape Menshikof);

E) Alaska Peninsula and Aleutian Islands (Cape Menshikof to Cape Douglas);

F) Kodiak Archipelago;

G) Cook Inlet and Kenai Peninsula (Cape Douglas to Cape Fairfield);

H) Prince William Sound (Cape Fairfield to Cape Suckling); and

I) Yakutat Bay and southeastern Alaska (Cape Suckling to the Alaska-British Columbia border).

The data are summarized in Table 1 and presented by region in Appendix Tables 1A through II. The spelling of stream names is from Orth (1967) which also gives information on location of streams.

In addition, we list seven river basins that terminate on the Alaskan coast but originate in Canada. These are the Yukon, Alsek, Chilkat, Taku, Whiting, Stikine; and Unuk (Fig. 2). Data from this international, or "trans-boundary," group of rivers-are summarized in Table 1 and Appendix Tables 2A and 28. Data collected by Alaskans are presented in Appendix Table 2A, and data collected by Canadians in Appendix Table 28.

Table 1.--Alaskan streams and facilities that produce chinook and coho salmon.

Region No.	Region Name	Natural spawners (no. fish) Chinook	Natural spawners (no. fish) Coho	Hatchery Information Number of Facilities	Hatchery Information Releases (millions) Chinook	Hatchery Information Releases (millions) Coho
1A	Chukchi Sea and Kotzebue Sound	525	1,550	0	--	--
1B	Norton Sound and St. Lawrence Island	6,500	22,900	0	--	--
1C	Kuskokwim Bay	39,400	58,500	0	--	--
1D	Bristol Bay	192,900	406,950	0	--	--
1E	Alaska Peninsula and Aleutian Islands	21,100	328,050	0	--	--
1F	Kodiak Archipelago	12,300	190,250	1	0.08	0.30
1G	Cook Inlet/Kenai Peninsula	116,415	250,850	6	3.10	5.70
1H	Prince William Sound	6,050	106,525	1	0.10	1.00
1I	Yakutat Bay and Southeastern Alaska	7,500	831,000	14	7.74	18.52
2A 2B	Transboundary rivers	88,550	214,750	2	0.70	0.30
	Totals	491,290	2,411,325	24	11.72	25.82

Canada

Canada was divided into the following regions:

A) Queen Charlotte Islands;

B) Northern islands and mainland (Alaska-British Columbia border to Skeena River);

C) Nass River;

D) Skeena River;

E) North-central mainland (Skeena River to Cape Caution);

F) North-central islands (Skeena River to Cape Caution);

G) South-central islands and mainland (Cape Caution to Phillips Arm including North Broughton, Gilford, East Cracroft, West Cracroft, Harbledown, West Thurlow, and East Thurlow Islands):

H) Southern islands and mainland (Phillips Arm to the British Columbia-Washington border including Cortes, East Redonda, and West Redonda Islands);

I) Fraser River;

J) Southeast Vancouver. Island (Seymour Narrows to Beechey Head);

K) Northeast Vancouver Island (Cape Scott to Seymour Narrows including Sonora, Quadra, and Read Islands);

L) Northwest Vancouver Island (Cape Scott to Estevan Point); and

M) Southwest Vancouver Island (Estevan Point to Beechey Head). The location of each region is shown in Figure 3.

The Canadian data are summarized in Table 2 and tabulated in Appendix Tables 3A through 3M. The spelling of stream names is from the Canadian Permanent Committee on Geographical Names (1966) which gives information on locations of streams.

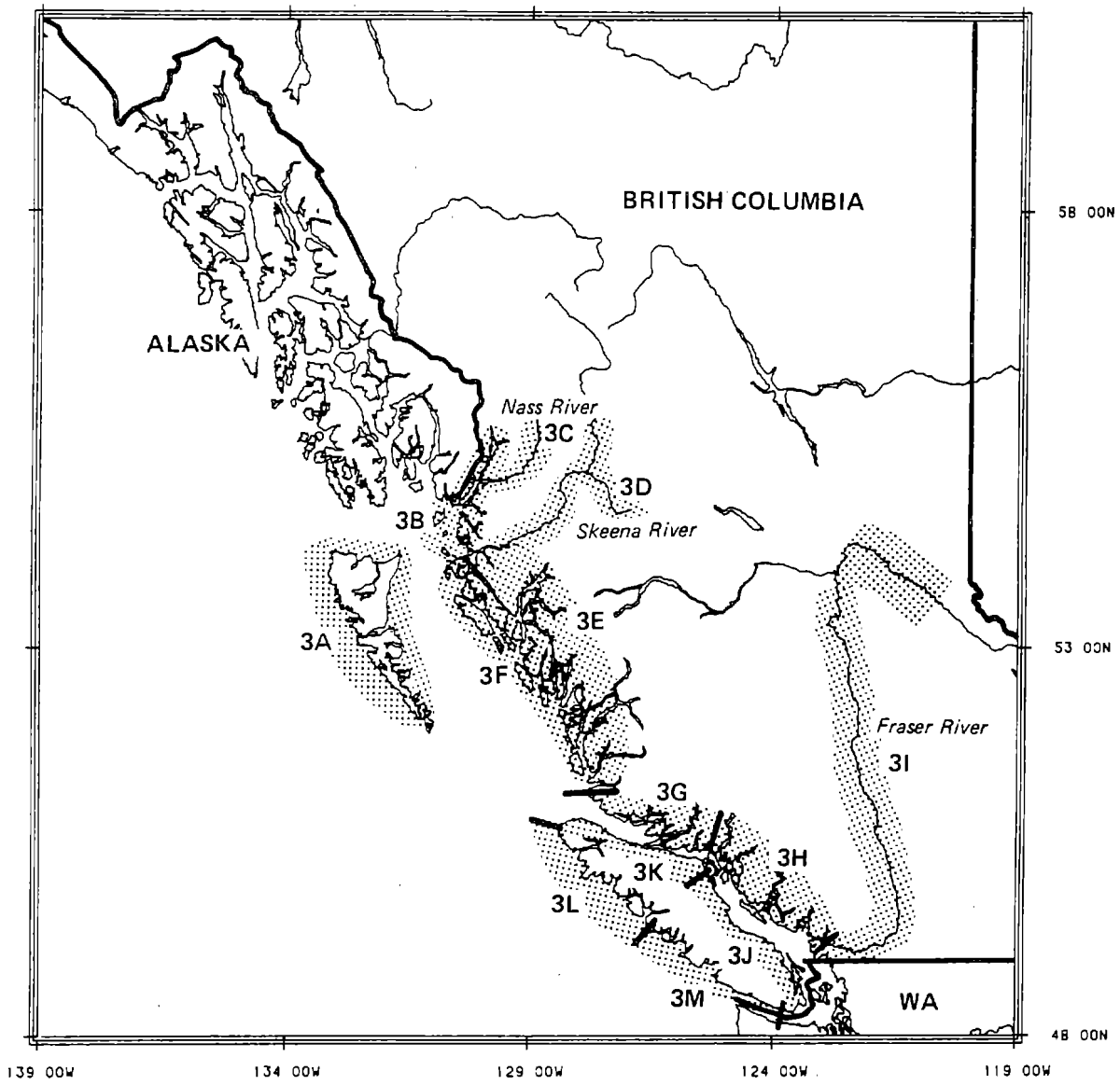


Figure 3.--Locations of spawning and hatchery regions for chinook and coho salmon in Canada.

Table 2.--Summary of Canadian streams and facilities that produce chinook and coho salmon.

Region No.	Region Name	Natural spawners (no. fish) Chinook	Natural spawners (no. fish) Coho	Hatchery Information Number of Facilities	Hatchery Information Releases (millions) Chinook	Hatchery Information Releases (millions) Coho
3A	Queen Charlotte Islands	835	96,940	3	0.50	0.275
3B	Northern Islands	1,790	11,685	2	0.80	0
3C	Nass River	6,520	19,105	0	--	--
3D	Skeena River	26,980	38,005	4	1.05	0.10
3E	North-central British Columbia Mainland	28,270	84,140	3	2.95	0.50
3F	North-central British Columbia Islands	0	27,740	0	--	--
3G	South-central British Columbia	6,180	32,120	0	--	--
3H	Southern British Columbia	11,380	79,565	6	2.90	1.76
3I	Fraser River	71,750	58,820	14	11.60	5.20
3J	Southeast Vancouver Island	17,105	130,905	8	12.75	8.20
3K	Northeast Vancouver Island	2,250	12,945	1	0.15	0
3L	Northwest Vancouver Island	6,165	25,135	3	3.24	0.63
3M	Southwest Vancouver Island	14,045	61,560	5	12.725	1.24
	Totals	193,270	678,665	49	48.665	17.905

Washington

We divided the Washington area into the following regions:

A) Eastern Puget Sound (British Columbia-Washington border southward to the Deschutes River);

B) Western Puget Sound (McLane Creek northward to Point No Point);

C) Hood Canal and Port Townsend Bay;

D) Juan de Fuca Strait (Middle Point westward to Neah Bay); and

E) Coast (Neah Bay to the Columbia River). Locations of the regions are shown in Figures 4 and 5.

Information on the Washington area is summarized in Table 3 and Appendix Tables Tables 4A through 4E.

Columbia River Basin

The Columbia River Basin was divided into the following regions:

A) Washington;

B) Idaho;

C) Oregon (other than the Willamette River system); and

D) Willamette River. The location of each region is shown in Figure 4.

The Columbia River Basin data are summarized in Table 4 and tabulated in Appendix Tables 5A through 5D.

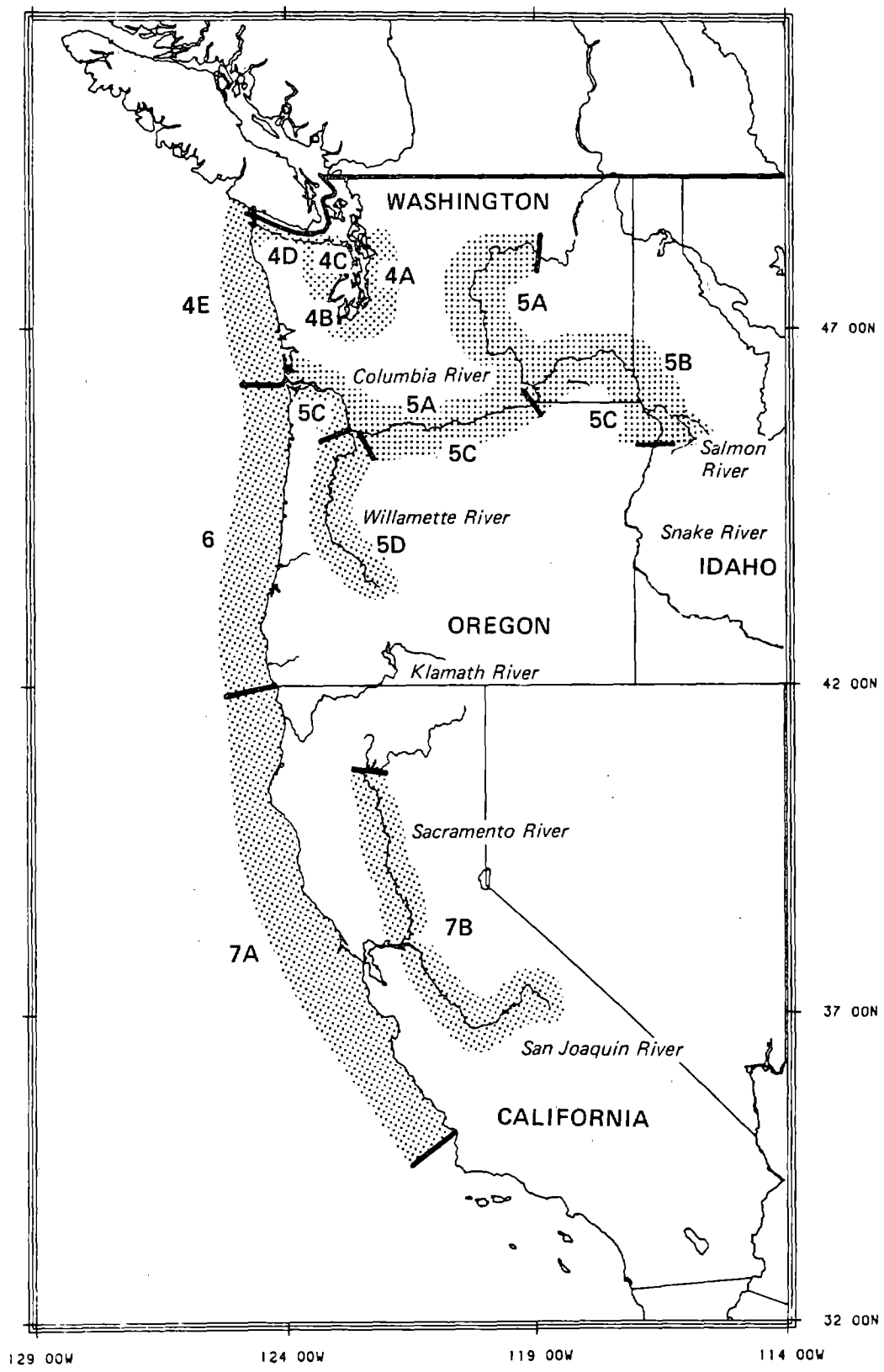
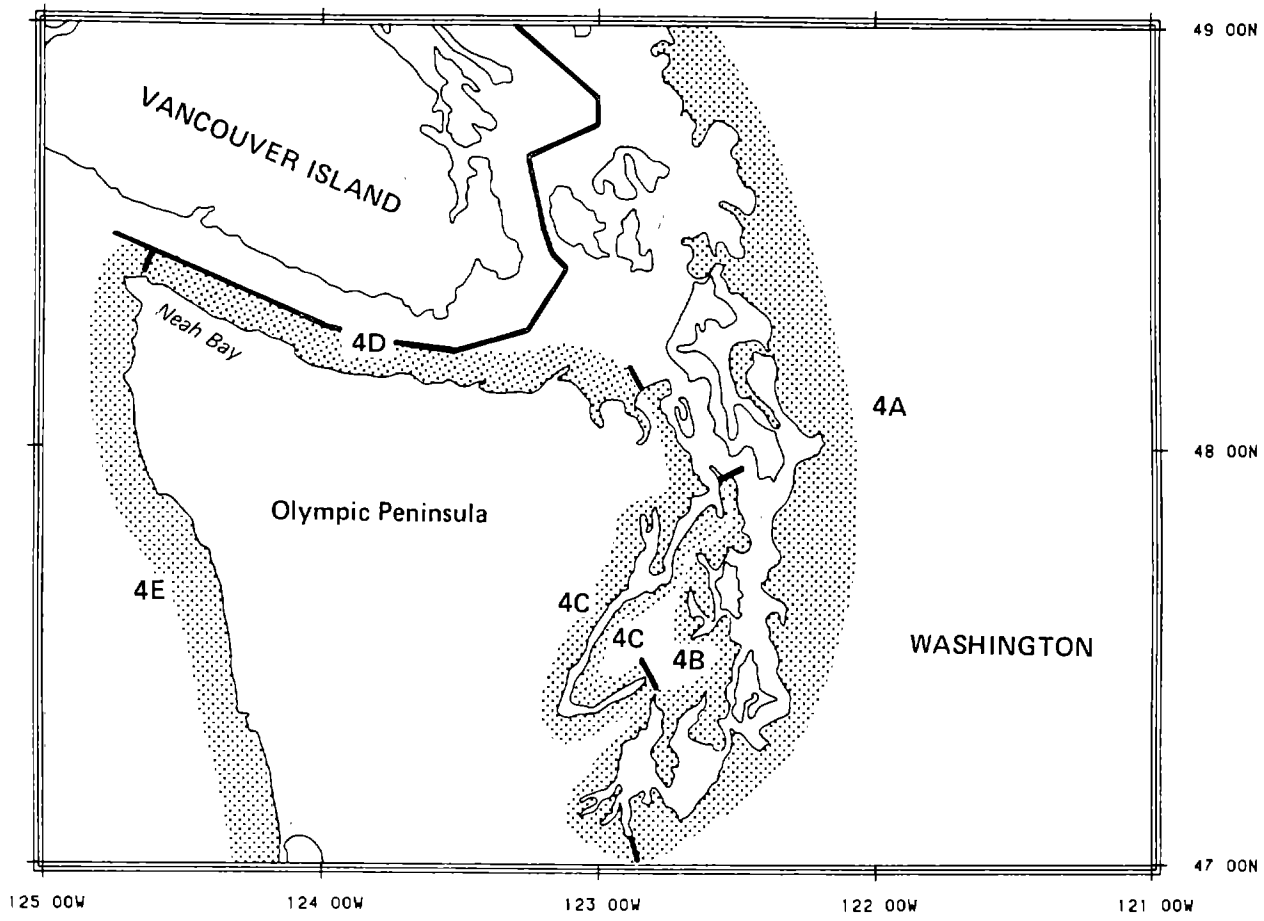


Figure 4 .--Locations of spawning and hatchery regions for chinook and coho salmon in Washington, the Columbia River Basin, Oregon, and California.



4A – Eastern Puget Sound (British Columbia-Washington border to Deschutes River)
4B – Western Puget Sound (McLane Creek northward to Point No Point)
4C – Hood Canal and Port Townsend Bay
4D – Juan De Fuca Strait (Middle Point to Neah Bay)
4E – Coast (Neah Bay to Columbia River)

Figure 5.--Locations of spawning and hatchery regions for chinook and coho salmon in Washington.

Table 3.--Washington streams and facilities that produce chinook and coho salmon.

Region No.	Region Name	Natural spawners (no. fish) Chinook	Natural spawners (no. fish) Coho	Hatchery Information Number of Facilities	Hatchery Information Releases (millions) Chinook	Hatchery Information Releases (millions) Coho
4A	Eastern Puget Sound	40,970	178,750	30	46.463	12.29
4B	Western Puget Sound	360	6,675	10	5.075	4.33
4C	Hood Canal	1,630	16,220	6	5.47	1.20
4D	Juan de Fuca Strait	2,445	7,140	4	3.20	1.28
4E	Coastal Washington	31,150	66,000	10	8.176	12.87
	Totals	76,555	274,785	60	68.384	31.97

Table 4.--Summary of Columbia River streams and facilities that produce chinook and coho salmon.

Region No.	Region Name	Natural spawners (no. fish) Chinook	Natural spawners (no. fish) Coho	Hatchery Information Number of Facilities	Hatchery Information Releases (millions) Chinook	Hatchery Information Releases (millions) Coho
5A	Washington-side	67,260	19,275	25	78.975	19.90
5B	Idaho	13,050	0	9	6.905	0
5C	Oregon-side	20,580	3,265	13	34.644	9.81
5D	Willamette River	29,270	3,200	8	15.872	1.00
	Totals	130,160	25,740	55	136,396	30.71

Oregon

Production of coho and chinook salmon in coastal Oregon is summarized in Table 5. Streams and hatcheries on the Oregon coast (Columbia River to the Oregon-California border) are listed in Appendix Table 6. The state's other streams and hatchery facilities were listed in Appendix Tables 5C and 5D in the section titled "Columbia River Basin."

Table 5.--Coastal Oregon streams and facilities that produce chinook and coho salmon.

Region		Natural spawners (no. fish)		Hatchery Information		
				Number of	Releases (millions)	
No.	Name	Chinook	Coho	Facilities	Chinook	Coho
6	Coastal Oregon	133,110	123,550	15	6.473	29.315

California

We divided California into the following regions:

A) Coast (Oregon-California border to Port San Luis), and

B) Central Valley.

Wild and hatchery production of coho and chinook salmon is summarized in Table 6. The coast region data are listed in Appendix Table 7A, and the Central Valley data are given in Appendix Table 7B. The Central Valley region includes two river systems, the San Joaquin and the highly productive Sacramento. Locations of the regions are shown in Figure 4.

Table 6.--California streams and facilities that produce chinook and coho salmon.

Region No.	Region Name	Natural spawners (no. fish) Chinook	Natural spawners (no. fish) Coho	Hatchery Information Number of Facilities	Hatchery Information Releases (millions) Chinook	Hatchery Information Releases (millions) Coho
7A	Coastal	57,750	30,480	17	7.18	1.60
7B	Central Valley	176,000	0	6	36.075	0
	Totals	233,750	30,840	23	43.255	1.60

SUMMARY OF ESCAPEMENT AND HATCHERY DATA

Spawning Escapement

The preceding tables present the best information available, as of 1984-85, on the distribution of chinook and coho salmon spawning streams and the abundance of fish spawning along the west coast of North America. The data were compiled following extensive consultations with fishery managers and biologists and review of published and unpublished information.

However, accurate data are not available on the abundance of spawning chinook and coho salmon in many streams. For example, many of the numbers listed in our tables are inferences based on fragmentary personal observations by local fishery agency personnel. Inaccessibility of spawning grounds, chronic turbidity of water, and other environmental factors limit the ability of surveyors to determine abundance in many streams, particularly within northern or mountainous river basins. In other areas, data on spawning stocks of chinook and coho salmon are sparse or lacking because these fish are not major

target species of the local fisheries and, therefore, are of less concern to fishery managers and biologists than other species.

Chinook Salmon

An estimated 1,258,135 chinook salmon spawn annually from Mapsorak Creek, 18 miles south of Cape Thompson, Alaska, southward to the San Joaquin River of California's Central Valley (Table 7). A breakdown by area follows:

Area	Number of fish	Percentage of total number
Alaska	402,740	32.0
Transboundary rivers	88,550	7.0
Canada	193,270	15.4
Washington	76,555	6.1
Columbia River Basin	130,160	10.3
Oregon coast	133,110	10.6
California	233,750	18.6

A few rivers, sometimes only one, were dominant contributors in each area. In Alaska, 31% (125,000) of the total escapement spawned in the Nushagak River. Among the transboundary rivers, the Yukon was dominant with a total of 59,200 fish (67%), and in Canada, 37% (71,750) spawned in the Fraser River and 14% (26,980) in the Skeena River. In the Washington area, the Skagit River with 20% (16,000) of the total spawners and the Quillayute with 9% (6,600) were the dominant producers. An estimated 130,160 chinook and coho spawned in the Columbia River Basin area, a single river system. No stream within the basin was clearly dominant; however, the Willamette River system with 22% (29,270 fish) and the Snake River and its tributaries with 11%

Table 7.--Annual spawning escapement and hatchery production of chinook and coho salmon on the Pacific coast of North America, circa 1984-85.

Area	Spawning escapement (no. fish)		Hatchery information		
			Number of facilities	Releases (millions)	
	Chinook	Coho		Chinook	Coho
Alaska					
Chukchi Sea and Kotzebue Sound	525	1,550	0	--	--
Norton Sound and St. Lawrence Island	6,500	22,900	0	--	--
Kuskokwim Bay	39,400	58,500	0	--	--
Bristol Bay	192,900	406,950	0	--	--
Alaska Peninsula and Aleutian Islands	21,100	328,050	0	--	--
Kodiak Archipelago	12,300	190,250	1	0.08	0.30
Cook Inlet and Kenai Peninsula	116,415	250,850	6	3.10	5.70
Prince William Sound	6,050	106,525	1	0.10	1.00
Yakutat Bay and southeastern Alaska	7,550	831,000	14	7.74	18.52
	402,740	2,196,575	22	11.02	25.52
Transboundary rivers	88,550	214,750	2	0.70	0.30
Canada					
Queen Charlotte Islands	835	96,940	3	0.50	0.28
Northern islands and mainland	1,790	11,685	2	0.80	0
Nass River	6,520	19,105	0	--	--
Skeena River	26,980	38,005	4	1.05	0.10
North-central mainland	28,270	84,140	3	2.95	0.50
North-central islands	0	27,740	0	--	--
South-central islands and mainland	6,180	32,120	0	--	--
Southern islands and mainland	11,380	79,565	6	2.90	1.76
Fraser River	71,750	58,820	14	11.60	5.20
Southeast Vancouver Island	17,105	130,905	8	12.75	8.20
Northeast Vancouver Island	2,250	12,945	1	0.15	0
Northwest Vancouver Island	6,165	25,135	3	3.24	0.63
Southwest Vancouver Island	14,045	61,560	5	12.73	1.24
	193,270	678,665	49	48.67	17.91
Washington					
Eastern Puget Sound	40,970	178,750	30	46.46	12.29
Western Puget Sound	360	6,675	10	5.08	4.33
Hood Canal and Port Townsend Bay	1,630	16,220	6	5.47	1.20
Juan de Fuca Strait	2,445	7,140	4	3.20	1.28
Coast	31,150	66,000	10	8.18	12.87
	76,555	274,785	60	68.39	31.97
Columbia River Basin					
Washington	67,260	19,275	25	78.98	19.90
Idaho	13,050	0	9	6.91	0
Oregon (other than Willamette River)	20,580	3,265	13	34.64	9.81
Willamette River	29,270	3,200	8	15.87	1.00
	130,160	25,740	55	136.40	30.71
Oregon coast	133,110	123,550	15	6.47	29.32
California					
Coast	57,750	30,480	17	6.28	1.59
Central Valley	176,000	0	6	36.08	0
	233,750	30,480	23	42.36	1.59
Total	1,258,135	3,544,545	226	314.01	137.32

(14,775 fish) were large contributers In the Oregon coast area, 40% (52,800) of the spawners were estimated to use the Rogue River; in the California area, the Sacramento River was dominant with 161,600 fish, 69% of the spawners.

McPhail and Lindsey (1970) observed that chinook salmon tend to spawn in larger streams than do coho, and our data confirm their observation. In Alaska, for example, two large rivers alone (the Nushagak with 125,000 fish and the Susitna with 58,900) accounted for 46% of the area's total chinook salmon escapement. In marked contrast, the same two rivers accounted for only 14% of the area's coho escapement.

Coho Salmon

Coho salmon spawn from the Kukpuk River, 12 miles northeast of the vil,-lage of Point Hope, Alaska, southward to the San Lorenzo River near Monterey Bay, California. An- estimated 3,544,545 coho salmon spawn within this range (Table 7). The breakdown by area is as follows:

	Number of fish	Percentage of total number
Alaska	2,196,575	62.0
Transboundary rivers	214,750	6.1
Canada	678,665	19.2
Washington	274,785	7.8
Columbia River Basin	25,740	0.7
Oregon coast	123,550	3.5
California	30,480	0.9

Most spawning coho salmon are in the northern part of the range--87.2% come from rivers north of the Canada-Washington border. By contrast, only

about half (54.4%) of the total number of chinook salmon spawn north of the line.

In addition, coho salmon spawn in far more streams than do chinook salmon. Most of these streams are relatively small, but the total number of coho spawners utilizing these small streams is very large. A case in point is Alaska's southeastern region, including Yakutat Bay. The total spawning escapement of this region was estimated at 831,ØØØ coho in 1984-85 (Table 7), and the vast. majority of these fish use small streams too numerous for the local fishery agencies to survey individually (Appendix Table 11).

Hatchery Production

Chinook Salmon

Chinook salmon are artificially propagated on the west coast from Anchorage, Alaska (and in the Yukon River basin at Clear, Alaska, and Whitehorse, Yukon Territory) southward to Port San Luis near Avila Beach, California. Within this area, 183 hatchery facilities reared chinook in 1984-85 (Appendix Tables IF to 7B),1 releasing 314,ØlØ,OOO juvenile fish (Table 7). A breakdown by area follows:

	Number of facilities	Number of fish released (millions)	Percentage of total number (millions)
Alaska	13	11.02	3.5
Transboundary rivers	2	0.70	0.2
Canada	44	48.67	15.5
Washington	47	68.39	21.8
Columbia River Basin	46	136.40	43.4
Oregon coast	12	6.47	2.1
California	19	42.36	13.5

Hatchery production of chinook salmon is centered in the Columbia River Basin, Washington (mainly in the eastern Puget Sound region (Table 7)), and Canada (mainly in the Fraser River and Vancouver Island regions (Table 7)). These three areas accounted for 80.7% of the total number of fish released; one area, the Columbia River Basin, accounted for nearly half (43.4%) of the releases on the west coast.

Coho Salmon

Coho salmon are artificially reared from Anchorage, Alaska (and in the Yukon River Basin at Clear, Alaska) southward to Scott Creek near Santa Cruz, California. In 1984-85, 127 west coast hatcheries participated in this activity (Appendix Tables 1F to 7A), releasing 137,320,000 fish (Table 7). The breakdown by area is as follows:

	Number of facilities	Number of fish released (millions)	Percentage of total number (millions)
Alaska	12	25.52	18.6
Transboundary rivers	1	0.30	0.2
Canada	32	17.91	13.0
Washington	40	31.97	23.3
Columbia River Basin	20	30.71	22.4
Oregon coast	12	29.32	21.4
California	10	1.59	1.2

The most productive areas are Washington (23.3% of the releases), the Columbia River Basin (22.4%), the Oregon coast (21.4%), and Alaska (18.6%).

Far fewer coho than chinook salmon were produced in hatcheries (137,320,000 fish versus 314,010,000). In contrast, spawning escapement of coho salmon far

outweighs that of chinook (3,544,545 fish versus 1,258,135). The selection of a fish species for artificial propagation is not usually based on its natural abundance but rather on its relative value and role in the management plans of fishery agencies. Chinook salmon are preferred over coho for hatchery stock because of the great importance placed on, chinook by fishermen and fishery agencies.

We would like to reiterate that although the data in this report are the best we could obtain, even today scientists and managers are working to acquire more detailed and accurate information on these species. This is especially pertinent in Alaska and Canada, where many potential spawning streams have yet to be surveyed. This listing is therefore incomplete; however, we feel that the great majority of spawning chinook and coho salmon are represented.

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APPENDIX

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[1/] Acronyms designate the following organizations:

ADF&G - Alaska Department of Fish and Game

BPA - Bonneville Power Administration

CDF&G - California Department of Fish and Game

CDF&O - Canada Dapartment of Fisheries and Oceans

IDF&G - Idaho Department of Fish and Game

NMFS - National Marine Fisheries Service

NWIFC - Northwest Indian Fisheries Council

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APPENDIX TABLES

ALASKA

Table 1A.--Chukchi Sea and Kotzebue Sound (Marryat Inlet to Cape Prince of Wales) streams and facilities that produce chinook and coho salmon. (All hatchery facilities in Alaska are operated by the Alaska Department of Fish and Game unless denoted otherwise.)

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho[a]	Facility	Chinook	Coho
1.	Kukpuk R.[b]	0	100			
2.	Mapsorak (Singoolik) Cr.	50	100			
3.	Kivalina R.	100	500			
4.	Wulik R.	75	150			
5.	Noatak R.	100	500			
6.	Kobuk R.	100	0			
7.	Buckland R.	100	100			
8.	Inmachuk R.	0	100			
	525	1,550	0	0	--	

[a]Numbers of salmon are estimated primarily from aerial surveys; therefore, the actual number of spawners is probably greater than these figures indicate. Most important is that this area has not been completely surveyed and additional salmon-producing streams are found yearly.

[b]From Smith et al. (1966).

Table 1B.--Norton Sound and St. Lawrence Island (Cape Prince of Wales to Cape Romanzof) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho[a]	Facility	Chinook	Coho
NORTON SOUND						
1.	Agiapuk R.	0	250			
2.	Kuzitrin R.	100	200			
3.	Sinuk R.	50	100			
4.	Cripple R.	0	200			
5.	Penny R.	0	100			
6.	Snake R.	25	1,000			
7.	Nome R.	50	2,000			
8.	Flambeau R.	100	500			
9.	Solomon R.	25	100			
10.	Fish R.	500	2,000			
11.	Swiniuk R.	250	2,000			
12.	Tubutulik (Tubatulik) R.	150	100			
13.	Koyuk R.	100	200			
14.	Inglutalik R.	300	100			
15.	Ungalik R.	50	150			
16.	Shaktoolik R.	1,000	2,000			
17.	Tagoomenik R.	0	100			
18.	Junction Cr.	0	100			
19.	Egavik Cr.	150	500			
20.	Unalakleet R.	3,000	10,000			
21.	Golsovia R.	50	100			
22.	Kogok R.	50	100			
23.	Pikmiktalik R.	50	500			
24.	YUKON RIVER SYSTEM[b]	-	-			
25.	Black R.	500	0			
ST. LAWRENCE ISLAND						
1.	Koozata R.	0	500			
		6,500	22,900	0	--	--

[a]Numbers of salmon are estimated primarily from aerial surveys; therefore, actual populations are probably greater than these figures indicate. Also, the area has not been completely surveyed and additional salmon-producing streams are found yearly.

[b]Transboundary, river; see Tables 2A and 2B for numbers of salmon.

Table 1C.--Kuskokwim Bay (Cape Romanzof to Cape Newenham) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho[a]	Facility	Chinook	Coho
KUSKOKWIM BAY						
1.	Keoklevik R.	50	0			
2.	Kashunuk R.	500	750			
3.	Aphrewn R.	50	0			
4.	Manokinak R.	250	500			
5.	Anerkochik R.	50	0			
6.	Azun R.	50	0			
7.	Kuskokwim R.					
	a. Minor tributaries	1,000	5,000			
	b. Kwethluk R.	1,200	1,000			
	c. Kisaralik R.	800	1,000			
	d. Tuluksak R.	500	1,000			
	e. Aniak R.	1,000	5,000			
	f. Holokuk R.	75	0			
	g. Oskawalik R.	150	300			
	h. Holitna R.	13,000	20,000			
	i. Crooked Cr.	50	0			
	j. George R.	100	0			
	k. Stony R.	0	3,000			
	l. Swift R.	1,500	1,500			
	m. Tatlawiksuk R.	250	500			
	n. Salatna R.	50	0			
	o. Takotna R.	200	300			
	p. Big R.	1,000	0			
	q. South Fork	500	300			
	r. North Fork	500	1,000			
8.	Eek R.	500	1,500			
9.	Kanektok R.	10,000	10,000			
10.	Arolik R.	500	1,000			
11.	Jacksmith Cr.	100	0			
12.	Cripple Cr.	100	0			
13.	Indian R.	100	0			
14.	Tunulik R.	100	0			
15.	Goodnews R.	5,000	4,000			
16.	Salmon R.	50	100			
17.	Kinegnak R.	75	150			

Table 1C.-- Kuskokwim Bay (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho[a]	Facility	Chinook	Coho
NUNIVAK ISLAND						
1.	Seven unnamed streams	50	250			
2.	Ahding R.	0	50			
3.	Anunak R.	0	50			
4.	Mekoryuk R.	0	50			
5.	Koweejoongak R.	0	50			
6.	Dahloongamiut R.	0	50			
7.	Kiyakyaliksamiut R.	0	50			
8.	Duchikmiut R.	0	50			
		39,400	58,500	0	--	--

[a]Numbers of salmon are estimated primarily from aerial surveys; therefore, actual populations are probably greater than these figures indicate. Most important is that this area has not been completely surveyed and additional salmon producing streams are found yearly.

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Table 1D.--Bristol Bay (Cape Newenham to Cape Menshikof) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
HAGEMEISTER ISLAND						
1.	North Cr.	0	500			
2.	South Cr.	0	500			
MAINLAND						
1.	Slug R.	100	2,000			
2.	Osviak R.	1,000	5,000			
3.	Matogak R.	300	5,000			
4.	Quigmy R.	200	500			
5.	Togiak R.	25,000	40,000			
6.	Negukthlik R.	2,000	5,000			
7.	Nunavachak Cr.	0	1,000			
8.	Eagle Bay Cr.	0	500			
9.	Metervik Bay stream	0	750			
10.	Kanik R.	50	100			
11.	Igushik R.	300	1,000			
12.	Weary R.	300	1,000			
13.	Snake R.	150	100			
14.	Wood R.	400	1,000			
15.	Muklung R.	3,000	3,000			
16.	Nushagak/Mulchatna R.	125,000	250,000			
17.	Kvichak R.	1,000	3,000			
18.	Alagnak R.	10,000	15,000			
19.	Naknek R.	15,000	5,000			
20.	King Salmon R. (Egegik Bay)	2,000	10,000			
21.	Egegik R.	1,000	30,000			
22.	Ugashik R.	100	5,000			
23.	Dog Salmon R.	1,000	2,000			
24.	King Salmon R. (Ugashik Bay)	5,000	20,000			
		192,900	406,950	0	--	--

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Table 1E.--Alaska Peninsula and Aleutian Islands (Cape Menshikof to Cape Douglas) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho[a]	Facility	Chinook	Coho
1.	Cinder R.	2,000	5,000			
2.	Mud Cr.	50	15,000			
3.	Meshik R.	3,000	5,000			
4.	Ilnik R.	100	20,000			
5.	Bluff Cr.	500	100			
6.	Charles Cr.	50	50			
7.	Sandy R.	500	5,000			
8.	Bear R.	350	1,000			
9.	King Salmon R. (Port Moller)	1,000	50			
10.	Nelson Lagoon streams	8,000	35,000			
11.	Nelson Lagoon to Moffet Pt.	2,000	2,000			
12.	Moffet Pt. to Bechevin Bay	50	2,000			
13.	UNIMAK ISLAND	0	15,000			
14.	UNALASKA ISLAND	0	2,000			
15.	ATKA ISLAND	0	1,000			
16.	KAGALASKA ISLAND	0	100			
17.	ADAK ISLAND	0	150			
18.	KISKA ISLAND	0	100			
19.	ATTU ISLAND	0	100			
20.	Ikatan Bay streams	0	1,500			
21.	Cold Bay streams	0	4,000			
22.	Pavlof Bay streams	0	1,200			
23.	Balboa Bay streams	0	2,500			
24.	UNGA ISLAND	0	1,800			
25.	POPOF ISLAND	0	300			
26.	KOROVIN ISLAND	0	150			
27.	Stepovak Bay streams	0	3,000			
28.	Ivanof Bay streams	0	2,000			
29.	Kametotook R.	0	500			
30.	Red Bluff Cr.	0	5,000			
31.	Chignik R.	3,500	100,000			
32.	Hook Bay Cr.	0	150			
33.	NAKCHAMIK ISLAND	0	100			
34.	Aniakchak Bay streams	0	25,000			
35.	Amber Bay streams	0	15,000			
36.	Yantarni Bay streams	0	10,000			
37.	Ocean Beach streams	0	1,300			
38.	Nakalilok Bay streams	0	500			
39.	Chiginagak Bay streams	0	600			
40.	Imuya Bay streams	0	200			

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Table 1E.--Alaska Peninsula and Aleutian Islands (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho[a]	Facility	Chinook	Coho
41.	Wide Bay streams	0	5,000			
42.	Portage Bay streams	0	2,000			
43.	Jute Bay stream	0	100			
44.	Dry Bay stream	0	500			
45.	Puale Bay stream	0	1,000			
46.	Alinchak Bay streams	0	200			
47.	Bear Bay streams	0	500			
48.	Kashvik Bay streams	0	2,500			
49.	Katmai Bay streams	0	5,000			
50.	Dakavak Bay streams	0	500			
51.	Geographic Harbor stream	0	50			
52.	Kinak Bay stream	0	100			
53.	Missak Bay stream	0	50			
54.	Kaflia Bay stream	0	1,000			
55.	Kukak Bay stream	0	5,000			
56.	Hallo Bay streams	0	10,000			
57.	Village Beach stream	0	100			
58.	Big River	0	10,000			
59.	Cape Douglas stream	0	1,000			
		21,100	328,050	0	--	--

[a]Much of this area has not been surveyed for salmon abundance and distribution.

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Table 1F.--Kodiak Archipelago streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho[a]	Facility	Chinook	Coho
SHUYAK ISLAND						
1.	Shangin Bay and Carry Inlet	0	10,000			
2.	Western Shuyak Island	0	10,000			
3.	Eastern Shuyak Island	0	2,000			
AFOGNAK ISLAND						
1.	Shuyak Strait and Bluefox Bay	0	2,000			
2.	Foul and Paramanof Bays	0	10,500			
3.	Malina Bay	0	2,000			
4.	Raspberry Strait	0	5,000			
5.	Afognak Bay	0	8,000			
6.	Marka Bay	0	200			
7.	Kazakof and Duck Bays	0	8,300			
8.	Kitoi and Izhut Bays	0	1,300	Kitoi Bay[b]	0.08[c]	0.30
9.	King Cove and Marmot Strait	0	100			
10.	Tonki Bay	0	300			
11.	Seal Bay	0	500			
12.	Perenosa Bay	0	16,000			
RASPBERRY ISLAND						
1.	Raspberry Strait	0	5,000			
KODIAK ISLAND						
1.	Viekoda Bay	0	700			
2.	Terror Bay	0	500			
3.	Uganik Bay	0	7,600			
4.	Spiridon Bay	0	3,000			
5.	Zachar Bay	0	500			
6.	Uyak Bay	0	600			
7.	Karluk River	7,000	25,000			
8.	Sturgeon Lagoon, Halibut Bay, and Burney Bay	0	3,850			
9.	Red River	5,000	25,500			
10.	Sukhoi Bay	0	200			
11.	Alitak and Olga Bays	300	14,550			
12.	Russian Harbor, Geese Channel, and Kaguyak Bay	0	700			
13.	Kiavak, Kaiugnak, and Three Saints Bays	0	400			
14.	Sitkalidak Island	0	5,600			

Table 1F.--Kodiak Archipelago (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho[a]	Facility	Chinook	Coho
15.	Kiliuda and Boulder Bays	0	850			
16.	Ugak Bay	0	10,800			
17.	Narrow Cape to Cape Chiniak	0	200			
18.	Chiniak Bay	0	6,200			
19.	Monashka Bay	0	200			
20.	Spruce Island	0	200			
21.	Kizhuyak Bay	0	1,250			
22.	Kupreanof Strait	0	50			
TRINITY ISLANDS						
1.	Sitkinak Island	0	400			
2.	Tugidak Island	0	100			
CHIRIKOF ISLAND						
1.	Chirikof Island	0	100			
		12,300	190,250	1	0.08	0.30

[a]Current estimates of the minimum escapement requirements for each general area, within which the number of streams may vary from one to several.

[b]Kitoi fish are usually released into Kodiak Island streams.

'Chinook production at Kitoi Bay is scheduled to be phased out in 1986.

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Table 1G.--Cook Inlet/Kenai Peninsula (Cape Douglas to Cape Fairfield) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
1.	Douglas R.	0	2,500			
2.	Kamishak R.	0	4,000			
3.	Strike Cr.	50	150			
4.	Little Kamishak R.	100	500			
5.	Bruin Bay Cr.	100	500			
6.	Miklik Cr.	0	150			
7.	McNeil R.	100	5,000			
8.	Amakdedori Cr.	0	500			
9.	Ursus Cove streams	0	250			
10.	Iliamna Bay streams	0	300			
11.	Iniskin R.	0	150			
12.	Chinitna Bay streams	0	500			
13.	Silver Salmon Lake Cr.	0	100			
14.	Johnson Cr.	0	500			
15.	Bear Cr.	0	75			
16.	Tuxedni Bay streams	0	100			
17.	Crescent R.	500	4,500			
18.	Polly Cr.	0	2,500			
19.	Redoubt Cr.	0	100			
20.	KALGIN ISLAND	0	300			
21.	Harriet Cr.	0	500			
22.	Katchin Cr.	0	50			
23.	Little Jack Cr.	0	5,000			
24.	Drift R.	0	800			
25.	Montana Bill Cr.	0	150			
26.	Seal R.	0	100			
27.	Big R.	250	3,500			
28.	Bachatna Cr.	0	250			
29.	Kustatan R.	600	1,500			
30.	McArthur R.	500	1,000			
31.	Middle R.	0	150			
32.	Nikolai Cr.	350	500			
33.	Chuitna R.	4,000	1,700			
34.	Threemile Cr.	100	200			
35.	Beluga R.	1,800	2,500			
36.	Theodore R.	1,000	1,500			
37.	Lewis R.	500	800			
38.	Susitna R.					
	a. Alexander Cr.	3,500	500			
	b. Yentna R.	1,700	30,000			
	c. Fish Cr.	50	100			

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Table 1G.--Cook Inlet/Kenai Peninsula (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
	d. Deshka R.	20,000	2,000			
	e. Willow Cr.	13,000	500			
	f. Little Willow Cr.	1,000	1,000			
	g. Kashwitna R.	300	300			
	h. Sheep/Goose Cr.	1,500	300			
	i. Montana Cr.	1,500	300			
	j. Rabideaux Cr.	50	500			
	k. Sunshine Cr.	0	400			
	l. Trapper Cr.	50	250			
	m. Talkeetna R.	10,000	5,000			
	n. Chulitna R.	4,000	4,000			
	o. Indian R.	1,000	400			
	p. Portage Cr.	1,200	400			
	q. Minor tributaries	50	1,500			
39.	Little Susitna R.	2,000	8,000			
40.	Fish Cr. (Big Lake)	10	2,000	Big Lake	0	1.700
41.	Cottonwood Cr.	0	1,500			
42.	Wasilla Cr.	50	1,500			
43.	Matanuska R.	700	1,500			
44.	Knik R.	0	4,000			
45.	Eklutna R.	0	100	Eklutna[a]	0.100	0.100
46.	Peters Cr.	25	50			
47.	Fire Cr.	0	100			
48.	Eagle R.	300	500			
49.	Ship Cr.	700	75	Elmendorf	0.900	0.800
				Ft. Richardson	1.000	2.000
50.	Chester Cr.	0	150			
51.	Campbell Cr.	200	200			
52.	Rabbit Cr.	15	250			
53.	Bird Cr.	50	400			
54.	Glacier Cr.	0	200			
55.	Twenty-Mile Cr.	50	2,500			
56.	Portage Cr.	0	400			
57.	Placer R.	0	500			
58.	Sixmile Cr.	200	500			
59.	Resurrection Cr.	15	200			
60.	Chickaloon R.	1,500	3,000			
61.	Egg Cr.	0	100			
62.	Otter Cr.	0	75			
63.	Swanson R.	0	1,000			
64.	Bishop Cr.	0	150			

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Table 1G. --Cook Inlet/Kenai Peninsula (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
65.	Kenai R.	35,000	100,000	Trail Lakes	1.000	1.000
66.	Kasilof R.	2,500	5,000	Kasilof	0.100	0.100
67.	Ninilchik R.	1,000	500			
68.	Deep Cr.	1,000	2,500			
69.	Stariski Cr.	250	500			
70.	Anchor R.	2,000	4,000			
71.	Caribou Lake Cr.	0	2,000			
72.	Fox R.	0	500			
73.	Sheep Cr.	0	250			
74.	Battle Cr.	0	75			
75.	Aurora Cr.	0	100			
76.	Humpy Cr.	0	100			
77.	Halibut Cove streams	0	3,000			
78.	China Pot Bay streams	0	300			
79.	Seldovia Bay streams	0	300			
80.	Port Graham streams	0	150			
81.	English Bay R.	0	750			
82.	Elizabeth Islands streams	0	100			
83.	Windy Bay streams	0	150			
84.	Rocky R.	0	300			
85.	Port Dick streams	0	100			
86.	Nuka Bay streams	0	750			
87.	Aialik Bay streams	0	100			
88.	Resurrection R.	0	10,000			
89.	Fourth of July Cr.	0	50			
		116,415	250,850	6	3.100	5.700

[a]Private nonprofit hatchery.

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Table 1H.--Prince William Sound Cape Fairfield to Cape Suckling) streams and facilities that produce chinook and coho salmon.

Stream[a]		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
1.	MONTAGUE ISLAND	0	2,500			
2.	Cape Fairfield to and including Foul Bay (mainland) and Eirington, Evans, Bainbridge, Knight and Chenega Islands	0	4,000			
3.	Foul Bay to Point Pigot (mainland) and Culross and Perry Islands	0	2,000			
4.	Point Pigot to and including Squaw Bay (mainland) and Esther Island	0	3,500			
5.	Squaw Bay to Point Freemantle (mainland) and Glacier Island	0	3,000			
6.	Point Freemantle to Point Whitshed except:	0	3,500			
	a. Mineral Cr.	0	100			
	b. Robe R.	0	6,500			
	c. Lowe R.	0	2,500			
	d. Solomon Gulch Cr.	0	25	Valdez[b]	0.100	1.000
7.	HINCHINBROOK ISLAND	0	1,500			
8.	HAWKINS ISLAND	0	1,000			
9.	East side Copper R. Delta streams	0	25,000			
10.	Copper R.[c]					
	a. Bremner R.	0	200			
	b. Chitina R.	750	500			
	c. Tonsina R.	900	600			
	d. Klutina R.	700	100			
	e. Tazlina R.	450	0			
	f. Gulkana R.	2,000	0			
	g. Gakona R.	200	0			
	h. Chistochina R.	800	0			
	i. Slana R.	50	0			
	j. Minor tributaries	200	0			

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Table 1H.--Prince William Sound (continued).

Stream[a]		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
11.	West side Copper R. Delta streams	0	30,000			
12.	Bering R. (Controller Bay)	0	20,000			
		6,050	106,525	1	0.100	1.000

[a]Many streams in this region are glacial with high turbidity levels; therefore much of the area has not been surveyed for salmon abundance and distribution.

[b]Private nonprofit hatchery.

[c]Chinook spawner estimates are one-half and coho spawner estimates are one-tenth of past estimates from tagging studies.

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Table 11 .--Yakutat Bay and Southeastern Alaska (Cape Suckling to the Alaska-British Columbia border) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name[a]	Chinook	Coho[b]	Facility	Chinook	Coho
YAKUTAT DISTRICT						
Cape Suckling to Icy Bay						
1.	Tsiu-Tsivat R.	0	50,000			
2.	Kaliakh R.	0	20,000			
3.	Yakataga R.	300	c			
4.	Other streams	0	5,000			
Icy Bay to Yakutat Bay						
5.	Yahtse R.	0	20,000			
6.	Manby shore streams	0	10,000			
7.	Ankau R.	100	1,000			
8.	Yakutat Bay streams	0	2,000			
Yakutat Bay to Cape Spencer						
9.	Lost R.	100	8,000			
10.	Situk-Ahrnklin R.	1,250	40,000			
11.	Dangerous R.	200	3,000			
12.	Italio R.	200	10,000			
13.	Akwe R.	100	15,000			
14.	ALSEK RIVER SYSTEM[d]	-	-			
15.	Doame and East Alsek R.	200	6,000			
16.	Other streams (Doame R. to Cape Spencer	0	2,000			
SOUTHEASTERN ALASKA						
Northern mainland (Lynn Canal area)						
1.	CHILKAT RIVER SYSTEM[d]	-	-			
2.	Chilkoot R.	0	1,500			
3.	Berners R.	0	6,000			
4.	Other streams	0	7,500			

Table 11 .--Yakutat Bay and Southeastern Alaska (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name[a]	Chinook	Coho[b]	Facility	Chinook	Coho
Western Chichagof Island, western Baranof Island, and Yakobi and Kruzof Islands						
5.	Ford Arm Lake	0	2,200			
6.	Politofski Lake	0	1,400			
7.	Redfish Bay Lake	0	3,500			
8.	Plotnikof Lake	0	4,000			
9.	Other streams	0	74,900	Medvejie CIF	0.27	3.00
				Sheldon Jackson College	0.05	0.18
Eastern Chichagof Island, western Admiralty Island, northeastern Baranof Island, and the mainland (less Lynn Canal area) from Cape Spencer to west of Shelter Island						
10.	All streams	0	83,000	Hidden Falls[e]	0.07	0
Northeastern Admiralty Island, Douglas Island, and the mainland from east of Shelter Island to Point League (Stephens Passage area)						
11.	King Salmon R.	250	c			
12.	Auke Cr.	0	600			
13.	Mendenhall R.	0	2,000			
14.	Other Juneau area streams	0	2,000	Sheep Creek	0	0.05
				Snettisham	0.30	0.25
15.	TAKU RIVER SYSTEM[d]	-	-			
16.	Speel R.	0	2,000			
17.	WHITING RIVER SYSTEM[d]	-	-			
18.	Other streams	0	10,400			

Table 11 .--Yakutat Bay and Southeastern Alaska (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name[a]	Chinook	Coho[b]	Facility	Chinook	Coho
Southeastern Admiralty Island, southeastern Baranof Island, Kuiu Island, northwestern Kupreanof Island, northwestern Prince of Wales Island, Kosciusko Island, and the mainland from Point League to Wood Point						
19.	Sashin Cr.	0	200			
20.	Chuck (Shuck) R.	100	c			
21.	Farragut R.	100	c			
22.	Other streams	0	56,800	Armstrong Keta	0.05	0
				Little Port Walter[f]	0.25	0
Southeastern Kupreanof Island; northeastern Prince of Wales Island; Mitkof, Wrangell, Zarembo; and Etolin Islands; and the mainland from Wood Point to Lemesurier Point						
23.	Salmon Bay Lake	0	3,500			
24.	Porcupine Cr.	0	400			
25.	Muddy R.	100	c			
26.	STIKINE RIVER SYSTEM[d]	-	-			
27.	Aaron Cr.	200	c			
28.	Tom Cr.	100	c			
29.	Harding R.	500	c			
30.	Bradfield R.	300	c			
31.	Eagle R.	100	c			
32.	Anan Cr.	100	c			
33.	Other streams	0	96,100	Burnett Inlet	0	0.09
				Crystal Lake	0.60	0.50
Southwestern Prince of Wales Island and Tuxekan, Heceta, Noyes Suemez, Dall, and Long Islands						
34.	Sarkar Lakes	0	25,000			
35.	Staney Cr.	0	10,000			
36.	Klawock Lake	0	7,500	Klawock	0	0.85
37.	Klakas Lake	0	1,000			
38.	Warm Chuck Lake	0	1,100			
39.	Other streams	0	80,400			

Table 11 .--Yakutat Bay and Southeastern Alaska (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name[a]	Chinook	Coho[b]	Facility	Chinook	Coho
Southeastern Prince of Wales Island; Bell, Revillagigedo, Gravina, Annette, Mary, and Duke Islands; and the mainland from Lemesurier Point to the Alaska-British Columbia border						
40.	Karta R.	0	5,000			
41.	Carroll Cr.	50	c			
42.	Grant Cr.	100	c			
43.	UNUK RIVER SYSTEM[d]	-	-			
44.	Klahini R.	100	c			
45.	Chickamin R.	1,000	10,000			
46.	Walker Cove streams	100	c			
47.	Rudyerd Bay streams	100	c			
48.	Blossom-Wilson R.	800	c			
49.	Keta R.	800	c			
50.	Marten R.	200	c			
51.	Hugh Smith Lake	0	1,800			
52.	Other streams	0	139,200	Deer Mountain	0.30	0
				Neets Bay	3.60	4.50
				Tamgas Creek[g]	0.85	6.00
				Whitman Lake	1.40	3.10
		7,550[h]	831,000[h]	14	7.74	18.52

[a]The spelling of stream names is from Orth (1967) which also gives information on location of streams.

[b]Numbers of salmon were determined from average harvest figures, habitat data, and harvest rate estimates based on coded-wire tag data. Due to the great number of producing streams about which very little is known, it was not possible to present a detailed stream by stream listing for coho salmon.

[c]Escapement is included in the "Other streams" category under the "General area" heading.

[d]Transboundary rivers; see Tables 2A and 2B for numbers of salmon.

[e]Chinook production at Hidden Falls hatchery was expected to be terminated in 1986.

[f]National Marine Fisheries Service

[g]Metlakatla Indian Community

[h]These numbers do not include the salmon from the transboundary rivers in this region that are listed in Table 2.

TRANSBOUNDARY--ALASKA

Table 2A.--Alaska segments of transboundary streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No. Name		Chinook[a]	Coho[a]	Facility	Chinook	Coho
YUKON RIVER SYSTEM						
1. Minor mainstream tributaries		5,000	8,000			
2. Archuelinguk R.		100	100			
3. Andreafsky R.		5,000	5,000			
4. Atchuelinguk R.		600	1,000			
5. Innoko R.		200	500			
6. Bonasila R.		500	1,000			
7. Anvik R.		2,000	1,000			
8. Rodo R.		100	150			
9. Kaltag R.		100	150			
10. Nulato R.		2,000	500			
11. Koyukuk R.		2,000	1,000			
12. Melozitna R.		150	200			
13. Tozitna R.		400	200			
14. Tanana R.		10,000	15,000	Clear AFB	0.200	0.300
15. Chandalar R.		100	200			
16. Porcupine R.		750	1,000			
	(YUKON)	29,000	35,000	1	0.200	0.300
ALSEK RIVER SYSTEM		0	15,000	0	--	--
CHILKAT RIVER SYSTEM		750	35,000	0	--	--
TAKU RIVER SYSTEM		50	25,000	0	--	--
WHITING RIVER SYSTEM		100	5,000	0	--	--
STIKINE RIVER SYSTEM		1,000	10,000	0	--	--
UNUK RIVER SYSTEM		1,300	10,000	0	--	--

[a]Numbers of salmon are estimated from aerial surveys and are probably greater than the figures indicate. Also, these areas have not been completely surveyed and additional salmon-producing areas and streams are found yearly.

TRANSBOUNDARY--CANADA

Table 2B.--Canadian segments of transboundary streams and facilities that produce chinook and coho salmon. (All hatchery facilities in Canada are operated by the Canada Department of Fisheries and Oceans.)

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
YUKON RIVER SYSTEM						
1.	Porcupine R.	6,000	10,000			
2.	Yukon R.					
a.	Mainstem and minor tributaries					
1)	Downstream from Dawson City	500	250			
2)	Upstream from Dawson City	9,500	0			
b.	Klondike R.	200	0			
c.	Stewart R.	2,500	0			
d.	White R.	1,000	0			
e.	Pelly R.	2,500	0			
f.	Tatchum Cr.	200	0			
g.	Nordenskiold R.	500	0			
h.	Little Salmon R.	500	0			
i.	Big Salmon R.	1,800	0			
j.	Teslin R.	3,500	0			
k.	Takhini R.	500	0			
l.	M'Clintock R. (above Whitehorse fishway)	1,000	0	Whitehorse Rapids	0.500	0
	(YUKON)	30,200	10,250	1	0.500	0
ALSEK RIVER SYSTEM						
1.	Mainstem and minor tributaries	200	1,500			
2.	Tatshenshini R. (mainstem)	1,000	2,500			
a.	Bridge R.	50	500			
b.	Silver Cr.	50	500			
c.	Village Cr.	100	1,000			
d.	Klukshu R.	2,700	3,500			
e.	Takhanne R.	300	1,500			
f.	Blanchard R.	1,000	2,500			
g.	Talbot Cr.	50	500			
h.	Goat Cr.	200	1,000			
	(ALSEK)	5,650	15,000	0	--	--

TRANSBOUNDARY--CANADA

Table 2B .--Canadian segments (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No. Name		Chinook	Coho	Facility	Chinook	Coho
CHILKAT RIVER SYSTEM				0		
1. Mainstem and minor tributaries		0	500			
2. Kelsall R.		200	1,000			
3. Tahina R.		50	500			
	(CHILKAT)	250	2,000	0	--	--
TAKU RIVER SYSTEM				0		
1. Mainstem and minor tributaries		0	7,000			
2. King Salmon Cr.		250	1,000			
3. Natkina R.		5,000	1,500			
4. Inklin R.		5,000	15,500			
	(TAKU)	10,250	25,000	0	--	--
WHITING RIVER SYSTEM						
1. Mainstem and tributaries		0	1,500	0		
	(WHITING)	0	1,500	0	--	--
STIKINE RIVER SYSTEM				0		
1. Mainstem and minor tributaries		1,250	19,000			
2. Iskut R.		750	5,000			
3. Tahltan R.		8,000	1,000			
	(STIKINE)	10,000	25,000	0	--	--
UNUK RIVER SYSTEM						
1. Mainstem and tributaries		0	1,000	0		

CANADA

Table 3A.--Queen Charlotte Islands streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
GRAHAM ISLAND						
1.	Hiellen R.	0	730			
2.	Sangan R.	0	1,385			
3.	Kumdis Cr.	0	2,115			
4.	Yakoun R.	835	7,980	Masset	0.500	0
5.	Mamin R.	0	3,040			
6.	Datlamen Cr.	0	685			
7.	Awun R.	0	1,360			
8.	McClinton Cr.	0	365			
9.	Dinan Cr.	0	515			
10.	Ain R.	0	2,230			
11.	Lignite Cr.	0	5,000			
12.	Naden R.	0	13,200			
13.	Davidson Cr.	0	12,600			
14.	Stanley Cr.	0	2,140			
15.	Jalun R.	0	1,375			
16.	Otard Cr.	0	60			
17.	Mace Cr.	0	5			
18.	Mercer Cr.	0	10			
19.	Seal Inlet Cr.	0	5			
20.	Gregory Cr.	0	5			
21.	Riley Cr.	0	35			
22.	Mountain Cr.	0	10			
23.	Rennell Cr.	0	5			
24.	Dawson Inlet Cr.	0	5			
25.	Dawson Harbour Cr.	0	20			
26.	West Narrows Cr.	0	20			
27.	North Arm Cr. (head)	0	50			
28.	Saltspring Cr.	0	60			
29.	Indian Cabin Cr.	0	150			
30.	Lagins Cr.	0	635			
31.	Mud Bay Cr.	0	20			
32.	Slatechuck Cr.	0	480			
33.	Outlook Cr.	0	95			
34.	Tarundl Cr.	0	415			
35.	Honna R.	0	1,650	Skidegate	0	0.025
36.	Chinukundl Cr.	0	10			
37.	Jungle Cr.	0	175			
38.	Tlell R.	0	7,890			
39.	Cape Ball R.	0	2,470			

CANADA

Table 3A.--Queen Charlotte Islands (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
MORESBY ISLAND						
1.	Haans Cr.	0	330			
2.	Sachs Cr.	0	125			
3.	Macmillan Cr.	0	100			
4.	South Bay Cr.	0	25			
5.	Deena Cr.	0	4,650			
6.	Browns Cabin Cr.	0	100			
7.	Canoe Pass Cr.	0	<5			
8.	Security Inlet streams	0	65			
9.	Peel Inlet streams	0	180			
10.	Kootenay Inlet streams	0	30			
11.	Tasu Cr.	0	45			
12.	Flat Cr.	0	30			
13.	Botany Inlet streams	0	75			
14.	Fairfax Inlet Cr.	0	110			
15.	Goski Bay Cr.	0	<5			
16.	Louscoone Inlet Cr.	0	50			
17.	Sedmond Cr.	0	930			
18.	Koya Cr.	0	75			
19.	South Cove Cr.	0	25			
20.	Carpenter Bay streams	0	230			
21.	Collison Bay Cr.	0	40			
22.	Ikeda Cr.	0	105			
23.	Harriet Cr.	0	75			
24.	Jedway Cr.	0	20			
25.	Huston Inlet Cr.	0	100			
26.	Oyster Cove Cr.	0	465			
27.	Tangle Cr.	0	100			
28.	Bag Harbour Cr.	0	320			
29.	Island Bay streams(2)	0	20			
30.	Skaat Harbour streams(3)	0	30			
31.	Forgotten Cr.	0	<5			
32.	Matheson Inlet streams(2)	0	85			
33.	Arrow Cr.	0	10			
34.	Marshall Inlet streams	0	20			
35.	Hutton Inlet streams	0	55			
36.	Kostan Cr.	0	30			
37.	Echo Harbour Cr.	0	120			
38.	Salmon R.	0	260			
39.	Anna Inlet Cr.	0	30			
40.	Crescent Inlet Cr.	0	405			
41.	Dana Cr.	0	20			

CANADA

Table 3A.--Queen Charlotte Islands (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
42.	Pacofi Cr.	0	55			
43.	Big Goose Cr.	0	150			
44.	Little Goose Cr.	0	45			
45.	Sewell Inlet streams(2)	0	920			
46.	Lagoon Inlet Cr.	0	540			
47.	Carmichael Cr.	0	<5			
48.	Chadsey Cr.	0	140			
49.	Braverman Cr.	0	35			
50.	Pallant Cr.	0	2,365	Pallant Creek	0	0.250[a]
51.	Gray Bay Cr.	0	145			
52.	Copper Cr.	0	7,130			
LOUISE ISLAND						
1.	Mathers Cr.	0	4,650			
2.	Breaker Bay Cr.	0	25			
3.	Skedans Cr.	0	1,245			
TALUNKWAN ISLAND						
1.	Thurston Harbour Cr.	0	40			
LYELL ISLAND						
1.	Mosquito Cr.	0	500			
2.	Moore Cr.	0	10			
3.	Sedgwick Cr.	0	80			
4.	Tar Island Cr.	0	40			
5.	Windy Bay Cr.	0	20			
6.	Richardson Cr.	0	35			
7.	Powrivco Cr.	0	40			
BURNABY ISLAND						
1.	Scudder Point Cr.	0	165			
2.	Alder Island Cr.	0	30			
KUNGHIT ISLAND						
1.	Heater Cr.	0	30			
		835	96,940	3	0.500	0.275

[a]Release of premigrant fish

CANADA

Table 38.--British Columbia's northern islands and mainland (Alaska Border to the Skeena River) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
WALES ISLAND						
1.	Turk Cr.	0	5			
DUNDAS ISLAND						
1.	Sandy Bay Cr.	0	10			
2.	Brundige Cr.	0	25			
MAINLAND						
1.	Bear R.	0	1,410			
2.	Silverado Cr.	0	270			
3.	Georgie R.	0	75			
4.	Donahue Cr.	10	0			
5.	Dogfish Bay Cr.	0	70			
6.	Salmon Cove Cr.	0	10			
7.	Kshwan R.	0	135			
8.	Kitsault R.	340	1,550			
9.	Wilauks Cr.	0	20			
10.	Illiance R.	0	365			
11.	Stagoo R.	0	140			
12.	Kincolith R.	185	950	Kincolith	0.300	0
13.	NASS R.[a]	-	-			
14.	Kwinamass R.	550	3,000			
15.	Khutzeymateen R.	430	1,860			
16.	Ensheshese R.	35	595			
17.	Toon R.	0	215			
18.	Leverson Lake system	0	25			
19.	Lachmach R.	0	175			
20.	Stumaun Cr.	0	5			
21.	Silver Cr.	0	40			
22.	Shawatlan R.	0	135			
23.	Denise Cr.	0	15			
24.	Diana Cr.	0	245			
25.	Kloiya R.	240	340	Kloiya Creek	0.500	0
26.	SKEENA R.[b]	-	-			
		1,790	11,685	2	0.800	0

[a]See Table 3C.

[b]See Table 3D.

CANADA

Table 3C.--Nass River and tributary streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
NASS RIVER						
1.	Mainstem	720	770			
2.	Chambers Cr.	0	40			
3.	Iknouk Cr.	90	345			
4.	Ishkeenickh R.	375	1,445			
5.	Anliyen Cr.	0	615			
6.	Quilqauw Cr.	0	40			
7.	Diskangieg Cr.	0	925			
8.	Ginlulak Cr.	0	890			
9.	Ksedin Cr.	0	265			
10.	Wegiladap Cr.	0	50			
11.	Ansedagan Cr.	0	100			
12.	Wilyayaanooth Cr.	0	15			
13.	Kwinyarh Cr.	0	115			
14.	Zolzap Cr. and Slough	0	660			
15.	Vetter Cr.	0	290			
16.	Tseax R.	1,270	5,370			
17.	Gingit Cr.	0	160			
18.	Gitzyon Cr.	0	130			
19.	Seaskinnish Cr.	390	470			
20.	Kshadin Cr.	0	25			
21.	Tchitin R.	15	70			
22.	Kinskuch R.	10	30			
23.	Cranberry R.	1,410	2,735			
24.	Axnegrelga Cr.	0	155			
25.	Meziadin Cr. and Lake	740	1,905			
26.	Bell-Irving R.	255	420			
27.	Kwinageese R.	670	645			
28.	Saladamis Cr.	5	0			
29.	Damdochax R. and Lake	570	425			
		6,520	19,105	0	--	--

CANADA

Table 3D.--Skeena River and tributary streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
SKEENA RIVER						
1.	Mainstem (near Terrace)	805	0			
2.	Moore Cove Cr.	0	120			
3.	Ecstall R.	1,320	170			
4.	Big Falls Cr.	10	0			
5.	Hayward Cr.	0	10			
6.	Johnston Cr.	280	0			
7.	Khyex R.	20	100			
8.	Kwinitsa Cr.	0	35			
9.	Kasiks R.	125	1,005			
10.	Exchamsiks R.	40	625			
11.	Gitnadoix R.	215	4,045			
12.	Exstew R.	60	720			
13.	Lakelse R.	240	4,510			
14.	Alwyn Cr.	0	30			
15.	Zymagotitz R.	85	385			
16.	Kitsumkalum R.	7,790	4,545	Terrace/ Kitsumkalum	0.500	0.050
17.	Thornhill Cr.	0	25			
18.	Zymoetz R.	240	1,650			
19.	Kleanza Cr.	5	90			
20.	Singlehurst Cr.	0	60			
21.	Fiddler Cr.	65	400			
22.	Price Cr.	0	15			
23.	Kitwanga R.	95	605			
24.	Kitsequecla R.	15	190			
25.	Burdick Cr.	0	40			
26.	Comeau Cr.	0	125			
27.	Chicago Cr.	0	15			
28.	Bulkley R. system	8,890	3,675	Emerson Creek	0.150	0
29.	Glen Vowell Cr.	0	20			
30.	Kispiox R.	1,385	3,010	Kispiox River	0.200	0.050
31.	Shegunia Cr.	40	55			
32.	Babine R.	1,870	10,725	Fort Babine	0.200	0
33.	Slamgeesh R.	70	960			
34.	Sustut R.	3,315	45			
		26,980	38,005	4	1.050	0.100

CANADA

Table 3E.--North-central British Columbia mainland (Skeena River to Cape Caution) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
1.	Kumealon Lagoon Cr.	0	5			
2.	Kumealon Cr.	10	270			
3.	Lowe Inlet system	0	3,450			
4.	Belowe Lake Cr.	0	85			
5.	Hartley Bay Cr.	0	225			
6.	Keesil Cr.	0	70			
7.	Kiskosh Cr.	0	165			
8.	Quaal R.	0	4,150			
9.	Kitkiata Cr.	0	800			
10.	Foch Cr.	5	625			
11.	Gilttoyees Cr.	50	1,300			
12.	Bish Cr.	0	475			
13.	Kitimat R. system	2,925	7,340	Kitimat River	2.200	0.400
14.	Wathl Cr.	0	5			
15.	Dala R.	640	3,100			
16.	Kildala R.	470	2,750			
17.	Eagle Cr.	0	670			
18.	Hugh Cr.	0	150			
19.	Weewanie Cr.	0	1,160			
20.	Pike Cr.	0	70			
21.	Brim R.	265	550			
22.	Kemano R.	855	4,600			
23.	Tsaytis R.	25	20			
24.	Kitlope R.	1,680	2,600			
25.	Kowesas R.	65	50			
26.	Kiltuish R.	0	65			
27.	Paril R.	0	120			
28.	Goat R.	0	5			
29.	Klekane R.	0	5			
30.	Scow Bay Cr.	0	30			
31.	Aaltanhash R.	0	165			
32.	Khutze R.	20	800			
33.	Green R.	0	615			
34.	Carter R.	0	5			
35.	Green Bay Cr.	0	5			
36.	Mussel R.	0	575			
37.	Big Cr.	0	5			
38.	Kainet Cr.	0	280			
39.	McPherson Cr.	0	<5			
40.	Salmon Bay Cr.	0	5			
41.	Nameless Cr.	0	40			
42.	Tuno Cr. (west)	0	10			

CANADA

Table 3E.--North-central British Columbia mainland (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
43.	Tuno Cr.	0	10			
44.	Tankeeah R.	0	550			
45.	Neekas Cr.	0	160			
46.	Pine R.	0	100			
47.	Quartcha Cr.	0	235			
48.	Lee Cr.	0	5			
49.	Roscoe Cr.	0	430			
50.	Clatse Cr.	0	20			
51.	Martin R.	0	860			
52.	Frenchman Cr.	0	1,915			
53.	Elcho Cr.	0	465			
54.	Cascade R.	0	135			
55.	Eucott Bay Cr.	0	475			
56.	Skowquiltz R.	0	20			
57.	Kimsquit R.	180	2,825			
58.	Dean R.	2,650	2,925			
59.	Nooseseck R.	0	125			
60.	Necleetsconnoy R.	0	200			
61.	Bella Coola R.	13,970	18,250	Bella Coola	0.500	0.100
				Oweekeno	0.250	0
62.	Noeick R.	60	550			
63.	Taleomey R.	15	95			
64.	Asseek R.	0	30			
65.	Kwatna R.	185	5,025			
66.	Quatlena R.	0	15			
67.	Nootsum R.	0	145			
68.	Namu R.	0	150			
69.	Koeye R.	0	3,100			
70.	Beaver Cr.	0	695			
71.	MacNair Cr.	0	40			
72.	Milton R.	0	70			
73.	Clyak R.	30	725			
74.	Kilbella R.	275	345			
75.	Chuckwalla R.	205	700			
76.	Wannock R. (mainstem)	2,290	1,140			
	a. Owikeno Lake	0	40			
	b. Amback Cr.	5	365			
	c. Ashlulm Cr.	15	10			
	d. Tzeo R.	40	15			
	e. Washwash Cr.	60	55			
	f. Sheemahant R.	20	695			
	g. Genesee Cr.	0	40			
	h. Machmell R.	0	25			
	i. Neechanz R.	35	270			
	j. Dallery Cr.	35	160			

CANADA

Table 3E.--North-central British Columbia mainland (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
77.	Nicknaqueet R.	0	5			
78.	Johnston Cr.	0	870			
79.	Allard Cr.	0	70			
80.	Lockhart Gordon Cr.	0	175			
81.	Draney Cr.	0	70			
82.	Coho Cr.	0	55			
83.	Nekite R.	35	770			
84.	Walkum Cr.	0	230			
85.	Docee R. (Long Lake complex)	1,155	65			
86.	Takush R.	0	205			
		28,270	84,140	3	2.950	0.500

CANADA

Table 3F.--North-central British Columbia island (Skeena River to Cape Caution) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
PORCHER ISLAND						
1.	Useless Cr.	0	10			
2.	Kitkatla Cr.	0	115			
3.	Snass Cr.	0	85			
4.	Phoenix Cr.	0	155			
5.	Porcher Cr.	0	15			
6.	Foote Cr.	0	135			
7.	Head Cr.	0	40			
8.	Billy Cr.	0	100			
9.	Oona R.	0	290			
PITT ISLAND						
1.	Alpha Cr.	0	25			
2.	Captain Cove Cr.	0	320			
3.	Newcombe Harbour streams (3)	0	20			
4.	Hevenor Inlet streams	0	130			
5.	Markle Inlet Cr.	0	25			
6.	Wilson Inlet Cr.	0	25			
7.	Sheneeza Cr.	0	80			
8.	Curtis Cr.	0	595			
9.	Devon Lake system	0	290			
10.	Mikado Lake system	0	115			
11.	Port Stephens Cr.	0	10			
12.	Monckton Inlet streams	0	15			
13.	Towartz Cr.	0	20			
14.	Union Passage Lake system	0	275			
15.	Stewart Cr.	0	25			
16.	Pa-aat R.	0	140			
MC CAULEY ISLAND						
1.	Hankin Cr.	0	180			
2.	Keswar Cr.	0	635			
3.	Ryan Cr.	0	20			
4.	Shaw Cr.	0	45			

Table 3F.--North-central British Columbia islands (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
BANKS ISLAND						
1.	Endhill Cr.	0	1,430			
2.	Deadman Inlet Cr.	0	25			
3.	Rawlinson Anchorage Cr.	0	200			
4.	Kingkown Inlet system	0	4,955			
5.	Skull Cr.	0	210			
6.	Banks Lake	0	1,030			
7.	Indian Harbour streams	0	430			
8.	Lewis Cr.	0	535			
9.	Kenzuwash streams	0	60			
10.	Deer Lake Cr.	0	490			
11.	Keecha Cr.	0	380			
12.	Kooryet Cr.	0	430			
13.	Bolton Cr.	0	55			
14.	Spencer Cr.	0	25			
ESTEVAN GROUP						
1.	Estevan Cr.	0	5			
CAMPANIA ISLAND						
1.	McMicking Cr.	0	20			
GIL ISLAND						
1.	Black Rock Cr.	0	5			
2.	Gil Cr.	0	65			
GRIBBELL ISLAND						
1.	Riordan Cr.	0	120			
HAWKESBURY ISLAND						
1.	Evelyn Cr.	0	150			

CANADA

Table 3F.--North-central British Columbia islands (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
PRINCESS ROYAL ISLAND						
1.	East Arm Cr.	0	250			
2.	West Arm Cr.	0	50			
3.	Barnard Cr.	0	30			
4.	Chapple Cr.	0	50			
5.	Douglas Cr.	0	145			
6.	Roland Cr.	0	510			
7.	Wale Cr.	0	505			
8.	Evinrude Cr.	0	90			
9.	Talamoosa Cr.	0	280			
10.	Steep Cr.	0	1,520			
11.	Trahey Cr.	0	15			
12.	Busey Cr.	0	10			
13.	Pyne Cr.	0	135			
14.	Tyler Cr.	0	115			
15.	Packe Cr.	0	15			
16.	Nias Cr.	0	160			
17.	Ronald Cr.	0	50			
18.	Arnoup Cr.	0	365			
19.	Dally Cr.	0	10			
20.	Bloomfield Cr.	0	225			
21.	Blee Cr.	0	50			
22.	Powles Cr.	0	585			
23.	Quigley Cr.	0	335			
24.	McKay Cr.	0	20			
25.	Soda Cr.	0	30			
26.	Canoona R.	0	985			
ARTISTAZABAL ISLAND						
1.	Devil Cr.	0	5			
2.	Fish Cr.	0	15			
3.	Borrowman Cr.	0	425			
4.	Stannard Cr.	0	100			
5.	Trenaman Cr.	0	150			
6.	Little Kettle Cr.	0	10			
7.	McDonald Cr.	0	25			
8.	Flux Cr.	0	270			
9.	Clifford Cr.	0	5			
10.	Sentinel Cr.	0	15			

CANADA

Table 3F.--North-central British Columbia islands (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
11.	Kdelmashan Cr.	0	415			
12.	Noble Cr.	0	125			
13.	Duffey Cr.	0	60			
14.	Linnea Cr.	0	35			
15.	Don Cr.	0	150			
16.	Fury Cr.	0	75			
17.	Limestone Cr.	0	245			
PRICE ISLAND						
1.	Price Cr.	0	200			
SWINDLE ISLAND						
1.	Meyers Pass Cr.	0	5			
2.	Kwakwa Cr.	0	350			
3.	Osment Cr.	0	10			
POOLEY ISLAND						
1.	Windy Bay Cr.	0	5			
2.	Duthie Cr.	0	10			
3.	James Bay Cr.	0	5			
RODERICK ISLAND						
1.	Bottleneck Cr.	0	<5			
2.	Mary Cove Cr.	0	10			
YEO ISLAND						
1.	Kwakusdis R.	0	495			
CUNNINGHAM ISLAND						
1.	Deer Pass Cr.	0	65			
2.	Deer Pass Lagoon streams (2)	0	30			
3.	Scribner Cr.	0	225			
ATHLONE ISLAND						
1.	Sound Point Lagoon Cr.	0	40			

Table 3F.--North-central British Columbia islands (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
CAMPBELL ISLAND						
1.	Ship Point Cr.	0	15			
2.	McLoughlin Cr.	0	5			
DENNY ISLAND						
1.	Kunsoot R.	0	540			
2.	Drew Cr.	0	125			
3.	Kakushdish R.	0	1,050			
HUNTER ISLAND						
1.	Howyete Cr. system (4)	0	130			
2.	Choke Pass streams (3)	0	150			
3.	Stewart Cr.	0	100			
4.	Kildidt Lagoon Cr.	0	55			
5.	Watt Cr.	0	170			
6.	Kildidt Cr.	0	50			
7.	Kiltik Cove Cr.	0	5			
8.	De Cosmos Cr.	0	10			
KING ISLAND						
1.	Hook Nose Cr.	0	315			
2.	Kisameet Lake system	0	240			
3.	Jenny Bay streams	0	110			
		0	27,740	0	--	--

CANADA

Table 3G.--South-central British Columbia islands and mainland (Cape Caution to Phillips Arm including North Broughton, Gilford, East Cracroft, West Cracroft, Harbledown, West Thurlow, and East Thurlow Islands) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
MAINLAND						
1.	Lassiter & Rowley Cr.	0	10			
2.	Pack Lake Cr.	0	25			
3.	Quashella R.	0	25			
4.	Driftwood Cr.	0	70			
5.	Chief Nowley Cr.	0	10			
6.	Jap Cr.	0	40			
7.	Waump Cr.	0	155			
8.	Waamtx Cr.	0	15			
9.	Rainbow Cr.	0	35			
10.	Seymour R.	0	640			
11.	Taaltz Cr.	0	235			
12.	Warner Bay Cr.	0	80			
13.	Bamford Cr.	0	55			
14.	Eva Cr.	0	105			
15.	Shelter Bay Cr.	0	10			
16.	Bradley Cr.	0	40			
17.	Cohoe Cr.	0	20			
18.	Richmond Bay Cr.	0	10			
19.	Bughouse Bay Cr.	0	225			
20.	Carriden Bay Cr.	0	50			
21.	Embley Cr.	0	225			
22.	Mackenzie Sound Cr.	0	40			
23.	Wakeman R.	825	1,660			
24.	Kingcome R.	870	3,700			
25.	Ahta Valley Cr.	0	375			
26.	Ahta R.	0	205			
27.	Kakweiken R.	285	12,750			
28.	Lull Cr.	0	5			
29.	Kwalate Cr.	0	625			
30.	Ahnuhati R.	65	585			
31.	Sim R.	0	10			
32.	Klinaklini R.	3,135	1,705			
33.	Franklin R.	0	25			
34.	Glendale Cr.	0	595			
35.	Tom Browne Cr.	0	150			
36.	Call Cr.	0	10			
37.	Protection Point Cr.	0	5			
38.	Boughey Bay Cr.	0	5			
39.	Fulmore R.	5	1,425			

CANADA

Table 3G.--South-central British Columbia islands and mainland (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
40.	Tuna R.	0	1,510			
41.	Read Cr.	0	815			
42.	Wortley Cr.	0	125			
43.	Heydon Cr.	0	580			
44.	Fraser Bay Cr.	0	15			
45.	Stafford R.	40	105			
46.	Apple R.	470	765			
47.	Gray Cr.	0	110			
48.	Grassy Cr.	0	220			
49.	Fanny Bay Cr.	0	10			
50.	Phillips R.	485	810			
NORTH BROUGHTON ISLAND						
1.	Sullivan Bay Cr.	0	20			
GILFORD ISLAND						
1.	Viner Sound Cr.	0	160			
2.	Scott Cove Cr.	0	260			
3.	Shoal Harbour Cr.	0	100			
4.	Gilford Cr.	0	60			
WEST THURLOW ISLAND						
1.	Knox Bay Cr.	0	25			
EAST THURLOW ISLAND						
1.	Hemming Lake system	0	475			
		6,180	32,120	0	--	--

CANADA

Table 3H:--Southern British Columbia islands and mainland (Phillips Arm to the British Columbia/Washington Border including Cortes, East Redonda and West Redonda Islands). streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
CORTES ISLAND						
1.	Hansen Cr.	0	10			
EAST REDONDA ISLAND						
1.	Pendrell Sound Cr.	0	5			
WEST REDONDA ISLAND						
1.	Refuge Cove Lagoon Cr.	0	5			
2.	Salt Lagoon Cr.	0	125			
MAINLAND						
1.	Cumsack R.	0	1,500			
2.	Homathko R.	2,900	3,650			
3.	Teaquahan R.	150	315			
4.	Southgate R.	2,725	1,680			
5.	Orford R.	120	785			
6.	Quatam R.	0	1,235			
7.	Brem R.	5	25			
8.	Klite R.	105	35			
9.	Toba R.	145	735			
10.	Little Toba R.	120	530			
11.	Theodosia R.	0	390			
12.	Okeover Cr.	0	15			
13.	Sliammon Cr.	0	60	Sliammon River	0.050	0.060
14.	Myrtle Cr.	0	35			
15.	Dayton Cr.	0	10			
16.	Kelly Cr.	0	15			
17.	Lang Cr.	0	695			
18.	Whittal Cr.	0	85			
19.	Lois R.	0	5			
20.	Jefferd Cr.	0	5			
21.	Saltery Bay Cr.	0	35			
22.	Brittain R.	0	190			
23.	Skwawka R.	0	3,685			
24.	Tsuahdi Cr.	0	15			
25.	Deserted R.	0	2,070			
26.	Vancouver R.	0	1,655	Vancouver Bay	0.050	0
27.	Tzoonie R.	0	720			
28.	Storm Bay Cr.	0	10			
29.	Sechelt Cr.	0	0	Sechelt	0.050	0.050

CANADA

Table 3H .--Southern British Columbia islands and mainland (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
30.	Gray Cr.	0	5			
31.	Angus Cr.	0	15			
32.	Burnet Cr.	0	10			
33.	Doriston Cr.	0	15			
34.	West Lake Cr.	0	105			
35.	Sakinaw Lake system	0	915			
36.	Pender Harbour streams	0	220			
37.	Halfmoon Cr.	0	10			
38.	Wakefield Cr.	0	20			
39.	Chapman Cr.	0	50			
40.	Wilson Cr.	0	55			
41.	Chaster Cr.	0	10			
42.	Ouillet Cr.	0	5			
43.	McNair Cr.	0	10			
44.	Rainy R.	0	20			
45.	McNab Cr.	0	90			
46.	Squamish R.	3,290	17,575	Tenderfoot Creek	0.200	0.05(
47.	Cheakamus R.	340	4,715			
48.	Hop Ranch Cr.	0	70			
49.	Meighan Cr.	0	35			
50.	Mamguam R.	170	690			
51.	Stawamus R.	0	220			
52.	Mannion Cr.	0	10			
53.	Cyress Cr.	0	5			
54.	Capilano R.	1,130	21,590	Capilano River	2.500	1.50(
55.	McKay Cr.	0	15			
56.	Mosquito Cr.	0	5			
57.	Lynn Cr.	5	155			
58.	Seymour R.	105	5,850	Seymour River	0.050	0.10(
59.	McCartney Cr.	0	20			
60.	Indian R.	40	435			
61.	FRASER R.[b]	-	-			
62.	Serpentine R.	0	1,655			
63.	Nicomekl R.	0	2,085			
64.	Campbell R.	30	2,550			
		11,380	79,565	6	2.900	1.76(

[a]Introduced run.

[b]See Table 3I for Fraser River system.

CANADA

Table 3I .--Fraser River and tributary streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook	Coho
FRASER RIVER						
1.	Minor tributaries north side (mouth upstream to Hope)	0	2,475	Kanaka Creek	0	0.050
				Inch Creek	0	0.300
2.	Minor tributaries south side (mouth upstream to Hope)	0	5,015			
3.	Pitt R.	325	9,325	Alouette River	0	0.100
4.	Stave R.	5	500	Stave Lake	0.150	0
5.	Chilliwack-Vedder R.	70	9,630	Chilliwack River	1.500	2.000
6.	Harrison-Lillooet system	18,510	16,575	Birkenhead River	0.150	0
7.	Maria Slough	700	140	Chehalis River	2.000	0.500
8.	Coquihalla Cr.	0	45			
9.	Kawkawa Cr.	0	220			
10.	Spuzzum Cr.	0	5			
11.	Anderson Cr.	0	5			
12.	Nahatlatch R.	55	145			
13.	Lower Thompson R.	5,585	1,040	Loon Creek	0.150[b]	0
				Spius Creek	1.000[b]	0.700[b]
	a. North Thompson R.	5,450	6,330	Clearwater River	1.500	0.600
	b. South Thompson R.	14,360	5,705	Eagle River	0.800[b]	0.700[b]
				Shuswap	1.200[b]	0.250[b]
14.	Stein R.	10	5			
15.	Seton R.	200	1,300			
16.	Bridge R.	345	330			
17.	Chilcotin R.	7,015	0			
18.	Quesnel R.	1,465	30	Quesnel River	3.000	0
19.	Cottonwood R.	260	0			
20.	West Road R.	1,250	0			
21.	Naver Cr.	100	0			
22.	Nechako R.	2,935	0			
23.	Salmon R.	365	0			
24.	Willow R.	745	0			
25.	McGregor R.	1,595	0			
26.	Bowron R.	5,160	0			
27.	Slim Cr.	1,420	0			
28.	Dome Cr.	55	0			
29.	Torpy R.	630	0			
30.	Morkill R.	195	0			
31.	Goat R.	40	0			
32.	West Twin Cr.	15	0			

CANADA

Table 31 .--Fraser River system (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook	Coho
33.	McKale Cr.	20	0			
34.	Holmes R.	430	0			
35.	Nevin Cr.	25	0			
36.	Horsey Cr.	30	0			
37.	McLennan R. (Swift Cr.)	305	0			
38.	Mainstem (Prince George to Rearguard Falls)	2,080	0	Fort St. James	0.150	0
		71,750	58,820	14	11.600	5.200

[a]Fraser River chinook can be divided into 3 groups according to the time they enter the river and 2 groups according to flesh condition.

Spring type: March to July, lower Thompson River tributaries except the mainstem Nicola River and most other Fraser River tributaries except the mainstem Harrison River.

Summer type: July to mid-September, North Thompson River, South Thompson River and the mainstem Nicola River.

Fall type: September and October, mainstem Harrison River.

Red flesh type: majority of these fish enter the river during the spring and summer and spawn in the upper tributaries.

White flesh type: majority of these fish enter the river in the fall and spawn in the mainstem Harrison River.

[b]Release of premigrant fish.

CANADA

Table 35.--Southeastern Vancouver Island (Seymour Narrows to Beechey Head) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
1.	Menzies Cr.	0	35			
2.	Mohun Cr.	0	220			
3.	Campbell R.	2,370	510	Semiahmoo	0.050	0
4.	Nunns Cr.	0	50			
5.	Quinsam R.	530	11,510	Quinsam River	2.500	1.500
6.	Simms Cr.	0	485			
7.	Woods Cr.	0	115			
8.	Oyster R.	0	2,460			
9.	Black Cr.	0	4,615			
10.	Kitty Coleman Cr.	0	130			
11.	Little R.	15	310			
12.	Tsolum R.	0	2,465			
13.	Puntledge R.	715	9,230	Puntledge River	2.500	3.500
14.	Millard Cr.	0	80			
15.	Roy Cr.	0	50			
16.	Trent R.	0	260			
17.	Hart Cr.	0	70			
18.	Tsable R.	0	735			
19.	Cowie Cr.	0	775			
20.	DENMAN ISLAND					
	a. Fillongley Cr.	0	165			
21.	Wilfred Cr.	0	125			
22.	Waterloo Cr.	0	205			
23.	Rosewall Cr.	0	140			
24.	McNaughton Cr.	0	350			
25.	Chef Cr.	0	250			
26.	Lymn Cr.	0	530			
27.	Thames Cr.	0	50			
28.	Nile Cr.	0	40			
29.	Qualicum R.	4,325	42,035	Big Qualicum River	5.000	3.000
30.	Shaw Cr.	0	25			
31.	Little Qualicum R.	500	2,690	Little Qualicum River	1.500	0
32.	Beach Cr.	0	50			
33.	French Cr.	0	1,020			
34.	Englishman R.	30	940			
35.	Craig Cr.	0	40			
36.	Nanoose Cr.	0	675			
37.	Bonell Cr.	0	150			

Table 35.--Southeastern Vancouver Island (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
38.	Knarston Cr.	0	50			
39.	Bloods Cr.	0	5			
40.	Departure Cr.	0	40			
41.	Millstone R.	0	15			
42.	Chase R.	0	185			
43.	Beck Cr.	0	70			
44.	Nanaimo R.	2,040	3,425	Nanaimo River	0.500	0.100
45.	Holden Cr.	0	45			
46.	Walkers Cr.	0	180			
47.	Bush Cr.	0	150			
48.	Rocky Cr.	0	10			
49.	Holland Cr.	0	35			
50.	Stocking Cr.	0	20			
51.	Porters Cr.	0	15			
52.	Chemainus R.	370	500	Chemainus River	0.200	0.050
53.	Bonsall Cr.	0	1,270			
54.	Cowichan R.	5,750	34,970	Cowichan River	0.500	0.050
55.	Koksilah R.	435	5,800			
56.	Shawnigan Cr.	0	20			
57.	SALTSPRING ISLAND					
	a. Fulford Cr.	0	140			
58.	Goldstream R.	25	230			
59.	Sandhill Cr.	0	5			
60.	Craigflower Cr.	0	90			
61.	Colquitz R.	0	50			
		17,105	130,905	8	12.750	8.200

CANADA

Table 3K.--Northeastern Vancouver Island (Cape Scott to Seymour Narrows, including Sonora, Quadra, and Read Islands) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
NORTHEAST VANCOUVER ISLAND						
1.	Stranby R.	0	300			
2.	Nahwitti R.	0	405			
3.	Shushartie R.	0	10			
4.	Songhees Cr.	0	10			
5.	Tsulquate R.	0	25			
6.	Quatse R.	0	280			
7.	Keogh R.	0	555			
8.	Cluxewe R.	0	330			
9.	Mills Cr.	0	130			
10.	Hyde Cr.	0	75			
11.	Nimpkish R.	1,535	2,890	Nimpkish River	0.150	0
12.	Kilpala R.	0	300			
13.	Thiemer Cr.	0	100			
14.	Kokish R.	0	275			
15.	Adam R.	5	590			
16.	Salmon R.	550	2,000			
17.	White R.	150	200			
18.	Amor de Cosmos Cr.	10	120			
19.	Pye Cr.	0	10			
SONORA ISLAND						
1.	Thurston Cr.	0	5			
2.	Cameleon Harbour Cr.	0	50			
3.	Christie Cr.	0	300			
4.	Owen Cr.	0	1,500			
QUADRA ISLAND						
1.	Chonat Cr.	0	40			
2.	Kanish Cr.	0	25			
3.	Granite Bay Cr.	0	65			
4.	Open Bay Cr.	0	100			
5.	Hyacinthe Cr.	0	195			
6.	Drew Cr.	0	5			
7.	Village Bay Cr.	0	1,975			
8.	Whiterock Passage Cr.	0	5			
READ ISLAND						
1.	Bird Cove Cr.	0	75			
		2,250	12,945	1	0.150	0

CANADA

Table 3L.--Northwestern Vancouver Island (Cape Scott to Estevan Point, including Nootka Island) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
NORTHWEST VANCOUVER ISLAND						
1.	Fisherman R.	0	205			
2.	Dominic Cr.	0	320			
3.	San Josef R.	0	710			
4.	Ronning Cr.	0	460			
5.	Macjack R.	0	330			
6.	Kwatleo Cr.	0	405			
7.	Leeson Cr.	0	75			
8.	Galato Cr.	0	25			
9.	Denad Cr.	0	25			
10.	Klayina Cr.	0	10			
11	Lower Ahwhichaolto Cr.	0	5			
12.	Upper Ahwhichaolto Cr.	0	5			
13.	Quashtin Cr.	0	5			
14.	McNiffe Cr.	0	15			
15.	Koprino R.	0	140			
16.	Colony Lake Cr.	0	925			
17.	Hathaway Cr.	0	85			
18.	Glerup Cr.	0	5			
19.	Pegattem Cr.	0	230			
20.	Johnny Cr.	0	35			
21.	Goodspeed R.	0	845			
22.	Clesklagh Cr.	0	15			
23.	Husamu Cr.	0	5			
24.	Wanokana Cr.	0	25			
25.	Nuknimish Cr.	0	20			
26.	Stephens Cr.	0	695			
27.	Washlawlis Cr.	0	160			
28.	Rupert R.	0	35			
29.	Waukwass Cr.	0	1,645			
30.	Coetkwaus Cr.	0	70			
31.	Marble R.	1,840	4,700	Marble River	0.300	0.120
32.	Kwokwesta Cr.	0	20			
33.	Nequiltpaalis Cr.	0	5			

CANADA

Table 3L.--Northwestern Vancouver Island (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
34.	Cayeghle Cr.	5	760			
35.	Utluh Cr.	0	100			
36.	Colonial Cr.	0	365			
37.	Cayuse Cr.	0	10			
38.	Teeta Cr.	0	15			
39.	Julian Cr.	0	5			
40.	Klootchlimmis Cr.	0	260			
41.	Kewquodie Cr.	0	35			
42.	Cleagh Cr.	0	50			
43.	Monkey Cr.	0	5			
44.	Mahatta Cr.	0	1,345			
45.	Culleet Cr.	0	30			
46.	Keith R.	10	250			
47.	Buck Cr.	0	250			
48.	Jims Cr.	0	10			
49.	Klaskish R.	195	630			
50.	East Cr.	115	440			
51.	Cape Cook Cr.	0	20			
52.	Nasparti R.	5	70			
53.	Battle R.	0	10			
54.	Power R.	60	95			
55.	Ououkinsh R.	50	110			
56.	Malksope R.	30	130			
57.	Clanninick Cr.	5	110			
58.	McKay Cove Cr.	5	35			
59.	Chamiss Cr.	5	10			
60.	Jansen Lake Cr.	0	5			
61.	Elaine Cr.	0	5			
62.	Easy Cr.	5	25			
63.	Kashutl R.	10	60			
64.	Kauwinch Cr.	25	210			
65.	Tahsish R.	460	420			
66.	Artlish R.	120	185			
67.	Kaouk R.	90	225			
68.	Amai R.	5	60			
69.	Narrowgut Cr.	0	35			
70.	Kapoose Cr.	45	75			
71.	Porritt Cr.	100	100			

CANADA

Table 3L.--Northwestern Vancouver Island (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
72.	Tatchu Cr.	15	30			
73.	Eliza Cr.	0	10			
74.	Port Eliza Cr.	5	15			
75.	Park R.	10	30			
76.	Chum Cr.	5	25			
77.	Espinosa Cr.	15	20			
78.	Mamat Cr.	5	20			
79.	Ehatisaht Cr.	0	5			
80.	Zeballos R.	95	190			
81.	Little Zeballos R.	10	70			
82.	Lord Cr.	0	15			
83.	NOOTKA ISLAND					
	a. Brodick Cr.	5	5			
	b. Apple Cr.	0	20			
	c. Owossitsa Cr.	5	30			
	d. Inner Basin streams	5	15			
	e. Demikoss R.	0	5			
	f. Marvinas Bay Cr.	0	15			
	g. Kendrick Cr.	5	25			
84.	Tahsis R.	215	1,045			
85.	Leiner R.	250	665			
86.	Tsowwin R.	20	190			
87.	Hoiss Cr.	5	30			
88.	Deserted Cr.	100	45			
89.	Sucwoa R.	85	310			
90.	Canton Cr.	15	80			
91.	Conuma R.	305	580	Conuma River	1.500	0.150
92.	Tlupana R.	35	285	Tlupana River	1.440	0.360
93.	Kleeptee Cr.	5	25			
94.	Gold R.	1,165	1,525			
95.	Burman R.	515	865			
96.	Jacklah R.	75	50			
97.	Mooyah R.	10	85			
		6,165	25,135	3	3.240	0.630

CANADA

Table 3M.--Southwestern Vancouver Island (Estevan Point to Beechey Head, including Flores, Meares, and Tzartus Islands) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
1.	Satchie Cr.	0	25			
2.	Hesquiat Harbour streams	0	70			
3.	Hesquiat Lake system	0	55			
4.	Sydney R.	10	30			
5.	FLORES ISLAND					
	b. Hootla Kootla Cr.	0	185			
6.	Megin R.	75	350			
7.	Watta Cr.	20	60			
8.	Atleo R.	0	240			
9.	Moyeha R.	25	460			
10.	Cypre R.	20	325			
11.	Bedwell R.	10	135			
12.	MEARES ISLAND					
	a. Sharp Cr.	0	40			
13.	Warn Bay Cr.	0	50			
14.	Tranquil Cr.	25	120			
15.	Tofino Cr.	5	0			
16.	Kennedy R.	195	645	Thornton Creek	0.300	0.140
17.	Clayoquot R. system	5	650			
18.	Kennedy Lake streams	0	1,240			
19.	Kootowis R.	0	970			
20.	Sandhill Cr.	0	50			
21.	Lost Shoe Cr.	0	220			
22.	Twin Rivers (west)	0	140			
23.	Twin Rivers (east)	0	85			
24.	Uchuck Cr.	0	310			
25.	Little Maggie R.	0	60			
26.	Maggie R.	0	1,260			
27.	Little Toquart Cr.	0	70			
28.	Toquart R.	40	995			
29.	Lucky Cr.	0	40			
30.	Pipestem R.	0	60			
31.	Cataract Cr.	0	25			
32.	Dutch Harbour Cr. (east)	0	55			
33.	Dutch Harbour Cr. (west)	0	30			
34.	Sechart Cr.	0	35			
35.	Canoe Pass Cr.	5	50			
36.	West Cr.	0	65			
37.	Effingham R.	5	815			

CANADA

Table 3M.--Southwestern Vancouver Island (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook	Coho	Facility	Chinook	Coho
38.	Coeur d'Alene Cr.	10	65			
39.	Vernon Cr.	0	60			
40.	Useless Cr.	0	45			
41.	Henderson Lake	185	320			
42.	Snug Basin Cr.	0	50			
43.	Nahmint R.	380	350			
44.	Macktush Cr.	0	35			
45.	Cous Cr.	10	65			
46.	Somass R.	10,300	38,280	Robertson Creek	9.000	1.000
47.	China Cr.	5	70			
48.	Franklin R.	35	100			
49.	Coleman Cr.	0	55			
50.	Consinka Cr.	0	55			
51.	Carnation Cr.	0	250			
52.	TZARTUS ISLAND					
	a. Holford Cr.	0	20			
53.	Sarita R.	315	520			
54.	Fredrick Cr.	0	100			
55.	Poett Nook Cr.	0	60			
56.	Sugsaw Cr.	0	80			
57.	Pachena R.	0	470			
58.	Klanawa R.	15	165			
59.	Hobiton Lake	0	115			
60.	Nitinat R.	1,745	585	Nitinat River	3.000	0.100
61.	Caycuse R.	0	220			
62.	Doobah Lake	0	200			
63.	Cheewhat R.	0	80			
64.	Gordon R.	60	430			
65.	San Juan R.	460	7,580	Port Renfrew	0.350	0
66.	Maidenhair Cr.	0	5			
67.	Uglow Cr.	0	5			
68.	Kirby Cr.	0	75			
69.	Muir Cr.	0	40			
70.	Tugwell Cr.	0	70			
71.	Sooke R.	80	55	Sooke River	0.075	0
72.	De Mamiel Cr.	5	795			
73.	Rocky Cr.	0	20			
74.	Charters R.	0	20			
75.	Lannon Cr.	0	10			
76.	Ayum Cr.	0	15			
77.	Matheson Cr.	0	10			
		14,045	61,560	5	12.725	1.240

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Table 4A.--Eastern Puget Sound (Washington-British Columbia border to the Deschutes River) streams and facilities that produce chinook and coho salmon. (All Washington hatchery facilities are operated by the Washington Department of Fisheries (WDF) or the U.S. Government (National Fish Hatchery = NFH) unless denoted otherwise.)

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
1.	Dakota Cr.	100 F	2,000	Drayton Harbor Enhancement Assoc.	0.018 F	0.100
2.	California and Terrell Cr.	0	100			
3.	Nooksack R.	750 Sp 2,000 F	2,000	Skookum (Lummi Tribe) Nooksack (WDF)	3.000 F 10.500 F	1.500 1.300
4.	Lummi Bay			Lummi Tribe Sea Pens	1.000 F	1.500
5.	Squalicum Cr.	0	200	Bellingham Heritage (Coop.)	0.350 F	0
6.	Whatcom Cr.	0	200			
7.	Padden Cr.	0	50			
8.	Chucknut, Oyster, and Colony Cr.	0	500			
9.	Samish R.	2,000 F	5,000	Samish (WDF)	4.500 F	0
10.	SAN JUAN ISLANDS	0	100	East Sound Bay (WDF)	0	0.300
11.	Skagit R.	1,000 Sp 15,000 SuF	30,000[b]	Skagit (WDF)	0.065 Sp 0.700 Su	0.400
12.	Oak Harbor			Oak Harbor Pens (Coop.)	0	0.030
13.	Stillaguamish R.	100 Sp 1,500 F	20,000	Stillaguamish Tribe	0.100 Su	0
14.	Tulalip Cr.	0	0	Tulalip Tribe	0.900 F	1.000
15.	Quilceda Cr.	0	2,500			
16.	Snohomish R.	5,500 F	80,000	Skykomish (WDF)	0.300 Su 1.000 F	0.300
17.	Edmonds			Coop. Pens	0	0.030
18.	Lake Washington streams	5,500 F	9,000	Univ. of Washington Issaquah (WDF)	0.300 F 3.000 F	0.030 0.980
19.	Green R.	5,000 F	4,600	Muckleshoot Tribe Green River (WDF) Crisp Creek (WDF) Icy Creek (WDF)	0.850 F 4.000 F 0.500 F 0.500 F	0 0.630 0.550 0
20.	Elliot Bay			Coop. Pens	0.045 F	0.110
21.	Des Moines			Coop. Pens	0	0.030
22.	Puyallup R.	1,500 F	5,300	Puyallup (WDF) Puyallup Tribe	2.500 F 0.500 F	1.180 0
23.	Tacoma			Coop. Pens	0	0.030
24.	FOX ISLAND			Fox Island Pens	0.200 F	0.330
25.	Chambers Cr.	20 F	700	Garrison Springs (WDF)	1.060 F	0

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Table 4A.--Eastern Puget Sound (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
26.	Sequalitchew Cr.	0	700	Lake Sequalitchew (WDF)	0	1.960
27.	Nisqually R.	1,000 F	10,000	McAllister (WDF)	4.305 F	0
				Schorno Spring (WDF)	1.900 F	0
28.	Woodland, Woodard, and Ellis Cr.	0	800			
29.	Deschutes R.	0	5,000	Percival Cove-Deschutes Complex (WDF)	4.370 F	0
		1,850 Sp	178,750	30	0.065 Sp	12.290
		15,000 SuF			1.100 Su	
		24,120 F			45.298 F	

[a]Seasonal races of salmon are designated as follows: Sp, spring run; Su, summer run; SuF, summer fall run; F, fall run.

[b]Includes 200 summer run coho.

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Table 4B.--Western Puget Sound (McLane Creek northward to Point No Point) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
1.	McLane Cr.	0	100	Allison Springs (WDF)	0.075 F	0
2.	Perry and Schneider Cr.	0	75			
3.	Kennedy Cr.	0	300			
4.	Skookum Cr.	200 F	600			
5.	Elson Cr.			Squaxin Tribe	0.300 F	0
6.	Mill and Goldborough Cr.	25 F	700			
7.	Shelton Cr.	0	25			
8.	Johns, Cranberry, and Deer Cr.	0	750			
9.	Malaney and Uncle John Cr.	0	100			
10.	Campbell and Jones Cr.	0	100			
11.	SQUAXIN ISLAND			South Sound Pens (WDF)	0	1.630
				Squaxin Island Pens (Coop.)	0	1.000
12.	Sherwood Cr.	20 F	300			
13.	Coulter Cr.	0	500	Coulter Creek (WDF)	0.700 F	0
14.	Rocky Cr.	20 F	200			
15.	Dutcher, Artondale, and Lackey Cr.	0	50			
16.	Minter Cr.	0	700	Minter Creek (WDF)	2.000 F	1.500
				Hupp Springs (WDF)	0.200 Sp	0
17.	Burley Cr.	10 F	200			
18.	Purdy and McCormick Cr.	0	50			
19.	North Cr.	0	40			
20.	Crescent Cr.	20 F	75			
21.	Olalla Cr.	0	40			
22.	Curley Cr.	25 F	200			
23.	Beaver Cr.	0	50			
24.	Blackjack Cr.	20 F	400			
25.	Anderson Cr.	0	20			
26.	Gorst Cr.	0	50	Suquamish Tribe	1.000 F	0
27.	Chico, Strawberry, and Clear Cr.	0	500			
28.	Barker, Illahee, and Steele Cr.	0	75			
29.	Little and Big Scandia Cr.	0	50			

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Table 48.--Western Puget Sound (continued):

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
30.	Dogfish Cr.	20 F	100	Suquamish Pens (WDF)	0.200 F	0
31.	Grovers Cr.	0	300	Suquamish Tribe	0.600 F	0.200
32.	Eglon Cr.	0	25			
		360 F	6,675	10	0.200 Sp 4.875 F	4.330

[a]Seasonal races of salmon are as follows: Sp, spring run; F, fall run.

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Table 4C.--Hood Canal and Port Townsend Bay streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
1.	Port Gamble			Port Gamble Coop.	0	0.400
2.	Gamble Cr.	0	300			
3.	Little Anderson Cr.	0	25			
4.	Big Beef Cr.	0	1,000	Univ. Washington	0.220 F	0
5.	Little Beef Cr.	0	20			
6.	Seabeck Cr.	0	25			
7.	Stavis Cr.	0	25			
8.	Boyce Cr.	0	20			
9.	Anderson Cr.	0	100			
10.	Dewatts R.	25 F	1,500			
11.	Rendsland Cr.	0	30			
12.	Tahuya R.	20 F	2,500			
13.	Shoofly Cr.	0	10			
14.	Stimson Cr.	0	20			
15.	Little Mission Cr.	0	20			
16.	Big Mission Cr.	0	300			
17.	Union R.	25 F	1,000			
18.	Skokomish R.	1,200 F	6,000	McKernan (WDF)	1.200 F	0
				George Adams (WDF)	2.500 F	0.300
19.	Hill Cr.	0	10			
20.	Finch Cr.	0	20	Hoodsport (WDF)	1.150 F	0.250
21.	Clark Cr.	0	10			
22.	Miller Cr.	0	10			
23.	Sund Cr.	0	10			
24.	Lilliwaup Cr.	10 F	30			
25.	Eagle Cr.	0	70			
26.	Jorsted Cr.	0	20			
27.	Hamma Hama R.	75 F	200			
28.	Schaerer Cr.	0	10			
29.	Fulton Cr.	0	30			
30.	McDonald Cr.	0	10			
31.	Duckabush R.	50 F	400			
32.	Dosewallips R.	200 F	600			
33.	Marple Cr.	0	10			
34.	Spencer Cr.	0	10			
35.	Big Quilcene R.	25 F	1,000	Quilcene NFH	0.400 Sp	0.250

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Table 4C.--Hood Canal and Port Townsend Bay (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
36.	Little Quilcene R.	0	200			
37.	Donovan Cr.	0	25			
38.	Tarboo Cr.	0	200			
39.	Thorndyke Cr.	0	50			
40.	Chimacum Cr.	0	400			
		1,630 F	16,220	6	0.400 Sp 5.070 F	1.200

[a]Seasonal races of salmon are as follows: Sp, spring run; F, fall run.

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Table 4D.--Juan de Fuca Strait (Middle Point westward to Neah Bay) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
1.	Snow Cr.	0	600			
2.	Salmon Cr.	0	60			
3.	Contractors Cr.	0	50			
4.	Eagle Cr.	0	25			
5.	Jimmycomelately Cr.	0	300			
6.	Dean Cr.	0	25			
7.	Bell Cr.	0	25			
8.	Gierin Cr.	0	25			
9.	Cassalery Cr.	0	25			
10.	Dungeness R.	250 Sp 200 F	2,000	Dungeness (WDF)	0	0.530
11.	McDonald Cr.	0	200			
12.	Siebert Cr.	0	200			
13.	Morse Cr.	0	50			
14.	Lees Cr.	0	20			
15.	Ennis Cr.	0	20			
16.	Tumwater Cr.	0	20			
17.	Dry Cr.	0	20			
18.	Elwha R.	500 F	500	Elwha Channel (WDF) Elwha Tribe	2.600 F 0.100 F	0 0.750
19.	Colville Cr.	0	25			
20.	Salt Cr.	100 F	250			
21.	Whiskey Cr.	0	25			
22.	Field Cr.	0	25			
23.	Lyre R.	100 F	150			
24.	East Twin R.	100 F	100			
25.	West Twin R.	50 F	100			
26.	Deep Cr.	50 F	100			
27.	Joe Cr.	0	25			
28.	Jim Cr.	25 F	25			
29.	Pysht R.	250 F	500			
30.	Clallam R.	200 F	200			
31.	Hoko R.	500 F	1,000	Hoko Rearing Pond (WDF)	0.500 F	0
32.	Sekiu R.	100 F	250			
33.	Olsen Cr.	0	20			
34.	Jansen Cr.	0	20			

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Table 40.--Juan de Fuca Strait (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
35.	Rasmussen Cr.	0	20			
36.	Bullman Cr.	20 F	20			
37.	Snow Cr.	0	20			
38.	Sail R.	0	100			
		250 Sp 2,195 F	7,140	4	3.200 F	1.280

[a]Seasonal races of salmon are designated as follows: Sp, spring run; F, fall run.

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Table 4E.--Coastal Washington (Neah Bay to the Columbia River) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
1.	Waatch R.	0	400			
2.	Sooes R.	300 F	500	Makah NFH	2.000 F	0.300
3.	Petroleum, Willoughby, and Seafield Cr.	0	100			
4.	Ozette R.	400 F	2,500			
5.	Cedar and Ellen Cr.	0	100			
6.	Quillayute system (Soleduck, Calawah, Bogachiel, and Dickey R.)	1,100 SpSu 5,500 F	10,700[b]	Soleduck (WDF)	0.070 Sp 0.270 Su 0.136 F	1.400
7.	Scott and Jackson Cr.	0	100			
8.	Goodman Cr.	200 F	600			
9.	Mosquito Cr.	50 F	400			
10.	Hoh R.	1,400 SpSu 2,800 F	2,900			
11.	Cedar Cr.	0	200			
12.	Kalalock Cr.	50 F	300			
13.	4 Unnamed streams	0	50			
14.	Queets R.	1,000 SpSu 3,600 F	5,100			
15.	Whale Cr.	0	150			
16.	Raft R.	100 F	2,500			
17.	Camp and Duck Cr.	0	300			
18.	Quinault R.	400 SpSu 3,500 F	6,000	Quinault NFH	0.200 F	1.320
19.	Wreck Cr.	0	200			
20.	Moclips R.	100 F	1,500			
21.	Joe Cr.	0	600			
22.	Boone Cr.	0	100			
23.	Copalis R.	400 F	1,500			
24.	Connor Cr.	0	200			
GRAYS HARBOR						
25.	Humptulips R.	3,000 F	5,000	Humptulips (WDF)	0.800 F	1.900
26.	Hoquiam R.	300 F	1,250			
27.	Wishkah R.	300 F	1,250			
28.	Wynochee R.	300 F	2,500			
29.	Satsop R.	1,500 F	5,000	Satsop Springs (WDF) Simpson (WDF)	0 0	1.000 1.550

WASHINGTON

Table 4E.--Coastal Washington (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
30.	Chehalis R.	750 Sp 540 F	9,750	Skookumchuck (WDF)	0	1.000
31.	Johns R.	60 F	250			
WILLAPA BAY						
32.	North R.	525 F	1,400			
33.	Smith Cr.	175 F	40			
34.	Willapa R.	1,400 F	600	Willapa (WDF)	2.000 F	0.700
35.	Palix R.	175 F	200			
36.	Nemah R.	350 F	200	Nemah (WDF)	1.000 F	1.000
37.	Naselle R.	700 F	1,160	Naselle (WDF)	1.700 F	2.700
38.	Bear R.	175 F	400			
		750 Sp 3,900 SpSu 26,500 F	66,000	10	0.070 Sp 0.270 Su 7.836 F	12.870

[a]Seasonal races of salmon are designated as follows: Sp, spring run; SpSu, spring-summer run; Su, summer run; F, fall run.

[b]Includes 1,000 summer coho.

COLUMBIA RIVER BASIN

Table 5A.--Washington side Columbia River and tributary streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)			Hatchery information		
		Chinook				Releases (millions)	
No.	Name	Spring	Fall	Coho	Facility	Chinook[a]	Coho
1.	Chinook R.	0	0	50	Sea Resources	1.000 F	0
2.	Streams between Chinook and Grays R.	0	0	50			
3.	Grays R.	0	600	1500	Grays River (WDF)	1.700 F	0.400
4.	Jim Crow Cr.	0	0	50			
5.	Skamokawa R.	0	800	250			
6.	Elokomin R.	0	600	1800	Elokomin (WDF)	2.500 F	1.700
7.	Mill Cr.	0	50	350			
8.	Abernathy Cr.	0	1500	250	Abernathy NFH	1.500 F	0
9.	Germany Cr.	0	300	300	Coop.	0.100 F	0
10.	Coal Cr.	0	0	50			
11.	Cowlitz R.	600	4700	3500	Cowlitz Salmon (WDF)	3.100 Sp 7.400 F	 4.700
12.	Coweman R.	0	60	1250			
13.	Kalama R.	1500	4000	1500	Kalama Falls (WDF) Lower Kalama (WDF)	0.500 Sp 7.500 F	1.425 0
14.	N.Fk. Lewis R.	900	13800	4500	Lewis River (WDF) Speelyai (WDF)	1.050 Sp 1.000 F	4.800 0
15.	E.Fk. Lewis R.	0	500	2000			
16.	Salmon Cr.	0	0	300			
17.	Vancouver Lake streams	0	0	25			
18.	Washougal R.	0	2100	500	Washougal (WDF)	6.200 F	2.475
19.	Lawton, St. Cloud, and Duncan Cr.	0	0	100			
20.	Woodard, Hardy, and Hamilton Cr.	0	0	200			
21.	Wind R.	250	500	100	Carson NFH	2.700 Sp	0
22.	Little White Salmon R	0	0	0	Little White Salmon NFH and Willard NFH	0.900 Sp 6.500 F	2.500
23.	Spring Cr.	0	0	0	Spring Creek NFH	10.825 F	0
24.	Big White Salmon R.	0	1000	50	Big White Ponds NFH	2.000 F	0
25.	Klickitat R.	150	650	500	Klickitat (WDF)	0.900 Sp 4.000 F	1.400
26.	Rock Cr.	0	150	0			
27.	Yakima R.	1750	500	50			
28.	Wenatchee R.	800 Sp 2400 Su	0	50	Leavenworth NFH	2.300 Sp	0
29.	Entiat R.	300	0	0	Entiat NFH	1.000 Sp	0

COLUMBIA RIVER BASIN

Table 5A.--Washington side Columbia River (continued).

Stream		Natural spawners (no. fish)			Hatchery information		
		Chinook				Releases (millions)	
No.	Name	Spring	Fall	Coho	Facility	Chinook[a]	Coho
30.	Methow R.	300 Sp 700 Su	0	0	Winthrop NFH	1.000 Sp	0
31.	Okanogan R.	0 Sp 500 Su	0	0			
32.	Columbia R. mainstem--mainly Hanford Reach	0	25,000	0	Wells (WDF) Rocky Reach (WDF) Priest Rapids (WDF) Ringold (WDF)	1.700 Su 0.200 F 9.500 F 1.000 F	0 0.500 0 0
33.	Snake R. (below Lower Granite Dam)	0	0	0	Lyons Ferry (WDF)	0.900 F	0
34.	Walla Walla R.	0	0	0			
35.	Tucannon R.	200	50	0			
36.	Asotin Cr.	50	0	0			
		6,800 Sp 3,600 Su	56,860	19,275	25	13.450 Sp 1.700 Su 63.825 F	19.900

[a]Seasonal races of salmon are designated as follows: Sp, spring run; Su, summer run; F, fall run.

COLUMBIA RIVER BASIN

Table 5B .--Idaho streams and facilities that produce chinook and coho salmon. (All hatchery facilities in Idaho are operated by the Idaho Department of Fish and Game (IDFG) or the U.S. Government (National Fish Hatchery = NFH).

Stream		Natural spawners (no. fish)			Hatchery information		
		Chinook				Releases (millions)	
No.	Name	Spring	Fall	Coho	Facility	Chinook[a]	Coho
1.	Clearwater R. (main stem)	50	0	0			
	a. North Fork	0	0	0	Dworshak NFH	0.500 Sp	0
	b. South Fork	650	0	0	Red River Pond (IDFG)	0.225 Sp	0
	c. Clear Cr.	0	0	0	Kooskia NFH	0.400 Sp	0
	d. Selway R.	400	0	0			
	e. Lochsa R.	250	0	0			
2.	Salmon R. (main stem)	2,750 Sp 200 Su	0	0	Sawtooth (IDFG)	0.500 Sp	0
	a. Little Salmon R.	0 Sp 250 Su	0	0	Rapid River (IDFG)	3.000 Sp	0
	b. South Fork	0 Sp 2,000 Su	0	0	McCall (IDFG)	1.000 Su	0
	c. Middle Fork	2,000 Sp 750 Su	0	0			
	d. North Fork	500	0	0			
	e. Lemhi R.	500	0	0	Hayden Creek (IDFG)	0	0
	f. Pasimeroi R.	0	0	0	Pahsimeroi (IDFG)	1.000 Sp	0
	g. East Fork	750	0	0		0.280 Su[b]	
	h. Valley Cr.	500	0	0			
3.	Snake R. (Lower Granite Dam to Hells Canyon Dam)	0	1,500	0	Oxbow (IDFG)	0	0
		8,350 Sp 3,200 Su	1,500	0	9	5.625 Sp 1.280 Su	0

[a]Seasonal races of salmon are designated as follows: Sp, spring run; Su, summer run.

[b]Total summer chinook production at Pahsimeroi will increase to one million by 1987.

Table 5C.--Oregon side Columbia River and tributary streams and facilities that produce chinook and coho salmon. (All hatchery facilities in Oregon are operated by the Oregon Department of Fish and Wildlife (ODFW) or the U.S. Government (National Fish Hatchery = NFH) unless denoted otherwise.)

Stream		Natural spawners (no. fish)			Hatchery information		
		Chinook				Releases (millions)	
No.	Name	Spring	Fall	Coho	Facility	Chinook[a]	Coho
1.	Lewis & Clark R.	0	400	300			
2.	Youngs R.	0	50	25			
3.	Klaskanine R.	0	300	500	Klaskanine (ODFW)	4.200 F	1.470
					C.E.D.C. (Clatsop County)	2.500 F	0.300
4.	Bear Cr.	0	400	25			
5.	Big Cr.	0	1,500	300	Big Creek (ODFW)	9.800 F	0.840
6.	Gnat Cr.	0	200	30	Gnat Creek (ODFW)	0	0
7.	Plympton Cr.	0	100	0			
8.	Clatskanie R.	0	200	300			
9.	Milton Cr.	0	0	100			
10.	Scappose Cr.	0	30	150			
11.	WILLAMETTE R. SYSTEM[b]	-	-	-			
12.	Sandy R.	0	1,500	1,000	Sandy (ODFW)	0	1.050
13.	Wahkeena Cr.	0	0	0	Wahkeena Pond (ODFW)	0	2.000
14.	Tanner Cr.	0	0	0	Bonneville (ODFW)	12.075 F	2.050
15.	Eagle Cr.	0	0	0	Cascade (ODFW)	0	2.100
16.	Herman Cr.	0	0	0	Oxbow (ODFW)	0.325 Sp	0
						3.150 F	
17.	Lindsey Cr.	0	25	35			
18.	Viento Cr.	0	0	30			
19.	Hood R.	0	100	50			
20.	Mosier Cr.	0	0	30			
21.	Chenowith Cr.	0	0	20			
22.	Mill Cr.	0	0	30			
23.	Deschutes R.	1,800	7,000	40	Warm Springs NFH	0.850 Sp	0
					Round Butte (ODFW)	0.284 Sp	0
24.	John Day R.	2,500	100	0			
25.	Umatilla R.	700	2,000	0			
26.	Grand Ronde R.	1,175	0	300	Wallowa (ODFW)	0	0
					Looking Glass (ODFW)	1.460 Sp	0
27.	Imnaha R.	500	0	0			
		6,675	13,905	3,265	13	2.919 Sp	9.810
						31.725 F	

[a]Seasonal races of salmon are designated as follows: Sp, spring run; F, fall run.

[b]See Table 5D. for Willamette River system.

COLUMBIA RIVER BASIN

Table 5D.--Willamette River and tributary streams that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)			Hatchery information		
		Chinook				Releases (millions)	
No.	Name	Spring	Fall	Coho	Facility	Chinook[a]	Coho
WILLAMETTE RIVER SYSTEM							
1.	Main stem	0	6,400	0			
2.	Clackamas R.	3,500	1,500	2,000	Clackamas (ODFW)	1.350 Sp	0
					Eagle Creek NFH	0.650 Sp	1.000
3.	Molalla R.	100	4,300	100			
4.	Pudding R.	0	0	50			
5.	Mill Cr.	0	730	0			
6.	Santiam R.	1,000	7,700	200	Stayton Pond (ODFW)	7.000 F	0
					Marion Forks (ODFW)	0.525 Sp	0
					South Santiam (ODFW)	0.315 Sp	0
7.	Calapooya R.	100	0	0			
8.	McKenzie R.	2,500	320	100	Leaburg (ODFW)	0	0
					McKenzie (ODFW)	0.982 Sp	0
9.	Middle Fork	1,000	40	0	Oakridge-Willamette Complex (ODFW)	5.050 Sp	0
10.	Coast Fork	0	30	0			
11.	Marys R.	0	0	25			
12.	Luckiamute R.	0	50	100			
13.	Rickreall Cr.	0	0	25			
14.	Yamhill R.	0	0	400			
15.	Tualatin R.	0	0	200			
		8,200	21,070	3,200	8	8.872 Sp	1.000
						7.000 F	0
Below Willamette Falls		3,500	7,900	2,000	2	2.000 Sp	1.000
Above Willamette Falls		4,700	13,170	1,200	6	6.872 Sp	0
						7.000 F	

[a]Seasonal races of salmon are designated as follows: Sp, spring run; F, fall run.

OREGON

Table 6.--Coastal Oregon (Columbia River to the Oregon-California border) streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
1.	Necanicum R.	300 F	850			
2.	Elk Cr.	25 F	200			
3.	Arch Cape Cr.	0	20			
4.	Short Sands Cr.	0	20			
5.	Nehalem R.	4,000 F	21,000	Nehalem (ODFW)	0.006 Sp	2.940
6.	Miami R.	1,100 F	1,200			
7.	Kilchis R.	50 Sp 1,500 F	2,000			
8.	Wilson R.	500 Sp 5,700 F	4,300			
9.	Trask R.	1,800 Sp 4,400 F	3,300	Trask (ODFW)	0.338 F	8.360
10.	Tillamook R.	30 Sp 900 F	2,300			
11.	Sand Cr.	0	450			
12.	Nestucca R.	1,150 Sp 5,000 F	4,725	Cedar Creek (ODFW)	0.068 Sp 0.094 F	0
13.	L. Nestucca R.	50 Sp 1,500 F	1,575			
14.	Neskowin Cr.	50 F	300			
15.	Salmon R.	100 Sp 500 F	1,450	Salmon River (ODFW)	0.210 F	0.420
16.	Siletz R.	500 Sp 1,800 F	7,500	Siletz (ODFW)	0	0.525
17.	Fogarty Cr.	0	20			
18.	Spencer Cr.	0	30			
19.	Big Cr. (Lincoln County)	0	30			
20.	Yaquina R.	1,900 F	7,500	Oregon Aqua-Foods	0.400 Sp 0.500 F	8.000
21.	Theil Cr.	0	0			
22.	Beaver Cr.	100 F	850			
23.	Alsea R.	300 Sp 1,300 F	1,900	Fall Creek (ODFW)	0.220 F	1.100
24.	Yachats R.	50 F	925			
25.	Cummings Cr.	0	125			
26.	Bob Cr.	0	60			
27.	Tenmile Cr.	10 F	350			
28.	Rock Cr.	0	75			
29.	Big Cr. (Lane County)	10 F	275			

Table 6.--Coastal Oregon (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
30.	China Cr.	0	20			
31.	Cape Cr.	0	150			
32.	Sutton Cr.	0	575			
33.	Siuslaw R.	100Sp 4,000 F	15,200			
34.	Siltcoos Lake	0	2,500			
35.	Tahkenitch Lake	0	1,900			
36.	Smith R.	1,000 F	3,000			
37.	Umpqua R.	5,900Sp 2,500 F	4,000	Rock Creek (ODFW)	0.315 F	0.320
38.	Tenmile Lake	0	4,650			
39.	Coos R.	7,600 F	6,400	Anadromous, Inc.	1.300 Sp 0.700 F	2.000
40.	Big Cr. (Coos County)	0	75			
41.	Coquille R.	300Sp 11,600 F	18,800	Bandon (ODFW)	0	2.000
42.	Twomile Cr.	0	140			
43.	Fourmile Cr.	0	140			
44.	Floras Cr.	900 F	375			
45.	Sixes R.	2,500 F	225			
46.	Elk R.	4,000 F	60	Elk River (ODFW)	0.925 F	0
47.	Hubbard Cr.	0	0			
48.	Brush Cr.	10 F	0			
49.	Mussel Cr.	0	0			
50.	Euchre Cr.	25 F	10			
51.	Rogue R.	23,000Sp 29,800 F	2,000	Cole Rivers (ODFW)	1.192 Sp 0.105 F	0.710
				Butte Falls (ODFW)	0	2.940
52.	Hunter Cr.	50 F	0			
53.	Pistol R.	300 F	0			
54.	Burnt Hill Cr.	0	0	Oregon-Pacific Salmon (Private)	0.100 Sp	0
55.	Chetco R.	4,500 F	0			
56.	Winchuck R.	400 F	0			
		33,780Sp 99,330 F	123,550	15	3.066 Sp 3.407 F	29.315

[a]Seasonal races of salmon are designated as follows: Sp, spring run; F, fall run.

CALIFORNIA

Table 7A.--Oregon-California border to Port San Luis streams and facilities that produce chinook and coho salmon. (All hatchery facilities in California are operated by the California Department of Fish and Game (CDFG) or the U.S. Government (National Fish Hatchery = NFH) unless denoted otherwise.)

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
1.	Smith R.	5,000 F	2,000	Rowdy Creek (CDFG)	0.200 F	0
2.	Klamath R. and smaller tributaries	4,000 F	1,000	Iron Gate (CDFG)	2.500 F	0.130
				Indian Ponds	0.200 F	0
	a. Bogus Cr.	3,000 F	0			
	b. Shasta R.	5,000 F	300			
	c. Scott R.	3,000 F	300			
	d. Salmon R.	1,000 Sp 1,000 F	300			
	e. Trinity R.	2,000 Sp 13,000 F	1,500	Trinity (CDFG)	0.800 Sp 1.200 F	0.600
3.	Redwood Cr.	1,000 F	500	Prairie Creek (Humboldt City)	0.025 F	0.100
4.	Mad R.	1,000 F	500	Mad River (CDFG)	0.500 F	0.300
5.	Cochren Cr.	0	30	Cochran Ponds (CDFG)	0	0.080
6.	Van Duzen R.	1,000 F	200			
7.	Eel R. (main stem)	4,000 F	200	Sprowel Creek (CDFG)	0.080 F	0
	a. Middle Fork	4,000 F	0			
	b. South Fork	8,000 F	4,000			
8.	Bear R.	100 F	100			
9.	Misc. streams north of Mattole R.	600 F	1,000			
10.	Mattole R.	1,000 F	500			
11.	Misc. streams south of Mattole R.	0	7,000			
12.	Ten Mile R.	0	2,000	Ten Mile River Ponds (CDFG)	0.100 F	0
13.	Noyo R.	0	2,000			
14.	Big R.	0	2,000			
15.	Navarro R.	0	2,000			
16.	Garcia R.	0	500	Garcia River Ponds (CDFG)	0	0.050
17.	Gualala R.	0	1,000	Gualala (CDFG)	0	0.020
18.	Russian R.	50 F	1,000	Warm Springs (CDFG)	0.200 F	0.100
19.	San Francisco Bay	0	0	Silverado (CDFG)	0.075 F	0
				Tyee Club Ponds	0.050 F	0
20.	SACRAMENTO RIVER SYSTEM[b]	-	-			
21.	SAN JOAQUIN RIVER SYSTEM[b]	-	-			
22.	Davenport Cr.	0	0	Silverking Oceanic Farms	0.300 F	0.200

Table 6.--Coastal Oregon (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
30.	China Cr.	0	20			
31.	Cape Cr.	0	150			
32.	Sutton Cr.	0	575			
33.	Siuslaw R.	100Sp 4,000 F	15,200			
34.	Siltcoos Lake	0	2,500			
35.	Tahkenitch Lake	0	1,900			
36.	Smith R.	1,000 F	3,000			
37.	Umpqua R.	5,900Sp 2,500 F	4,000	Rock Creek (ODFW)	0.315 F	0.320
38.	Tenmile Lake	0	4,650			
39.	Coos R.	7,600 F	6,400	Anadromous, Inc.	1.300 Sp 0.700 F	2.000
40.	Big Cr. (Coos County)	0	75			
41.	Coquille R.	300Sp 11,600 F	18,800	Bandon (ODFW)	0	2.000
42.	Twomile Cr.	0	140			
43.	Fourmile Cr.	0	140			
44.	Floras Cr.	900 F	375			
45.	Sixes R.	2,500 F	225			
46.	Elk R.	4,000 F	60	Elk River (ODFW)	0.925 F	0
47.	Hubbard Cr.	0	0			
48.	Brush Cr.	10 F	0			
49.	Mussel Cr.	0	0			
50.	Euchre Cr.	25 F	10			
51.	Rogue R.	23,000Sp 29,800 F	2,000	Cole Rivers (ODFW)	1.192 Sp 0.105 F	0.710
				Butte Falls (ODFW)	0	2.940
52.	Hunter Cr.	50 F	0			
53.	Pistol R.	300 F	0			
54.	Burnt Hill Cr.	0	0	Oregon-Pacific Salmon (Private)	0.100 Sp	0
55.	Chetco R.	4,500 F	0			
56.	Winchuck R.	400 F	0			
		33,780Sp 99,330 F	123,550	15	3.066 Sp 3.407 F	29.315

[a]Seasonal races of salmon are designated as follows: Sp, spring run; F, fall run.

CALIFORNIA

Table 7A. --Oregon-California border to Port San Luis streams and facilities that produce chinook and coho salmon. (All hatchery facilities in California are operated by the California Department of Fish and Game (CDFG) or the U.S. Government (National Fish Hatchery = NFH) unless denoted otherwise.)

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
1.	Smith R.	5,000 F	2,000	Rowdy Creek (CDFG)	0.200 F	0
2.	Klamath R. and smaller tributaries	4,000 F	1,000	Iron Gate (CDFG)	2.500 F	0.130
				Indian Ponds	0.200 F	0
	a. Bogus Cr.	3,000 F	0			
	b. Shasta R.	5,000 F	300			
	c. Scott R.	3,000 F	300			
	d. Salmon R.	1,000 Sp	300			
		1,000 F				
	e. Trinity R.	2,000 Sp	1,500	Trinity (CDFG)	0.800 Sp	0.600
		13,000 F			1.200 F	
3.	Redwood Cr.	1,000 F	500	Prairie Creek (Humboldt City)	0.025 F	0.100
4.	Mad R.	1,000 F	500	Mad River (CDFG)	0.500 F	0.300
5.	Cochren Cr.	0	30	Cochran Ponds (CDFG)	0	0.080
6.	Van Duzen R.	1,000 F	200			
7.	Eel R. (main stem)	4,000 F	200	Sprowel Creek (CDFG)	0.080 F	0
	a. Middle Fork	4,000 F	0			
	b. South Fork	8,000 F	4,000			
8.	Bear R.	100 F	100			
9.	Misc. streams north of Mattole R.	600 F	1,000			
10.	Mattole R.	1,000 F	500			
11.	Misc. streams south of Mattole R.	0	7,000			
12.	Ten Mile R.	0	2,000	Ten Mile River Ponds (CDFG)	0.100 F	0
13.	Noyo R.	0	2,000			
14.	Big R.	0	2,000			
15.	Navarro R.	0	2,000			
16.	Garcia R.	0	500	Garcia River Ponds (CDFG)	0	0.050
17.	Gualala R.	0	1,000	Gualala (CDFG)	0	0.020
18.	Russian R.	50 F	1,000	Warm Springs (CDFG)	0.200 F	0.100
19.	San Francisco Bay	0	0	Silverado (CDFG)	0.075 F	0
				Tyee Club Ponds	0.050 F	0
20.	SACRAMENTO RIVER SYSTEM[b]	-	-			
21.	SAN JOAQUIN RIVER SYSTEM[b]	-	-			
22.	Davenport Cr.	0	0	Silverking Oceanic Farms	0.300 F	0.200

Table 7A.--Northern coastal California (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
23.	Scott Cr.	0	50	Monterey Bay (Private)	0	0.010
24.	San Lorenzo R.	0	500			
25.	Port San Luis Harbor			Port San Luis Ponds (Private)	0.050 F	0
		3,000 Sp	30,480	17	0.800 Sp	1.590
		54,750 F			5.480 F	

[a]Seasonal races of salmon are designated as follows: Sp, spring run; F, fall run; LF, late fall run; W, winter run.

[b]See Table 7B.

CALIFORNIA

Table 78.--Central Valley streams and facilities that produce chinook and coho salmon.

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
SACRAMENTO RIVER SYSTEM						
1.	Main stem	10,000 Sp 44,565 F 6,000 LF 7,000 W	0			
2.	Clear Cr.	1,000 F	0			
3.	Cottonwood Cr.	1,000 F	0			
4.	Cow Cr.	500 F	0			
5.	Battle Cr.	11,000 F	0	Coleman NFH	10.000 F 1.000 LF 0.025 W	0
6.	Paynes Cr.	300 F	0			
7.	Coyote Cr.	100 F	0	Tehama-Colusa NFH	1.000 F	0
8.	Salt Cr.	30 F	0			
9.	Antelope Cr.	500 F	0			
10.	Dye Cr.	30 F	0			
11.	Mill Cr.	500 Sp 600 F	0 0			
12.	Thames Cr.	200 F	0			
13.	Toomes Cr.	100 F	0			
14.	Deer Cr.	1,200 Sp 300 F	0 0			
15.	Stoney Cr.	400 F	0			
16.	Chico Cr.	25 F	0			
17.	Butte Cr.	250 F	0			
18.	Feather R.	34,000 F	0	Feather River (CDFG)	0.150 Sp 8.500 F	0 0
19.	Yuba R.	13,000 F	0			
20.	American R.	29,000 F	0	Nimbus (CDFG)	14.000 F	0
		11,700 Sp 136,900 F 6,000 LF 7,000 W	0	4	0.150 Sp 33.500 F 1.000 LF 0.025 W	0

Table 78.--Central Valley (continued).

Stream		Natural spawners (no. fish)		Hatchery information		
					Releases (millions)	
No.	Name	Chinook[a]	Coho	Facility	Chinook[a]	Coho
SAN JOAQUIN RIVER SYSTEM						
1.	Main stem	0	0			
2.	Cosummes R.	200 F	0			
3.	Calveras R.	500 W	0			
4.	Mokelumne R.	4,000 F	0	Mokelumne (CDFG)	1.200 F	0
5.	Stanislaus R.	700 F	0			
6.	Tuolumne R.	5,000 F	0			
7.	Merced R.	4,000 F	0	Merced (CDFG)	0.200 F	0
		13,900 F 500 W	0	2	1.400 F	0
Central Valley Totals:		11,700 Sp 150,800 F 6,000 LF 7,500 W	0	6	0.150 Sp 34.900 F 1.000 LF 0.025 W	0

[a]Seasonal races of salmon are designated as follows: Sp, spring run; F, fall run; LF, late fall run; W, winter run.