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All-nation Removals of Groundfish, Herring, and Shrimp from the Eastern Bering Sea and Northeast Pacific Ocean, 1964-80

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ALL-NATION REMOVALS OF GROUNDFISH, HERRING, AND SHRIMP FROM THE EASTERN BERING SEA AND NORTHEAST PACIFIC OCEAN, 1964-80

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BACKGROUND

Under provisions of the U.S. Fishery Conservation and Management Act of 1976 (FCMA), all foreign nations permitted to fish in the fishery conservation zone (established by the act) must report catch statistics by given statistical areas (Figure 1). Provisional reports must be submitted weekly by large statistical areas, and by May 30 of the following year, annual catch statistics must be submitted by 1° long. by 1/2° lat. areas of the fishery conservation zone (FCZ). Catches must be shown by designated species or species groups which may change from year to year as requested by the United States. These reporting requirements have led to a more uniform body of catch statistics than heretofore available.

In prior years, catch statistics, if reported at all, were often for large areas and were lacking in detail for scientific use. Forrester et al. (1978) compiled historical catch and effort statistics for the groundfish fishery of the North Pacific Ocean and included statistics for Canada, Japan, the United States, the USSR, and the Republic of Korea (ROK). Catch data of other nations fishing in the northeastern Pacific were not included. A chronology of foreign fishing activities is shown in Table 1.

In attempts to bring together recent statistics for all nations fishing in the North Pacific, Larkins (1975) compiled best estimates of catch data by statistical areas useful for scientists studying trends of various fisheries. These statistics were based on 1) reports submitted to the International North Pacific Fisheries Commission (INPFC) by Canada, Japan, and the United States;

- 2) from statistics submitted to the Pacific Marine Fisheries Commission; and
- 3) from data obtained during bilateral meetings with non-member nations of

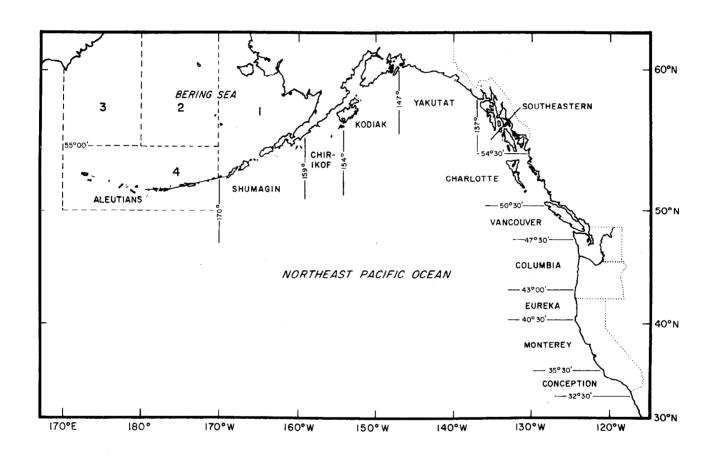


Figure 1.--Statistical areas in the U.S. fishery conservation zone in the Bering Sea and northeast Pacific Ocean.

Table 1.--Chronology of foreign fishing activities off the U.S. Pacific Coast.

1. Japan 1/

Operated in the North Pacific-Bering Sea areas from 1930 to 1941. Fishing activities stopped during World War II. Resumed Bering Sea Fishery in 1954 and entered the Gulf of Alaska fishery and California-oregon-Washington coastal fishery in 1962.

2. U.S.S.R. 1/

Began fishing operations in 1958 in the eastern Bering Sea and in the Gulf of Alaska and in 1972 off the coasts of Washington, Oregon, and California.

3. Republic of Korea (South Korea) 1/

Began fishing operations in 1966 in the eastern Bering Sea and appeared in the Gulf of Alaska in 1972. Fishing off the coasts of California, Oregon, and Washington started in 1974.

4. Republic of China (Taiwan) 1/

Began fishing operations in the eastern Bering Sea and Gulf of Alaska in 1974. Fishing vessels were reported off the coasts of California, Oregon, and Washington in 1976 and 1977.

5. Republic of Poland 1/

Began fishing operations in 1973 in the Bering Sea (ceased in 1974), Gulf of Alaska and coasts of California, Oregon, and Washington.

6. <u>Federal Republic of Germany</u> (West Germany)

Some fishing activities off the coasts of California, Oregon, and Washington in the years 1974-75 but does not have catch allocation at the present time.

7. German Democratic Republic (East Germany)

Some fishing activities in the years 1973-76 but does not have catch allocation at the present time.

8. Bulgaria

Fished in 1976 but has no catch allocation at the present time.

9. Mexico 1/

Awarded catch allocation from 1978 but did not use the right to fish in 1978.

^{1/} Countries that were awarded catch allocations and were actively engaged in fishing in 1979.

INPFC. Other fisheries data were based on personal communication with various scientific delegations and from reports issued by the Law Enforcement Branches of the Alaska and Northwest Regional Offices of the National Marine Fisheries Service. These reports cover foreign fishing vessel sightings, boardings, and operations of the enforcement branches. Original statistics of Japanese and Soviet catches of yellowfin sole and other flounders in the Bering Sea were revised by Wakabayashi and Bakkala (1978), and these revised data were included in the compilation presented here. If the totals for the two groups differed from those originally listed, adjustments were made to totals for "other fish" in order to retain the listed grand totals for the nation/area. In 1968 area totals were revised to accommodate revised catch data on flounder.

The purpose of this statistical compilation (Tables 2-20) is to provide in a single document a summary of the best estimate of catches for the years 1964-80, by species and convenient statistical areas, of all available catch data. In addition, data from joint ventures between U.S. fishermen and processing vessels of ROK, Poland, and the USSR are compiled in Tables 18 and 20. This kind of fishery, whereby U.S. vessels delivered catches to foreign processing vessels, started in 1979. The data are not reported as foreign catches nor are they reported as domestic landings. The sources of the 1977-78 data are the annual submissions by foreign nations permitted to fish in the U.S. fishery conservation zone and from records provided by Canada and the various states which report U.S. catch statistics. The 1979-80 data on foreign catches in the FCZ are provisional estimates of the catch based in part on U.S. observer data. The data from Canada for 1979-80 and the United States for 1978-80 are incomplete. It is intended that the provisional catch statistics be updated with official records in future years, as appropriate.

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- Wakabayashi, K., and R. Bakkala. 1978. Estimated catches of flounders by species in the Bering Sea -- updated through 1976. Unpubl. manuscr., 14 p. Northwest and Alaska Fish. Cent., Natl. Mar. Fish. Serv., NOAA, 2725 Montlake Blvd. E., Seattle, WA 98112. (Submitted to Int. North Pac. Fish. Comm. as INPFC Doc. 2114).

Table 2.--All-nation catches of groundfish and associated species, 1964.

Region and species	US	Canada	Japan	USSR ^{1/}	Total
		——— шесь	.IC COHO		
Bering Sea Aleutian					
Walleye pollock	-		175,339	_	175,339
Pacific halibut	648	758	2,282	-	3,688
Yellowfin sole		-	51,4737		7
Other flounders	_		50,0745	79,000	79,000
Pacific ocean perch		_	43,010	76,000	119,010
Other rockfish	_	-	. -	_	_
Sablefish		-	6,440		6,440
Pacific cod	-		19,078	-	19,078
Atka mackerel	-		-	-	
Molluscs	-	-	-	-	-
Pacific herring	-	-	42,459	175,000	217,459
Shrimp Others		-	20,475	-	20,475
	***	-	1,498	· —	1,498
Total	648	.758	412,128	330,000	743,534
Gulf of Alaska			,	•	·
Walleye pollock	_		1,127	-	1,127
Pacific halibut	14,041	13,299		_	27,340
Other flounders	158	_	870	- 0/	1,028
Pacific ocean perch		_	13,389	230,000-	243,389
Other rockfish	_	5	´	· -	5
Sablefish	-	238	1,057	-	1,295
Pacific cod	2	_	194	_	196
Atka mackerel	-	-	-	-	_
Squid	_	-	-	-	_
Pacific herring	21,462		-	- 2 /	21,462
Shrimp	3,502	-	2,371	$4,000^{2/}$	9,873
Others	4	3	817	-	824
Total	39,169	13,545	19,825	$234,000^{2/}$	306,539
Washington- California					
Pacific whiting	_	_	 .	_	
Pacific halibut	63	-		·····	63
Other flounders	13,558		-	***	13,558
Pacific ocean perch	3,940	_		_	3,940
Other rockfish		-	_	_	-
Sablefish	808	-	_		808
Jack mackerel	-	-	_	_	-
Shrimp	2,865	_	_	_	2,865
Others	4,263	-	-	-	4,263
Total	25,497	-	-	_	25,497
Total off U.S.	65,314	14,303	431,953	564,000	1,075,570

Table 2.--All-nation catches of groundfish and associated species, 1964--Cont.

Region and species	us	Canada	Japan	USSR ^{1/}	Total
British Columbia					
Pacific whiting	-	-	_	_	· -
Pacific halibut	1,073	6,185	-		7,258
Other flounders	4,811	2,838	_	_	7,649
Pacific ocean Perch	5,555	471	· -	-	6,026
Other rockfish	-	453	-	-	` 453
Sablefish	132	400,	-	****	532
Pacific herring	, 	$\frac{400}{213,703}$			213,703
Shrimp	1,560	427		-	1,987
Others	6,476	12,138	-	-	18,614
Total	19,607	236,615	***		256,222
Grand total	84,921	250,918	431,953	564,000	1,331,792

^{1/} Data from Int. North Pac. Fish. Comm.

 $^{2\,\}mbox{/}$ For the entire N.E. Pacific region.

 $^{^{3/}}$ Caught in the 1964-65 season.

Table 3.--All-nation catches of groundfish and associated species, 1965.

Region and species	us	Canada	Japan	USSR	Total
Bering Sea Aleutian					
Walleye pollock	_	-	231,276	_	231,276
Pacific halibut	449	356	2,947	***	3,752
Yellowfin sole		-	27,874]	35,000	γ
Other flounders	-	-	14,2225		∫77,096
Pacific ocean perch	-		46,461	80,000	126,461
Other rockfish	-	-	614	-	614
Sablefish	-	-	7,860	-	7,860
Pacific cod	-	-	17,348	-	17,348
Atka mackerel	-	-	9	_	9
Molluscs	-	_	_	_	_
Pacific herring	-	-	35,555	-	35,555
Shrimp	·-	-	8,840		8,840
Others		-	3,452		3,452
Total	449	356	396,458	115,000	512,263
Gulf of Alaska					
Walleye pollock	_	-	2,787		2,787
Pacific halibut	17,545	13,423	_	_	30,968
Other flounders	14	-	4,713	,	4,727
Pacific ocean perch		-	43,213	$340,000^{\frac{1}{2}}$	383,213
Other rockfish	-	4	· -	´	4
Sablefish	-	194	2,255	_	2,449
Pacific cod	_	_	59 9	-	599
Atka mackerel	-	-	_	-	-
Squid	-		_	-	_
Pacific herring	11,626	-	-	,	11,626
Shrimp	7,174	-	84	$7,000^{\frac{1}{2}}$	14,258
Others		2	553	_	555
Total	36,359	13,623	54,204	$347,000^{\frac{1}{2}}$	451,186
Washington- California					, -
Pacific whiting	in others			<u>-</u>	-
Pacific halibut	59	_	 -	<u>-</u>	59
Other flounders	13,532	· 	_	_	13,532
Pacific ocean perch	6,146	_			6,146
Other rockfish	5,288		_		5,288
Sablefish	906	_		<u>-</u>	906
Jack mackerel	-	-			-
Shrimp	1,120	-	-	_	1,120
Others	4,734	-		_	4,734
Total	31,785		_	_	31,785
		-	_	_	J., 100
Total off U.S.	68,593	13,979	450,662	462,000	995,234

Table 3.--All-nation catches of groundfish and associated species, 1965--Cont.

Region and species	us	Canada	Japan	USSR	Total
	specialis vidicionis specialis series	metri	lc tons——		4 www -w
British Columbia					÷
Pacific whiting	333		_		333
Pacific halibut	1,207	6,082	-	-	7,289
Other flounders	4,996	3,132	-	-	8,128
Pacific ocean Perch	6,585	1,395	_	-	7,980
Other rockfish	2,999	383		-	3,382
Sablefish	86	456	-	-	542
Pacific herring	3,460	165,010 ²	-	-	168,470
Shrimp	_	793	-	_	793
Others	9,154	15,750			24,904
Total	28,820	193,001	-		221,821
Grand total	97,413	206,980	450,662	462,000	1,217,055

 $^{^{\}rm 1}$ / Catch is for the entire N.E. Pacific area.

^{2/} Caught in the 1965-66 season.

Table 4.--All-nation catches of groundfish and associated species, 1966.

Region and species	us	Canada	Japan	USSR	ROK ^{1/}	Total
	بيد نجف سينج	n	metric tons -			
Bering Sea Aleutian						
Walleye pollock	_	-	263,085	-	-	263,085
Pacific halibut	336	429	3,214	-	_	3,979
Yellowfin sole			45,505]	71,000		7
Other flounders	-	-	21,635 ⁾		-	J138,140
Pacific ocean perch	-	_	43,375	29,000		72,375
Other rockfish	~	-	2,863	_	_	2,863
Sablefish		_	13,534	-		13,534
Pacific cod		-	19,040			19,040
Atka mackerel	-	_		•••	_	-
Molluscs		****	• 🕳	-		-
Pacific herring		-	27,503	_	- '	27,503
Shrimp	-	-	2,760	-		2,760
Others		-	3,116		-	3,116
Total	336	429	445,630	100,000		546,395
Gulf of Alaska						
Walleye pollock	_	_	9,060	- .	_	9,060
Pacific halibut	16,763	13,111	_	-	_	-
Other flounders	5	-	4,932	_	_	29,874
Pacific ocean perch	-	1	68,976	83,000	_	4,937
Other rockfish	-	1		-	-	151,977
Sablefish	_	335	3,785	_		1 1 2 2
Pacific cod		_	1,376		_	4,120
Atka mackerel	-		_	_	_	1,376
Squid	-	_		_	_	-
Pacific herring	7,957	-		_	_	7 057
Shrimp	12,785	-	474	10,000	_	7,957
Others		1	800		_	23,259
Total	37,510	13,449	89,403	93,000	~	801 233,362
Washington- California				•		200,002
Pacific whiting	1,031	-		128,000		129,031
Pacific halibut	49	-	_	-	_	49
Other flounders	14,672	-	1	-	-	14,673
Pacific ocean perch	1,711		44	41,000	-	42,755
Other rockfish	6,174	-	_	-		6,174
Sablefish	971		_	-	_	971
Jack mackerel	-	-	-	_	-	-
Shrimp	2,283		_		_	2,283
Others	3,662	-	91	_	_	3,753
Total	30,553	-	136	169,000	_	199,689
Total off U.S.	68,399	13,878	535,169	362,000	_	, -

Table 4.--All-nation catches of groundfish and associated species, 1966--Cont.

Region and species	us	Canada	Japan	USSR	ROK ^{1/}	Total
		me	tric tons -			
British Columbia				,		
Pacific whiting	4,098	-			_	4,098
Pacific halibut	1,021	5,699	-	-	-	6,720
Other flounders	4,323	4,951	490	-	_	9,764
Pacific ocean Perch	8,247	2,366	3,207	33,000	-	46,820
Other rockfish	4,318	329			_	4,647
Sablefish	114	635	177	_	~	926
Pacific herring	1,745	$123,259^{2}$		-	-	125,004
Shrimp	•	763	******	-		763
Others	9,761	18,476	1,337	-	-	29,574
Total	33,627	156,478	5,211	33,000		228,316
Grand total	102,026	170,356	540,380	395,000	-	1,207,762

^{1/} First year of operation. Catch figures not available.

^{2/} Caught in the 1966-67 season.

Table 5.--All-nation catches of groundfish and associated species, 1967.

Region and species	US	Canada	Japan	USSR	ROK	Total
		me	etric tons —			
Bering Sea Aleutian						
Walleye pollock	-	-	552,897	- -	5	552,902
Pacific halibut	785	669	5,733	53		7,240
Yellowfin sole	-	-	58,700γ	122,586	-	181,28
Other flounders	-	-	36,743}	•		36,74
Pacific ocean perch	-	-	27,313	46,570	· 	73,88
Other rockfish		-	6,562	,		6,56
Sablefish	-		14,891	274	_	15,16
Pacific cod	***		33,517	-	_	33,517
Atka mackerel			´-		-	-
Molluscs			_	_		_
Pacific herring	-	_	33,275		_	33,275
Shrimp	-		3,302	_	_	3,302
Others	-	_	6,791	8,179	_	14,970
Total	785	669	779,724	177,662	5	958,845
Gulf of Alaska			·	, "		000,010
Walleye pollock			6,480	- .	_	6,480
Pacific halibut	16,284	9,394	-		_	25,678
Other flounders	_	-	4,552			4,55
Pacific ocean perch		-	57,5587	66,485	_	7124,193
Other rockfish	_		148}	•		} '
Sablefish	-	199	4,996	-	_	5,19
Pacific cod	4	1	2,220	<u></u>	_	2,225
Atka mackerel	~	_	_	-	_	·
Squid	_				_	_
Pacific herring	5,008	-		_	-	5,008
Shrimp	18,963	•=	254	11,000	_	30,217
Others	26	1	2,396	10,452	-	12,875
Total	40,285	9,595	78,604	87,937	_	216,421
Washington- California						
Pacific whiting	7,436	_	-	195,092	_	202,528
Pacific halibut	45	_	-	_	-	45
Other flounders	13,060		414			13,474
Pacific ocean perch	698	_	5,0067	37,611	-	7 49,444
Other rockfish	5,545	-	584}		-	}
Sablefish	662	-	1,310	~	_	1,97
Jack mackerel	_	~	-	-	-	-
Shrimp	5,130	_	_	_	_	5,130
Others	4,044	_	3,329	3,974	-	11,347
Total	36,620		10,643	236,677	-	283,940
Total off U.S.	77,690	10,264	868,971	502,276	5	1,459,206

Table 5.--All-nation catches of groundfish and associated species, 1967--Cont.

Region and species	us	Canada	Japan	USSR	ROK	Total
		met	ric tons—			
British Columbia						
Pacific whiting	5,489	-		11,260	_	16,749
Pacific halibut	852	5,323	-	-	-	6,175
Other flounders	4,469	4,280	939		-	9,688
Pacific ocean Perch	6,193	391	12,8787	6,575		ր 29,665
Other rockfish	3,104	352	172}		<u></u>	}
Sablefish	84	3921/	1,192	_	-	1,668
Pacific herring	2,575	$18,084^{\frac{1}{2}}$		_	_	20,659
Shrimp	2	769		_	-	771
Others	9,024	13,650	2,672	3,538	-	28,884
Total	31,792	43,241	17,853	21,373	****	114,259
Grand total	109,482	53,505	886,824	523,649	5	1,573,465

^{1/} Caught in the 1967-68 season.

Table 6.--All-nation catches of groundfish and associated species, 1968.

Region and species	us	Canada	Japan	USSR	ROK	Total
		1	netric tons			
Bering Sea Aleutian						
Walleye pollock	_	_	706,339	_	1,200	707,539
Pacific halibut	394	407	4,943	305		6,049
Yellowfin sole	_		31,387	_	_	31,387
Other flounders	_	-	37,865	72,039		109,904
Pacific ocean perch	-	_	42,929		•••	42,929
Other rockfish	-	_	11,449	29,671	_	41,120
Sablefish	-	_	15,228	4,256		19,484
Pacific cod	-	-	63,865	_	· 🛶	63,865
Atka mackerel	_	-	-	-	-	· -
Molluscs		-	-	-	_	
Pacific herring	_	_	44,428	22,255		66,683
Shrimp	_	-	12,701	27,704	-	40,405
Others	-	-	4,105	-		4,105
Total	394	407	975,239	156,230	1,200	1,133,470
Gulf of Alaska						
77-11	_		6,164		-	6,164
Walleye pollock Pacific halibut	10,505	11,809		_	_	22,314
Other flounders	4	_	3,389			3,393
Pacific ocean perch		•••	54,970γ	45,186	-	7101,241
Other rockfish	-	4	1,081	-		}
Sablefish	_	128	14,767	-	· -	14,895
Pacific cod	3	_	1,043	-	-	1,046
Atka mackerel	_	-	•	_	_	-
Squid		-	_	-		-
Pacific herring	3,073	-	-	-	-	3,073
Shrimp	19,046	-	1,319	3,000	-	23,365
Others	39	3	2,089	14,236	_	16,367
Total	32,670	11,944	84,822	62,422	-	191,858
Washington- California						
Pacific whiting	-	_	-	6 7,896	_	67,896
Pacific halibut	31	. -		-		31
Other flounders	12,816	-	71		-	12,887
Pacific ocean perch	346	-	3,3467	16,251	_	ր 25,225
Other rockfish	5,056	-	ر 226		_	}
Sablefish	665		421		_	1,086
Jack mackerel		_	-	-	-	-
Shrimp	6,424	•••	_		-	6,424
Others	3,365		612	8,389	-	12,366
Total	28,703	_	4,676	92,536	-	125,915
Total off U.S.	61,767	12,351	1,064,737	311,188	1,200	1,451,243

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Table 6.--All-nation catches of groundfish and associated species, 1968--Cont.

Region and species	US	Canada	Japan	USSR	ROK	Total
		met	ric tons—	prompt Phoduld Millionsk Minimum market		
British Columbia						
Pacific whiting	4,173	-	_	35,804	_	39,977
Pacific halibut	644	5,529	_		_	6,173
Other flounders	4,668	4,656	857	_	_	10,181
Pacific ocean Perch	5,725	876	14,7847	7,306		າ 35,905
Other rockfish	5,080	434	1,700}		-	}
Sablefish	74	449, ,	2,402	_		2,925
Pacific herring	2,434	$1,485^{\frac{1}{2}}$	-	-		3,919
Shrimp	-	711	•••	_	-	711
Others	3,365	13,712	1,025	11,025	_	29,127
Total	26,163	27,852	20,768	54,135	-	128,918
Grand total	87,930	40,203	1,086,225	365,323	1,200	1,580,161

^{1/} Caught in the 1968-69 season.

Table 7.--All-nation catches of groundfish and associated species, 1969.

Region and species	us	Canada	Japan	USSR	ROK	Total
		m	etric tons —			
Bering Sea Aleutian						
Walleye pollock	-	 *	831,400	34,297	11,270	876,9 67
Pacific halibut	394	403	5,167	336	-	6,300
Yellowfin sole	 .	-	83,384	-	-	83,384
Other flounders	-		40,156	120,312	-	160,468
Pacific ocean perch			30,8947	23,172	-	7 56,453
Other rockfish	-		2,3875		-	5
Sablefish		-	18,783	1,579		20,362
Pacific cod			53,300	-	-	53,300
Atka mackerel	-	-	2	_	_	. 2
Molluscs		-	38	-	_	38
Pacific herring	-	-	36,389	94,491	<u> -</u> '	130,880
Shrimp	-	-	9,525	•	- ,	9,525
Others	_	-	7,581	7,004		14,585
Total	394	403	1,119,006	231,191	11,270	1,412,264
Gulf of Alaska						
Walleye pollock	-	-	17,553	-	56	17,609
Pacific halibut	13,937	12,550		-		26,487
Other flounders	7	_	2,623	_		2,630
Pacific ocean perch	-	_	53,6397	18,824	_	₂ 74,126
Other rockfish	-	-	1,4395		224	{
Sablefish	-	72	18,891	_	_	18,963
Pacific cod	21	-	1,314		_	1.335
Atka mackerel	-	-	-	-		_
Squid	-	_	-			
Pacific herring	5,956	-		_	_	5,956
Shrimp	21,523	~		5,000	-	26,523
Others	24	4	1,834	1,191	_	3.053
Total	41,468	12,626	97,293	25,015	280	176,682
<u>Washington-</u> <u>California</u>						
Pacific whiting		-	98	109,225	_	109,323
Pacific halibut	43	-	- .	_	-	43
Other flounders	15,549	-	64		· _	15,523
Pacific ocean perch	303		70 շ	2,623	~	7 8,479
Other rockfish	5,470		13 S		_	<i>j</i> ,
Sablefish	1,039	-	905		-	1,944
Jack mackerel	- '	-	-	_	-	-
Shrimp	6,634	-	-	_	-	6,634
Others	3,223	-	51	3,077	 ·	6,351
Total	32,171		1,201	114,925	-	148,297
Total off U.S.	74,033	13,029	1,217,500	421,131	11,550	1,737,243

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Table 7.--All-nation catches of groundfish and associated species, 1969--Cont.

Region and species	us	Canada	Japan	USSR	ROK	Total
		me	tric tons —			
British Columbia						
Pacific whiting	3,758	-	21	52,792		56,571
Pacific halibut	566	7,262	-	_		7,828
Other flounders	3,857	4,869	731	-	~	9,457
Pacific ocean Perch	5,706	1,504	11,689	1,607	_	30,901
Other rockfish	8,050	935	1,410		-	
Sablefish	62	318	, 4,728	_	, -	5,108
Pacific herring	3,301	$3,214^{\frac{1}{2}}$	_	-	_	6,515
Shrimp	103	857	-	-	-	960
Others	5,496	11,709	1,059	18,519	-	36,783
Total	30,899	30,668	19,638	72,918	-	154,123
Grand total	104,932	43,697	1,237,138	494,049	11,550	1,891,366

 $[\]frac{1}{}$ Caught in the 1969-70 season.

Table 8.--All-nation catches of groundfish and associated species, 1970.

Region and species	us	Canada	a Japan	USSR	ROK	Total
pheeren	<u> </u>	Carrage	u oapan	OBBR	NON	IOCAL
		m	etric tons-			
Bering Sea Aleutian						
Walleye pollock		-	1,231,644	45,080	4,620	1,281,344
Pacific halibut	178	428	6,218	164	-	6,988
Yellowfin sole		-	59,970լ	,	-	7233,247
Other flounders		-	58,346}	•	-	, }
Pacific ocean perch	-		22,756	.53,274	-	7 79,102
Other rockfish	-	-	3,072	3 _	-	}
Sablefish	-	-	11,363	2,874	_	14,237
Pacific cod		-	74,613	· <u>-</u>	_	74,613
Atka mackerel	_	-	1		-	1
Molluscs		-	107	-	_	107
Pacific herring	-	-	28,349	117,202	_	145,551
Shrimp	-	-	140	·	_	140
Others	-	-	17,175	15,558	-	32,733
Total	178	428	1,513,754	349,083	4,620	1,868,063
Gulf of Alaska						
Walleye pollock			9,343	in others	_	9,343
Pacific halibut	14,984	11,066	· -	in others		26,050
Other flounders	1	3	3,768	in others	_	3,772
Pacific ocean perch	484	3	44,381	in others	-	44,868
Other rockfish		1	745	in others		746
Sablefish	13	68	24,384	_	_	24,465
Pacific cod	14	30	1,761		_	1,805
Atka mackerel			-,	_		1,000
Squid	_	-	•	_	_	_
Pacific herring	7,473	_	6	_	_	7,479
Shrimp	33,719		_	4,000	_	37,719
Others	251	13	913	9,336		10,513
Total	56,939	11,184	85,301	13,336	-	166,760
Washington- California			·	ŕ		ŕ
Pacific whiting		_	1,400	200,754		202,154
Pacific halibut	28	***	_	-	_	28
Other flounders	16,393	63	-	in others	_	16,456
Pacific ocean perch	306	6	227	2,621	_	, 8,539
Other rockfish	5,556	<u>.</u>	28	- • - 		· }
Sablefish	1,358	3	139	_	_	1,500
Jack mackerel	_	-	-	980	_	980
Shrimp	8,213	-	_	-	_	8,213
Others	2,436	1	3	7,226		9,666
Total	34,290	73	1,592	211,581	-	247,536
Total off U.S.	91,407	11,685	1,600,647	574,000	4,620	2,282,359

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Table 8.--All-nation catches of groundfish and associated species, 1970--Cont.

Region and species	us	Canada	Japan	USSR	ROK	Total	
		me	tric tons —				
British Columbia							
Pacific whiting	3,948	_	877	25,491	~	30,316	
Pacific halibut	362	5,956	-	_	_	6,318	
Other flounders	2,795	5,477	451	-	_	8,723	
Pacific ocean Perch	5,970	2,096	7,154]	186	-	γ22,467	
Other rockfish	5,662	930	لـ469	_	-	}	
Sablefish	73	259,	, 5,154	_	-	5,486	
Pacific herring	1,499	$5,192^{\frac{1}{2}}$	-	-		6,691	
Shrimp	271	698	1	-	-	970	
Others	4,104	7,228	606	-		11,938	
Total	, 24,684	27,836	14,712	25,677	-	92,909	
Grand total	116,091 39,521		1,615,359	599,677	4,620	2,375,268	

^{1/} Caught in the 1970-71 season.

Table 9.--All-nation catches of groundfish and associated species, 1971.

Region and species	us	Canada	a Japan	USSR	ROK	Total
		m	etric tons_			
Bering Sea						
Aleutian						
			1,514,830	236,046	10,000	1,760,876
Walleye pollock	- 63	331	7,704	349	10,000	8,447
Pacific halibut	63	331	83,5957	142,654	_	2 302,174
Yellowfin sole	-	-	75,925	142,034		{ 002,114
Other flounders	_	_	24,5897	7,190	-	34,004
Pacific ocean perch	-		2,225	1,130		}
Other rockfish	-	-	16,155	3,000	_	19,155
Sablefish	-	-	46,357	5,000		46,357
Pacific cod	***	-	166	_	_	166
Atka mackerel	-	-	41	_	_	41
Molluscs	-10	-	23,262	23,000	_	46,280
Pacific herring	18	_	·	23,000	<u>-</u>	6,726
Shrimp		-	6,726	0 070	-	39,045
Others	-	-	30,807	8,238		39,043
Total	81	331	1,832,382	420,477	10,000	2,263,271
Gulf of Alaska			_			
Walleye pollock	, -	-	9,018	440	-	9,458
Pacific halibut	9,103	7,059	<u>-</u>	in others	-	16,162
Other flounders	-	-	2,370	in others	-	2,370
Pacific ocean perch	20		47,8077	29,700		7 79,090
Other rockfish	26	1	ر1,536		-	<i>}</i> .
Sablefish	273	15	25,278	in others	-	25,566
Pacific cod	62	-	461	-	-	523
Atka mackerel			in others	-	- ,	_
	-	-	in others	-		-
Squid	4,868		45	-	-	4,913
Pacific herring	43,034	-	***		-	43,034
Shrimp	16	4	1,157	579	_	1,756
Others	57 400	7 070		70 710		182,872
Total	57,402	7,079	87,672	30,719		102,012
Washington-						
California						
Doodfie whiting	-	•••	799	146,726	_	147,525
Pacific whiting Pacific halibut	42	9	_	- ,	_	51
Other flounders	16,106	57	623	1,524		18,310
	500	11	2767	2,462	-	7 9,272
Pacific ocean perch	5,993	_	303	-,	-	{ 3,212
Other rockfish	2,144	7	11	762	_	2,924
Sablefish	-	_	in others	-		2,324
Jack mackerel	5,889	_	-	=	_	5,889
Shrimp	4,236	_	66	25 4	_	•
Others	•				_	4,556
Total	34,910	84	1,805	151,728	-	188,527
Total off II.S.	92,393	7,494	1.921.859	602.924	10.000	2 634 670

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Table 9.--All-nation catches of groundfish and associated species, 1971--Cont.

Region and species	US	Canada	Japan	USSR	ROK	Total	
		me	tric tons —-				
British Columbia							
Pacific whiting	3,407	-	639	_	_	4,046	
Pacific halibut	392	4,169	-	_	_	4,561	
Other flounders	2,307	5,001	88	-	_	7,396	
Pacific ocean Perch	3,991	1,337	4,333		-	9,661	
Other rockfish	4,956	947	428	_	-	6,331	
Sablefish	204	312,	, 3,057	-	-	3,573	
Pacific herring	1,323	$40,478^{\frac{1}{2}}$	-	-	_	41,801	
Shrimp	26	333		-		359	
Others	4,180	8,578	306			13,064	
Total	20,786	61,155	8,851		-	90,792	
Grand total	113,179	68,649	1,930,710	602,924	10,000	2,725,462	

^{1/} caught in the 1971-72 season.

Table 10.--All-nation catches of groundfish and associated species, 1972.

Region and species	US	Canada	Japan	USSR	ROK	Total
·		me	etric tons-			
Bering Sea Aleutian						
	-	_	1,652,518	214,761	9,180	1,876,459
Walleye pollock	230	117	4,199	491	5,100	5,037
Pacific halibut	_		34,939)	61,006		7 212,632
Yellowfin sole	-		116,687	01,000	-	{
Other flounders		-	13,6327	24,745	_	'7 40,547
Pacific ocean perch	_		2,170}			},
Other rockfish	-		15,770	2,406		18,176
Sablefish	-	-	39,934		_	39,934
Pacific cod	-	***	in others	-		_
Atka mackerel	-		691	_	_	691
Molluscs	. 88	-	6,458	54,000	-	60,546
Pacific herring	-		5,805	_		5,805
Shrimp Others	-	-	30,968	109,487	_	140,455
Total	318	117	1,923,771	466,896	9,180	2,400,282
Gulf of Alaska						
			13,696	20,385	717	34,798
Walleye pollock	8,646	5,670	13,090	302	111	14,618
Pacific halibut	69	5,070	7,522	1,363	-	8,954
Other flounders	-	2	7,522 50,6187	24,011	-	779,563
Pacific ocean perch	_	2	1,987	24,011	2,945	779,003
Other rockfish	726	15	35,626	535	380	37,282
Sablefish	-	13	816	2,696	-	3,513·
Pacific cod	_	_	in others	6,282	_	6,282
Atka mackerel	_	_	477	0,202	-	477
Squid	8,217			_	_	8,217
Pacific herring	38,035	1		_	_	38,036
Shrimp	-		2,017	13,290	-	15,307
Others Total	55,693	5,689	112,759	68,864	4,042	247,047
Washington- California	·	·	•	·	·	·
			7.0 7	444 000		444 576
Pacific whiting		-	307	111,269		111,576
Pacific halibut	32	15	-		-	47
Other flounders	20,532	9	1,071	2,544	-	24, 156
Pacific ocean perch	387	_	505	2,209	-	7 11,004
Other rockfish	7,823		585)	200	-	J
Sablefish	4,036	-	759	299		5,094
Jack mackerel	11 050	-	in others	_	-	-
Shrimp	11,258	_	3,198		-	14,456
Others	2,791	_		2,939	-	5,730
Total	46,859	24	5,920	119,260	-	172,063
Total off U.S.	102,870	5,830	2,042,450	655,020	13,222	2,819,392

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Table 10.--All-nation catches of groundfish and associated species, 1972--Cont.

Region and species	US	Canada	Japan	USSR	ROK	Total			
		metric tons							
British Columbia									
Pacific whiting	-	-	113	5,816		5,929			
Pacific halibut	332	4,386	-		-	4,718			
Other flounders	2,813	3,761	255	in others	-	6,829			
Pacific ocean Perch	3,871	2,327	10,3807	401	_	224,208			
Other rockfish	4,825	1,785	619]		_	· }			
Sablefish	105	1,088,	, 4,245	in others	_	5,438			
Pacific herring	1,566	$39,037\frac{1}{7}$	_	-		40,603			
Shrimp	4	360		_		364			
Others	7,451	12,049	2,421	2,110	-	24,031			
Total	20,967	64,793	18,033	8,327	-	112,120			
Grand total	123,837	70,623	2,060,483	663,347	13,222	2,931,512			

 $[\]frac{1}{2}$ Caught in the 1972-73 season.

Table 11.--All-nation catches of groundfish and associated species, 1973.

Region and species	US_	Canada	Japan	USSR	Poland	ROK East ¹ / Germany	Total
			metric t	ons			
Bering Sea							
Aleutian							
•			1,477,001	280 633	_	3,080	1,769,714
Walleye pollock	- 06	65	3,761	300	-	-	4,212
Pacific halibut	86	. 03	76,046)	21,178	_	-	182,972
Yellowfin sole	_	-	85,748	21,110	_	_	102,512
Other flounders	_	_	12,4457	3,491	·	_	J 17,433
Pacific ocean perch	-	_	1,497	0,401			1,,400
Other rockfish		_	8,774	1,254	· <u>_</u>	-	10,028
Sablefish	· -	_	45,588	1,204			45,588
Pacific cod	_		27	_		·	27
Atka mackerel	_	_	951			_	951
Molluscs	78		2,395	34,361	_	285	37,119
Pacific herring	_!0		152		_	-	152
Shrimp		_	43,952	32,113	_	, 	76,065
Others		-				7 765	•
Total	164	65	1,758,337	382,330	. ••••	3,365	2,144,261
Gulf of Alaska							
Walleye pollock		-	6,706	34,138		858	41,702
Pacific halibut	7,521	3,574		174		-	11,269
Other flounders	450		18,502	1,061			20,013
Pacific ocean perch	-	_	47,373)	5,646	-}	3,432	7 63,888
Other rockfish	111	7	7,319}		ر_		5
Sablefish	866	16	27,351	109	-	42	28,384
Pacific cod	58		2,605	3,300	. · · - ·	-	5,963
Atka mackerel	_		in others	10,998		-	10,998
Squid	-		in others	5 -	-		-
Pacific herring	7,998	-	-	-	-	-	7,998
Shrimp	52,933	-	-			- .	52,933
Others	64	6	4,155	4,096	-	-	8,321
Total	70,001	3,603	114,011	59,522	-	4,332	251,469
Washington-							
California		•					
Pacific whiting	· _		3,782	139,060	2,220	- ?	145,062
Pacific halibut	3	-		-	-	-	3
Other flounders	20,015	, - ·	29	9	-	-	20,053
Pacific ocean perch			463 լ	6,125	8	-	723,050
Other rockfish	11,615	-	4,524	•		-	.
Sablefish	4,629	-	21	121	·	-	4,771
Jack mackerel	-	-	in other	s -	-	-	-
Shrimp	14,047		-	-	-	-	14,047
Others	3,475	4	3,462	2,981	208	_	10,130
Total	54,099	4	12,281	148,296	$2,436^{\frac{2}{2}}$	-	217,116
	124.264	3.672	1.884.629		2.436	7.697	2.612.846

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Table 11.--All-nation catches of groundfish and associated species, 1973--Cont.

Region and species	US	Canada	Japan	USSR	Poland	ROK East-/ Germany	Total
			metric to	ons — — —			
British Columbia							
Pacific whiting	_	· -	1,285	13,840	-	_	15,125
Pacific halibut	235	2,917		-		_	3,152
Other flounders	3,723	3,647	428	in other	s -	_	7,798
Pacific ocean Perch	2,610	1,398	3,603 გ	1,911		-	7 22,841
Other rockfish	5,559	1,422	6,338)		-	-	J
Sablefish	10 2	948	2,950	6		_	4,006
Pacific herring	_	55,622		-		_	55,622
Shrimp	10	784	-	-	-		794
Others	6,367	15,203	1,165	450		-	23,185
Total	18,606	81,941	15,760	16,207	_		132,514
Grand total	142,870	85,613	1,900,389	606,355	2,436	7,697 ?	2,745,360

 $^{^{1/}}$ Began operations in August with 1 vessel off Oregon.

^{2/} May include some catch taken off Alaska.

Table 12.--All-nation catches of groundfish and associated species, 1974.

Region and species	us	Canada	Japan	USSR	Poland:	, R	O K Germany	Total
			metric	tons				
Bering Sea Aleutian								
Walleye pollock	-	-	1,256,201	•	_	28,600		1,615,760
Pacific halibut	124	122	1,849		-	-		2,222
Yellowfin sole		-	38,781	, ,	-	_		γ 156,854
Other flounders	- .	-	79,364		-	_		100,034
Pacific ocean per	rch -		28,133	32,701	-	-		ος 7 63,281
Other rockfish	-	-	2,447	}		-		{ 03,201
Sablefish	-	-	7,194	91		_		7,285
Pacific cod	-	-	50,422	16,592	-	_		67,014
Atka mackerel	-		91	1,377	-			1,468
Molluscs	- ,	_	1,072	in others	_	_		1,072
Pacific herring	114	-	7,185	19,800	-	200		27,299
Shrimp	_	-	102		-	-		102
Others			64,268	14,496		5,963		84,727
Total	238	122	1,537,109	454,852	-	34,763		2,027,084
Gulf of Alaska								
Walleye pollock	-		30,433	31,000	-	_		61 477
Pacific halibut	5,844	1,395	´	60				61,433
Other flounders	325	•	7,107	2,334		_		7,299 9,766
Pacific ocean per	rch _ 1	7	36,9807	17,194		_		758,234
Other rockfish	23}		4,030}	•		_		700,254
Sablefish	777	10	24,283	38	_	3,000		28,108
Pacific cod	71	3	2,972	2,136		_		5,182
Atka mackerel	-	-	in others	17,531		_	•	17,531
Squid	_	-	in others					-
Pacific herring	17,663	-	-	-				17,663
Shrimp	49,319	-	-	-	-	_		49,319
Others	401	2	6,501	7,649	-	2,237		16,790
Total	74,423	1,417	112,306	77,942	-	5,237		271,325
Washington- California				,		·		,
Pacific whiting	- ·	_	8,259	156,708	44,354	_	?	209,321
Pacific halibut	31	~	-	-	-	-		31
Other flounders	19,688	-	70	5				19,763
Pacific ocean pe	rch 426		12շ	2,5367	120	-		ີງ 20,106
Other rockfish	11,453	_	5,5595	}				}
Sablefish	6,022		316	148	***	129		6,615
Jack mackerel	-	-	in others	-	-	-		→
Shrimp	10,853	-	•	-	-	-		10,853
Others	3,313	-	3,205	4,835	177			11,530
Total	51,786	-	17,421	164,232	$44,651^{\frac{2}{-}}$	129		278,219
Total off U.S.	126,447	1,539	1,666,836	697,026	44,651	40,129		2,576,628

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Table 12. --All-nation catches of groundfish and associated species, 1974--Cont.

Region and species	US	Canada	Japan	USSR	Poland	ROK East- German	Total
			metric	tons ———			
British Columbia							
Pacific whiting	-	_	134	1,799	_	~	1,9
Pacific halibut	324	1,826	_	_	-		2,1
Other flounders	3,998	3,686	35	-	_	_	7,7
Pacific ocean Pe	rch 2,444	1,529	10,849	176		_	731,8
Other rockfish	3,780	1,130	ز11,917			-	{
Sablefish	227	493	, 3,875	16	-	-	4,6
Pacific herring	_	44,665-	-	_		-	44,6
Shrimp	3,507	1,199	_	-		_	4,7
Others	9,027	13,026	1,696	660	-	_	24,4
Total	23,307	67,554	28,506	2,651	_		122,0
Grand total	149,754	69,093	1,695,342	699,677	44,651	40,129	2,698,6

^{2/} Catches from Gulf of Alaska and Washington-California are combined in original data.

 $[\]frac{2}{}$ One vessel in June only.

 $[\]frac{3}{2}$ Caught in the 1974-75 season.

Table 13.--All-nation catches of groundfish and associated species, 1975.

Region and species	US (Canada	Japan	USSR	Poland	ROK	Taiwan	East Germany, _ ^{West} 1	/ Total
		 -	m	etric to	ns			Germany-	
Bering Sea Aleutian									
Walleye pollock	_	_	1,067,711	228,829	-	3,438	in others	; ~	1,299,978
Pacific halibut	162	79	1,210	140	-	-	-	-	1,591
Yellowfin sole	_	-	59,863	40,415	_	-	in others	; ~	7 155,707
Other flounders	_	-	55,429	;	-		11	~	}
Pacific ocean									-
perch	_	-	•	24,612	- 7	27	**	-	ን 39,155
Other rockfish	-	-	972	\$	- }		+1	-	}
Sablefish	-	-	5,357	117	-	9	11		5,483
Pacific cod	_		38,837	18,486	-	49	"		57,372
Atka mackerel	-	-	3	13,326	-	in other	ers "	-	13,329
Molluscs	-	-	4,863	-	-	-	11	~	4,863
Pacific herring	51	-		14,206	-	-	***	-	16,096
Shrimp	-	-	3,556	-	-	-	"	-	3,556
Others	_		60,618	12,492	-	1,244	~ 300	-	74,654
Total	213	79	1,313,802	352,623	-	4,767	~ 300	-	1,671,784
Gulf of Alaska									
Walleye pollock	_	-	13,032	39,949	631	~5,900			59,512
Pacific halibut	6,813	2,172	_	50	31	_		-	9.066
Other flounders	2		2,697	2,766	67	in other	ers	-	5,532
Pacific ocean			•		•				
perch	947	4	34,131	15,071	- 1	~2,950		-	761,865
Other rockfish	}		9,615	}	- }			_	} .
Sablefish	1,088	16	22,157	33	-	2,188	~100	 .	25,582
Pacific cod	127	3	3,280	2,551	784	in other	ers	~	6,745
Atka mackerel	-	-	in others	27,776	619	11			28,395
Squid	-	-	101	-				~	. 101
Pacific herring	16,081	-			-	-			16,081
Shrimp	44,893	-	-	-	-	-		-	44,893
Others	48	2	6,129	7,269		~ 2,950	~50	-	16,448
Total	69,146	2,197	91,142	95,465	2,132	-13,988	~150		274,220
Washington- California									
Pacific whiting	n others	-	3,214	155,405	41,542			~2,000	202,161
Pacific halibut	17	-		_	-	•••	-	-	17
Other flounders	21,523	-	255	151	in other	rs -		~	21,929
Pacific ocean									
perch	10,380	-	•	7 2,014	2,638	50		-	715,961
Other rockfish		-	879	ζ.	S j	ſ		_	5
Sablefish	7,082	-	152	68	in other	rs3,664	_	-	10,966
Jack mackerel	_		in others	5 -	-	-	_		-
Shrimp	16,578	-	_			-	-	_	16,578
Others	2,907		813	2,136	6,691	-	-		12,547
Total	58,487	-	5,313	159,774	50,871	3,714		~2,000	280,159
	27 846		1 410.257				~ 450		

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Table 13.--All-nation catches of groundfish and associated species, 1975--Cont.

Region and species	us	Canada	Japan	USSR	Poland	ROK	Taiwan	East Germany,	Total
			_ — — me	tric ton	s			— West <u>Germany^{1/}</u>	.
British Columbia									
Pacific whiting	;	in others	_	3,493	15,704	_	_	_	19,19
Pacific halibut	386	2,902	_		_	_	_	-	3,28
Other flounders	3,509	5,454	118	in other	s in oth	ers-	-	_	9,08
Pacific ocean									,,,,
perch	4,2907	3,248	5,4407	239]	12,243)	50	_	-	30,26
Other rockfish	}		4,750}	}	}	_	_	-	
Sablefish	541	9052/	4,713	12	in other	s1,608	-	_	7,77
Pacific herring	; · -	59,645-	-	-	_	-	-	-	59,64
Shrimp	996	784	-		٠		_		1,78
Others	8,197	14,368	1,544	70	1,625	-	-	~2,500	29,02
Total	18,639	87,306	16,565	3,814	29,572	1,658		~2,500	160,05
Grand total	146,485	89,582 1,	426,822	611,676	82,575~	24,127	~ 450	~4,500	2,386,21

^{1/} Three vessels from East Germany and 2 vessels from West Germany.

^{2/} Caught in the 1975-76 season.

				30			1 /	
Table 14All-	nation	catches o	of groundf	ish and	associa	ted specie	1/ es, 1976.	
Region and species	us	Canada	Japan	USSR	Poland	ROK	East Bulgaria Germany	a Total
			u	etric to	ons			
	•							
Bering Sea Aleutian								
Walleye pollock	-	_	991,039	179,212		85,478		1,255,729
Pacific halibut	218	70	670	60	_	-		1,018
Yellowfin sole		. -	52,806	30,480	- 7	1,334		84,620
Other flounders Pacific ocean	-		52,7285		- }			52,728
perch		-	13,9947	19,075	- 7	616		33,685
Other rockfish		-	1,689		- }			1,689
Sablefish	-	-	4,537	90		186		4,813
Pacific cod		-	39,453		-	736		58,257
Atka mackerel	-	-	92	20,737		-		20,829
Molluscs	- 0	, 	1,302	_		-		1,302
Pacific herring	8	-	15,928	16,812	_	-		32,748
Shrimp	-		2,213	11 075	-	1 605		2,213
Others	226	70.1	64,368	11,975	_	1,605		77,948
Total	226	70 1	,240,819	296,509	-	89,955		1,627,579
Gulf of Alaska								
Walleye pollock	60	-	11,796	37,825	-	29,720		79,401
Pacific halibut	6,511	2,351	_	26		_		8,888
Other flounders Pacific ocean	153	-	2,283	2,601	_	1,052		6,089
perch	126	-	35,353	9,697	-	1,615		46,791
Other rockfish		63	9,652		-			9,715
Sablefish	803	3	21,998	41		3,700	•	26,545
Pacific cod	217	-	3,308	2,99	5 –	244		6,764
Atka mackerel	-		n others	19,933	-			19,933
Squid	-	- i	n others					-
Pacific herring	-	-	-	-	-			-
	8,542	_			_	4 007		58,542
Others	158		5,548	6,755		1,083		13,544
	6,570	2,417	89,938	79,873		37,414		276,212
<u>Washington-</u> <u>California</u>								
Pacific whiting		rs -	3,334	154,129	23,568	-	~26,000 ~24,200	231,331
Pacific halibut	22	-		-				22
Other flounders Pacific ocean	• •		117	142	in othe	ers -		22,909
-	14,164	_	61		{ 427	179		17,225
Other rockfish			816	-	ر ا)		816
Sablefish	3,347	-	134			ers13,598		17,145
	in othe	rs -	in others	in oth	ers -		:	_
•	14,772	_	824	2 760	1 047		,	14,772
Others	3,236	_	024	2,769	1,043	-		7,872

Total 58,191 - 5,286 159,500 25,138 13,777 ~26,000~24,200 312,092

Total off U.S124,987 2,487 1,336,043 535,882 25,138 141,146 ~26,000~24,200 2,215,883

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Table 14.--All-nation catches of groundfish and associated species, 1976 Cont.

Region and species	US	Canada	Japan	USSR	Poland	ROK	East Germany	Total
			me	tric to	ons — — -			
British Columbia								
COLUMBIA								
Pacific whiti	ng in oth	ers in oth	ers -	3,918	2,054			5,97
Pacific halib	ut 299	3,022		-				3,32
Other flounde	rs 4,331	6,466	242	in othe	rs in ot	hers		11,039
Pacific ocean		•						
perch	5,623	3,711	3,5407	313	4,6147	115		17,916
Other rockfis			4,206}		. }			4,206
Sablefish	473	3802/	3,501	17	in othe	rs3,757		8,128
Pacific herri	ng	81,104-		_	_		•	81,104
Shrimp	954	3,503	_	_	_			4,457
Others	8,841	13,469	735	84	71	2	2,000	25,202
Total	20,521	111,655	12,224	4,332	6,739	3,874	2,000	
Grand total	145,508	114,142 1	,348,267	540,214	31,877	145,020	~28,000~24,200	2,377,228

^{1/} Catch data from Taiwan not available; 1 or 2 vessels used.

^{2/} Caught in the 1976-77 season.

Table 15.--All-nation catches of groundfish and associated species, 1977.

Region and species	US	Canada	Japan	USSR	Poland	ROK	Taiwan	Total
				.4				
			metr	ic tons				
Bering Sea Aleutian								
Walleye pollock	-	-	780,357	65,002	-	40,220	1,349	886,928
Pacific halibut	417	, 75	1		-	-	2	495
Yellowfin sole	-	~	58,240	284	-	_	-	58,524
Other flounders	- .		59,226	6,211	-	-	-	65,477
Pacific ocean			0.6763	976	*	565	0	10.070
perch	-		8,6367		-	- 565	2	10,079
Other rockfish	-	-	11,883)		_	- 96	- 57	11,883
Sablefish	_	-	4,577	- 278		1,445	53 2	4,726 38,040
Pacific cod Atka mackerel		~	36,315 788	20,975	_	1,440		21,763
Molluscs	-	-	6,747	20,973	_	_	_	6,747
Pacific herring	2,550	_	5,577	13,144		-	_	21,271
Shrimp	2,550	-	. 647	-	`		-	647
Others		_	31,777	5,271			95	37,143
Total	2,967	75	1,004,811	112,041	_	42,326	1,503	1,163,723
Gulf of Alaska	2,00.	. •	1,001,011	,			•	, ,
Walleye pollock	181		41 057	41 500	1 056	. 45 500		. 100 550
Pacific halibut	5,322	1,633	41,953	41,588	1,256	35,580		120,558
Other flounders	684	1,033	17,750	- 464		_	-	6,955
Pacific ocean	004		11,130	404	_	_	_	18,898
perch	12)	1	19,247)	1,829	_	_	_	21,089
Other rockfish	37)		2,094	•	_	560	_	2,691
Sablefish		3	14,367	4	-	1,586	-	15,960
Pacific cod	164		1,479	525	_	100	-	2,268
Atka mackerel	_	_	121	19,220	209	- .	. —	19,550
Squid	-		319	-		-	_	319
Pacific herring	-	-	-	-		-	. •••	
Shrimp	50,952	-		-	. •••		***	50,952
Others	128	1	2,749	1,070	-	-	-	3,948
Total	57,480	1,638	100,079	64,700	1,465	37,826	-	263,188
<u>Washington-</u> <u>California</u>								
Pacific whiting	540	_	_	99,938	17,654		_	118,132
Pacific halibut	25	_		_	_	-	-	25
Other flounders	5,062	-	-	_	-	-		5,062
Pacific ocean								
perch	727	-	-3	82		_	-	809
Other rockfish	4,194	_	-7		170	-	-	4,364
Sablefish	340	-	-	7		-		347
Jack mackerel		-	-	517	160	-	_	677
Shrimp Others	32,208	-	-	· -	- ^	-	-	32,208
Total	1,449	. -	-	-	8	-	-	1,457
Total	44,545	-	.	100,544	17,992	-	-	163,081
Total off II.C.	104.992	1.713	1.104.890	277.285	19.457	80.152	1.503	1.589.992

33 Table 15.--All-nation catches of groundfish and associated species, 1977--Cont.

Region and species	US	Canada	Japan	USSR	Poland	ROK	Taiwan	Total
			metr	ic tons—				
British Columbia								
Pacific whiting	20	_	1,931		4,532	_	₩.	6 ,48 3
Pacific halibut		2,269		-	_	_		2,449
Other flounders		5,515	73	_	-	-	-	9,085
Pacific ocean	-,	•						
perch	1,961	2,716	2,144	-	_		-	6,821
Other rockfish	6,584	5,235	906	-	25	***	-	12,750
Sablefish	431	1,085	2,968	-	-	6	. —	4,490
Pacific herring		$97,171^{\frac{1}{2}}$			-	_	-	97,171
Shrimp	1,416	2,833		_		_	_	4,249
Others	7,320	13,104	138	_	503	-		21,065
Total	21,409	129,928	8,160	-	5,060	6	_	164,563
Grand total	126,401	131,641	1,113,050	277,285	24,517	80,158	1,503	1,754,555

^{1/} Caught in the 1977-78 season.

Table 16.--All-nation catches of groundfish and associated species, 1978.

Region and species	บ รี /	Canada	Japan	USSR	Poland	ROK	Taiwan	Total
			metric	tons				
Bering Sea Aleutian								
Walleye pollock	23	-	788,113	92,840	-	59,634	3,057	
Pacific halibut	723	67	-	_	-	-	4	794
Yellowfin sole	-		62 ,7 96	50,004	-	64	·-	112,914
Other flounders	_		85,073	36,643	-	152	64	121,932
Pacific ocean			e 910	277	•	600	7	G 241
perch	-	-	6,819	237	_	682	3	7,741
Other rockfish			7,913	==	-	124		8,037
Sablefish	- 25		1,638	- E 40	_	195	5	1,838
Pacific cod	35		44,400	540	-	866	62	45,903
Atka mackerel			1,548	22,340		105	- 71	23,993
Molluscs	- 079	-	9,099	- 6 107	~	34	31	9,164
Pacific herring	7,038		2,277	6,103	-	17 -	-	15,435
Shrimp	3,002 5	-	46,656	10,827	.	3,477		3,002 60,965
Others				-				•
Total	10,826	67	1,056,332	219,584	_	65,350	3,226	1,355,385
Gulf of Alaska								
Walleye pollock		_	25,900	41,880	1,230	28,198	_	97,208
Pacific halibut	5,375	1,947	-	-	-	-	_	7,322
Other flounders	861	-	15,396	442	13	105	-	16,817
Pacific ocean					_			٠.
perch	7	-	3,932	628		•		8,079
Other rockfish	90	-	723	-	9			1,476
Sablefish	1,235	-	6,923	1		612	_	8,771
Pacific cod	791		7,345	1,083		-,	_	10,496
Atka mackerel		_	1,011	18,472		69	-	19,552
Squid			129		1	100	-	230
Pacific herring	9,173	- `		-		-	-	9,173
Shrimp	30,50 0		-	-	-	-	, -	30,500
Others	1,318	-	2,828	421		2,053	_	6,620
Total	49,350	1,947	64,187	62,927	1,269	36,564	-	216,244
Washington- California								
Pacific whiting	648			69,550	27,171	_		97,369
Pacific halibut	15		. -	-	-	_	-	15
Other flounders	25,011	-	-			- .	· -	25,011
Pacific ocean perch	1,221	_		_	_		-	1,221
Other rockfish	24,715	-	-	480	131	_	-	25,326
Sablefish	9,442	-	-	14	43		-	9,499
Jack mackerel	J, 472	<u>-</u>	_	1,376	188	_		1,564
Shrimp	34,458		_	-,570		-	•••	34,458
Others	4,074	_	_	4	71			4,149
Total	99,584	-		71,424			_	198,612
						101 01	7 000	
Total off U.S.	159,760	2.014	1.120.519	353,935	28,873	101,914	3,226	1,770,241

\$35\$ Table 16.--All-nation catches of groundfish and associated species, 1978--Cont.

Region and species	US	Canada	Japan	USSR	Poland	ROK	Taiwan	Total
			metri	c tons—				
British Columbia								
Pacific whiting Pacific halibut Other flounders Pacific ocean perch Other rockfish Sablefish Pacific herring Shrimp	7 138 3,895 1,285 5,486 948 - 2,945 11,650	1,891 5,456 - 10,295 554 81,400 - 14,963	3,366 - 1 19 74 2,108 - 39	- - - - - - -	500 	 		3,873 2,029 9,352 1,304 15,855 3,610 81,400 2,945 26,652
Others Total	26,354	114,559	5,607	-	500	-	-	147,020
Grand total	186,114	116,573	1,126,126	353,935	29,373	101,914	3,226	1,917,261

^{1/} Data from California preliminary.

Table 17.--All-nation catches of groundfish and associated species, 1979.

Region and species	US ^{1/}	Canada:' Japan	USSR	Poland	l?' ROK	Taiwan	Total
	٠	me	tric tons-				
Bering Sea Aleutian							
Walleye pollock		757,332	60,292	20,162	83,702	1,952	923,440
Pacific halibut		58,133	40,271	_	1 010		-
Yellowfin sole		75,519			1,919	3	100,326
Other flounders Pacific ocean		13,319	13,479	. 1	2,366	19	91,384
		6,997		1	303	2	7,303
perch Other rockfish		15,590		-	-	-	15,622
Sablefish		1,676		1	358	4	2,066
Pacific cod		33,707		9	2,452	38	38,576
		1,667		2	1,147		23,027
Atka mackerel		5,138		28	1,360	12	6,539
Molluscs		1,677		_	120		6,783
Pacific herring			-,500		-	_	0,703
Shrimp Others		38,304	8,950	1	4,939	-	52,194
Total						•	
Gulf of Alaska		995,740	150,619	. 20,205	98,666	2,030	1,267,260
Walleye pollock		29,354	18,205	9,368	19,838	-	76,765
Pacific halibut		-	-	-	-	-	
Other flounders		14,529	156	17	378	-	15,080
Pacific ocean						-	
perch		6,512	_	3	753	-	7,268
Other rockfish		2,157	867	15	181	-	3,220
Sablefish		5,894	88	-	743	~	6,725
Pacific cod		11,784	504	50	582	-	12,920
Atka mackerel		427	9,297	1	23	_	9,748
Squid		284	-	8	123	-	415
Pacific herring		-	-	-	_	-	-
Shrimp		·. -	-	-	-	-	-
Others		2,991	1,357	5	711	- .	5,064
Total		73,932	30,474	9,467	23,332	-	137,205
Washington- California							
Pacific whiting		_	101,071	18,473		_	119,544
Pacific halibut		- -	-01,011	10,413	-	_	115,044
Other flounders			_		_	-	
Pacific ocean		_	_	1	_	_	1
				-			5
perch			-	5			
Other rockfish		-	620	57	-		677 57
Sablefish		-	52	5	-	-	57 697
Jack mackerel		-	402	295		_	697
Shrimp Others		-		-	-	_	- 85
		-	. 68	17	-	_	
Total		-	102,213	18,853	-	_	121,066
Total off U.S.		1 069 672	283 306	48 525	121.998	2.030	1.525.531

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Table 17.--All-nation catches of groundfish and associated species, 1979-Cont.

Region and species	US-1/	Canada ^{2/}	Japan	USSR	Poland	ROK	Taiwan	Total
			met	ric tons—				
British Columbia								
Pacific whiting		_	3,638	~	4,493	-	_	8,131
Pacific halibut		2,935	· -	-	-		_	2,935
Other flounders		6,323	_	_	_	_	_	6,323
Pacific ocean			_					
perch		***	3		-	-		3
Other rockfish		8,790	67	-	18	_	-	8,875
Sablefish		1,401	1,012	-	-	_	_	2,413
Pacific herring		43,465		-	***			43,465
Shrimp		716	-	-	***	_	-	716
Others		12,545	93	-	37		_	12,675
Total		76,175	4,813	-	4,548	-	-	85,536
Grand total		76,175 1,0	74,485	283,306	53,073	121,999	2,030	1,611,067

^{1/} Data not available.

^{2/} Incomplete.

Table 18.--All-nation catches of groundfish and associated species by joint ventures, 1979. Provisional estimates.

Region and	***	***		m - 4 - 1
species	US- USSR	US- ROK		Total
			ric tons	
Bering Sea				
Aleutian				
Walleye pollock				
Pacific halibut				
Yellowfin sole				
Other flounders				
Pacific ocean				
perch				
Other rockfish				
Sablefish				
Pacific cod				
Atka mackerel				
Molluscs				
Pacific herring				
Shrimp				
Others				
Total				
Gulf of Alaska				
GUIL OI AIASKA				
Walleye pollock	64	518		582
Pacific halibut	_	_		-
Other flounders	16	61		77
Pacific ocean				
perch	13	45		58
Other rockfish	15	23		38
Sablefish	2	18		20 712
Pacific cod	28	684		1
Atka mackerel		1		0
Squid	-	0		_
Pacific herring	-	****		
Shrimp	-	- 34	•	34
Others	0			
Total	138	1,384		1,522
Washington-				
California				
.				9 971
Pacific whiting	8,834	-		8,834
Pacific halibut	_	****		_ 0
Other flounders	0	-		O
Pacific ocean	•			
perch		•		71
Other rockfish	71	-		51
Sablefish	51	-		77
Jack mackerel	77	-		
Shrimp	-	-		21
Others	21			
<u> ma⊬a1</u>				9 - 054

^{1/ 1979} was the first year of joint-venture fisheries.

^{2/} Catches of rougheye, shortraker, northern, and sharpchin rockfish were reported combined with Pacific ocean perch in 1979.

Table 19.--All-nation catches of groundfish and associated species, 1980. provisional estimates.

ESCII	mates.							
Region and species	US ^{1/} Canada ¹	/ Japan	USSR	Poland	ROK	Tal- Wan	west Germany	Total
			- metric	tons				
Bering Sea Aleutian								
Walleye pollock		832,993	2,156	46,146	113,865	4,974	5,996	1,006,130
Pacific halibut	•	C4 005		234	16,198	35	-	77,768
Yellowfin sole		61,295	6 4	611	13,623	126	15	88,530
Other flounders		74,151	7	011	10,010			
Pacific ocean		4 103	5	37	740	18	15	4 018
perch		4,103	. 2	23	493	9		4,918
Other rockfish		3,024				_	0	3,551
Sablefish		1,882	-	152	350	38	16	2,438
Pacific cod		29,524	11	.628	6,404	200	552	37,319
Atka mackerel		1,719	937	44	17,483	~~	42	20,225
Molluscs		4,642	400	19	1,620	39	53	6,373
Pacific herring		329	428	2	23	0		782
Shrimp Others		39,878	8	- 198	6,791	 69	39	46,983
Total		1,053,540	3,557	48,094	177,590	5,508	6,728	1,295,017
Gulf of Alaska								
Walleye pollock		37,897	37,001	13,085	25,013	_	_	112,996
Pacific halibut		,	_	_	_			
Other flounders		11 007	1 979	0	1 774			15 405
Pacific ocean		11,923	1,838	0	1,734	_	-	15,495
perch		10,770	1,239	30	408		-	12,447
Other rockfish		4,002	10	4	184	-	-	4,200
Sablefish		4,831	416	-	891	-	***	6,138
Pacific cod		30,581	1.942	54	1,666		_	34,243
Atka mackerel		1,896	10,473	57	736	-		13,162
Squid		697	37	0	107	***		841
Pacific herring		_	-	-	_		***	- :
Shrimp			_	***	- -		-	· -
Others		5,375	1,646	44	1,449		-	8,514
Total		107,972	54,602	13,274	32,188	_	-	208,036
Washington- California			. '					
Pacific whiting		_	_	44,023		-	 .	44,023
Pacific halibut		-	-	-	-		-	-
Other flounders		<u>-</u>		2		-		2
Pacific ocean				32		•		32
perch		-	_		_	_	-	
Other rockfish				958	****		-	958
Sablefish		-	-	93		-	-	93
Jack mackerel			_	1,725	_	-	-	1,725
Shrimp		_	_	- 95	_		-	 0F
Others		-	-	30	-		-	95
Total				46,928		-		46,928
Total off U.S.		1,161,512	58,159	108,296	209,778	5,508	6,728	1,549,981
				·				

^{1/} Data not available.

Table 20.--All-nation catches of groundfish and associated species, by joint ventures, 1980. provisional estimates.

Region and species	us- ROK	us- USSR	us- Poland		TOTAL
2,00100					
			-metric to	ns	
Bering Sea Aleutian					
Walleye pollock Pacific halibut	5,845	4,807	-		10,652
Yellowfin sole	592	9,032	_		9,624
Other flounders Pacific ocean	68	2,728			2,796
perch	10	42			52
Other rockfish	2	9	_		11
Sablefish	38	1	-		39
Pacific cod	1,176	7,281	-		8,457
Atka mackerel	5	260			265
Molluscs	-	-	-		-
Pacific herring Shrimp	-	~			· -
Others	- 75	- 603	-		-
Total			-		678
Gulf of Alaska	7,811	24,763	_		32,574
Walleye pollock Pacific halibut	1,058	77	-		1,135
Other flounders	200	8	_		200
Pacific ocean		•			200
perch	20	-	-		20
Other rockfish	8	-	· —		8
Sablefish	20		-		20
Pacific cod	457 3	8	- -		465
Atka mackerel Squid	 	_	_		3
Pacific herring	_	_			• • • • • • • • • • • • • • • • • • •
Shrimp	-	_	-		
Others	49	_	_		. 40
Total					49
	1,815	93	-		1,908
Washington- California					•
Pacific whiting		26,553	984		· . 00 . e an
Pacific halibut	<u>-</u>	20,333	_		27,537
Other flounders	_	46			46
Pacific ocean		.0			40
perch	_	29	0	•	29
Other rockfish	_	447	2		449
Sablefish	_	213	1		214
Jack mackerel	· _	74	ō		74
Shrimp	-	-			-
Others	-	121	1		122
Total	-	27,483	988		28,471
Total off II C		CO 770	000		£2 05T