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The Historical Annotated Landings (HAL) Database:

Documentation of Annual Harvest
of Groundfish from the
Northeast Pacific and
Eastern Bering Sea
from 1956 to 1980

by
Marcelle Van Houten Lynde

May 1986

**U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service**

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ABSTRACT

The Historical Annotated Landings (HAL) database was compiled to provide a single, documented source of landings of groundfish from the northeastern Pacific Ocean and eastern Bering Sea for 1956 through 1980. The database contains catch by year, area, species, gear type and state or nation and can be accessed through the Pacific Fisheries Management Commission's (PFMC) Pacific Fishery Information Network (PACFin). This report contains landing data from all nations summarized in tables by species, year and International North Pacific Fishery Management Commission (PFMC) area. Sources, assumptions, strengths and weaknesses of the data have been documented.

Additionally this report contains information on the area (in square nautical miles) of several depth zones of the submerged portion of the continental shelf off the west coast of the United States and Canada.

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CONTENTS

	Page
INTRODUCTION	1
Objectives	1
Landings Versus Catch	2
DESCRIPTION OF THE DATABASE	3
The Elements of HAL	3
Data Storage and Formats.....	3
U.S. AND CANADIAN DOMESTIC LANDINGS	9
PMFC Groundfish Data Series	96
Otter Trawl Landings from 1956 to 1974	97
Landings by Other Gears from 1956 to 1974	98
Landings from 1975 to 1980	98
Alaska Department of Fish and Game	99
Landings from 1956 to 1974	99
Landings from 1975 to 1980	100
Washington Department of Fisheries	101
Otter Trawl Landings from 1956 to 1974	101
Landings by Other Gears from 1956 to 1974	101
Otter Trawl Landings from 1975 to 1980	102
PMFC Area 3C Otter Trawl Landings	102
Landings by Other Gears from 1975 to 1980	103

Oregon Department of Fish and Wildlife	103
Landings from 1956 to 1974	103
Landings from 1975 to 1980	104
California Department of Fish and Game	104
Landings from 1956 to 1974	104
Landings from 1975 to 1980	105
Canadian Department of Fisheries and Oceans	105
Landings from 1956 to 1974	105
Landings from 1975 to 1980	106
PMFC Area 3C Otter Trawl Landings	106
Rockfish Landings	106
FOREIGN AND JOINT VENTURE CATCH DATA	107
Japan	109
Union of Soviet Socialist Republics	160
Republic of Korea (South Korea)	161
Polish People's Republic (Poland)	162
Republic of China (Taiwan)	162
Federal Republic of Germany (West Germany).....	162
German Democratic Republic (East Germany)	163
Bulgaria	163
Republic of Mexico	163
SUMMARY	164
REFERENCES	166
ACKNOWLEDGMENTS	174

APPENDIX A. Physical depth characteristics of PMFC and INPFC Management Areas and Boundaries	175
APPENDIX B: Codes Used in HAL and System Requirements for R:Base 5000	181
APPENDIX C: Sources and Notes on U.S. and Canadian Landings in HAL	185
APPENDIX D: Sources and Notes on Foreign and Joint Venture Data in HAL	187
APPENDIX E: Sources of Personal Communications and Unpublished Manuscripts Cited in Text	197

INTRODUCTION

Successful fisheries management requires accurate knowledge of annual fish harvests. It is critical that sources of data used in stock assessments be consistent from one analysis to another, yet even historical records are surprisingly dynamic. One of the objectives of the North Pacific Fishery Management Council's (NPFMC) Fishery Management Plan (FMP) for Pacific groundfish is to "attain an information flow on the status of the fishery and the fishery resource which allows for informed management decisions as the fishery occurs." (Anonymous, 1982, p. 2-1). To track the performance of a stock or fishery it is absolutely essential to have a time-series of information on removals which is accurate, well documented and consistent.

Objectives

In the past, fisheries managers and biologists requiring long time-series or broad regional coverage of groundfish catch had to piece together data from a number of sources. Furthermore, sources reporting catches from common gear, area or time strata did not always agree. This project provides a single source of historical groundfish catch data encompassing the northeast Pacific and eastern Bering Sea in which inconsistencies have been reconciled and the data verified where possible. The data presents a long time-series of information and as much detail as possible concerning catch by species, gear, and management area. The sources, strengths and weaknesses, and underlying assumptions of the data have been documented. The data are presented in a series of summary reports and are easily accessible, allowing selective data retrieval and a flexible reporting system. The Historical Annotated Landings (HAL) database should aid the efforts of fisheries managers and biologists to better understand the dynamics of groundfish resources of the northeast Pacific and eastern Bering Sea.

Landings Versus Catch

Actual levels of catch and effort by U.S. and Canadian domestic fishermen are difficult to obtain as these fishermen are not required to report the tonnage of fish actually harvested, nor any measure of the amount of effort it took to obtain that harvest. Most domestic harvest data available are based on landing records known as "fish tickets." These data are collected by shoreside processors who buy the fish from the fishermen and record the total weights landed. Occasionally landings of individual species are recorded on fish tickets, but more frequently market or species groups are recorded.

Trawl fish ticket information is supplemented in Washington and Oregon with interviews with a subset of trawl fishermen as they return to port. Data from these interviews are expanded to incorporate landings by the uninterviewed portion of the fishery. These data, usually referred to as "logbook data," contain information on area of catch as well as on fishing effort. For landings for which there are no logbook data systems (including all non-trawl data); only area of landing is recorded. Occasionally a fisherman will fish in two different management areas and make a single landing; therefore, non-logbook data are considered less accurate with respect to area.

Foreign and joint venture data are based on reported catch of groundfish and are assumed to include discarded species and to be accurate with respect to area of catch.

DESCRIPTION OF THE DATABASE

The Elements of HAL

The HAL database contains groundfish landings by species, year and area (Fig. 1, Table 1) for 1956 to 1980. An analysis of the physical size and depth characteristics of management areas is presented in Appendix A.. U.S. and Canadian landings are aggregated by species, Pacific Marine Fisheries Commission (PFMC) management area, gear type, and where possible by reporting agency (Table 2). Foreign and joint venture catches are aggregated by species, International North Pacific Management Council (INPFC) area, and nation (Table 3).

In addition, HAL contains a separate data set which includes U.S. and Canadian rockfish (*Sebastes*) species composition data for otter trawl landings in PMFC areas 1B through 6A for 1960 through 1980 as reported by Tagart (1985).

Data Storage and Formats

Currently the data resides on an IBM PC-XT microcomputer. There are over 16,000 records in HAL and the ability to access the particular data desired is important. The commercial relational database package R:base 4000 was initially chosen to manage the data because of the ease with which records, can be selected and edited. More recently an improved version of the program, R:base 5000 has been implemented. R:base 5000 enables one to query the database in a straightforward manner and to easily extract listings, subtotals, and custom reports from the data. Additionally, R:base 5000 allows one to unload the data into any requested format so that the database can be transferred to other micro, mini-, or mainframe computers. While neither R:base 4000 or R:base 5000 are required to utilize the data; they are strongly recommended.

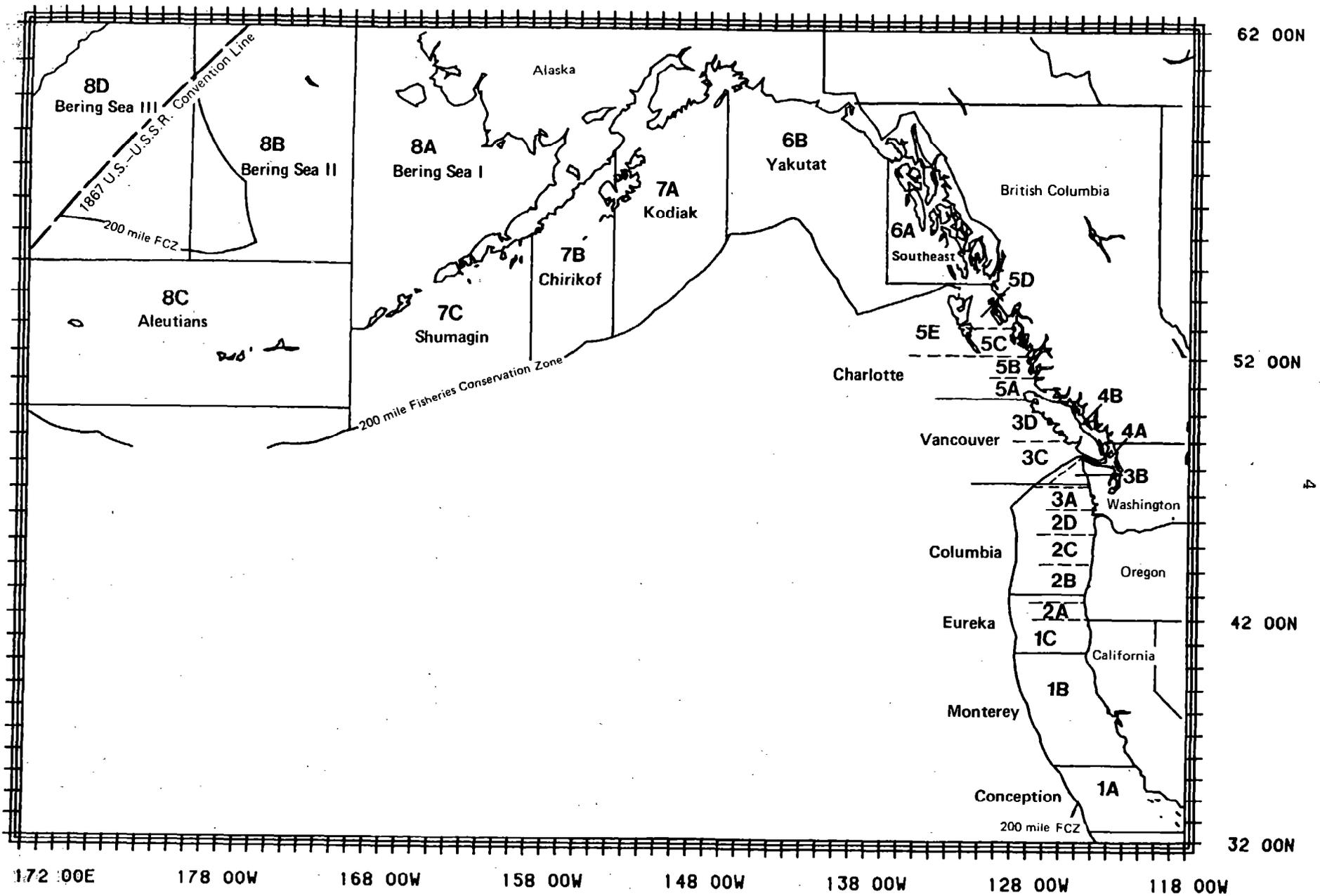


Figure 1.---Pacific Marine Fisheries commission and International North Pacific Fisheries Commission management areas.

Table 1.--PMFC and INPFC management area boundaries.

INPFC	PMFC	Description
Conception		32 30' N to 35 40' N
	1A	32 30' N to 35 40' N
Monterey		35 40' N to 40 30' N
	1B	35 40' N to 40 30' N
Eureka		40 30' N to 43 00' N
	1C	40 30' N to 42 00' N
	2A	42 00' N to 42 50' N
Columbia		43 00' N to 47 30' N
	2B	42 50' N to 44 18' N
	2C	44 18' N to 45 46' N
	2D/3A	45 46' N to 47 20' N
Vancouver		47 30' N to 50 30' N
	3B	47 20' N to 220(T.)
	3C	47 20' N to 49 00' N (excluding area 3B)
	3D	49 00' N to 50 30' N
Puget Sound/Georgia Strait		
	4A	Puget Sound (U.S. waters)
	4B	Georgia Strait (Canadian waters)
Charlotte		50 30' N TO 54 50' N
	5A	50 30' N to 51 15' N
	5B	51 15' N to 52 00' N west of Cape St. James and to 52 10' east of Cape St. James
	5C	52 10' N to 53 00' N and east of Queen Charlotte Islands
	5D	53 00' N to 54 50' N and east of Queen Charlotte Islands
	5D	52 00' N to 54 40' N and west of Queen Charlotte Islands
	5E	52 00' N to 54 40' N
5F	5A - 5D combined by WDF	
Southeastern		54 50' N to 137 00' W
	6A	54 40' N to 137 00' W

Table 1.--Continued.

INPFC	PMFC	Description
Yakutat	6B	137 00' W to 147 00' W 137 00' W to 147 00' W
Kodiak	7A	147 00' W to 154 00' W 147 00' W to 154 00' W
Chirikof	7B	154 00' W to 159 00' W 154 00' W to 159 00' W
Shumagin	7C	159 00' W to 170 00' W and south of Aleut. Is. 159 00' W to 170 00' W and south of Aleut. Is.
B.S. I	8A	East of 170 W and north of Aleut. Is. East of 170 W and north of Aleut. Is.
B.S. II	8B	170 W to 180 W and north of 55 00' N 170 W to 180 W and north of 55 00' N
Aleutian	8C	170 W TO 170 E and south of 55 00' N 170 W TO 170 E and south of 55 00' N
B.S. III	8D	180 W to 170 E and north of 55 00' N 180 W to 170 E and north of 55 00' N

Table 2.--Summary of U.S. and Canadian Data in HAL.¹

YEAR	Agency and Gear									
	CDF&G ²		ODF&W ³		WDF ⁴		ADF&G ⁵		DFO ⁶	
	Fixed Trawl	Fixed Trawl	Fixed Trawl	Fixed Trawl	Fixed Trawl	Fixed Trawl	Fixed Trawl	Fixed Trawl	Fixed Trawl	Fixed Trawl
1956	I	X	0	X	X	X	I	I	0	X
1957	I	X	0	X	X	X	I	I	0	X
1958	I	X	0	X	X	X	I	I	0	X
1959	I	X	0	X	X	X	I	I	0	X
1960	I	X	0	X	X	X	I	I	0	X
1961	I	X	0	X	X	X	I	I	0	X
1961	I	X	0	X	X	X	I	I	0	X
1963	I	X	0	X	X	X	I	I	X	X
1964	I	X	0	X	X	X	I	I	X	X
1965	I	X	0	X	X	X	I	I	X	X
1966	I	X	I	X	X	X	I	I	X	X
1967	I	X	I	X	X	X	I	I	X	X
1968	I	X	I	X	X	X	I	I	X	X
1969	I	X	I	X	X	X	I	I	X	X
1970	0	X	I	X	X	X	X	X	X	X
1971	X	X	X	X	X	X	X	X	X	X
1972	X	X	X	X	X	X	X	X	X	X
1973	X	X	X	X	X	X	X	X	X	X
1974	X	X	X	X	X	X	X	X	X	X
1975	X	X	X	X	X	X	X	X	X	X
1976	X	X	X	X	X	X	X	X	X	X
1977	X	X	X	X	X	X	X	X	X	X
1978	I	I	X	X	X	X	X	X	X	X
1979	I	I	X	X	X	X	X	X	X	X
1980	I	I	X	X	X	X	X	X	X	X

X = Catch reported.

0 = Catch not reported.

I = Catch incomplete.

¹ Trawl data for all agencies were aggregated in the source documents for 1956 through 1974 and are assumed to be complete for each agency.

² California Department of Fish and Game.

³ Oregon Department of Fish and Wildlife.

⁴ Washington Department of Fisheries.

⁵ Alaska Department of Fish and Game.

⁶ Department of Fisheries and Oceans (Canada).

Table 3.--Summary of foreign and joint venture catch data in HAL.

YEAR	Agency										
	Japan	USSR	ROK	Poland	GDR	Taiwan	FRG	Bulgaria	Mexico	US JV	CAN
1956	X	0	-	-	-	-	-	-	-	-	-
1957	X	0	-	-	-	-	-	-	-	-	-
1958	X	X	-	-	-	-	-	-	-	-	-
1959	X	X	-	-	-	-	-	-	-	-	-
1960	X	X	-	-	-	-	-	-	-	-	-
1961	X	X	-	-	-	-	-	-	-	-	-
1961	X	X	-	-	-	-	-	-	-	-	-
1963	X	X	-	-	-	-	-	-	-	-	-
1964	X	X	-	-	-	-	-	-	-	-	-
1965	X	X	-	-	-	-	-	-	-	-	-
1966	X	X	0	-	-	-	-	-	-	-	-
1967	X	X	0	-	-	-	-	-	-	-	-
1968	X	X	X	-	-	-	-	-	-	-	-
1969	X	X	X	-	-	-	-	-	-	-	-
1970	X	X	X	-	-	-	-	-	-	-	-
1971	X	X	X	-	-	-	-	-	-	-	-
1972	X	X	X	-	-	-	-	-	-	-	-
1973	X	X	X	X	X	-	-	-	-	-	-
1974	X	X	X	X	-	-	-	-	-	-	-
1975	X	X	X	X	-	X	X	-	-	-	-
1976	X	X	X	X	-	X	-	X	-	-	-
1977	X	X	X	X	-	X	-	-	-	-	-
1978	X	X	X	X	-	X	-	-	-	X	X
1979	X	X	X	X	-	X	-	-	X	X	X
1980	X	X	X	X	-	X	X	-	-	X	X

X = Catch reported.

0 = Catch not reported.

- = No catch.

System requirements for running R:base 5000 and codes used in the database are listed in Appendix B.

Each record in the database contains the following information:

<u>Data</u>	<u>Data Type</u>	<u>Comment</u>
Year	Integer	1956 to 1980
Agency	Integer	Code for nation or state agency. See Appendix B, Table 1 for list.
PMFC area	Text	Not available for foreign data.
INPFC area	Text	INPFC management area.
Gear type	Text	Not available for foreign data. See Appendix B, Table 2 for list.
Species group	Text	Flatfish, rockfish, roundfish, miscellaneous groundfish.
Species	Text	Species code. See Appendix B, Table 3 for list.
Catch	Real	Round weight, metric tons.

Every effort was made to insure that the data in HAL is the most accurate, up-to-date information available. Should new information become available or changes in the database become necessary the records can be easily edited using R:base 4000 or R:base 5000.

U.S. AND CANADIAN DOMESTIC LANDINGS

Groundfish landings by U.S. and Canadian fishermen have been summarized by year, PMFC area, and species in Tables 4 through 28. The source of the data for those tables is described by reporting agency below and briefly summarized in Appendix C.

Table. 4. U.S. and Canadian groundfish landings by PMFC management area in 1956.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	1.4	1476.5	1782.5	355.3	360.0	508.2	1106.0	807.7
English sole	67.5	1207.6	421.2	18.2	77.3	195.2	447.0	864.7
Petrale sole	219.2	637.7	281.9	30.6	169.6	241.0	292.5	114.3
Rex sole	30.4	336.4	143.8	3.8	204.5	390.0	478.6	18.6
Rock sole	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Starry flounder	0.2	119.9	45.2	0.5	2.5	1.4	47.9	406.1
Other flatfish	63.7	530.8	325.8	18.2	470.1	835.6	680.9	1261.4
TOTAL PLATFISH	382.4	4309.6	3000.4	426.6	1284.0	2171.4	3052.9	3472.8
Pacific ocean perch	0.0	0.0	2.9	0.0	111.2	804.4	380.3	260.3
Other rockfish	1026.9	3892.1	857.0	43.4	622.7	1066.0	1282.8	823.3
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1026.9	3892.1	859.9	43.4	733.9	1870.4	1663.1	1083.6
Ling cod	19.4	200.3	55.8	3.4	8.6	18.2	78.2	274.7
Pacific cod	0.0	0.0	0.0	0.0	0.0	9.5	81.7	896.6
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	19.4	1129.2	115.4	23.0	97.5	46.4	75.4	1333.4
TOTAL ROUND FISH	38.8	1329.5	171.2	26.4	106.1	74.1	235.3	2504.7
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	21.4	0.0
Unsp. groundfish	7.2	431.1	292.5	16.4	110.8	190.5	154.8	39.0
TOTAL UNSP GROUND FISH	7.2	431.1	292.5	16.4	110.8	190.5	176.2	39.0
TOTAL ALL SPECIES	1455.3	9962.3	4324.0	512.8	2234.8	4306.4	5127.5	7100.1

Table 4. continued

PMFC Area	2					
	3B-3C	3C	3D	4A	4B	5A
SPECIES						
Dover sole	0.0	646.8	17.3	43.0	61.3	74.0
English sole	0.0	22.3	8.3	785.4	192.6	48.6
Petrale sole	1.8	579.6	289.6	6.1	2.7	462.8
Rex sole	0.0	18.8	0.0	0.5	11.2	0.2
Rock sole	0.0	28.3	52.9	39.4	68.5	557.0
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0
Starry flounder	0.0	31.0	0.5	129.2	389.2	0.0
Other flatfish	0.0	1111.0	70.8	53.7	124.7	1018.6
TOTAL FLATFISH	1.8	2437.8	439.4	1057.3	850.2	2161.2
Pacific ocean perch	0.0	747.9	66.6	0.0	0.0	380.0
Other rockfish ³	40.4	348.3	440.0	42.1	70.1	673.7
Unsp. rockfish	0.5	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	40.9	1096.2	506.6	42.1	70.1	1053.7
Ling cod	138.3	1141.4	217.9	41.2	48.8	347.9
Pacific cod	1.4	1145.4	317.7	507.4	561.3	2335.0
Pacific whiting	0.0	12.7	0.0	0.0	2.2	0.0
Walleye pollock	0.0	45.7	0.0	0.0	492.4	3.1
Sablefish	618.2	155.0	59.3	0.0	1.1	129.7
TOTAL ROUND FISH	757.9	2500.2	594.9	548.6	1105.8	2815.7
Spiny dogfish	0.0	32.0	0.7	183.2	151.4	3.6
Unsp. groundfish	0.5	37.3	3.4	1881.7	625.1	12.0
TOTAL UNSP GROUND FISH	0.5	69.3	4.1	2064.9	776.5	15.6
TOTAL ALL SPECIES	801.1	6103.5	1545.0	3712.9	2802.6	6046.2

Table 4. continued.

PMFC Area	5B	5C	5D	5E	6A	6B	TOTAL
SPECIES							
Dover sole	169.4	1.6	108.9	0.0	0.0	0.0	7519.9
English sole	37.1	20.5	927.9	0.0	0.7	0.0	5342.1
Petrale sole	61.4	34.9	17.6	0.0	2.0	0.0	3445.3
Rex sole	0.0	0.0	21.8	0.0	0.0	0.0	1658.6
Rock sole	304.4	395.5	757.6	0.0	0.0	0.0	2204.3
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Starry flounder	0.0	0.0	85.5	0.0	138.8	0.0	1397.9
Other flatfish	11.3	0.0	1293.1	0.0	0.0	0.0	7869.7
TOTAL FLATFISH	583.6	452.5	3212.4	0.0	141.5	0.0	29437.8
Pacific ocean perch	843.8	11.9	64.1	0.0	0.0	0.0	3673.4
Other rockfish ³	366.5	5.2	29.0	0.9	0.0	0.0	11630.4
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.5
TOTAL ROCKFISH	1210.3	17.1	93.1	0.9	0.0	0.0	15304.3
Ling cod	285.4	25.7	66.4	1.6	0.0	0.0	2973.2
Pacific cod	589.5	432.1	1078.7	0.0	0.0	0.0	7956.3
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	14.9
Walleye pollock	0.0	0.0	12.2	0.0	0.0	0.0	553.4
Sablefish	81.7	0.0	0.9	11.7	0.0	0.0	3897.3
TOTAL ROUND FISH	956.6	457.8	1158.2	13.3	0.0	0.0	15395.1
Spiny dogfish	0.2	0.0	14.2	0.0	0.0	0.0	406.7
Unsp. groundfish	16.5	22.3	81.3	0.0	0.0	0.0	3922.4
TOTAL UNSP GROUND FISH	16.7	22.3	95.5	0.0	0.0	0.0	4329.1
TOTAL ALL SPECIES	2767.2	949.7	4559.2	14.2	141.5	0.0	64466.3

1-Landings are by all gears in metric tons, round weight.

2-Area "3B-3C" landings are non-trawl landings reported by WDF as a single area.

d-May contain unknown amounts of POP, S. alutus.

Source: See Appendix C..

Table 5. U.S. and Canadian groundfish landings by PMFC management area in 1957.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	0.2	1195.7	1931.9	355.5	459.0	417.7	1356.3	313.8
English sole	98.8	1280.0	767.5	10.8	94.9	160.0	683.9	640.8
Petrale sole	216.0	736.4	517.3	44.6	372.5	324.0	388.6	109.5
Rex sole	42.1	292.1	217.6	2.7	182.1	249.4	454.2	19.0
Rock sole	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Starry flounder	1.4	167.2	56.0	0.5	2.3	0.0	144.7	298.6
Other flatfish	41.0	408.2	378.0	7.0	393.9	539.9	476.5	429.1
TOTAL FLATFISH	399.5	4080.1	3868.3	421.1	1504.7	1691.0	3504.2	1810.8
Pacific ocean perch	0.0	0.0	0.2	0.0	84.2	545.0	813.4	268.7
Other rockfish ³	1421.8	3936.6	1022.0	27.9	575.2	745.4	1665.4	422.7
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0
TOTAL ROCKFISH	1421.8	3936.6	1022.2	27.9	659.4	1290.4	2482.0	691.4
Ling cod	33.1	367.2	145.4	5.6	93.2	28.6	163.6	127.6
Pacific cod	0.0	0.0	0.0	0.0	0.9	2.9	231.1	713.3
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	10.4	775.2	177.1	27.0	57.2	51.3	157.9	132.8
TOTAL ROUNDFISH	43.5	1142.4	322.5	32.6	151.3	82.8	552.6	973.7
Spiny dogfish	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish	12.2	295.4	371.5	7.6	91.8	0.0	110.3	50.9
TOTAL UNSP GROUND FISH	12.2	295.6	371.5	7.6	91.8	0.0	110.3	50.9
TOTAL ALL SPECIES	1877.0	9454.7	5584.5	489.2	2407.2	3064.2	6649.1	3526.8

Table 5. continued.

SPECIES	2					
	PMFC Area	3B-3C	3C	3D	4A	4B
Dover sole	0.0	261.2	32.6	32.9	85.2	48.3
English sole	0.9	43.2	5.9	728.5	205.7	22.3
Petrale sole	0.5	625.1	1309.0	1.1	4.3	276.5
Rex sole	0.0	3.2	1.6	0.0	6.7	0.2
Rock sole	0.0	59.2	25.4	23.6	69.3	506.9
Arrowtooth flounder	0.0	0.0	21.8	1.3	37.3	363.9
Starry flounder	0.0	3.4	0.0	126.2	97.6	2.8
Other flatfish	0.0	636.6	0.0	31.8	38.7	0.0
TOTAL FLATFISH	1.4	1631.9	1396.3	945.4	544.8	1220.9
Pacific ocean perch	0.0	782.6	93.2	0.0	0.0	298.6
Other rockfish	87.1	437.9	417.4	44.6	39.3	347.9
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	87.1	1220.5	510.6	44.6	39.3	646.5
Ling cod	179.1	1062.0	155.3	45.5	34.4	438.6
Pacific cod	1.4	1571.4	230.6	760.1	623.0	259.0
Pacific whiting	0.0	0.0	0.0	0.0	1.1	0.0
Walleye pollock	0.0	2.2	0.0	0.0	352.1	3.1
Sablefish	1457.6	118.4	31.9	0.7	1.1	377.3
TOTAL ROUND FISH	1638.1	2754.0	417.8	806.3	1011.7	1078.0
Spiny dogfish	0.0	21.8	2.3	165.4	409.7	1.4
Unsp. groundfish	0.0	98.3	3.4	2113.0	358.7	39.0
TOTAL UNSP GROUND FISH	0.0	120.1	5.7	2278.4	768.4	40.4
TOTAL ALL SPECIES	1726.6	5726.5	2330.4	4074.7	2364.2	2985.8

Table 5. continued.

PMFC Area	5B	5C	5D	5B-5D ³	5E	6A	6B	TOTAL
SPECIES								
Dover sole	54.9	0.0	89.5	0.0	0.0	0.0	0.0	6634.7
English sole	36.2	13.3	534.8	0.0	0.0	0.0	0.0	5327.5
Petrale sole	53.1	47.7	167.0	0.5	0.0	0.0	0.0	5193.7
Rex sole	0.0	0.0	14.0	0.0	0.0	0.0	0.0	1484.9
Rock sole	204.5	724.2	422.1	0.0	0.0	0.0	0.0	2035.7
Arrowtooth flounder	0.0	0.0	150.7	0.0	0.0	0.0	0.0	575.0
Starry flounder	0.0	0.0	107.2	0.0	0.0	78.3	0.0	1086.2
Other flatfish	0.0	6.9	651.5	0.0	0.0	0.0	0.0	4039.1
TOTAL FLATFISH	348.7	792.1	2136.8	0.5	0.0	78.3	0.0	26376.81
Pacific ocean perch	452.5	0.0	212.0	0.0	0.0	0.0	0.0	3550.4
Other rockfish ²	348.0	0.5	62.1	2.7	0.2	0.2	0.0	11604.8
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
TOTAL ROCKFISH	800.5	0.5	274.1	2.7	0.2	0.2	0.0	15158.4
Ling cod	168.5	33.3	94.5	14.5	0.5	0.0	0.0	3190.5
Pacific cod	495.2	189.4	2139.0	0.0	0.0	0.0	0.0	7217.3
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Walleye pollock	0.0	0.0	7.3	0.0	0.0	0.0	0.0	364.7
Sablefish	26.8	0.2	3.4	13.0	4.6	0.0	0.0	3423.9
TOTAL ROUND FISH	690.5	222.9	2244.2	27.5	5.1	0.0	0.0	14197.5
Spiny dogfish	0.2	1.4	4.9	0.0	0.0	0.0	0.0	607.3
Unsp. groundfish	29.3	65.3	86.2	0.0	0.0	0.0	0.0	3732.9
TOTAL UNSP GROUND FISH	29.5	66.7	91.1	0.0	0.0	0.0	0.0	4340.2
TOTAL ALL SPECIES	1869.2	1082.2	4746.2	30.7	5.3	78.5	0.0	60072.9

1-Landings are by all gears in metric tons, round weight.

2-Area "3B-3C" landings are non-trawl landings reported by WDF as a single area.

3-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

4-May contain unknown amounts of POP, *S. alutus*.

Source: See Appendix C.

Table 6. U.S. and Canadian groundfish landings by PMFC management area in 1958.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	0.2	1333.4	1777.7	376.2	633.2	161.2	974.4	398.4
English sole	95.6	1028.3	0.0	73.1	129.8	367.4	707.5	987.3
Petrale sole	213.1	536.6	432.7	152.3	551.3	158.1	232.7	228.8
Rex sole	43.2	297.2	281.5	16.4	196.4	196.8	459.4	8.3
Rock sole	0.0	0.5	0.0	0.0	0.0	0.0	0.0	1.1
Arrowtooth flounder	0.0	0.0	0.0	0.0	410.0	402.9	372.2	83.3
Starry flounder	0.9	133.7	72.2	2.9	6.8	8.3	111.5	102.6
Other flatfish	44.1	223.0	247.3	27.2	20.5	13.3	14.1	42.4
TOTAL FLATFISH	397.1	3552.7	2811.4	648.1	1948.0	1308.0	2871.8	1852.2
Pacific ocean perch	0.0	0.0	0.9	1.1	34.7	496.4	507.9	263.9
Other rockfish	1303.2	410.2	1060.4	75.6	675.8	761.3	1870.1	686.5
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1303.2	410.2	1061.3	76.7	710.4	1257.7	2378.0	950.4
Ling cod	33.5	395.8	149.4	24.5	16.5	16.0	163.5	292.5
Pacific cod	0.0	0.0	0.0	0.0	0.0	0.9	171.1	1169.6
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	0.7	552.0	209.5	16.2	3.6	29.7	25.6	81.5
TOTAL ROUND FISH	34.2	947.8	358.9	40.7	20.1	46.6	360.2	1543.6
Spiny dogfish	0.0	0.5	0.0	0.0	0.0	0.0	25.2	0.0
Unsp. groundfish	13.1	194.0	435.2	42.3	102.1	94.0	90.9	30.1
TOTAL UNSP GROUND FISH	13.1	194.5	435.2	42.3	102.1	94.0	116.1	30.1
TOTAL ALL SPECIES	1747.6	5105.2	4666.8	807.8	2780.6	2706.3	5726.1	4376.3

Table 6. continued.

PMFC Area	2					
	3B-3C	3C	3D	4A	4B	5A
SPECIES						
Dover sole	6.8	299.8	29.5	34.0	71.3	9.7
English sole	0.9	20.0	5.2	1136.1	162.2	39.2
Petrale sole	4.5	604.6	104.6	0.5	11.5	135.2
Rex sole	0.0	2.2	2.3	0.0	3.6	1.6
Rock sole	0.0	22.5	38.0	32.9	58.3	497.5
Arrowtooth flounder	0.0	891.8	0.0	16.2	81.7	40.2
Starry flounder	0.0	8.3	3.4	211.3	50.7	0.2
Other flatfish	1.8	8.2	0.0	40.2	2.7	0.2
TOTAL FLATFISH	14.0	1857.4	183.0	1471.2	442.0	723.8
Pacific ocean perch	0.0	361.6	44.6	0.0	0.0	266.4
Other rockfish ¹	123.3	680.1	301.1	33.7	52.1	416.2
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	123.3	1041.7	345.7	33.7	52.1	682.6
Ling cod	169.6	1038.8	121.6	30.8	75.2	294.1
Pacific cod	13.8	758.2	86.2	1075.1	649.9	680.1
Pacific whiting	0.0	0.0	0.0	0.0	3.6	0.0
Walleye pollock	0.0	9.3	0.0	0.0	120.3	0.4
Sablefish	717.8	166.3	25.8	0.0	1.1	93.8
TOTAL ROUND FISH	901.2	1972.6	233.6	1105.9	850.1	1068.4
Spiny dogfish	0.0	32.6	1.6	596.3	543.6	12.2
Unsp. groundfish	0.2	11.5	3.6	2293.6	293.6	15.1
TOTAL UNSP GROUND FISH	0.2	44.1	5.2	2889.9	837.2	27.3
TOTAL ALL SPECIES	1038.7	4915.8	767.5	5500.7	2181.4	2502.1

Table 6. continued.

PMFC Area	3							TOTAL
	5B	5C	5D	5B-5D	5E	6A	6B	
SPECIES								
Dover sole	105.8	0.0	65.7	0.0	0.0	0.0	0.0	6277.3
English sole	27.7	19.3	668.5	0.0	0.0	1.1	0.0	5469.2
Petrale sole	89.3	27.9	142.0	0.0	0.0	0.0	0.0	3625.7
Rex sole	0.9	0.0	9.2	0.0	0.0	0.0	0.0	1519.0
Rock sole	377.7	368.5	881.6	0.0	0.0	0.0	0.0	2278.6
Arrowtooth flounder	0.9	12.2	114.1	0.0	0.0	0.0	0.0	2425.5
Starry flounder	0.0	0.0	122.8	0.0	0.0	10.6	0.0	846.2
Other flatfish	0.0	0.0	437.2	0.0	0.0	0.0	0.0	1122.2
TOTAL FLATFISH	602.3	427.9	2441.1	0.0	0.0	11.7	0.0	23563.7
Pacific ocean perch	656.8	4.1	14.4	0.0	0.0	0.0	0.0	2652.7
Other rockfish ¹	251.5	8.8	23.8	1.6	0.0	3.8	0.0	8739.2
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	908.3	12.9	38.2	1.6	0.0	3.8	0.0	11391.9
Ling cod	274.3	14.4	59.6	4.3	0.0	0.0	0.0	3174.4
Pacific cod	494.3	1297.9	3992.0	0.0	0.0	0.0	0.0	10389.1
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
Walleye pollock	0.0	0.0	14.2	0.0	0.0	0.0	0.0	144.2
Sablefish	15.1	0.0	1.8	6.4	698.7	5.2	0.0	2650.8
TOTAL ROUND FISH	783.7	1312.3	4067.6	10.7	698.7	5.2	0.0	16362.1
Spiny dogfish	0.7	0.0	5.4	0.0	0.0	0.0	0.0	1218.1
Unsp. groundfish	8.2	54.2	42.1	0.0	0.0	0.0	0.0	3723.8
TOTAL UNSP GROUND FISH	8.9	54.2	47.5	0.0	0.0	0.0	0.0	4941.9
TOTAL ALL SPECIES	2303.2	1807.3	6594.4	12.3	698.7	20.7	0.0	56259.6

1-Landings are by all gears in metric tons, round weight.

2-Area "3B-3C" landings are non-trawl landings reported by WDF as a single area.

3-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

I-May contain unknown amounts of POP, S. alutus.

Source : See Appendix C

Table 7. U.S. and Canadian groundfish landings by PMFC management area in 1959.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	6.3	1103.9	1651.7	419.0	1197.6	188.7	936.7	485.2
English sole	143.1	659.0	1208.5	45.0	182.5	92.6	729.5	1456.9
Petrale sole	339.5	418.5	322.9	32.8	283.5	84.8	268.5	122.0
Rex sole	25.7	319.5	282.6	17.6	179.7	72.3	464.0	37.0
Rock sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Arrowtooth flounder	0.0	0.0	0.0	0.0	572.8	289.0	461.3	137.2
Starry flounder	2.0	110.0	338.2	18.5	1.1	18.2	91.6	56.7
Other flatfish	88.2	304.4	332.8	17.6	207.1	89.4	180.9	37.2
TOTAL FLATFISH	604.8	2915.3	4136.7	550.5	2624.3	835.0	3132.5	2332.2
Pacific ocean perch	0.0	0.0	0.2	0.0	200.7	646.0	279.3	261.9
Other rockfish [†]	495.9	3936.2	930.2	101.5	666.1	228.0	1114.1	623.3
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	495.9	3936.2	930.4	101.5	866.8	874.0	1393.4	885.2
Ling cod	36.7	274.1	186.5	14.6	37.4	18.0	120.2	259.7
Pacific cod	0.0	0.0	0.0	0.0	0.0	0.0	110.8	1329.5
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	5.9	656.4	192.5	18.5	15.9	18.0	34.4	324.7
TOTAL ROUNDFISH	42.6	930.5	379.0	33.1	53.3	36.0	265.4	1913.9
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	30.4	2.0
Unsp. groundfish	9.7	159.3	442.6	14.4	142.6	58.4	105.1	73.7
TOTAL UNSP GROUND FISH	9.7	159.3	442.6	14.4	142.6	58.4	135.5	75.7
TOTAL ALL SPECIES	1153.0	7941.3	5888.7	699.5	3687.0	1803.3	4926.8	5207.0

Table 7. continued.

PMFC Area	2					
	3B-3C	3C	3D	4A	4B	5A
SPECIES						
Dover sole	0.2	295.3	82.6	9.7	84.8	50.6
English sole	0.0	16.2	1.1	799.8	151.4	34.2
Petrale sole	0.1	1064.0	157.7	0.0	18.9	104.2
Rex sole	0.0	0.9	0.0	0.0	1.3	0.0
Rock sole	0.0	62.1	4.1	26.8	39.4	210.6
Arrowtooth flounder	0.0	538.8	8.4	4.4	232.0	173.4
Starry flounder	0.0	10.4	0.0	94.1	29.5	5.9
Other flatfish	0.0	3.6	0.0	15.4	4.1	0.0
TOTAL FLATFISH	0.3	1991.3	253.9	950.2	561.4	578.9
Pacific ocean perch	0.0	541.1	156.8	0.0	0.0	1595.9
Other rockfish ⁴	93.9	1100.9	352.6	40.1	149.5	568.3
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	93.9	1642.0	509.4	40.1	149.5	2164.2
Ling cod	122.7	1729.4	72.8	36.2	307.6	192.6
Pacific cod	0.2	667.8	232.4	765.5	999.0	595.4
Pacific whiting	0.0	0.0	0.0	0.0	26.4	0.0
Walleye pollock	0.0	7.6	0.0	0.0	258.0	1.6
Sablefish	1290.9	114.1	32.2	0.0	4.1	193.2
TOTAL ROUND FISH	1413.8	2518.9	337.4	801.7	1595.1	982.8
Spiny dogfish	0.0	171.2	4.3	621.5	594.0	0.5
Unsp. groundfish	0.0	8.6	1.9	2016.9	170.8	5.7
TOTAL UNSP GROUND FISH	0.0	179.8	6.2	2638.4	764.8	6.2
TOTAL ALL SPECIES	1508.0	6332.0	1106.9	4430.4	3070.8	3732.1

Table 7. continued.

PMFC Area	5B	5C	5D	5B-5D ³	5E	6A	6B	TOTAL
SPECIES								
Dover sole	44.6	0.2	86.7	0.0	0.0	0.0	0.0	6643.8
English sole	17.3	38.5	897.0	0.0	0.0	0.0	0.0	6472.6
Petrale sole	54.0	62.6	152.3	0.5	0.0	0.0	0.0	3486.8
Rex sole	0.0	0.0	2.3	0.0	0.0	0.0	0.0	1402.9
Rock sole	341.3	247.1	169.1	0.0	0.0	0.0	0.0	1100.5
Arrowtooth flounder	8.0	0.0	310.8	0.0	0.0	0.0	0.0	2736.1
Starry flounder	0.5	0.2	219.6	0.0	0.0	43.9	0.0	1040.4
Other flatfish	0.0	0.0	202.6	0.0	0.0	0.0	0.0	1483.3
TOTAL FLATFISH	465.7	348.6	2040.4	0.5	0.0	43.9	0.0	24366.4
Pacific ocean perch	302.2	2.0	0.0	0.0	0.0	0.0	0.0	3986.1
Other rockfish ⁴	328.1	2.3	90.5	2.9	0.0	0.0	0.0	10824.3
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	630.3	4.3	90.5	2.9	0.0	0.0	0.0	15832.5
Ling cod	425.3	32.6	83.7	10.0	0.5	0.0	0.0	3960.6
Pacific cod	344.5	849.6	4268.7	0.0	0.0	0.0	0.0	10163.4
Pacific whiting	0.0	0.0	0.4	0.0	0.0	0.0	0.0	26.8
Walleye pollock	0.0	0.0	1.6	0.0	0.0	0.0	0.0	268.8
Sablefish	0.2	0.0	2.5	18.2	1048.0	0.0	0.0	3969.7
TOTAL ROUND FISH	770.0	882.2	4356.9	28.2	1048.5	0.0	0.0	18389.3
Spiny dogfish	0.0	0.0	113.6	0.0	0.0	0.0	0.0	1537.5
Unsp. groundfish	11.1	3.6	71.1	0.0	0.0	0.0	0.0	3295.5
TOTAL UNSP GROUND FISH	11.1	3.6	184.7	0.0	0.0	0.0	0.0	4833.0
TOTAL ALL SPECIES	1877.1	1238.7	6672.5	31.6	1048.5	43.9	0.0	62399.1

1-Landings are by all gears in metric tons, round weight.

2-Area "3B-3C" landings are non-trawl landings reported by WDF as a single area.

3-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

4-May contain unknown amounts of POP, S. alutus.

Source: See Appendix C.

Table 8. U.S. and Canadian groundfish landings by PMFC management area in 1960.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	27.9	1232.4	2359.6	539.5	1144.2	258.3	1060.6	783.8
English sole	103.9	489.9	468.1	16.5	197.3	193.0	807.0	1000.2
Petrale sole	343.4	452.7	274.4	52.8	343.6	236.1	460.9	175.1
Rex sole	28.8	294.4	166.0	13.7	115.1	57.0	569.6	21.5
Rock sole	0.2	1.1	0.0	0.0	0.0	0.0	0.0	1.8
Arrowtooth flounder	0.0	0.0	0.0	0.0	281.0	88.5	204.8	199.1
Starry flounder	0.2	47.6	64.0	0.7	25.4	2.7	80.1	22.9
Other flatfish	128.8	252.7	402.3	81.9	180.5	76.5	185.0	274.7
TOTAL FLATFISH	633.2	2770.8	3734.4	705.1	2287.1	912.1	3368.0	2479.1
Pacific ocean perch	0.0	0.0	9.1	0.0	76.2	523.9	477.7	658.2
Other rockfish ¹	1193.0	2923.5	1059.6	147.7	787.7	922.4	1372.5	512.6
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1193.0	2923.5	1068.7	147.7	863.9	1446.3	1850.2	1170.8
Ling cod	48.5	202.8	211.8	34.5	56.4	69.4	333.5	292.1
Pacific cod	0.0	0.0	0.0	0.0	0.0	2.0	96.6	698.1
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	10.7	691.0	309.1	83.5	97.8	27.9	41.1	206.4
TOTAL ROUND FISH	59.2	893.8	520.9	118.0	154.2	99.3	471.2	1196.6
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish	16.1	156.9	95.3	12.4	39.0	166.9	13.6	397.1
TOTAL UNSP GROUND FISH	16.1	156.9	95.3	12.4	39.0	166.9	13.6	397.1
TOTAL ALL SPECIES	1901.5	6745.0	5419.3	983.2	3344.2	2624.6	5703.0	5243.6

Table 8. continued.

PMFC Area	2					
	3B-3C	3C	3D	4A	4B	5A
SPECIES						
Dover sole	0.1	3.2	46.7	2.3	85.0	83.0
English sole	0.0	30.9	11.3	968.2	173.7	47.4
Petrale sole	0.1	974.1	100.7	0.7	15.9	120.7
Rex sole	0.0	3.6	2.5	0.2	1.9	0.0
Rock sole	0.0	101.6	6.8	38.1	52.2	397.6
Arrowtooth flounder	0.0	281.9	4.5	81.0	228.4	383.5
Starry flounder	0.0	29.2	2.3	290.3	39.0	0.0
Other flatfish	0.0	18.2	0.7	123.4	6.1	0.0
TOTAL FLATFISH	0.2	1442.7	175.5	1504.2	602.2	1032.2
Pacific ocean perch	0.0	713.1	203.7	0.0	0.0	733.9
Other rockfish	88.5	1105.9	381.7	53.5	183.3	243.8
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	88.5	1819.0	585.4	53.5	183.3	977.7
Ling cod	147.9	1866.6	92.1	21.5	198.7	282.2
Pacific cod	0.0	590.2	46.3	403.7	754.3	235.0
Pacific whiting	0.0	0.0	0.2	0.0	3.6	0.0
Walleye pollock	0.0	4.5	0.0	0.0	88.7	1.1
Sablefish	1785.8	236.8	9.4	0.2	3.6	233.3
TOTAL ROUND FISH	1933.7	2698.1	148.0	425.4	1048.9	751.6
Spiny dogfish	0.0	33.8	3.6	388.7	176.0	8.6
Unsp. groundfish	0.0	22.9	7.8	1025.1	210.0	6.2
TOTAL UNSP GROUND FISH	0.0	56.7	11.4	1413.8	386.0	14.8
TOTAL ALL SPECIES	2022.4	6016.5	920.3	3396.9	2220.4	2776.3

Table 8. continued.

PMFC Area	5B	5C	5D	5B-5D ³	5E	6A	6B	TOTAL
SPECIES								
Dover sole	148.4	4.1	102.8	0.0	0.0	0.0	0.0	7881.9
English sole	29.9	68.5	1082.7	0.0	0.0	0.0	0.0	5688.5
Petrале sole	92.1	57.6	65.5	0.0	0.0	0.0	0.0	3766.4
Rex sole	0.0	0.0	6.8	0.0	0.0	0.0	0.0	1281.1
Rock sole	503.5	474.5	658.7	0.0	0.0	0.0	0.0	2236.1
Arrowtooth flounder	49.9	8.2	386.2	0.0	0.0	0.0	0.0	2197.0
Starry flounder	0.0	0.0	171.7	0.0	0.0	80.7	0.0	856.8
Other flatfish	0.0	0.0	576.7	0.0	0.0	0.0	0.0	2307.5
TOTAL FLATFISH	823.8	612.9	3051.1	0.0	0.0	80.7	0.0	26215.3
Pacific ocean perch	944.8	29.5	0.0	0.0	0.0	0.0	0.0	4370.1
Other rockfish	365.8	1.8	115.0	3.2	0.9	0.0	0.0	11462.4
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1310.6	31.3	115.0	3.2	0.9	0.0	0.0	15832.5
Ling cod	377.4	64.0	52.2	12.3	0.9	0.0	0.0	4364.8
Pacific cod	386.2	403.5	2046.2	0.0	0.0	0.0	0.0	5662.1
Pacific whiting	0.0	0.0	0.7	0.0	0.0	0.0	0.0	4.5
Walleye pollock	3.4	0.0	10.0	0.0	0.0	0.0	0.0	107.7
Sablefish	15.4	2.3	19.3	79.1	0.7	2110.4	0.0	5963.8
TOTAL ROUND FISH	782.4	469.8	2128.4	91.4	1.6	2110.4	0.0	16102.9
Spiny dogfish	1.4	613.7	0.0	0.0	0.0	0.0	0.0	1225.8
Unsp. groundfish	18.4	6.8	95.5	0.0	0.0	0.0	0.0	2290.0
TOTAL UNSP GROUND FISH	19.8	620.5	95.5	0.0	0.0	0.0	0.0	3515.8
TOTAL ALL SPECIES	2936.6	1734.5	5390.0	94.6	2.5	2191.1	0.0	61666.5

1-landings are by all gears in metric tons, round weight.

2-Area "3B-3C" landings are non-trawl landings reported by WDF as a single area.

3-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

4-May contain unknown amounts of POP, *S. alutus*.

Source: See Appendix C.

Table 9. U.S. and Canadian groundfish landings by PMFC management area in 1961.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	43.7	1312.9	1802.8	430.2	1079.4	209.1	839.4	535.2
English sole	308.0	812.4	469.5	96.2	209.3	112.9	739.7	1012.2
Petrale sole	383.3	608.5	447.2	70.6	5500.3	261.5	498.2	326.1
Rex sole	66.2	313.0	228.8	26.5	224.0	114.7	489.4	16.1
Rock sole	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.9
Arrowtooth flounder	0.0	83.2	325.9	57.2	176.5	103.4	493.8	1029.5
Starry flounder	0.9	43.1	81.6	8.2	45.3	16.8	159.2	106.6
Other flatfish	76.2	327.5	64.6	5.4	63.7	32.0	183.2	73.5
TOTAL FLATFISH	878.3	3501.3	3420.4	694.3	7298.5	850.4	3402.9	3100.1
Pacific ocean perch	0.0	0.0	0.5	0.0	193.7	979.8	915.8	808.3
Other rockfish [†]	1061.2	2461.0	656.5	70.6	489.4	952.5	1131.6	492.4
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1061.2	2461.0	657.0	70.6	683.1	1932.3	2047.4	1300.7
Ling cod	22.2	323.9	146.1	29.9	39.2	52.2	217.3	348.8
Pacific cod	0.0	0.0	0.0	0.0	1.6	0.2	37.6	349.7
Pacific whiting	102.5	46.3	51.7	9.1	0.7	0.0	0.0	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	118.6	697.6	326.0	63.3	21.1	30.2	32.6	82.6
TOTAL ROUNDFISH	243.3	1067.8	523.8	102.3	62.6	82.6	287.5	781.1
Spiny dogfish	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish	13.9	148.3	10.6	0.2	89.8	35.3	89.0	23.4
TOTAL UNSP GROUND FISH	13.9	149.2	10.6	0.2	89.8	35.3	89.0	23.4
TOTAL ALL SPECIES	2196.7	7179.3	4611.8	867.4	8134.0	2900.6	5826.8	5205.3

Table 9. continued.

SPECIES	2					
	PMFC Area	3B-3C	3C	3D	4A	4B
Dover sole	0.0	349.7	240.4	5.9	68.0	41.0
English sole	0.0	49.9	11.8	651.8	170.1	23.1
Petrале sole	0.1	1109.1	276.7	1.4	5.4	106.6
Rex sole	0.0	3.6	7.7	0.0	4.8	0.0
Rock sole	0.2	70.3	7.9	41.3	57.6	237.2
Arrowtooth flounder	0.0	895.4	241.5	137.2	168.1	1111.6
Starry flounder	0.0	16.1	0.0	235.4	66.2	0.0
Other flatfish	0.0	7.9	0.0	50.6	8.6	0.0
TOTAL FLATFISH	0.3	2502.0	786.0	1123.6	548.8	1519.5
Pacific ocean perch	0.0	728.0	948.5	0.0	0.2	430.0
Other rockfish ¹	78.5	1197.7	700.0	34.0	103.9	449.5
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	78.5	1925.7	1648.5	34.0	104.1	879.5
Ling cod	113.0	1971.8	206.0	49.0	102.1	387.8
Pacific cod	0.0	391.9	29.9	377.4	415.2	98.4
Pacific whiting	0.0	0.0	0.0	0.0	5.2	0.0
Walleye pollock	0.0	0.2	0.0	0.0	105.0	0.9
Sablefish	996.6	169.2	93.3	0.7	3.2	353.9
TOTAL ROUND FISH	1109.6	2533.1	329.2	427.1	630.7	841.0
Spiny dogfish	0.0	797.9	22.2	253.1	367.4	7.3
Unsp. groundfish	0.0	22.6	3.6	1014.7	119.5	3.6
TOTAL UNSP GROUND FISH	0.0	820.5	25.8	1267.8	486.9	10.9
TOTAL ALL SPECIES	1188.4	7781.3	2789.5	2852.5	1770.5	3250.9

Table 9. continued.

PMFC Area	5B	5C	5D	5B-5D ³	5E	6A	6B	TOTAL
SPECIES								
Dover sole	114.8	0.9	23.5	0.0	0.0	0.0	0.0	7096.9
English sole	30.4	5.7	875.0	0.0	0.0	0.0	0.0	5578.0
Petrale sole	64.9	3.4	98.0	0.0	0.0	0.0	0.0	9761.3
Rex sole	0.0	0.2	38.6	0.0	0.0	0.0	0.0	1533.6
Rock sole	416.0	110.2	685.6	0.0	0.0	0.0	0.0	1627.9
Arrowtooth flounder	1.6	3.6	680.2	0.0	0.0	0.0	0.0	5508.7
Starry flounder	0.0	0.5	93.8	0.0	0.0	162.4	0.0	1036.1
Other flatfish	0.0	0.2	294.6	0.0	0.0	0.0	0.0	1188.0
TOTAL FLATFISH	627.7	124.7	2789.3	0.0	0.0	162.4	0.0	33330.5
Pacific ocean perch	768.9	0.0	0.5	0.0	0.0	0.0	0.0	5774.2
Other rockfish ⁴	310.5	0.7	125.7	2.9	0.0	0.0	0.0	10318.6
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1079.4	0.7	126.2	2.9	0.0	0.0	0.0	16092.8
Ling cod	323.0	35.4	60.3	3.7	0.0	0.0	0.0	4431.7
Pacific cod	141.5	33.1	1586.9	0.0	0.0	0.0	0.0	3463.4
Pacific whiting	0.0	0.0	1.4	0.0	0.0	0.0	0.0	216.9
Walleye pollock	0.0	0.2	6.6	0.0	0.0	0.0	0.0	112.9
Sablefish	14.5	0.0	9.8	59.6	12.3	897.4	0.0	3982.5
TOTAL ROUND FISH	479.0	68.7	1665.0	63.3	12.3	897.4	0.0	12207.4
Spiny dogfish	1.8	0.2	304.4	0.0	0.0	0.0	0.0	1755.2
Unsp. groundfish	3.1	3.9	88.2	0.0	0.0	0.0	0.0	1669.7
TOTAL UNSP GROUND FISH	4.9	4.1	392.6	0.0	0.0	0.0	0.0	3424.9

TOTAL ALL SPECIES	2191.0	198.2	4973.1	66.2	12.3	1059.8	0.0	65055.6

1-Landings are by all gears in metric tons, round weight.

2-Area "3B-3C" landings are non-trawl landings reported by WDF as a single area.

3-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

4-May contain unknown amounts of POP, *S. alutus*.

Source: See Appendix C.

Table 10. U.S. and Canadian groundfish landings by PMFC management area in 1962.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	110.2	1338.6	2004.9	486.7	1037.9	265.8	884.9	328.9
English sole	266.7	1195.7	439.6	71.2	244.5	143.8	868.6	677.7
Petrale sole	283.5	535.2	482.6	82.6	303.0	269.0	661.0	163.7
Rex sole	172.4	342.9	193.7	15.9	244.5	55.3	641.9	16.8
Rock sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Arrowtooth flounder	0.0	5.4	47.6	24.0	146.1	319.3	885.9	51.3
Starry flounder	0.0	67.1	67.1	4.1	25.9	17.2	293.1	161.5
Other flatfish	71.6	389.7	93.5	9.6	94.8	17.6	162.0	313.9
TOTAL FLATFISH	904.4	3874.6	3329.0	694.1	2096.7	1088.0	4397.4	1713.8
Pacific ocean perch	0.0	0.0	0.0	0.0	203.2	1114.0	1298.2	767.0
Other rockfish ¹	966.1	2044.4	615.1	137.0	444.0	870.9	2336.9	419.6
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
TOTAL ROCKFISH	966.1	2044.4	615.1	137.0	647.2	1984.9	3635.6	1186.6
Ling cod	31.3	159.7	152.0	31.3	25.9	90.3	267.3	155.6
Pacific cod	0.0	0.0	0.0	0.0	0.0	2.7	4.5	263.5
Pacific whiting	152.0	2.3	1.4	0.9	0.0	0.0	0.0	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	101.1	777.7	156.2	39.9	22.2	21.8	71.6	869.6
TOTAL ROUND FISH	284.4	939.7	309.6	72.1	48.1	114.8	343.4	1288.7
Spiny dogfish	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish	88.4	153.3	12.2	2.3	22.7	31.7	89.1	30.0
TOTAL UNSP GROUND FISH	88.4	154.2	12.2	2.3	22.7	31.7	89.1	30.0
TOTAL ALL SPECIES	2243.3	7012.9	4265.9	905.5	2814.7	3219.4	8465.5	4219.1

Table 10. continued.

SPECIES	2					
	PMFC Area	3B-3C	3C	3D	4A	4B
Dover sole	0.0	532.1	376.5	8.2	129.7	39.1
English sole	0.0	38.6	6.4	734.8	190.1	31.3
Petrale sole	0.0	851.0	295.3	2.7	7.7	200.0
Rex sole	0.0	1.4	8.2	0.0	4.6	0.0
Rock sole	0.0	125.6	64.4	16.3	71.7	196.0
Arrowtooth flounder	0.0	638.2	129.3	4.5	117.5	497.6
Starry flounder	0.0	23.1	0.5	209.6	63.9	0.0
Other flatfish	0.0	5.9	0.0	27.7	10.9	0.5
TOTAL FLATFISH	0.0	2215.9	880.6	1003.8	596.1	964.5
Pacific ocean perch	0.0	2142.4	947.6	0.0	0.0	459.5
Other rockfish ¹	80.7	1379.4	1119.4	34.5	53.1	665.0
Unsp. rockfish	0.1	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	80.8	3521.8	2067.0	34.5	53.1	1124.5
Ling cod	118.4	890.0	286.3	25.9	75.8	531.2
Pacific cod	0.0	567.0	66.2	633.2	478.1	176.0
Pacific whiting	0.0	0.0	0.0	0.0	1.8	0.0
Walleye pollock	0.0	5.4	0.0	0.0	40.8	0.0
Sablefish	916.0	81.0	22.4	0.9	2.7	135.2
TOTAL ROUND FISH	1034.4	1543.4	374.9	660.0	599.2	842.4
Spiny dogfish	0.0	0.0	0.0	245.4	16.3	0.0
Unsp. groundfish	0.0	78.9	5.4	880.4	354.7	21.4
TOTAL UNSP GROUND FISH	0.0	78.9	5.4	1125.8	371.0	21.4
TOTAL ALL SPECIES	1115.2	7360.0	3327.9	2824.1	1619.4	2952.8

Table 10. continued.

SPECIES	3								
	PMFC Area	5B	5C	5D	5B-5D	5E	6A	6B	TOTAL
Dover sole		142.0	0.0	32.3	0.0	0.0	0.0	0.0	7717.8
English sole		42.6	23.1	440.0	0.0	0.0	0.0	0.0	5414.7
Petrале sole		144.7	12.7	152.0	0.0	0.0	0.0	0.0	4446.7
Rex sole		0.5	0.0	17.7	0.0	0.0	0.0	0.0	1715.8
Rock sole		532.1	323.9	507.1	0.0	0.0	0.0	0.0	1837.1
Arrowtooth flounder		25.4	1.4	656.4	0.0	0.0	0.0	0.0	3549.9
Starry flounder		0.0	5.9	88.0	0.0	0.0	78.9	0.0	1105.9
Other flatfish		0.0	1.0	785.2	0.0	0.0	0.0	0.0	1983.9
TOTAL FLATFISH		887.3	368.0	2678.7	0.0	0.0	78.9	0.0	27771.8
Pacific ocean perch		1378.0	0.0	0.0	0.0	0.0	6.8	0.0	8316.7
Other rockfish ¹		933.5	2.7	178.8	0.1	0.1	0.9	0.0	12282.2
Unsp. rockfish		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
TOTAL ROCKFISH		2311.5	2.7	178.8	0.1	0.1	7.7	0.0	20599.5
Ling cod		406.9	68.9	44.5	4.1	0.5	0.0	0.0	3365.9
Pacific cod		248.6	164.7	1551.8	0.0	0.0	0.9	0.0	4157.2
Pacific whiting		0.0	0.0	0.5	0.0	0.0	0.0	0.0	158.9
Walleye pollock		0.0	0.0	11.8	0.0	0.0	0.0	0.0	58.0
Sablefish		12.2	0.0	26.3	24.0	702.9	0.0	0.0	3983.7
TOTAL ROUND FISH		667.7	233.6	1634.9	28.1	703.4	0.9	0.0	11723.7
Spiny dogfish		0.0	0.0	0.0	0.0	0.0	0.0	0.0	262.6
Unsp. groundfish		25.4	0.5	66.7	0.0	0.0	0.0	0.0	1863.1
TOTAL UNSP GROUND FISH		25.4	0.5	66.7	0.0	0.0	0.0	0.0	2125.7
TOTAL ALL SPECIES		3891.9	604.8	4559.1	28.2	703.5	87.5	0.0	62220.7

1-Landings are by all gears in metric tons, round weight.

2-Area "3B-3C" landings are non-trawl landings reported by WDF as a single area.

3-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

4-May contain unknown amounts of POP, S. alutus.

Source: See Appendix C.

Table 11. U.S. and Canadian groundfish landings by PMFC management area in 1963.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	63.9	1436.6	2309.7	612.8	1120.4	318.4	1168.0	605.1
English sole	263.1	1153.1	529.4	44.9	156.0	217.3	679.5	821.0
Petrale sole	138.4	678.6	519.4	156.0	278.5	153.8	652.0	186.0
Rex sole	154.3	334.8	215.9	15.4	195.5	183.3	646.8	15.9
Rock sole	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Arrowtooth flounder	0.0	0.0	0.0	0.0	87.5	112.0	842.3	131.5
Starry flounder	0.0	0.0	1.8	5.9	15.9	17.7	98.8	191.9
Other flatfish	144.3	532.5	136.5	5.0	46.3	54.0	96.2	15.8
TOTAL PLATFISH	764.5	4135.6	3712.7	840.0	1900.1	1056.5	4183.6	1967.2
Pacific ocean perch	0.0	0.0	2.7	0.0	461.0	1644.0	1445.0	0.0
Other rockfish ⁵	1139.4	2209.9	988.8	0.0	392.2	393.7	1238.9	4.5
Unsp. rockfish	0.0	0.0	0.0	0.0	37.0	23.0	175.6	1095.7
TOTAL ROCKFISH	1139.4	2209.9	991.5	0.0	890.2	2060.7	2859.5	1100.2
Ling cod	26.3	201.4	122.5	37.2	27.2	29.5	177.9	165.1
Pacific cod	0.0	0.0	0.0	0.0	0.0	1.4	18.6	537.1
Pacific whiting	103.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	167.4	570.7	174.6	47.6	54.0	24.0	112.0	155.2
TOTAL ROUNDFISH	296.7	772.1	297.1	84.8	81.2	54.9	308.5	857.4
Spiny dogfish	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish	18.2	253.1	3.2	8.6	50.8	63.9	37.8	17.2
TOTAL UNSP GROUND FISH	18.2	257.2	3.2	8.6	50.8	63.9	37.8	17.2
TOTAL ALL SPECIES	2218.8	7374.8	5004.5	933.4	2922.3	3236.0	7389.4	3942.0

Table 11. continued.

PMFC Area	2		3			4A	4B	5A
	3B-3C	3C	3C-US	3C-CAN	3D			
SPECIES								
Dover sole	0.0	294.4	0.0	0.0	147.0	5.9	124.3	28.6
English sole	0.0	48.5	0.0	0.0	5.4	889.5	200.9	29.5
Petrale sole	0.1	745.7	0.0	0.0	202.0	2.7	5.0	183.7
Rex sole	0.0	10.0	0.0	0.0	6.4	0.0	22.7	0.0
Rock sole	0.0	83.9	0.0	0.0	13.6	11.3	47.6	161.0
Arrowtooth flounder	0.0	199.6	0.0	0.0	5.0	19.1	117.9	390.6
Starry flounder	0.0	14.5	0.0	0.0	0.0	269.9	31.3	0.0
Other flatfish	0.0	16.3	0.0	0.0	0.0	20.5	13.6	0.0
TOTAL FLATFISH	0.1	1412.9	0.0	0.0	379.4	1218.9	563.3	793.4
Pacific ocean perch	0.0	0.0	0.0	2.4	0.0	0.0	0.0	12.7
Other rockfish ⁵	61.7	28.6	0.0	0.0	4.5	0.0	14.1	17.8
Unsp. rockfish	0.0	3.0	988.4	2062.6	1653.0	79.9	37.8	1584.9
TOTAL ROCKFISH	61.7	31.6	988.4	2065.0	1657.5	79.9	51.9	1615.4
Ling cod	91.2	645.5	0.0	0.0	1502.9	20.0	39.9	424.7
Pacific cod	0.0	1204.3	0.0	0.0	54.4	846.0	680.4	287.1
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0
Walleye pollock	0.0	6.4	0.0	0.0	0.0	0.0	12.7	5.9
Sablefish	776.3	59.4	0.0	0.0	165.3	0.9	2.7	182.5
TOTAL ROUNDFISH	867.5	1915.6	0.0	0.0	1722.6	866.9	738.0	900.2
Spiny dogfish	0.0	2.3	0.0	0.0	0.0	253.1	6.8	0.0
Unsp. groundfish	0.0	206.9	0.0	0.0	19.0	1427.0	185.9	27.2
TOTAL UNSP GROUND FISH	0.0	209.2	0.0	0.0	19.0	1680.1	192.7	27.2
TOTAL ALL SPECIES	929.3	3569.3	988.4	2065.0	3778.5	3845.8	1545.9	3336.2

Table 11. continued.

PMFC Area	5B	5C	5D	5B-5D ⁴	5E	6A	6B	TOTAL
SPECIES								
Dover sole	268.1	0.5	22.2	0.0	0.0	0.0	0.0	8525.9
English sole	40.8	39.5	369.7	0.0	0.0	0.0	0.0	5488.1
Petrale sole	353.4	16.3	65.8	0.0	0.0	0.0	0.0	4337.4
Rex sole	0.0	0.0	3.7	0.0	0.0	0.0	0.0	1304.7
Rock sole	532.1	154.7	732.6	0.0	0.0	0.0	0.0	1737.3
Arrowtooth flounder	12.2	0.0	85.3	0.0	0.0	0.0	0.0	2003.0
Starry flounder	0.5	0.0	48.5	0.0	0.0	17.2	0.0	713.9
Other flatfish	0.0	0.0	353.8	0.0	0.0	0.0	0.0	1434.8
TOTAL FLATFISH	1207.1	211.0	1681.6	0.0	0.0	17.2	0.0	26045.1
Pacific ocean perch	438.2	0.0	1.1	0.0	0.0	0.0	0.0	4007.1
Other rockfish ⁵	41.7	0.0	29.9	0.0	0.0	0.0	0.0	6565.7
Unsp. rockfish	3149.1	37.2	17.1	0.0	0.0	0.1	0.0	10944.5
TOTAL ROCKFISH	3629.0	37.2	48.1	0.0	0.0	0.1	0.0	21517.3
Ling cod	357.0	91.2	54.9	2.3	0.0	1.9	0.0	4018.6
Pacific cod	390.5	728.9	2249.4	0.0	0.0	14.1	0.0	7012.2
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	105.3
Walleye pollock	0.0	0.0	3.6	0.0	0.0	0.0	0.0	28.6
Sablefish	29.9	0.5	35.4	0.0	881.0	109.3	0.0	3548.7
TOTAL ROUND FISH	777.4	820.6	2343.3	2.3	881.0	125.3	0.0	14713.4
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	266.3
Unsp. groundfish	87.1	13.1	270.4	0.0	0.0	0.0	0.0	2689.4
TOTAL UNSP GROUND FISH	87.1	13.1	270.4	0.0	0.0	0.0	0.0	2955.7
TOTAL ALL SPECIES	5700.6	1081.9	4343.4	2.3	881.0	142.6	0.0	65231.4

1-Landings are by all gears in metric tons, round weight.

L-Area "3B-3C" landings are non-trawl landings reported by WDF as a single area.

3-Areas "SC-US" and "3C-CAN" are trawl landings proportioned to the U.S. or Canadian portion of area 3C, and are not included in the 3C column totals.

4-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

5-May contain unknown amounts of POP, *S. alutus*.

Source: See Appendix C.

Table 12. U.S. and Canadian groundfish landings by PMFC management area in 1964.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	97.0	1772.2	2068.9	386.5	1046.0	344.7	1054.7	204.6
English sole	216.4	1260.1	626.5	75.3	78.0	173.3	510.8	781.6
Petrale sole	204.2	675.0	339.3	45.4	125.2	175.5	505.8	197.4
Rex sole	58.0	350.6	236.3	15.9	64.0	46.2	384.2	6.8
Rock sole	0.0	0.9	0.0	0.0	0.0	0.0	0.0	3.2
Arrowtooth flounder	0.5	0.0	64.9	12.7	215.5	330.2	985.7	58.1
Starry flounder	10.9	122.0	34.5	2.7	10.5	47.2	240.9	60.4
Other flatfish	153.3	415.0	65.4	0.9	16.8	17.3	104.3	215.4
TOTAL FLATFISH	740.3	4595.8	3435.8	539.4	1556.0	1134.4	3786.4	1527.5
Pacific ocean perch	0.0	0.0	7.3	0.0	1091.0	1616.0	938.0	1.5
Other rockfish ⁵	689.0	1827.1	549.3	5.4	333.7	473.8	1745.5	14.5
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	13.0	85.6	1410.0
TOTAL ROCKFISH	689.0	1827.1	556.6	5.4	1424.7	2102.8	2769.1	1426.1
Ling cod	9.5	164.2	122.0	17.7	17.2	49.4	204.5	245.9
Pacific cod	0.0	0.0	0.0	0.0	0.9	4.5	52.6	637.8
Pacific whiting	93.0	0.0	8.6	0.5	0.0	0.0	0.0	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	198.2	652.9	530.3	24.0	20.4	26.3	40.8	52.2
TOTAL ROUND FISH	300.7	817.1	660.9	42.2	38.5	80.2	297.9	935.9
Spiny dogfish	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish	32.6	315.3	2.3	0.0	6.4	15.0	38.7	54.0
TOTAL UNSP GROUND FISH	32.6	319.4	2.3	0.0	6.4	15.0	38.7	54.0
TOTAL ALL SPECIES	1762.6	7559.4	4655.6	587.0	3025.6	3332.4	6892.1	3943.5

Table 12. continued.

SPECIES	2		3		3D	4A	4B	5A
	3B-3C	3C	3C-US	3C-CAN				
Dover sole	0.0	151.0	0.0	0.0	134.3	0.0	130.2	61.3
English sole	0.0	44.4	0.0	0.0	3.2	1180.3	250.4	25.4
Petrале sole	0.2	599.7	0.0	0.0	182.8	0.0	4.1	195.0
Rex sole	0.0	1.9	0.0	0.0	0.0	0.0	6.3	1.4
Rock sole	0.0	76.2	0.0	0.0	51.7	11.8	52.2	157.9
Arrowtooth flounder	0.0	55.8	0.0	0.0	4.1	0.0	132.9	453.1
Starry flounder	0.0	18.1	0.0	0.0	0.0	170.1	38.1	0.0
Other flatfish	0.0	234.9	0.0	0.0	8.2	0.0	8.6	24.5
TOTAL FLATFISH	0.2	1182.0	0.0	0.0	384.3	1362.2	622.8	918.6
Pacific ocean perch	0.0	0.0	6.7	34.6	1.9	0.0	2.1	93.7
Other rockfish ^B	88.9	12.2	0.0	0.0	32.7	0.0	59.4	131.5
Unsp. rockfish	0.0	39.0	879.4	845.1	784.5	59.4	53.8	2085.4
TOTAL ROCKFISH	88.9	51.2	886.1	879.7	819.0	59.4	115.3	2310.5
Ling cod	79.9	1183.0	0.0	0.0	1385.3	36.3	92.1	439.7
Pacific cod	0.0	1150.3	0.0	0.0	97.1	808.3	714.9	518.9
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock	0.0	1.8	0.0	0.0	0.0	343.8	32.7	5.0
Sablefish	958.7	58.1	0.0	0.0	140.9	0.0	5.4	191.8
TOTAL ROUND FISH	1038.6	2393.2	0.0	0.0	1623.3	1188.4	845.1	1155.4
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	49.4	0.0
Unsp. groundfish	0.0	47.2	0.0	0.0	12.2	1539.5	247.2	32.7
TOTAL UNSP GROUND FISH	0.0	47.2	0.0	0.0	12.2	1539.5	296.6	32.7
TOTAL ALL SPECIES	1127.7	3673.6	886.1	879.7	2838.8	4149.5	1879.8	4417.2

Table 12. continued.

PMFC Area	5B	5C	5D	5B-5D ⁴	5E	6A	6B	TOTAL
SPECIES								
Dover sole	324.3	0.5	83.0	0.0	0.0	0.0	0.0	7859.2
English sole	15.4	14.5	422.8	0.0	0.0	0.0	0.0	5678.4
Petrale sole	225.9	40.4	123.4	0.0	0.0	0.0	0.0	3639.3
Rex sole	0.0	0.0	8.7	0.0	0.0	0.0	0.0	1180.3
Rock sole	482.2	253.1	503.9	0.0	0.0	0.0	0.0	1593.1
Arrowtooth flounder	8.6	4.1	197.3	0.0	0.0	0.0	0.0	2523.5
Starry flounder	0.5	0.0	18.6	0.0	0.0	177.4	0.0	951.9
Other flatfish	2.7	0.0	310.7	0.0	0.0	0.0	0.0	1578.0
TOTAL FLATFISH	1059.6	312.6	1668.4	0.0	0.0	177.4	0.0	25003.7
Pacific ocean perch	325.2	0.3	5.6	0.0	0.0	0.0	0.0	4123.9
Other rockfish ⁶	48.1	14.5	55.8	2.9	0.0	0.0	0.0	6084.3
Unsp. rockfish	2124.4	22.3	40.0	0.0	0.0	0.0	0.0	8441.9
TOTAL ROCKFISH	2497.7	37.1	101.4	2.9	0.0	0.0	0.0	18650.0
Ling cod	335.2	150.1	64.4	3.7	0.0	2.7	0.0	4602.8
Pacific cod	764.8	1892.8	3513.6	0.0	0.0	1.8	0.0	10158.3
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	102.1
Walleye pollock	0.0	0.0	1.8	0.0	0.0	0.0	0.0	385.1
Sablefish	43.5	0.0	67.1	18.9	1172.7	237.7	0.0	4439.9
TOTAL ROUND FISH	1143.5	2042.9	3646.9	22.6	1172.7	242.2	0.0	19688.2
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.5
Unsp. groundfish	8.6	84.8	330.7	0.0	0.0	0.0	0.0	2767.2
TOTAL UNSP GROUND FISH	8.6	84.8	330.7	0.0	0.0	0.0	0.0	2820.7
TOTAL ALL SPECIES	4709.4	2477.4	5747.4	25.5	1172.7	419.6	0.0	66162.6

1-Landings are by all gears in metric tons, round weight.

2-Area "3B-3C" landings are non-trawl landings reported by WDP as a single area.

3-Areas "3C-US" and "3C-CAN" are trawl landings proportioned to the U.S. or Canadian portion of area 3C, and are not included in the 3C column totals.

4-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

5-May contain unknown amounts of POP, *S. alutus*.

Source: See Appendix C.

Table 13. U.S. and Canadian groundfish landings by PMFC management area in 1965.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	57.6	1830.3	2776.5	397.4	566.6	279.5	694.0	120.7
English sole	464.0	1285.5	530.2	56.7	85.2	289.4	558.3	923.0
Petrale sole	176.5	800.6	235.4	31.3	167.9	323.4	317.0	121.2
Rex sole	58.5	396.5	224.5	15.4	158.3	107.9	276.7	50.4
Rock sole	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.0
Arrowtooth flounder	0.0	22.7	131.1	0.0	235.4	205.0	579.7	23.7
Starry flounder	11.3	123.4	11.3	3.2	10.9	141.1	69.0	74.8
Other flatfish	162.8	366.5	47.6	8.2	11.8	98.9	65.7	20.9
TOTAL FLATFISH	930.7	4825.5	3956.6	512.2	1236.1	1445.7	2560.9	1334.7
Pacific ocean perch	0.0	0.0	16.8	0.0	816.0	3422.0	1141.0	0.0
Other rockfish ^b	742.6	1998.1	805.1	0.0	254.3	1262.4	930.1	3.6
Unsp. rockfish	0.0	0.0	0.0	0.0	91.0	59.0	68.2	736.9
TOTAL ROCKFISH	742.6	1998.1	821.9	0.0	1161.3	4743.4	2139.3	740.5
Ling cod	5.0	148.8	123.8	23.6	25.4	121.1	193.0	183.7
Pacific cod	0.0	0.0	0.0	0.0	23.1	10.9	49.9	625.1
Pacific whiting	283.5	3.2	24.0	0.0	0.0	0.0	679.5	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	146.5	1017.8	545.8	24.5	10.9	26.3	115.8	15.9
TOTAL ROUND FISH	435.0	1169.8	693.6	48.1	59.4	158.3	1038.2	824.7
Spiny dogfish	0.0	2.3	0.0	0.0	0.0	0.0	0.5	0.0
Unsp. groundfish	20.8	174.6	4.6	98.0	56.3	8.6	12.5	30.4
TOTAL UNSP GROUND FISH	20.8	176.9	4.6	98.0	56.3	8.6	13.0	30.4
TOTAL ALL SPECIES	2129.1	8170.3	5476.7	658.3	2513.1	6356.0	5751.4	2930.3

Table 13. continued.

SPECIES	2		3		3		4A	4B	5A
	PMFC Area	3B-3C	3C	3C-US	3C-CAN	3D			
Dover sole	0.0	152.4	0.0	0.0	130.6	5.9	106.6	57.2	
English sole	0.0	24.5	0.0	0.0	4.5	1016.5	216.8	16.8	
Petrale sole	0.5	791.5	0.0	0.0	300.3	1.4	18.1	237.7	
Rex sole	0.0	3.6	0.0	0.0	0.0	0.0	49.5	0.9	
Rock sole	0.0	122.9	0.0	0.0	63.5	14.1	50.8	156.9	
Arrowtooth flounder	0.0	99.3	0.0	0.0	3.2	0.0	138.4	189.2	
Starry flounder	0.0	15.0	0.0	0.0	0.5	229.1	27.7	0.0	
Other flatfish	0.0	241.3	0.0	0.0	4.1	24.5	11.4	89.8	
TOTAL FLATFISH	0.5	1450.5	0.0	0.0	506.7	1291.5	619.3	748.5	
Pacific ocean perch	0.0	0.0	2.0	3.8	0.6	0.0	0.8	469.3	
Other rockfish ⁵	56.2	7.7	0.0	0.0	22.7	0.0	28.1	31.0	
Unsp. rockfish	0.0	91.0	1184.3	1988.0	746.4	47.6	36.1	2527.9	
TOTAL ROCKFISH	56.2	98.7	1186.3	1991.8	769.8	47.6	65.1	3028.2	
Ling cod	58.5	1889.2	0.0	0.0	1557.0	27.7	93.9	436.0	
Pacific cod	0.0	2535.6	0.0	0.0	254.9	721.7	484.5	797.5	
Pacific whiting	0.0	0.0	0.0	0.0	0.0	333.9	0.0	0.0	
Walleye pollock	0.0	10.0	0.0	0.0	0.0	0.0	21.3	0.0	
Sablefish	529.3	101.2	0.0	0.0	117.2	0.5	0.9	179.3	
TOTAL ROUNDFISH	587.8	4536.0	0.0	0.0	1929.1	1083.8	600.6	1412.8	
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	847.8	98.4	0.0	
Unsp. groundfish	0.0	79.4	0.0	0.0	22.3	1933.7	236.4	22.7	
TOTAL UNSP GROUND FISH	0.0	79.4	0.0	0.0	22.3	2781.5	334.8	22.7	
TOTAL ALL SPECIES	644.5	6164.6	1186.3	1991.8	3227.9	5204.4	1619.8	5212.2	

Table 13. continued.

PMFC Area	5B	5C	5D	5B-5D ⁴	5E	6A	6B	TOTAL
SPECIES								
Dover sole	221.4	3.6	53.1	0.0	0.0	0.0	0.0	7453.4
English sole	22.2	22.7	390.5	0.0	0.0	0.0	0.0	5906.8
Petrale sole	180.1	94.8	107.0	0.0	0.0	0.0	0.0	3904.7
Rex sole	0.0	0.0	4.5	0.0	0.0	0.0	0.0	1346.7
Rock sole	567.9	539.3	339.7	0.0	0.0	0.0	0.0	1856.1
Arrowtooth flounder	7.3	0.9	140.6	0.0	0.0	0.0	0.0	1776.5
Starry flounder	0.0	0.0	39.9	0.0	0.0	13.6	0.0	770.8
Other flatfish	0.0	0.5	377.8	0.0	0.0	0.0	0.0	1531.8
TOTAL FLATFISH	998.9	661.8	1453.1	0.0	0.0	13.6	0.0	24546.8
Pacific ocean perch	917.3	0.9	0.0	0.0	0.0	0.0	0.0	6790.6
Other rockfish ⁵	29.5	12.7	68.0	0.5	1.8	0.0	0.0	6254.4
Unsp. rockfish	2408.9	79.1	29.9	0.0	0.0	0.0	0.0	10094.4
TOTAL ROCKFISH	3355.7	92.8	97.9	0.5	1.8	0.0	0.0	23139.4
Ling cod	566.1	155.1	100.2	5.0	0.0	2.3	0.0	5715.4
Pacific cod	1144.9	3207.4	1372.1	0.0	0.0	0.0	0.0	11227.6
Pacific whiting	0.0	9.1	0.0	0.0	0.0	0.0	0.0	1333.2
Walleye pollock	0.0	0.0	9.1	0.0	0.0	0.0	0.0	40.4
Sablefish	21.8	0.5	176.5	15.6	0.0	194.1	0.0	3240.4
TOTAL ROUNDFISH	1732.8	3372.1	1657.9	20.6	0.0	196.4	0.0	21557.0
Spiny dogfish	2.3	0.0	0.5	0.0	0.0	0.0	0.0	951.8
Unsp. groundfish	55.3	33.1	272.2	0.0	0.0	0.0	0.0	3060.9
TOTAL UNSP GROUND FISH	57.6	33.1	272.7	0.0	0.0	0.0	0.0	4012.7
TOTAL ALL SPECIES	6145.0	4159.8	3481.6	21.1	1.8	210.0	0.0	73255.9

1-Landings are by all gears in metric tons, round weight.

2-Area "3B-3C" landings are non-trawl-landings reported by WDF as a single area.

3-Areas "3C-US" and "3C-CAN" are trawl landings proportioned to the U.S. or Canadian portion of area 3C. and are not included in the 3C column totals.

4-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

5-May contain unknown amounts of POP, S. alutus.

Source : See Appendix C.

Table 14. U.S. and Canadian groundfish landings by PMFC management area in 1966.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	30.4	1795.8	2635.4	434.6	501.7	172.9	777.1	159.7
English sole	308.5	1222.5	731.6	64.5	210.5	188.7	1119.0	783.8
Petrale sole	114.3	855.9	351.5	39.1	110.2	206.9	482.7	136.5
Rex sole	58.0	342.9	359.2	25.0	75.8	19.0	688.6	1.4
Rock sole	0.0	0.0	0.0	0.0	5.9	1.8	0.0	0.0
Arrowtooth flounder	0.0	0.0	78.5	10.0	152.9	291.7	569.3	32.7
Starry flounder	5.0	106.6	20.0	1.8	12.2	54.4	149.2	83.5
Other flatfish	146.9	455.4	69.8	0.5	16.3	24.1	178.3	3.6
TOTAL FLATFISH	663.1	4779.1	4246.0	575.5	1085.5	959.5	3964.2	1201.2
Pacific ocean perch	0.0	0.0	0.9	0.0	112.0	686.0	473.0	0.0
Other rockfish ⁵	999.7	2364.2	616.9	62.2	502.9	777.8	1418.4	0.0
Unsp. rockfish	0.0	0.0	5.0	0.0	5.9	50.4	52.5	822.1
TOTAL ROCKFISH	999.7	2364.2	622.8	62.2	620.8	1514.2	1943.9	822.1
Ling cod	6.8	168.7	92.5	17.7	20.4	79.8	266.3	151.0
Pacific cod	0.0	0.0	0.0	0.0	0.9	3.6	216.0	694.9
Pacific whiting	110.7	0.0	0.5	0.0	0.0	1.8	1029.2	548.4
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	138.8	454.6	549.2	79.4	7.2	22.6	52.4	18.6
TOTAL ROUND FISH	256.3	623.3	642.2	97.1	28.5	107.8	1563.9	1412.9
Spiny dogfish	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish	45.8	148.3	3.2	0.5	95.7	42.6	18.8	14.1
TOTAL UNSP GROUND FISH	45.8	149.7	3.2	0.5	95.7	42.6	18.8	14.1
TOTAL ALL SPECIES	1964.9	7916.3	5514.2	735.3	1830.5	2624.1	7490.8	3450.3

Table 14. continued.

PMFC Area	2		3		3D	4A	4B	5A
	3B-3C	3C	3C-US	3C-CAN				
SPECIES								
Dover sole	0.0	93.9	0.0	0.0	8.0	12.2	116.1	72.1
English sole	0.0	38.6	0.0	0.0	6.4	1098.2	185.1	31.3
Petrale sole	0.0	626.0	0.0	0.0	264.0	3.6	1.8	251.7
Rex sole	0.0	5.4	0.0	0.0	0.0	0.0	19.9	0.0
Rock sole	0.0	175.1	0.0	0.0	59.0	13.6	30.4	329.8
Arrowtooth flounder	0.0	144.2	0.0	0.0	0.5	3.2	265.4	105.7
Starry flounder	0.0	26.8	0.0	0.0	0.9	150.6	15.9	0.0
Other flatfish	0.0	42.7	0.0	0.0	1.4	3.2	33.6	23.6
TOTAL FLATFISH	0.0	1152.7	0.0	0.0	340.2	1284.6	668.2	814.2
Pacific ocean perch	0.0	0.0	0.0	2.3	0.0	0.0	1.0	708.2
Other rockfish ⁵	57.6	12.7	0.0	1.8	17.0	0.0	80.6	76.7
Unsp. rockfish	0.0	116.0	1574.7	890.8	985.2	28.0	59.3	3677.2
TOTAL ROCKFISH	57.6	128.7	1574.7	894.8	1002.2	28.0	140.9	4462.1
Ling cod	73.5	2053.4	0.0	0.0	1775.0	15.0	53.1	829.6
Pacific cod	0.5	2645.9	0.0	0.0	500.8	1044.2	295.3	1066.9
Pacific whiting	0.0	111.1	0.0	0.0	11.3	3495.9	1.4	0.0
Walleye pollock	0.0	0.5	0.0	0.0	0.0	9.1	36.7	1.4
Sablefish	221.2	135.6	0.0	0.0	179.2	0.9	5.4	225.0
TOTAL ROUND FISH	295.2	4946.5	0.0	0.0	2466.3	4565.1	391.9	2122.9
Spiny dogfish	0.0	0.5	0.0	0.0	0.0	0.0	167.4	0.0
Unsp. groundfish	0.0	55.4	0.0	0.0	279.5	2262.8	92.6	46.7
TOTAL UNSP GROUND FISH	0.0	55.9	0.0	0.0	279.5	2262.8	260.0	46.7
TOTAL ALL SPECIES	352.8	6283.8	1574.7	894.8	4088.2	8140.5	1461.0	7445.9

Table 14. continued.

PMFC Area	5B	5C	5D	5B-5D ⁴	5E	6A	6B	TOTAL
SPECIES								
Dover sole	143.8	1.4	65.8	0.0	0.0	0.0	0.0	7020.9
English sole	22.2	32.7	339.7	0.0	0.0	0.0	0.0	6383.3
Petrale sole	216.8	178.3	82.1	0.0	0.0	0.0	0.0	3921.4
Rex sole	0.0	0.5	2.3	0.0	0.0	0.0	0.0	1598.0
Rock sole	772.0	999.8	1541.8	0.0	0.0	0.0	0.0	3929.2
Arrowtooth flounder	1.8	2.7	257.6	0.0	0.0	0.0	0.0	1916.2
Starry flounder	0.5	1.4	43.5	0.0	0.0	5.4	0.0	677.7
Other flatfish	35.4	33.1	740.8	0.0	0.0	0.0	0.0	1808.7
TOTAL FLATFISH	1192.5	1249.9	3073.6	0.0	0.0	5.4	0.0	27255.4
Pacific ocean perch	1739.9	0.3	4.0	0.0	0.3	0.0	0.0	3727.8
Other rockfish ⁵	24.8	0.0	58.7	0.7	0.5	0.0	0.0	7073.2
Unsp. rockfish	4263.5	3.7	13.3	0.0	0.0	0.0	0.0	12547.5
TOTAL ROCKFISH	6028.2	4.0	75.9	0.7	0.8	0.0	0.0	23348.5
Ling cod	826.5	156.9	107.5	7.7	0.9	1.2	0.0	6703.5
Pacific cod	745.3	177.8	414.6	0.0	0.0	0.0	0.0	7806.7
Pacific whiting	0.0	1.8	2.7	0.0	0.0	0.0	0.0	5314.8
Walleye pollock	0.0	0.5	82.1	0.0	0.0	0.0	0.0	130.3
Sablefish	46.3	3.2	176.0	9.2	1069.6	334.7	0.0	3729.1
TOTAL ROUND FISH	1618.1	340.2	782.9	16.9	1070.5	335.9	0.0	23684.4
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	169.3
Unsp. groundfish	93.9	164.7	241.8	0.0	0.0	0.5	0.0	3606.9
TOTAL UNSP GROUND FISH	93.9	164.7	241.8	0.0	0.0	0.5	0.0	3776.2
TOTAL ALL SPECIES	8932.7	1758.8	4174.2	17.6	1071.3	341.8	0.0	78064.5

1-Landings are by all gears in metric tons, round weight.

2-Area "3B-3C" landings are non-trawl landings reported by WDF as a single area.

3-Areas "3C-US" and "SC-CAN" are trawl landings proportioned to the U.S. or Canadian portion of area 3C. and are not included in the 3C column totals.

4-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

5-May contain unknown amounts of POP, *S. alutus*.

Source: See Appendix C.

Table 15. U.S. and Canadian groundfish landings by PMFC management area in 1967.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	17.3	1192.1	1962.7	182.8	766.1	112.1	771.6	110.7
English sole	258.6	1368.5	1123.1	45.4	184.1	173.7	724.3	761.6
Petrale sole	102.1	679.5	474.0	24.0	103.9	194.2	551.6	103.9
Rex sole	43.5	384.2	401.0	11.8	121.1	22.1	571.0	22.7
Rock sole	0.0	0.0	0.0	0.0	2.7	0.9	0.0	2.3
Arrowtooth flounder	0.0	59.9	112.9	5.9	112.5	175.5	643.2	114.8
Starry flounder	2.3	209.1	146.1	6.4	2.3	10.9	80.9	493.0
Other flatfish	141.6	450.9	91.1	1.4	46.3	34.9	187.3	48.1
TOTAL FLATFISH	565.4	4344.2	4310.9	277.7	1339.0	724.3	3529.9	1657.1
Pacific ocean perch	0.0	0.5	7.7	0.0	14.0	150.0	122.0	0.0
Other rockfish ⁵	1337.2	1882.0	617.8	47.6	356.7	450.1	1364.8	233.8
Unsp. rockfish	0.0	0.0	0.0	0.0	10.7	225.4	93.3	100.3
TOTAL ROCKFISH	1337.2	1882.5	625.5	47.6	381.4	825.5	1580.1	334.1
Ling cod	14.1	186.0	133.8	8.6	34.5	82.1	359.2	241.3
Pacific cod	0.0	0.0	0.0	0.0	0.5	4.1	167.4	398.3
Pacific whiting	163.8	31.3	21.8	15.4	0.0	0.0	7437.2	1289.6
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Sablefish	59.5	1418.1	591.4	18.1	19.1	7.7	18.9	20.4
TOTAL ROUNDFISH	237.4	1635.4	747.0	42.1	54.1	93.9	7982.7	1950.5
Spiny dogfish	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish	24.1	164.7	17.2	2.7	22.7	26.7	41.0	54.4
TOTAL UNSP GROUND FISH	24.1	166.1	17.2	2.7	22.7	26.7	41.0	54.4
TOTAL ALL SPECIES	2164.1	8028.2	5700.6	370.1	1797.2	1670.4	13133.7	3996.1

Table 15. continued.

PMFC Area	2		3		3		4A	4B	5A
	3B-3C	3C	3C-US	3C-CAN	3D	3D			
SPECIES									
Dover sole	0.0	53.1	0.0	0.0	63.5	11.8	54.9	52.2	
English sole	0.0	39.9	0.0	0.0	4.5	798.8	154.7	26.8	
Petrale sole	0.0	362.0	0.0	0.0	169.2	0.5	4.1	281.2	
Rex sole	0.0	17.7	0.0	0.0	0.0	0.0	15.9	0.0	
Rock sole	0.0	173.7	0.0	0.0	52.6	11.8	33.6	252.2	
Arrowtooth flounder	0.0	187.8	0.0	0.0	7.3	18.1	119.3	1196.6	
Starry flounder	0.0	62.6	0.0	0.0	0.0	147.9	35.9	9.1	
Other flatfish	0.0	10.9	0.0	0.0	0.0	38.1	5.9	9.5	
TOTAL FLATFISH	0.0	907.7	0.0	0.0	297.1	1027.0	424.3	1827.6	
Pacific ocean perch	0.0	0.0	0.0	4.5	2.6	0.0	0.0	56.8	
Other rockfish ⁵	63.5	1.4	161.6	136.5	644.3	0.0	31.9	912.6	
Unsp. rockfish	0.0	8.0	335.4	311.9	82.9	34.5	16.3	1039.9	
TOTAL ROCKFISH	63.5	9.4	497.0	452.9	729.7	34.5	48.2	2009.3	
Ling cod	87.6	1815.8	0.0	0.0	1773.6	29.9	50.8	876.5	
Pacific cod	0.9	1652.9	0.0	0.0	297.6	1095.0	472.2	761.1	
Pacific whiting	0.0	0.0	0.0	0.0	0.0	4155.4	0.0	0.0	
Walleye pollock	0.0	0.0	0.0	0.0	0.0	1.8	33.1	0.9	
Sablefish	103.9	105.2	0.0	0.0	71.9	0.0	2.3	208.4	
TOTAL ROUND FISH	192.4	3573.9	0.0	0.0	2143.1	5282.1	558.4	1846.9	
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	441.8	56.2	0.0	
Unsp. groundfish	0.0	44.9	0.0	0.0	411.7	1174.4	81.6	73.5	
TOTAL UNSP GROUND FISH	0.0	44.9	0.0	0.0	411.7	1616.2	137.8	73.5	
TOTAL ALL SPECIES	255.9	4535.9	497.0	452.9	3581.7	7959.8	1168.7	5757.4	

Table 15. continued.

PMFC Area	5B	5C	5D	5B-5D ⁴	5E	6A	6B	TOTAL
SPECIES								
Dover sole	228.6	3.2	5.5	0.0	0.0	0.0	0.0	5588.2
English sole	34.0	27.7	499.9	0.0	0.0	0.0	0.0	6225.6
Petrale sole	204.1	133.8	46.7	0.0	0.0	0.0	0.0	3434.8
Rex sole	0.0	0.0	2.7	0.0	0.0	0.0	0.0	1613.7
Rock sole	743.0	974.8	1194.8	0.0	0.0	0.0	0.0	3442.4
Arrowtooth flounder	27.7	0.9	417.8	0.0	0.0	0.0	0.0	3200.2
Starry flounder	0.0	0.5	20.0	0.0	0.0	15.9	0.0	1242.9
Other flatfish	1.4	28.6	812.4	0.0	0.0	3.6	0.0	1912.0
TOTAL FLATFISH	1238.8	1169.5	2999.8	0.0	0.0	19.5	0.0	26659.8
Pacific ocean perch	326.9	0.0	0.0	0.0	0.0	0.0	0.0	684.9
Other rockfish ⁵	1135.8	4.1	27.2	0.0	0.9	0.0	0.0	9409.8
Unsp. rockfish	4439.8	37.8	22.4	0.0	0.0	0.0	0.0	6758.7
TOTAL ROCKFISH	5902.5	41.9	49.6	0.0	0.9	0.0	0.0	16853.5
Ling cod	900.8	249.9	75.3	0.9	1.4	2.0	0.0	6924.1
Pacific cod	739.8	2200.4	3021.0	0.0	0.0	3.6	0.0	10814.8
Pacific whiting	0.0	0.0	4.5	0.0	0.0	0.0	0.0	13119.0
Walleye pollock	0.0	7.3	47.6	0.0	0.0	0.0	0.0	91.6
Sablefish	49.0	0.5	23.1	10.4	951.1	198.9	0.0	3877.9
TOTAL ROUND FISH	1689.6	2458.1	3171.5	11.3	952.5	204.5	0.0	34827.4
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	499.4
Unsp. groundfish	24.5	49.8	352.0	0.0	0.0	5.9	0.0	2571.8
TOTAL UNSP GROUND FISH	24.5	49.8	352.0	0.0	0.0	5.9	0.0	3071.2
TOTAL ALL SPECIES	8855.4	3719.3	6572.9	11.3	953.4	229.9	0.0	81411.9

1-landings are by all gears in metric tons, round weight.

2-Area "3B-3C" landings are non-trawl landings reported by WDF as a single area.

3-Areas "SC-US" and "3C-CAN" are trawl landings proportioned to the U.S. or Canadian portion of area 3C, and are not included in the 3C column totals.

4-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

J-May contain unknown amounts of POP, S. alutus.

Source: See Appendix C.

Table 16. U.S. and Canadian groundfish landings by PMFC management area in 1968.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	50.3	720.8	3089.0	311.1	909.5	130.6	756.6	311.6
English sole	148.3	1210.7	1340.9	60.7	147.0	166.5	572.4	1152.1
Petrале sole	103.0	492.1	736.7	40.8	124.3	171.4	385.5	122.5
Rex sole	39.0	274.4	707.1	29.9	34.5	12.3	429.6	54.9
Rock sole	0.0	1.0	0.0	0.0	0.0	1.8	0.0	0.0
Arrowtooth flounder	0.0	45.4	122.5	20.4	68.5	111.1	294.8	65.3
Starry flounder	0.0	127.9	245.9	2.7	5.0	7.3	134.5	728.5
Other flatfish	67.6	381.5	122.5	1.8	23.6	32.1	147.9	29.1
TOTAL FLATFISH	408.2	3253.8	6364.6	467.4	1312.4	633.1	2721.3	2464.0
Pacific ocean perch	0.0	0.0	10.4	0.0	5.0	136.0	29.0	0.0
Other rockfish ⁵	1165.8	1716.0	740.8	42.2	493.6	171.2	1180.2	1169.3
Unsp. rockfish	0.0	0.0	0.0	0.0	14.0	52.7	37.5	438.8
TOTAL ROCKFISH	1165.8	1716.0	751.2	42.2	512.6	359.9	1246.7	1608.1
Ling cod	10.4	186.4	218.6	19.0	33.6	72.6	302.1	574.3
Pacific cod	0.0	0.0	0.0	0.0	0.9	0.0	55.7	531.6
Pacific whiting	127.9	26.8	1.8	0.0	0.0	0.0	1.8	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	46.7	1141.9	560.3	67.1	9.5	8.2	11.9	10.4
TOTAL ROUND FISH	185.0	1355.1	780.7	86.1	44.0	80.8	371.5	1116.3
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
Unsp. groundfish	13.1	138.8	65.8	65.8	220.0	168.3	102.2	71.2
TOTAL UNSP GROUND FISH	13.1	138.8	65.8	65.8	220.0	169.2	102.2	71.2
TOTAL ALL SPECIES	1772.1	6463.7	7962.3	661.5	2089.0	1243.0	4441.7	5259.6

Table 16. continued.

PMFC Area	2		3		3			
	3B-3C	3C	3C-US	3C-CAN	3D	4A	4B	5A
SPECIES								
Dover sole	0.0	119.3	0.0	0.0	33.6	17.2	38.6	119.7
English sole	0.0	20.4	0.0	0.0	6.8	884.1	145.6	17.7
Petrale sole	0.0	346.1	0.0	0.0	292.6	1.4	0.5	168.7
Rex sole	0.0	0.5	0.0	0.0	0.0	0.0	3.2	0.5
Rock sole	0.0	96.2	0.0	0.0	58.1	13.6	27.7	442.3
Arrowtooth flounder	0.0	33.1	0.0	0.0	10.0	0.5	146.5	305.3
Starry flounder	0.0	19.1	0.0	0.0	0.5	235.0	21.8	3.6
Other flatfish	0.0	1.8	0.0	0.0	0.5	18.1	0.5	3.6
TOTAL FLATFISH	0.0	636.5	0.0	0.0	402.1	1169.9	384.4	1061.4
Pacific ocean perch	0.0	0.0	0.1	0.1	0.0	0.0	0.1	1505.9
Other rockfish ⁵	56.7	8.6	426.1	76.1	774.4	0.0	68.0	1665.7
Unsp. rockfish	0.0	4.0	149.1	55.3	83.7	19.6	34.0	55.1
TOTAL ROCKFISH	56.7	12.6	575.3	131.5	858.2	19.6	102.0	3226.7
Ling cod	46.7	1693.7	0.0	0.0	1969.4	32.2	83.9	1345.3
Pacific cod	0.0	1173.5	0.0	0.0	265.4	888.1	350.6	626.5
Pacific whiting	0.0	0.5	0.0	0.0	0.0	4193.1	0.0	4.1
Walleye pollock	0.0	1.8	0.0	0.0	0.0	19.1	13.2	6.8
Sablefish	33.0	136.5	0.0	0.0	114.4	0.0	2.3	251.4
TOTAL ROUND FISH	79.7	3006.0	0.0	0.0	2349.2	5132.5	450.0	2234.1
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	2.7	29.5	0.0
Unsp. groundfish	0.0	55.8	0.0	0.0	283.9	1192.5	103.4	65.8
TOTAL UNSP GROUND FISH	0.0	55.8	0.0	0.0	283.9	1195.2	132.9	65.8
TOTAL ALL SPECIES	136.4	3710.9	575.3	131.5	3893.4	7517.2	1069.3	6588.0

Table 16. continued.

PMFC Area	5B	5C	5D	5B-5D ⁴	5E	6A	6B	TOTAL
SPECIES								
Dover sole	230.5	0.9	33.6	0.0	0.0	0.0	0.0	6872.9
English sole	24.0	37.6	633.7	0.0	0.0	0.0	0.0	6568.5
Petrale sole	97.1	110.7	26.8	0.0	0.0	0.0	0.0	3220.2
Rex sole	0.0	8.6	1.4	0.0	0.0	0.0	0.0	1595.9
Rock sole	391.5	836.9	1572.6	0.0	0.0	0.0	0.0	3441.7
Arrowtooth flounder	6.8	86.2	375.6	0.0	0.0	0.0	0.0	1692.0
Starry flounder	1.4	0.5	19.9	0.0	0.0	28.1	0.0	1581.7
Other flatfish	1.8	18.1	720.3	0.0	0.0	1.4	0.0	1572.2
TOTAL FLATFISH	753.1	1099.5	3383.9	0.0	0.0	29.5	0.0	26545.1
Pacific ocean perch	3879.9	0.0	0.0	0.0	0.0	0.0	0.0	5566.4
Other rockfish ⁵	1106.5	9.3	42.9	5.9	0.5	0.0	0.0	10919.8
Unsp. rockfish	81.3	1.6	9.5	0.0	0.0	0.0	0.0	1036.2
TOTAL ROCKFISH	5067.7	10.8	52.4	5.9	0.5	0.0	0.0	17522.3
Ling cod	1042.8	236.8	146.1	1.8	1.4	3.2	0.0	8020.3
Pacific cod	334.3	2082.9	3127.5	0.0	0.0	2.7	0.0	9439.7
Pacific whiting	2.3	1.4	1.4	0.0	0.0	0.0	0.0	4361.1
Walleye pollock	0.0	4.1	2.3	0.0	0.0	2.3	0.0	49.6
Sablefish	23.6	0.0	28.1	5.9	162.0	128.1	0.0	2741.3
TOTAL ROUND FISH	1403.0	2325.2	3305.4	7.7	163.4	136.3	0.0	24612.0
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.1
Unsp. groundfish	69.4	32.2	438.2	0.0	0.0	11.3	0.0	3097.7
TOTAL UNSP GROUND FISH	69.4	32.2	438.2	0.0	0.0	11.3	0.0	3130.8
TOTAL ALL SPECIES	7293.2	3467.7	7179.9	13.6	163.9	177.1	0.0	71810.2

1-Landings are by all gears in metric tons, round weight.

2-Area "3B-3C" landings are non-trawl landings reported by WDF as a single area.

3-Areas "3C-US" and "3C-CAN" are trawl landings proportioned to the U.S. or Canadian portion of area 3C. and are not included in the 3C column totals.

4-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

5-May contain unknown amounts of POP, S. alutus.

Source: See Appendix C.

Table 17. U.S. and Canadian groundfish landings by PMFC management area in 1969.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	28.5	1031.9	4116.9	1193.0	1354.9	63.1	753.8	286.7
English sole	220.9	828.3	700.3	141.0	74.0	123.8	665.9	617.3
Petrale sole	92.6	496.3	667.7	191.9	148.4	110.6	452.8	92.1
Rex sole	47.2	223.7	775.6	100.7	33.5	10.0	521.4	12.7
Rock sole	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.5
Arrowtooth flounder	0.0	11.8	167.4	41.3	56.7	29.5	321.6	20.9
Starry flounder	0.0	94.3	64.9	6.4	0.9	15.0	108.0	49.9
Other flatfish	23.1	278.0	180.5	10.4	13.1	38.1	306.2	53.5
TOTAL FLATFISH	412.3	2965.7	6673.3	1684.7	1681.5	390.1	3129.7	1133.6
Pacific ocean perch	0.0	0.9	21.3	0.0	14.0	98.0	50.0	142.4
Other rockfish ^b	1094.6	1484.6	881.4	18.6	851.0	43.1	1057.8	1525.1
Unsp. rockfish	0.0	0.0	0.0	0.0	136.4	181.0	22.0	94.5
TOTAL ROCKFISH	1094.6	1485.5	902.7	18.6	1001.4	322.1	1129.8	1762.0
Ling cod	11.3	131.5	201.8	80.7	24.1	53.1	364.7	259.5
Pacific cod	0.0	0.0	0.0	0.0	0.0	0.0	10.8	235.9
Pacific whiting	59.0	4.1	19.1	10.9	0.0	0.0	0.5	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	26.4	1211.4	890.0	163.4	36.2	8.2	24.9	20.4
TOTAL ROUND FISH	96.7	1347.0	1110.9	255.0	60.3	61.3	400.9	515.8
Spiny dogfish	0.0	0.5	0.9	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish	11.3	121.2	119.8	8.2	215.9	107.9	130.9	63.5
TOTAL UNSP GROUND FISH	11.3	121.7	120.7	8.2	215.9	107.9	130.9	63.5
TOTAL ALL SPECIES	1614.9	5919.9	8807.6	1966.5	2959.1	881.4	4791.3	3474.9

Table 17. continued.

PMFC Area	2		3		3		4A	4B	5A
	3B-3C	3C	3C-US	3C-CAN	3D				
SPECIES									
Dover sole	0.0	205.0	0.0	0.0	79.8	10.9	55.8	66.7	
English sole	0.0	24.0	0.0	0.0	4.5	1131.3	171.0	16.8	
Petrале sole	0.0	396.4	0.0	0.0	262.2	0.9	1.8	66.7	
Rex sole	0.0	4.1	0.0	0.0	0.0	0.0	6.8	1.4	
Rock sole	0.0	86.2	0.0	0.0	54.4	18.1	31.3	295.3	
Arrowtooth flounder	0.0	131.1	0.0	0.0	21.8	16.3	132.9	1176.6	
Starry flounder	0.5	17.2	0.0	0.0	0.0	251.3	35.4	0.5	
Other flatfish	0.0	2.7	0.0	0.0	0.0	18.1	3.2	1.4	
TOTAL FLATFISH	0.5	866.7	0.0	0.0	422.7	1446.9	438.2	1625.4	
Pacific ocean perch	0.0	0.0	238.7	43.5	105.7	0.0	0.0	1840.1	
Other rockfish ⁵	49.0	15.5	450.5	195.0	1201.2	0.0	80.9	2851.4	
Unsp. rockfish	0.0	24.5	1.6	4.2	24.7	24.3	18.2	52.3	
TOTAL ROCKFISH	49.0	40.0	690.8	242.8	1331.5	24.3	99.1	4743.7	
Ling cod	58.1	1082.7	0.0	0.0	1868.8	40.8	64.9	793.0	
Pacific cod	0.0	972.5	0.0	0.0	145.6	737.6	387.9	390.5	
Pacific whiting	0.0	0.0	0.0	0.0	0.0	3762.6	0.0	0.0	
Walleye pollock	0.0	13.6	0.0	0.0	0.0	81.6	29.9	33.1	
Sablefish	85.5	121.1	0.0	0.0	47.3	0.0	2.3	162.5	
TOTAL ROUND FISH	143.6	2189.9	0.0	0.0	2061.7	4622.6	485.0	1379.1	
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	132.9	0.9	0.0	
Unsp. groundfish	0.0	54.4	0.0	0.0	5.9	1264.6	147.9	96.2	
TOTAL UNSP GROUND FISH	0.0	54.4	0.0	0.0	5.9	1397.5	148.8	96.2	
TOTAL ALL SPECIES	193.1	3151.0	690.8	242.8	3821.8	7491.3	1171.1	7844.4	

Table 17. continued.

PMFC Area	5B	5C	5D	5B-5D ⁴	5E	6A	6B	TOTAL
SPECIES								
Dover sole	281.7	0.0	271.3	0.0	0.0	0.0	0.0	9800.0
English sole	25.4	94.3	718.5	0.0	0.0	0.0	0.0	5557.3
Petrale sole	47.6	11.8	10.4	0.0	0.0	0.0	0.0	3050.2
Rex sole	0.0	0.0	48.5	0.0	0.0	0.0	0.0	1785.6
Rock sole	652.3	1067.8	1352.6	0.0	0.0	0.0	0.0	3559.9
Arrowtooth flounder	63.5	19.1	508.5	0.0	0.0	0.0	0.0	2719.0
Starry flounder	0.0	0.5	24.5	0.0	0.0	6.8	0.0	676.1
Other flatfish	0.0	42.2	366.0	0.0	0.0	0.0	0.0	1336.5
TOTAL FLATFISH	1070.5	1235.7	3300.3	0.0	0.0	6.8	0.0	28484.6
Pacific ocean perch	4157.5	0.0	0.6	0.0	0.0	0.0	0.0	6712.7
Other rockfish ⁵	2567.2	8.8	116.5	0.9	0.1	0.0	0.0	14493.1
Unsp. rockfish	51.3	4.3	31.1	0.0	0.0	0.0	0.0	670.5
TOTAL ROCKFISH	6776.0	13.1	148.2	0.9	0.1	0.0	0.0	21876.2
Ling cod	518.5	122.9	120.2	1.0	0.5	3.8	0.0	5801.9
Pacific cod	310.3	1271.9	1725.0	0.0	0.0	20.9	0.0	6208.9
Pacific whiting	0.0	0.0	9.1	0.0	0.0	0.0	0.0	3865.3
Walleye pollock	0.9	0.0	47.2	0.0	0.0	0.0	0.0	206.3
Sablefish	23.6	0.0	6.4	13.6	304.3	72.1	0.0	3219.6
TOTAL ROUND FISH	853.3	1394.8	1907.9	14.6	304.8	96.8	0.0	19302.0
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	135.2
Unsp. groundfish	127.0	79.4	620.5	0.0	0.0	1.4	0.0	3176.0
TOTAL UNSP GROUND FISH	127.0	79.4	620.5	0.0	0.0	1.4	0.0	3311.2
TOTAL ALL SPECIES	8826.8	2723.0	5976.9	15.5	304.9	105.0	0.0	72974.0

1-Landings are by all gears in metric tons, round weight.

2-Area "3B-3C" landings are non-trawl landings reported by WDF as a single area.

3-Areas "3C-US" and "3C-CAN" are trawl landings proportioned to the U.S. or Canadian portion of area 3C, and are not included in the 3C column totals.

I-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

5-May contain unknown amounts of POP, *S. alutus*.

Source: See Appendix C.

Table 18. U.S. and Canadian groundfish landings by PMFC management area in 1970.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	28.2	1996.7	4354.5	739.8	1491.0	79.4	752.4	430.5
English sole	190.5	728.9	580.6	64.4	203.2	168.8	508.1	301.2
Petrale sole	118.4	898.6	514.8	154.7	269.5	127.8	433.2	114.8
Rex sole	30.9	250.8	499.9	44.9	30.0	11.4	528.9	13.6
Rock sole	0.0	0.0	0.0	0.0	0.9	0.0	2.3	2.3
Arrowtooth flounder	0.0	0.0	30.4	2.3	13.6	20.0	159.2	0.9
Starry flounder	0.0	76.7	41.3	2.3	19.1	15.0	196.5	59.9
Other flatfish	32.7	250.8	174.6	2.3	37.7	39.0	382.4	21.8
TOTAL FLATFISH	400.7	4202.5	6196.1	1010.7	2065.0	461.4	2963.0	945.0
Pacific ocean perch	0.0	0.5	24.9	0.0	7.0	118.0	24.0	240.6
Other rockfish ⁵	1011.0	2011.3	1103.5	14.5	503.1	61.3	878.0	458.8
Unsp. rockfish	0.0	0.0	0.0	0.0	137.4	123.3	24.4	71.1
TOTAL ROCKFISH	1011.0	2011.8	1128.4	14.5	647.5	302.6	926.4	770.5
Ling cod	32.2	360.6	201.8	40.4	82.5	36.3	262.6	190.1
Pacific cod	0.0	0.0	0.0	0.0	2.3	0.0	21.3	127.5
Pacific whiting	50.8	0.0	0.0	0.5	0.0	0.0	0.0	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	18.1	636.4	589.7	86.2	39.9	13.2	22.6	24.1
TOTAL ROUNDFISH	101.1	997.0	791.5	127.1	124.7	49.5	306.5	341.7
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	3.6	4.1	0.0
Unsp. groundfish	88.5	100.3	257.3	42.6	151.0	107.8	73.2	16.4
TOTAL UNSP GROUND FISH	88.5	100.3	257.3	42.6	151.0	111.4	77.3	16.4
TOTAL ALL SPECIES	1601.3	7311.6	8373.3	1194.9	2988.2	924.9	4273.2	2073.6

Table 18. continued.

PMFC Area	2		3		3		4A	4B	5A
	3B-3C	3C	3C-US	3C-CAN	3D	3D			
SPECIES									
Dover sole	0.0	256.3	0.0	0.0	360.6	22.2	64.4	102.1	
English sole	0.0	32.7	0.0	0.0	2.3	1013.4	160.1	10.9	
Petrале sole	0.0	272.6	0.0	0.0	135.6	0.5	1.8	34.9	
Rex sole	0.0	5.4	0.0	0.0	1.8	0.0	0.0	0.0	
Rock sole	0.0	67.1	0.0	0.0	42.6	24.0	26.8	166.5	
Arrowtooth flounder	0.0	4.1	0.0	0.0	1.8	0.0	66.7	44.5	
Starry flounder	0.0	18.6	0.0	0.0	0.5	143.3	21.8	0.9	
Other flatfish	0.0	4.1	0.0	0.0	2.7	21.8	1.8	0.5	
TOTAL FLATFISH	0.0	660.9	0.0	0.0	547.9	1225.2	343.4	360.3	
Pacific ocean perch	0.0	0.0	100.7	914.6	221.3	0.0	1.6	2242.3	
Other rockfish ⁵	47.4	32.2	491.2	123.0	1368.4	0.0	75.2	1945.9	
Unsp. rockfish	0.0	456.0	0.7	47.2	53.5	62.4	25.8	74.8	
TOTAL ROCKFISH	47.4	488.2	592.6	1084.8	1643.2	62.4	102.6	4263.0	
Ling cod	64.5	729.8	0.0	0.0	1846.0	26.3	47.6	820.0	
Pacific cod	0.1	966.2	0.0	0.0	153.1	718.5	497.1	185.1	
Pacific whiting	0.0	12.7	0.0	0.0	0.5	3960.4	0.0	0.9	
Walleye pollock	0.0	0.0	0.0	0.0	0.0	15.9	42.6	0.0	
Sablefish	189.8	63.5	0.0	0.0	54.7	0.0	5.9	143.8	
TOTAL ROUND FISH	254.4	1772.2	0.0	0.0	2054.3	4721.1	593.2	1149.8	
Spiny dogfish	0.0	1.4	0.0	0.0	1.8	49.4	130.6	0.0	
Unsp. groundfish	0.0	73.0	0.0	0.0	31.2	715.3	95.7	110.0	
TOTAL UNSP GROUND FISH	0.0	74.4	0.0	0.0	33.0	764.7	226.3	110.0	
TOTAL ALL SPECIES	301.8	2995.7	592.6	1084.8	4278.4	6773.4	1265.4	5883.1	

Table 18. continued.

PMFC Area	5B	5C	5D	5B-5D ⁴	5E	6A	6B
SPECIES							
Dover sole	253.1	0.0	966.2	0.0	0.0	2.7	0.0
English sole	7.7	81.6	919.4	0.0	0.0	0.0	0.0
Petrale sole	21.3	6.8	15.0	0.0	0.0	0.0	0.0
Rex sole	0.0	0.9	164.2	0.0	0.0	0.0	0.0
Rock sole	245.9	732.1	669.1	0.0	0.0	0.0	0.0
Arrowtooth flounder	17.7	12.2	198.7	0.0	0.0	89.8	0.0
Starry flounder	0.0	9.5	105.7	0.0	0.0	0.0	0.0
Other flatfish	0.0	0.0	682.2	0.0	0.0	0.0	0.0
TOTAL FLATFISH	545.7	843.1	3720.5	0.0	0.0	92.5	0.0
Pacific ocean perch	3295.1	0.0	25.6	0.0	0.0	0.0	0.0
Other rockfish ⁵	2067.3	0.6	114.4	0.5	0.0	6.5	0.0
Unsp. rockfish	150.7	9.1	110.4	0.0	0.2	620.2	0.0
TOTAL ROCKFISH	5513.0	9.6	250.3	0.5	0.2	626.7	0.0
Ling cod	391.0	108.4	100.2	0.9	0.0	21.2	0.2
Pacific cod	116.2	263.5	1075.9	0.0	0.0	19.3	0.0
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock	0.0	0.0	6.8	0.0	0.0	8.2	0.0
Sablefish	34.0	0.0	26.3	0.0	527.0	636.1	33.4
TOTAL ROUND FISH	541.2	371.9	1209.2	0.9	527.0	684.8	33.6
Spiny dogfish	9.5	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish	109.8	23.1	110.3	0.0	0.0	25.4	0.0
TOTAL UNSP GROUND FISH	119.3	23.1	110.3	0.0	0.0	25.4	0.0
TOTAL ALL SPECIES	6719.2	1247.7	5290.3	1.4	527.2	1429.4	33.6

Table 18. continued.

PMFC Area	7A	7B	7C	8A	8B	8C	8D	TOTAL
SPECIES								
Dover sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11900.1
English sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4973.8
Petrale sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3120.3
Rex sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1582.7
Rock sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1979.6
Arrowtooth flounder	0.9	0.0	0.0	0.0	0.0	0.0	0.0	662.8
Starry flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	711.1
Other flatfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1654.4
TOTAL FLATFISH	0.9	0.0	0.0	0.0	0.0	0.0	0.0	26584.8
Pacific ocean perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7216.2
Other rockfish ⁵	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12314.0
Unsp. rockfish	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1967.9
TOTAL ROCKFISH	0.9	0.0	0.0	0.0	0.0	0.0	0.0	21498.1
Ling cod	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5362.6
Pacific cod	94.3	0.1	0.0	0.0	0.0	0.0	0.0	4240.5
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4025.8
Walleye pollock	28.6	0.0	0.0	0.0	0.0	0.0	0.0	102.1
Sablefish	6.3	0.0	0.0	0.0	0.0	0.0	0.0	3151.0
TOTAL ROUNDFISH	129.2	0.1	0.0	0.0	0.0	0.0	0.0	16882.0
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	200.4
Unsp. groundfish	2864.2	0.0	0.0	0.0	0.0	0.0	0.0	4995.1
TOTAL UNSP GROUND FISH	2864.2	0.0	0.0	0.0	0.0	0.0	0.0	5195.5
TOTAL ALL SPECIES	2995.2	0.1	0.0	0.0	0.0	0.0	0.0	70160.4

1-Landings are by all gears in metric tons, round weight.

2-Area "3D-3C" landings are non-trawl landings reported by WDF as a single area.

3-Area "3C-US" and "3C-CAN" are trawl landings proportioned to the U.S. and Canadian portion of area 3C. and are not included in the 3C column totals.

4-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

5-May contain unknown amounts of POP, *S. alutus*.

Source: See Appendix C.

Table 19. U.S. and Canadian groundfish landings by PMFC management area in 1971.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	31.7	2565.1	3567.5	575.2	1632.5	92.1	609.7	361.1
English sole	206.0	724.4	460.0	82.6	239.5	183.7	145.2	148.8
Petrale sole	187.4	978.0	521.2	102.6	240.9	79.0	621.9	156.5
Rex sole	28.1	252.7	397.4	48.1	91.2	6.4	313.9	12.3
Rock sole	0.0	0.0	0.0	0.0	40.4	0.0	0.5	0.0
Arrowtooth flounder	0.0	0.0	3.2	13.2	0.0	0.0	234.1	8.2
Starry flounder	0.5	56.7	57.6	2.3	8.6	55.3	185.1	8.6
Other flatfish	78.0	246.3	246.8	9.1	49.0	99.8	252.2	9.0
TOTAL FLATFISH	531.7	4823.2	5253.7	833.1	2302.1	516.3	2362.6	704.5
Pacific ocean perch	0.0	10.0	36.3	0.0	29.0	59.0	80.6	184.5
Other rockfish ⁴	1041.6	1928.7	1543.1	61.7	651.9	84.0	578.3	477.3
Unsp. rockfish	0.0	0.0	0.0	0.0	50.4	126.0	230.5	137.0
TOTAL ROCKFISH	1041.6	1938.7	1579.4	61.7	731.3	269.0	889.4	798.9
Ling cod	50.4	400.5	303.9	78.5	154.2	60.8	475.9	189.2
Pacific cod	0.0	0.0	0.0	0.0	0.0	0.0	97.5	416.9
Pacific whiting	39.9	0.0	0.0	0.9	271.7	0.0	1090.0	24.5
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	80.3	1325.4	650.0	50.9	94.0	12.2	69.5	175.1
TOTAL ROUND FISH	170.6	1725.9	953.9	130.3	519.9	73.0	1732.9	805.7
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0
Unsp. groundfish	14.1	70.3	80.3	4.5	68.9	23.6	277.1	11.8
TOTAL UNSP GROUND FISH	14.1	70.3	80.3	4.5	68.9	23.6	278.9	11.8
TOTAL ALL SPECIES	1758.0	8558.1	7867.3	1029.6	3622.2	881.9	5263.8	2320.9

Table 19. continued.

PMFC Area	2		2		3D	4A	4B	5A
	3C	3C-US	3C-CAN					
SPECIES								
Dover sole	321.1	0.0	0.0	92.1	20.0	82.1	58.1	
English sole	25.9	0.0	0.0	1.8	788.8	146.1	5.9	
Petrale sole	591.9	0.0	0.0	127.5	1.4	0.9	64.4	
Rex sole	0.0	0.0	0.0	0.0	0.0	16.8	0.0	
Rock sole	132.5	0.0	0.0	22.2	29.0	134.7	367.9	
Arrowtooth flounder	9.1	0.0	0.0	0.0	0.0	77.1	0.0	
Starry flounder	15.9	0.0	0.0	0.0	198.2	20.9	0.0	
Other flatfish	6.8	0.0	0.0	0.0	24.5	1.8	0.0	
TOTAL FLATFISH	1103.2	0.0	0.0	243.6	1061.9	480.4	496.3	
Pacific ocean perch	0.0	304.9	309.1	57.5	0.0	0.6	461.5	
Other rockfish ¹	3.2	399.0	220.1	857.2	0.0	46.3	2233.4	
Unsp. rockfish	248.5	1.1	38.9	32.4	35.7	22.8	58.1	
TOTAL ROCKFISH	251.7	705.0	568.0	947.1	35.7	69.8	2753.0	
Ling cod	1019.8	0.0	0.0	276.2	32.7	92.5	240.4	
Pacific cod	3085.4	0.0	0.0	278.9	750.3	739.8	460.9	
Pacific whiting	0.0	0.0	0.0	0.0	3408.4	0.0	0.0	
Walleye pollock	5.0	0.0	0.0	0.0	0.5	79.8	0.0	
Sablefish	138.3	0.0	0.0	32.7	0.0	27.7	5.0	
TOTAL ROUND FISH	4248.5	0.0	0.0	587.8	4191.9	939.8	706.3	
Spiny dogfish	0.0	0.0	0.0	0.0	12.2	141.9	0.0	
Unsp. groundfish	64.0	0.0	0.0	11.8	198.2	107.5	27.2	
TOTAL UNSP GROUND FISH	64.0	0.0	0.0	11.8	210.4	249.4	27.2	
TOTAL ALL SPECIES	5667.4	705.0	568.0	1790.3	5499.9	1739.4	3982.8	

Table 19. continued.

PMFC Area	3						
	5B	5C	5D	5B-5D	5E	6A	6B
SPECIES							
Dover sole	160.1	0.0	913.1	0.0	0.0	0.0	0.0
English sole	5.9	7.3	478.5	0.0	0.0	0.0	0.0
Petrale sole	32.7	24.5	30.8	0.0	0.0	0.0	0.0
Rex sole	0.0	0.5	191.4	0.0	0.0	0.0	0.0
Rock sole	415.0	1111.8	0.0	0.0	0.0	0.0	0.0
Arrowtooth flounder	0.0	0.5	19.5	0.0	0.0	0.0	0.0
Starry flounder	0.0	0.9	98.4	0.0	0.0	0.0	0.0
Other flatfish	0.0	0.0	225.5	0.0	0.0	0.0	0.0
TOTAL FLATFISH	613.7	1145.5	1957.2	0.0	0.0	0.0	0.0
Pacific ocean perch	2740.7	1.5	8.3	0.0	0.0	0.0	0.0
Other rockfish ¹	1688.0	3.3	127.7	0.0	0.0	26.9	3.4
Unsp. rockfish	59.8	10.3	70.1	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	4488.4	15.1	206.1	0.0	0.0	26.9	3.4
Ling cod	424.6	205.5	117.5	2.7	10.0	24.7	1.0
Pacific cod	467.2	491.7	989.8	0.0	0.0	27.1	1.1
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	14.6	21.3	91.7	0.0	10.0	276.7	26.7
TOTAL ROUND FISH	906.4	718.5	1199.0	2.7	20.0	328.5	28.8
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish	33.6	14.1	56.7	0.0	0.0	0.0	0.0
TOTAL UNSP GROUND FISH	33.6	14.1	56.7	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	6042.1	1893.1	3419.0	2.7	20.0	355.4	32.2

Table 19. continued.

PMFC Area	7A	7B	7C	8A	8B	8C	8D	TOTAL
SPECIES								
Dover sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11081.5
English sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3650.4
Petrale sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3761.6
Rex sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1358.8
Rock sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2254.0
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	364.9
Starry flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	709.0
Other flatfish	0.7	0.0	0.0	0.0	0.0	0.0	0.0	1249.5
TOTAL FLATFISH	0.7	0.0	0.0	0.0	0.0	0.0	0.0	24429.7
Pacific ocean perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4283.5
Other rockfish ⁴	4.5	0.0	0.0	0.0	0.0	0.0	0.0	11979.6
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1121.6
TOTAL ROCKFISH	4.5	0.0	0.0	0.0	0.0	0.0	0.0	17384.6
Ling cod	1.6	0.0	0.0	0.0	0.0	0.0	0.0	4162.6
Pacific cod	38.1	0.0	0.0	0.0	0.0	0.0	0.0	7844.7
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4835.4
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	85.3
Sablefish	10.4	0.0	0.0	0.0	0.0	0.0	0.0	3112.5
TOTAL ROUND FISH	50.1	0.0	0.0	0.0	0.0	0.0	0.0	20040.5
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	155.9
Unsp. groundfish	10.6	2.6	0.0	0.0	0.0	0.0	0.0	1076.9
TOTAL UNSP GROUND FISH	10.6	2.6	0.0	0.0	0.0	0.0	0.0	1232.8
TOTAL ALL SPECIES								
	65.9	2.6	0.0	0.0	0.0	0.0	0.0	63087.6

1-Landings are by all gears in metric tons, round weight.

2-Area "3C-US" and "3C-CAN" are trawl landings proportioned to the U.S. and Canadian portion of area 3C, and are not included in the 3C column totals.

3-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

4-May contain unknown amounts of POP, *S. alutus*.

Source: See Appendix C.

Table 20. U.S. and Canadian groundfish landings by PMFC management area in 1972.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	46.7	4182.2	4485.2	1502.8	1663.3	69.8	833.6	234.1
English sole	140.6	661.3	551.1	101.2	347.5	189.2	436.5	287.1
Petrale sole	203.7	916.7	471.7	75.7	274.9	105.2	509.3	412.8
Rex sole	31.8	210.0	483.1	61.7	106.6	3.7	500.4	22.7
Rock sole	0.0	2.3	0.0	0.0	0.5	0.5	0.0	0.0
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	19.5	97.5	0.0
Starry flounder	0.5	142.9	127.5	3.6	15.9	31.3	177.8	12.7
Other flatfish	34.5	313.0	365.6	20.9	73.4	45.4	266.3	16.3
TOTAL FLATFISH	457.8	6428.4	6484.2	1765.9	2482.1	464.6	2821.4	985.7
Pacific ocean perch	0.0	3.6	35.8	0.0	13.0	61.0	107.5	139.9
Other rockfish ^H	1715.5	3530.4	1764.6	68.0	715.6	141.9	908.2	299.8
Unsp. rockfish	0.0	0.0	0.0	0.0	111.9	143.9	279.1	180.9
TOTAL ROCKFISH	1715.5	3534.0	1800.4	68.0	840.5	346.8	1294.8	620.6
Ling cod	133.4	579.7	445.4	90.7	137.9	101.7	451.9	165.6
Pacific cod	0.0	0.0	0.0	0.0	0.9	1.4	347.5	828.7
Pacific whiting	36.3	0.0	0.0	0.0	0.0	0.0	3.6	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	34.8	2518.9	1129.4	199.6	159.7	33.1	21.3	72.6
TOTAL ROUND FISH	204.5	3098.6	1574.8	290.3	298.5	136.2	824.3	1066.9
Spiny dogfish	0.0	0.9	0.0	0.0	0.0	0.0	3.7	0.0
Unsp. groundfish	83.9	78.5	46.3	4.6	21.3	10.0	245.8	6.3
TOTAL UNSP GROUND FISH	83.9	79.4	46.3	4.6	21.3	10.0	249.5	6.3
TOTAL ALL SPECIES	2461.7	13140.4	9905.7	2128.8	3642.4	957.6	5190.0	2679.5

Table 20. continued.

PMFC Area	2		2		3D	4A	4B	5A
	3C	3C-US	3C-CAN					
SPECIES								
Dover sole	123.8	0.0	0.0	38.1	15.4	94.3	52.2	
English sole	21.3	0.0	0.0	1.8	614.7	107.0	3.2	
Petrale sole	778.4	0.0	0.0	49.9	1.4	0.5	64.9	
Rex sole	2.7	0.0	0.0	0.0	0.0	20.9	0.0	
Rock sole	208.2	0.0	0.0	2.7	29.5	22.7	57.6	
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	49.9	0.0	
Starry flounder	10.4	0.0	0.0	0.0	250.8	10.4	0.0	
Other flatfish	8.6	0.0	0.0	1.4	20.9	0.0	59.9	
TOTAL FLATFISH	1153.4	0.0	0.0	93.9	932.7	305.7	237.8	
Pacific ocean perch	0.0	115.2	208.6	120.7	0.0	0.5	1452.1	
Other rockfish ¹	1.4	311.8	75.7	828.1	0.0	32.5	2168.0	
Unsp. rockfish	7.9	1.3	30.9	22.1	18.3	28.0	155.7	
TOTAL ROCKFISH	9.3	428.3	315.2	970.9	18.3	61.0	3775.8	
Ling cod	640.9	0.0	0.0	106.1	30.8	58.5	171.4	
Pacific cod	951.2	0.0	0.0	160.6	869.1	629.6	755.7	
Pacific whiting	0.0	0.0	0.0	0.0	1895.6	0.0	0.0	
Walleye pollock	0.0	0.0	0.0	0.0	0.0	69.9	0.0	
Sablefish	639.6	0.0	0.0	45.3	0.0	57.1	14.6	
TOTAL ROUND FISH	2231.7	0.0	0.0	312.0	2795.5	815.1	941.7	
Spiny dogfish	8.6	0.0	0.0	0.0	16.3	106.2	0.0	
Unsp. groundfish	46.7	0.0	0.0	1.4	327.1	60.3	256.7	
TOTAL UNSP GROUND FISH	55.3	0.0	0.0	1.4	343.4	166.5	256.7	
TOTAL ALL SPECIES	3449.7	428.3	315.2	1378.2	4089.9	1348.2	5212.0	

Table 20. continued.

PMFC Area	5B	5C	5D	5B-5D ³	5E	6A	6B
SPECIES							
Dover sole	153.3	0.0	921.7	0.0	0.0	0.0	0.0
English sole	14.5	17.7	352.9	0.0	0.0	0.0	0.0
Petrale sole	88.9	10.9	22.2	0.0	0.0	0.0	0.0
Rex sole	0.0	0.5	160.6	0.0	0.0	0.0	0.0
Rock sole	382.4	162.4	343.8	0.0	0.0	0.0	0.0
Arrowtooth flounder	0.0	0.0	122.0	0.0	0.0	0.0	0.0
Starry flounder	0.0	25.4	161.5	0.0	0.0	69.4	0.0
Other flatfish	2.3	0.0	266.7	0.0	0.0	0.0	0.0
TOTAL FLATFISH	641.4	216.9	2351.4	0.0	0.0	69.4	0.0
Pacific ocean perch	3504.3	0.0	13.2	0.0	0.0	0.0	0.0
Other rockfish ⁴	2444.4	17.6	126.8	0.0	2.3	2.3	2.2
Unsp. rockfish	135.1	2.3	285.4	0.0	0.0	0.2	0.0
TOTAL ROCKFISH	6083.8	19.9	425.3	0.0	2.3	2.5	2.2
Ling cod	493.5	87.5	99.4	0.0	5.4	0.5	2.1
Pacific cod	1564.0	823.8	1872.0	0.0	0.0	0.9	1.5
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock	0.0	0.0	0.9	0.0	0.0	0.0	0.0
Sablefish	48.1	8.0	182.8	0.0	43.1	21.8	26.3
TOTAL ROUNDFISH	2105.6	919.3	2155.1	0.0	48.5	23.2	29.9
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish	70.8	31.3	133.4	0.0	0.0	0.0	0.0
TOTAL UNSP GROUND FISH	70.8	31.3	133.4	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	8901.6	1187.4	5065.2	0.0	50.8	95.1	32.1

Table 20. continued.

PMFC Area	7A	7B	7C	8A	8B	8C	8D	TOTAL
SPECIES								
Dover sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14416.5
English sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3847.6
Petrale sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3987.1
Rex sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1604.7
Rock sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1212.6
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	288.9
Starry flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1040.1
Other flatfish	0.6	0.0	0.0	0.0	0.0	0.0	0.0	1495.8
TOTAL FLATFISH	0.6	0.0	0.0	0.0	0.0	0.0	0.0	27893.3
Pacific ocean perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5775.3
Other rockfish ¹	4.6	0.0	0.0	0.0	0.0	0.0	0.0	15161.6
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1403.1
TOTAL ROCKFISH	4.6	0.0	0.0	0.0	0.0	0.0	0.0	22340.0
Ling cod	0.2	0.0	0.3	0.0	0.0	0.0	0.0	3802.9
Pacific cod	20.4	0.0	24.4	0.0	0.0	0.0	0.0	8851.7
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1935.5
Walleye pollock	2.4	0.0	0.0	0.0	0.0	0.0	0.0	73.2
Sablefish	3.6	0.0	0.0	0.0	0.0	0.0	0.0	5259.7
TOTAL ROUND FISH	26.6	0.0	24.7	0.0	0.0	0.0	0.0	19923.0
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	135.7
Unsp. groundfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1424.4
TOTAL UNSP GROUND FISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1560.1
TOTAL ALL SPECIES	31.8	0.0	24.7	0.0	0.0	0.0	0.0	71716.4

1-Landings are by all gears in metric tons, round weight.

2-Area "3C-US" and "3C-CAN" are trawl landings proportioned to the U.S. and Canadian portion of area 3C. and are not included in the 3C column totals.

3-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

4-May contain unknown amounts of POP, S. alutus.

Source: See Appendix C.

Table 21. U.S. and Canadian groundfish landings by PMFC management area in 1973.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	38.1	84.8	4144.0	1706.4	1223.4	49.9	552.0	277.1
English sole	169.2	690.0	652.3	125.2	321.6	268.1	389.3	420.9
Petrале sole	193.2	709.9	406.0	51.3	225.4	240.9	1270.1	353.8
Rex sole	28.5	206.0	463.6	69.4	75.8	6.8	504.4	48.5
Rock sole	0.0	3.6	0.0	0.0	0.0	1.8	6.4	0.9
Arrowtooth flounder	0.0	0.0	0.0	0.0	5.0	19.5	22.2	0.0
Starry flounder	2.3	54.0	236.8	6.4	11.3	29.0	119.3	10.9
Other flatfish	38.5	278.5	364.2	23.6	77.6	78.0	232.7	44.9
TOTAL FLATFISH	469.8	2026.8	6266.9	1982.3	1940.1	694.0	3096.4	1157.0
Pacific ocean perch	0.0	1.8	49.4	0.0	7.0	35.0	66.4	100.8
Other rockfish ⁴	1972.3	826.5	1242.0	69.0	552.4	403.3	1060.9	195.7
Unsp. rockfish	0.0	0.0	0.9	0.9	59.5	3.7	137.3	83.3
TOTAL ROCKFISH	1972.3	828.3	1292.3	69.9	618.9	442.0	1264.6	379.8
Ling cod	356.1	749.8	454.0	101.2	118.0	223.1	674.4	187.7
Pacific cod	0.0	0.0	0.0	0.0	0.0	0.0	135.2	368.3
Pacific whiting	68.5	0.0	0.0	0.0	0.0	3.2	0.5	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	43.5	2367.3	1100.0	450.4	336.1	56.7	325.7	16.3
TOTAL ROUNDFISH	468.1	3117.1	1554.0	551.6	454.1	283.0	1135.8	572.3
Spiny dogfish	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish	12.7	225.0	35.4	13.7	29.5	2.3	289.8	34.0
TOTAL UNSP GROUND FISH	12.7	225.9	35.4	13.7	29.5	2.3	289.8	34.0
TOTAL ALL SPECIES	2922.9	6198.1	9148.6	2617.5	3042.6	1421.3	5786.6	2143.1

Table 21. continued.

PMFC Area	2		2		3D	4A	4B	5A
	3C	3C-US	3C-CAN					
SPECIES								
Dover sole	68.0	0.0	0.0	55.3	57.6	7.3	36.3	
English sole	20.9	0.0	0.0	3.6	836.5	94.3	13.6	
Petrale sole	662.7	0.0	0.0	197.3	0.0	0.9	151.0	
Rex sole	0.9	0.0	0.0	0.0	0.5	0.0	0.5	
Rock sole	7.7	0.0	0.0	15.9	99.8	39.0	56.7	
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	6.4	
Starry flounder	12.3	0.0	0.0	0.0	346.1	9.1	0.0	
Other flatfish	57.2	0.0	0.0	18.1	62.1	13.6	55.3	
TOTAL FLATFISH	829.7	0.0	0.0	290.2	1402.6	164.2	319.8	
Pacific ocean perch	0.0	121.9	48.1	36.9	0.0	0.0	383.8	
Other rockfish [†]	29.9	231.9	75.7	818.8	0.5	106.9	2865.0	
Unsp. rockfish	13.0	27.9	0.3	41.5	26.1	18.3	64.4	
TOTAL ROCKFISH	42.9	381.7	124.1	897.2	26.6	125.2	3313.2	
Ling cod	1088.6	0.0	0.0	263.6	24.1	453.2	270.8	
Pacific cod	3602.5	0.0	0.0	161.5	558.4	441.4	624.2	
Pacific whiting	0.0	0.0	0.0	0.0	1124.5	0.0	0.0	
Walleye pollock	0.0	0.0	0.0	0.0	1.8	0.0	0.0	
Sablefish	155.1	0.0	0.0	292.2	0.0	23.6	13.6	
TOTAL ROUND FISH	4846.2	0.0	0.0	717.3	1708.8	918.2	908.6	
Spiny dogfish	16.3	0.0	0.0	0.0	3.2	4272.4	1.8	
Unsp. groundfish	32.6	0.0	0.0	2.7	674.5	29.4	108.9	
TOTAL UNSP GROUND FISH	48.9	0.0	0.0	2.7	677.7	4301.8	110.7	
TOTAL ALL SPECIES	5767.7	381.7	124.1	1907.4	3815.7	5509.4	4652.3	

Table 21. continued.

PMFC Area	5B	5C	5D	5B-5D ³	5E	6A	6B
SPECIES							
Dover sole	109.3	1.4	766.6	0.0	0.0	0.0	0.0
English sole	10.9	70.8	594.7	0.0	0.0	0.0	0.0
Petrale sole	60.3	9.5	14.5	0.0	0.0	0.0	0.0
Rex sole	0.5	4.1	139.7	0.0	0.0	0.0	0.0
Rock sole	324.3	204.6	299.4	0.0	0.0	0.0	0.0
Arrowtooth flounder	0.0	0.0	36.3	0.0	0.0	0.0	0.0
Starry flounder	0.0	0.9	41.3	0.0	0.0	22.6	0.0
Other flatfish	80.7	22.2	409.2	0.0	0.0	0.0	0.7
TOTAL FLATFISH	586.0	313.5	2301.7	0.0	0.0	22.6	0.7
Pacific ocean perch	3003.9	0.0	22.8	0.0	15.2	0.0	0.0
Other rockfish ⁴	2433.4	19.1	17.7	0.0	30.6	12.3	11.1
Unsp. rockfish	67.6	0.0	17.5	0.0	208.0	0.0	0.0
TOTAL ROCKFISH	5504.9	19.1	58.0	0.0	253.7	12.3	11.1
Ling cod	384.2	100.3	123.9	0.0	10.0	19.0	2.6
Pacific cod	1290.9	1969.5	2037.5	0.0	0.0	2.6	5.7
Pacific whiting	0.0	0.0	0.9	0.0	0.0	0.0	0.0
Walleye pollock	0.0	0.0	6.8	0.0	0.0	0.0	0.0
Sablefish	27.3	40.9	133.3	0.0	348.8	37.1	4.1
TOTAL ROUNDFISH	1702.4	2110.7	2302.4	0.0	358.8	58.7	12.4
Spiny dogfish	0.5	75.3	635.9	0.0	0.0	0.0	0.0
Unsp. groundfish	49.9	65.8	261.7	0.0	0.0	0.0	0.0
TOTAL UNSP GROUND FISH	50.4	141.1	897.6	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	7843.7	2584.4	5559.7	0.0	612.5	93.6	24.2

Table 21. continued.

PMFC Area	7A	7B	7C	8A	8B	8C	8D	TOTAL
SPECIES								
Dover sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9177.5
English sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4681.9
Petrale sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4546.8
Rex sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1549.2
Rock sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1060.1
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	89.4
Starry flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	902.3
Other flatfish	48.1	2.2	0.0	0.0	0.0	0.0	0.0	1907.4
TOTAL FLATFISH	48.1	2.2	0.0	0.0	0.0	0.0	0.0	23914.6
Pacific ocean perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3892.9
Other rockfish ⁴	9.5	0.0	0.0	0.0	0.0	0.0	0.0	12984.5
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	770.2
TOTAL ROCKFISH	9.5	0.0	0.0	0.0	0.0	0.0	0.0	17647.6
Ling cod	13.8	0.0	0.0	0.0	0.0	0.0	0.0	5618.4
Pacific cod	28.8	0.0	0.0	0.0	0.0	0.0	0.0	11226.5
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1197.6
Walleye pollock	24.1	0.0	0.0	0.0	0.0	0.0	0.0	32.7
Sablefish	15.0	0.0	0.0	0.0	0.0	0.0	0.0	5787.0
TOTAL ROUND FISH	81.7	0.0	0.0	0.0	0.0	0.0	0.0	23862.2
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5006.3
Unsp. groundfish	0.7	0.0	0.0	0.0	0.0	0.0	0.0	1868.6
TOTAL UNSP GROUND FISH	0.7	0.0	0.0	0.0	0.0	0.0	0.0	6874.9
TOTAL ALL SPECIES	140.0	2.2	0.0	0.0	0.0	0.0	0.0	72299.3

1-Landings are by all gears in metric tons, round weight.

2-Area "3C-US" and "3C-CAN" are trawl landings proportioned to the U.S. and Canadian portion of area 3C, and are not included in the 3C column totals.

3-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

4-May contain unknown amounts of POP, *S. alutus*.

Source: See Appendix C.

Table 22. U.S. and Canadian groundfish landings by PMFC management area in 1974.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	27.7	3837.9	4331.0	918.6	1489.6	84.8	784.3	135.6
English sole	132.0	880.0	721.3	116.6	285.8	140.2	363.7	379.2
Petrale sole	181.9	838.3	514.4	53.6	305.2	235.9	809.8	507.1
Rex sole	25.9	209.2	372.9	52.7	65.3	10.5	630.9	39.9
Rock sole	0.0	7.3	0.5	0.5	0.9	0.0	1.4	0.5
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	70.3	0.0
Starry flounder	6.4	87.5	112.9	4.1	12.2	24.5	139.8	331.6
Other flatfish	46.3	406.0	232.3	17.2	122.5	24.0	225.0	96.2
TOTAL FLATFISH	420.2	6266.2	6285.3	1163.3	2281.5	519.9	3025.2	1490.1
Pacific ocean perch	0.0	3.2	43.5	0.0	24.0	12.0	79.8	2.4
Other rockfish ⁴	2086.5	351.1	1519.6	30.4	549.5	96.2	888.3	328.9
Unsp. rockfish	0.0	0.0	0.0	0.0	22.2	143.6	405.3	121.7
TOTAL ROCKFISH	2086.5	354.3	1563.1	30.4	595.7	251.8	1373.4	453.0
Ling cod	205.0	899.0	367.0	65.7	117.5	196.8	780.2	246.7
Pacific cod	0.0	0.0	0.5	0.0	1.4	3.6	201.4	881.8
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	24.5	4305.1	1035.6	204.1	189.1	22.2	250.9	153.7
TOTAL ROUND FISH	229.5	5204.1	1403.1	269.8	308.0	222.6	1233.4	1282.2
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	38.1	0.0
Unsp. groundfish	41.8	88.0	58.5	6.4	18.6	15.5	245.9	20.9
TOTAL UNSP GROUND FISH	41.8	88.0	58.5	6.4	18.6	15.5	284.0	20.9
TOTAL ALL SPECIES	2778.0	11912.6	9310.0	1469.9	3203.8	1009.8	5916.0	3246.2

Table 22. continued.

PMFC Area	2		2		3D	4A	4B	5A
	3C	3C-US	3C-CAN					
SPECIES								
Dover sole	132.9	0.0	0.0	56.7	47.2	4.1	35.4	
English sole	75.8	0.0	0.0	6.4	790.2	114.8	20.9	
Petrале sole	904.9	0.0	0.0	195.5	0.5	1.4	176.5	
Rex sole	5.0	0.0	0.0	0.0	0.0	0.5	0.0	
Rock sole	135.2	0.0	0.0	29.0	74.4	17.2	73.5	
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Starry flounder	12.2	0.0	0.0	0.0	381.1	16.3	0.0	
Other flatfish	24.5	0.0	0.0	0.0	71.2	4.5	9.1	
TOTAL FLATFISH	1290.5	0.0	0.0	287.6	1364.6	158.8	315.4	
Pacific ocean perch	0.0	201.8	33.1	21.2	0.0	0.0	109.1	
Other rockfish ⁴	0.0	35.8	87.1	994.4	0.5	50.8	1503.8	
Unsp. rockfish	42.3	1.6	40.8	14.8	21.3	16.6	46.0	
TOTAL ROCKFISH	42.3	239.2	161.0	1030.5	21.8	67.5	1658.8	
Ling cod	1284.6	0.0	0.0	362.9	21.8	463.1	371.0	
Pacific cod	3379.8	0.0	0.0	155.1	821.5	672.3	867.7	
Pacific whiting	0.0	0.0	0.0	0.0	2332.4	0.0	0.0	
Walleye pollock	0.0	0.0	0.0	0.0	20.0	0.0	0.0	
Sablefish	113.9	0.0	0.0	169.2	0.0	7.8	20.4	
TOTAL ROUND FISH	4778.3	0.0	0.0	687.2	3195.7	1143.2	1259.1	
Spiny dogfish	0.0	0.0	0.0	0.0	578.8	1035.1	0.0	
Unsp. groundfish	57.6	0.0	0.0	16.8	576.0	60.7	46.2	
TOTAL UNSP GROUND FISH	57.6	0.0	0.0	16.8	1154.8	1095.8	46.2	
TOTAL ALL SPECIES	6168.7	239.2	161.0	2022.1	5736.9	2465.3	3279.6	

Table 22. continued.

PMFC Area	5B	5C	5D	5B-5D ³	5E	6A	6B
SPECIES							
Dover sole	127.0	6.4	759.3	0.0	0.0	0.0	0.0
English sole	19.5	40.8	457.7	0.0	0.0	0.0	0.0
Petrale sole	106.6	4.1	10.0	0.0	0.0	0.0	0.0
Rex sole	0.0	4.5	131.5	0.0	0.0	0.0	0.0
Rock sole	371.0	285.3	335.7	0.0	0.0	0.0	0.0
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Starry flounder	0.0	0.5	36.7	0.0	0.0	133.4	0.0
Other flatfish	62.6	18.6	252.2	0.0	0.0	0.0	0.0
TOTAL FLATFISH	686.7	360.2	1983.1	0.0	0.0	133.4	0.0
Pacific ocean perch	3197.7	0.0	36.3	0.0	0.0	0.0	0.0
Other rockfish ⁴	1500.0	52.6	99.6	0.0	0.0	9.1	7.1
Unsp. rockfish	139.3	0.0	247.4	0.0	0.0	0.3	0.0
TOTAL ROCKFISH	4836.9	52.6	383.4	0.0	0.0	9.4	7.1
Ling cod	593.4	95.7	146.1	0.5	19.5	51.7	3.8
Pacific cod	1423.9	1615.7	3152.1	0.0	0.0	125.7	2.6
Pacific whiting	0.0	0.5	3.2	0.0	0.0	0.0	0.0
Walleye pollock	0.0	0.0	24.0	0.0	0.0	0.0	0.0
Sablefish	35.4	22.7	195.0	0.0	4.1	789.0	2.5
TOTAL ROUND FISH	2052.7	1734.6	3520.4	0.5	23.6	966.4	8.9
Spiny dogfish	0.0	0.0	0.5	0.0	0.0	0.0	0.0
Unsp. groundfish	160.1	76.3	181.0	0.0	0.0	9.1	0.0
TOTAL UNSP GROUND FISH	160.1	76.3	181.5	0.0	0.0	9.1	0.0
TOTAL ALL SPECIES	7736.4	2223.7	6068.3	0.5	23.6	1118.3	16.0

Table 22. continued.

PMFC Area	7A	7B	7C	8A	8B	8C	8D	TOTAL
SPECIES								
Dover sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12778.5
English sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4544.9
Petrale sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4845.7
Rex sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1548.8
Rock sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1332.4
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70.3
Starry flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1299.2
Other flatfish	185.9	0.0	0.2	0.0	0.0	0.0	0.0	1798.3
TOTAL FLATFISH	185.9	0.0	0.2	0.0	0.0	0.0	0.0	28218.1
Pacific ocean perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3764.1
Other rockfish ⁴	14.0	0.0	0.0	0.0	0.0	0.0	0.0	10205.4
Unsp. rockfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1263.2
TOTAL ROCKFISH	14.0	0.0	0.0	0.0	0.0	0.0	0.0	15232.6
Ling cod	48.5	2.3	0.0	0.0	0.0	0.0	0.0	6342.8
Pacific cod	133.5	0.0	2.9	0.0	0.0	0.0	0.0	13441.5
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2337.0
Walleye pollock	42.5	2.3	8.3	0.0	0.0	0.0	0.0	97.1
Sablefish	0.7	0.0	0.0	0.0	0.0	0.0	0.0	7545.9
TOTAL ROUND FISH	225.2	4.6	11.2	0.0	0.0	0.0	0.0	29764.3
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1652.5
Unsp. groundfish	26.8	0.0	0.0	0.0	0.0	0.0	0.0	1706.2
TOTAL UNSP GROUND FISH	26.8	0.0	0.0	0.0	0.0	0.0	0.0	3358.7
TOTAL ALL SPECIES	451.9	4.6	11.4	0.0	0.0	0.0	0.0	76573.7

1-Landings are by all gears in metric tons, round weight.

2-Area "3C-US" and "3C-CAN" are trawl landings proportioned to the U.S. and Canadian portion of area 3C, and are not included in the 3C column totals.

3-Area "5B-5D" landings are non-trawl landings reported by WDF as a single area.

4-May contain unknown amounts of POP, S. alutus.

Source: See Appendix C.

Table 23. U.S. and Canadian groundfish landings by PMFC management area in 1975.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	67.1	4332.4	4349.2	1754.1	1193.9	121.2	746.2	195.6
English sole	177.4	1049.7	705.4	98.5	293.5	305.3	400.3	494.5
Petrale sole	351.1	735.0	349.4	55.9	459.9	300.8	566.6	469.6
Rex sole	31.0	0.9	366.2	62.7	74.8	31.3	458.7	29.0
Rock sole	0.0	9.9	0.0	0.0	7.7	5.4	0.5	0.5
Arrowtooth flounder	0.0	0.0	0.0	0.0	2.7	0.0	180.5	0.1
Starry flounder	7.1	139.9	124.6	4.7	107.5	19.1	306.3	105.2
Other flatfish	59.0	389.2	179.1	15.5	179.2	82.1	264.5	4.1
TOTAL FLATFISH	692.7	6657.0	6073.9	1991.4	2319.2	865.2	2923.6	1298.6
Pacific ocean perch	0.0	0.0	0.0	0.0	22.0	39.0	132.1	78.9
Other rockfish ³	0.0	0.0	0.0	0.0	346.0	303.2	1368.7	793.8
Unsp. rockfish	1679.7	4695.8	1509.9	360.2	24.4	20.2	49.2	23.0
TOTAL ROCKFISH	1679.7	4692.8	1509.9	360.2	392.4	362.4	1550.0	895.7
Ling cod	172.8	738.5	258.5	44.6	88.8	221.8	655.7	470.9
Pacific cod	0.0	0.0	0.0	0.0	0.0	1.6	316.2	955.8
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
Sablefish	79.0	1325.2	1074.2	402.3	245.9	34.5	426.2	409.4
TOTAL ROUND FISH	251.8	2063.7	1332.7	446.9	334.7	257.9	1400.4	1839.4
Spiny dogfish	0.0	0.0	0.0	0.5	0.0	0.0	1.9	0.0
Unsp. groundfish	26.1	80.7	72.1	1.9	8.6	3.6	13.2	4.9
TOTAL UNSP GROUND FISH	26.1	80.7	72.1	2.4	8.6	3.6	15.1	4.9
TOTAL ALL SPECIES	2650.3	13494.2	8988.6	2800.9	3054.9	1489.1	5889.1	4038.6

Table 23. continued.

PMFC Area	2		2		4A	4B	5A
	3C	3C-US	3C-CAN	3D			
SPECIES							
Dover sole	0.0	73.9	65.9	50.5	55.3	33.1	19.6
English sole	0.0	62.1	80.0	8.2	610.3	107.1	8.2
Petrale sole	0.0	474.0	464.5	234.3	0.5	5.1	60.5
Rex sole	0.0	0.0	2.3	0.7	0.0	0.1	0.0
Rock sole	0.0	0.0	124.8	39.3	69.4	42.3	37.5
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Starry flounder	0.0	0.0	8.6	0.0	342.6	25.2	0.0
Other flatfish	0.0	0.0	88.4	88.4	45.8	18.3	147.3
TOTAL FLATFISH	0.0	610.0	834.5	421.4	1123.9	231.2	273.1
Pacific ocean perch	0.0	181.4	53.1	0.0	0.0	0.0	172.5
Other rockfish ³	29.3	178.7	132.5	716.1	13.2	48.4	770.8
Unsp. rockfish	0.0	0.7	24.4	9.1	36.7	22.9	5.6
TOTAL ROCKFISH	29.3	360.8	209.9	725.2	49.9	71.4	948.8
Ling cod	232.9	168.3	1631.1	443.9	72.2	433.1	113.5
Pacific cod	2.3	711.7	3756.7	243.9	1228.9	992.4	711.5
Pacific whiting	0.0	0.0	49.4	0.0	1503.2	0.0	0.0
Walleye pollock	0.0	0.0	5.4	0.0	15.9	1.4	21.7
Sablefish	4.7	110.2	312.5	36.2	0.0	13.4	25.7
TOTAL ROUND FISH	239.9	990.2	5755.1	724.0	2820.2	1440.3	872.4
Spiny dogfish	0.0	0.0	31.5	0.0	226.3	679.8	0.0
Unsp. groundfish	10.0	0.0	15.3	4.9	434.9	22.6	13.3
TOTAL UNSP. GROUND FISH	10.0	0.0	46.8	4.9	661.2	702.4	13.3
TOTAL ALL SPECIES	279.2	1961.0	6846.4	1875.5	4655.2	2445.3	2107.6

Table 23. continued.

PMFC Area	5B	5C	5D	5E	6A	6B
SPECIES						
Dover sole	127.9	67.4	844.9	0.0	0.0	0.0
English sole	11.4	12.6	923.2	0.0	0.0	0.0
Petrale sole	96.0	11.3	16.1	0.0	0.0	0.0
Rex sole	0.0	7.7	88.1	0.0	0.0	0.0
Rock sole	415.3	431.5	828.3	0.0	0.0	0.0
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0
Starry flounder	0.0	4.0	52.8	0.0	0.0	0.0
Other flatfish	58.3	39.7	593.2	0.0	0.0	0.0
TOTAL FLATFISH	708.9	574.2	3346.6	0.0	0.0	0.0
Pacific ocean perch	2491.9	97.4	19.1	0.0	0.0	0.0
Other rockfish ³	1286.6	72.1	96.4	5.1	5.1	0.0
Unsp. rockfish	133.7	30.8	144.3	0.0	178.8	16.4
TOTAL ROCKFISH	3912.2	200.4	259.9	5.1	183.9	16.4
Ling cod	497.9	100.1	188.3	15.8	2.4	0.0
Pacific cod	1758.0	1209.5	3829.6	0.0	39.4	10.3
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock	10.5	0.9	69.6	0.0	0.0	0.0
Sablefish	71.2	55.4	84.3	434.6	1404.9	166.1
TOTAL ROUND FISH	2337.6	1365.9	4171.8	450.4	1446.7	176.4
Spiny dogfish	0.0	1.3	0.0	0.0	0.0	0.0
Unsp. groundfish	139.0	42.3	125.2	0.0	38.0	3.2
TOTAL UNSP GROUND FISH	139.0	43.6	125.2	0.0	38.0	3.2
TOTAL ALL SPECIES	7097.7	2184.1	7903.5	455.5	1668.6	196.0

Table 23. continued.

PMFC Area	7A	7B	7C	8A	8B	8C	8D	TOTAL
SPECIES								
Dover sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14098.2
English sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5347.7
Petrale sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4650.6
Rex sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1153.5
Rock sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2012.4
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	183.3
Starry flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1247.6
Other flatfish	4.2	0.0	0.0	0.0	0.0	0.0	0.0	2256.3
TOTAL FLATFISH	4.2	0.0	0.0	0.0	0.0	0.0	0.0	30949.6
ROCKFISH								
Pacific ocean perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3287.4
Other rockfish ³	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6166.1
Unsp. rockfish	0.6	0.0	0.0	0.0	0.0	0.0	0.0	7283.4
TOTAL ROCKFISH	0.6	0.0	0.0	0.0	0.0	0.0	0.0	16736.9
ROUND FISH								
Ling cod	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6551.1
Pacific cod	40.6	41.8	1.3	0.0	0.0	0.0	0.0	15851.5
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1554.9
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	128.7
Sablefish	0.1	0.0	0.0	0.0	0.0	0.0	0.0	6716.0
TOTAL ROUND FISH	40.7	41.8	1.3	0.0	0.0	0.0	0.0	30802.2
UNSP. GROUND FISH								
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	941.3
Unsp. groundfish	24.8	0.8	0.1	0.0	0.0	0.0	0.0	1085.5
TOTAL UNSP. GROUND FISH	24.8	0.8	0.1	0.0	0.0	0.0	0.0	2026.8
TOTAL ALL SPECIES	70.3	42.6	1.4	0.0	0.0	0.0	0.0	80515.5

1-Landings are by all gears in metric tons, round weight.

2-Area "3C-US" and "3C-CAN" are trawl landings proportioned to the U.S. and Canadian portion of area 3C, and are not included in the 3C column totals.

3-May contain unknown amounts of POP, S. alutus.

Source: See Appendix C.

Table 24. U.S. and Canadian groundfish landings by PMFC management area in 1976.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	84.4	8021.8	4551.1	924.0	1283.7	151.5	681.4	464.1
English sole	211.3	931.6	826.8	83.7	498.0	298.9	923.1	696.3
Petrале sole	211.4	765.5	350.1	39.3	343.4	96.1	492.6	220.0
Rex sole	38.6	419.6	442.5	44.5	89.9	18.1	468.3	60.3
Rock sole	0.0	0.0	0.0	0.0	2.7	3.6	1.4	1.4
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.9	32.2	62.8
Starry flounder	6.6	190.5	342.4	28.2	64.0	16.3	697.3	19.1
Other flatfish	185.4	465.7	373.2	10.0	125.6	42.7	430.4	4.6
TOTAL FLATFISH	737.7	10794.7	6886.1	1129.7	2407.3	628.1	3726.7	1528.6
Pacific ocean perch	0.0	0.0	0.0	0.0	31.0	352.0	227.1	142.1
Other rockfish ¹	0.0	0.0	0.0	0.0	0.0	428.4	3506.9	708.6
Unsp. rockfish	3198.3	6088.2	1738.0	299.6	832.9	45.0	10.0	5.4
TOTAL ROCKFISH	3198.3	6088.2	1738.0	299.6	863.9	825.4	3744.0	856.1
Ling cod	271.2	800.8	320.4	61.7	113.4	104.4	508.1	332.2
Pacific cod	0.0	0.0	0.0	0.0	0.9	1.4	490.0	1506.2
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	217.7	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish	167.4	4745.6	1136.5	178.3	328.9	126.1	174.6	254.7
TOTAL ROUND FISH	438.6	5546.4	1456.9	240.0	443.2	231.9	1390.4	2093.1
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	5.9	8.3
Unsp. groundfish	67.2	171.7	91.0	9.9	8.2	31.8	308.7	4.7
TOTAL UNSP GROUND FISH	67.2	171.7	91.0	9.9	8.2	31.8	314.6	13.0
TOTAL ALL SPECIES	4441.8	22601.0	10172.0	1679.2	3722.6	1717.2	9175.7	4490.8

Table 24. continued.

PMFC Area	2		2		3D	4A	4B	5A
	3C	3C-US	3C-CAN					
SPECIES								
Dover sole	4.1	166.6	405.9	41.7	88.0	55.4	23.2	
English sole	0.0	22.4	80.2	2.9	826.1	132.0	7.5	
Petrale sole	2.7	289.4	466.7	152.6	0.0	4.3	77.7	
Rex sole	0.0	0.5	6.3	0.2	0.0	1.0	0.0	
Rock sole	2.3	0.2	153.5	25.5	110.3	59.2	182.6	
Arrowtooth flounder	0.0	10.4	151.6	10.0	12.7	2.5	44.5	
Starry flounder	0.0	0.0	4.7	0.0	313.0	10.6	0.0	
Other flatfish	0.0	0.0	9.1	0.0	62.6	0.9	0.0	
TOTAL FLATFISH	9.1	489.5	1278.0	232.9	1412.7	265.9	335.5	
Pacific ocean perch	0.0	343.9	182.5	62.3	0.0	0.0	198.9	
Other rockfish ¹	46.3	946.7	619.4	803.3	12.3	70.4	1730.7	
Unsp. rockfish	0.0	3.7	68.6	10.5	50.2	20.6	18.4	
TOTAL ROCKFISH	46.3	1294.3	870.5	876.1	62.5	91.0	1948.0	
Ling cod	287.6	99.3	1207.0	343.3	68.5	403.8	296.9	
Pacific cod	22.2	183.6	3747.9	220.6	1346.3	937.6	1146.0	
Pacific whiting	0.0	0.0	0.0	0.0	1695.6	0.0	0.0	
Walleye pollock	0.0	0.5	4.7	1.8	18.6	25.8	75.8	
Sablefish	31.8	93.3	335.5	17.7	0.0	50.1	17.6	
TOTAL ROUND FISH	341.6	376.7	5295.1	583.4	3129.0	1417.3	1536.3	
Spiny dogfish	0.0	0.0	0.0	0.0	2517.6	239.2	15.5	
Unsp. groundfish	20.9	1.0	23.2	9.5	241.6	41.3	114.3	
TOTAL UNSP GROUND FISH	20.9	1.0	23.2	9.5	2759.2	280.5	129.8	
TOTAL ALL SPECIES	417.9	2161.6	7466.8	1701.9	7363.4	2054.6	3949.6	

Table 24. continued.

PMFC Area	5B	5C	5D	5E	6A	6B	Unknown Alaska
3							
SPECIES							
Dover sole	72.6	20.7	1001.1	0.0	0.5	0.0	0.0
English sole	6.0	186.9	946.2	0.0	0.0	0.0	0.0
Petrale sole	328.4	9.4	21.9	0.0	0.0	0.0	0.0
Rex sole	38.2	3.5	124.7	0.0	0.0	0.0	0.0
Rock sole	55.8	275.4	1160.6	0.0	0.0	0.0	0.0
Arrowtooth flounder	100.8	71.3	998.7	0.0	0.0	0.0	0.0
Starry flounder	0.0	2.0	31.9	0.0	0.0	0.0	0.0
Other flatfish	0.0	0.0	0.0	0.0	129.6	0.0	0.0
TOTAL FLATFISH	601.8	569.2	4285.1	0.0	130.1	0.0	0.0
Pacific ocean perch	1538.8	49.0	36.7	78.8	0.0	0.0	0.0
Other rockfish	1256.7	309.5	343.4	6.9	20.0	0.0	0.0
Unsp. rockfish	31.7	42.0	159.2	0.2	242.3	10.9	0.0
TOTAL ROCKFISH	2827.2	400.5	539.3	85.9	262.3	10.9	0.0
Ling cod	405.9	81.6	102.1	13.7	3.4	0.0	0.0
Pacific cod	1128.5	1510.0	3512.3	1.0	53.3	7.6	12.8
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock	417.0	193.8	628.1	0.2	185.8	0.0	0.0
Sablefish	125.3	31.6	59.8	250.1	1160.9	8.0	0.0
TOTAL ROUND FISH	2076.7	1817.0	4302.3	265.0	1403.4	15.6	12.8
Spiny dogfish	4.1	0.0	3.1	0.0	0.0	0.0	0.0
Unsp. groundfish	201.4	36.2	181.5	0.0	28.9	5.7	0.0
TOTAL UNSP GROUND FISH	205.5	36.2	184.6	0.0	28.9	5.7	0.0
TOTAL ALL SPECIES	5711.2	2822.9	9311.3	350.9	1824.7	32.2	12.8

Table 24. continued.

PMFC Area	7A	7B	7C	8A	8B	8C	8D	TOTAL
SPECIES								
Dover sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18041.8
English sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6679.9
Petrale sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3871.5
Rex sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1756.2
Rock sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2034.5
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1498.4
Starry flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1726.6
Other flatfish	24.5	0.0	0.0	0.0	0.0	0.0	0.0	1864.3
TOTAL FLATFISH	24.5	0.0	0.0	0.0	0.0	0.0	0.0	37473.2
Pacific ocean perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3243.0
Other rockfish ⁴	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10809.5
Unsp. rockfish	0.7	1.8	0.0	0.0	0.0	0.0	0.0	12878.2
TOTAL ROCKFISH	0.7	1.8	0.0	0.0	0.0	0.0	0.0	26930.7
Ling cod	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5825.3
Pacific cod	100.3	51.1	10.5	0.0	0.0	0.0	0.0	15990.1
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1913.3
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1552.1
Sablefish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9293.8
TOTAL ROUND FISH	100.3	51.1	10.5	0.0	0.0	0.0	0.0	34574.6
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2793.7
Unsp. groundfish	128.9	0.0	0.0	0.0	0.0	0.0	0.0	1727.6
TOTAL UNSP GROUND FISH	128.9	0.0	0.0	0.0	0.0	0.0	0.0	4521.3
TOTAL ALL SPECIES	254.4	52.9	10.5	0.0	0.0	0.0	0.0	103499.9

1-Landings are by all gears in metric tons, round weight.

2-Area "3C-US" and "3C-CAN" are trawl landings proportioned to the U.S. and Canadian portion of area 3C, and are not included in the 3C column totals.

3-These landings could not be apportioned to PMFC area by the Alaska Department of Fish and Game.

4-May contain unknown amounts of POP. S. alutus.

Source: See Appendix C.

Table 25. U.S. and Canadian groundfish landings by PMFC management area in 1977.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	58.5	5685.8	3535.7	803.0	775.8	141.1	981.2	426.9
English sole	210.6	717.1	611.9	30.0	341.7	317.6	371.3	269.9
Petrale sole	211.4	464.4	308.9	26.9	275.5	149.0	501.3	154.8
Rex sole	30.6	266.2	621.4	31.0	49.4	24.1	442.2	68.6
Rock sole	0.0	0.0	0.0	0.0	4.5	5.4	2.3	1.8
Arrowtooth flounder	0.0	0.0	1.0	3.0	0.0	0.0	87.1	18.1
Starry flounder	5.1	205.8	188.5	6.4	11.8	37.3	265.9	77.1
Other flatfish	40.0	300.3	289.6	36.0	85.8	64.2	273.0	16.3
TOTAL FLATFISH	556.2	7639.6	5557.0	936.3	1544.5	738.7	2924.3	1033.5
Pacific ocean perch	0.0	0.0	69.0	11.8	25.6	78.0	369.8	240.6
Other rockfish ⁴	3188.7	310.0	1751.0	162.3	643.3	386.8	4268.4	1606.9
Unsp. rockfish	0.0	4462.3	159.5	23.0	145.0	17.0	63.6	5.7
TOTAL ROCKFISH	3188.7	4772.3	1979.5	197.1	813.9	481.8	4701.8	1853.2
Ling cod	61.9	414.1	183.2	35.3	76.9	144.9	554.8	479.4
Pacific cod	0.0	0.0	0.0	0.0	1.4	10.3	519.3	758.6
Pacific whiting	2.3	3.2	33.6	0.0	6.1	0.0	444.1	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4
Sablefish	1121.5	3680.3	1025.6	261.8	185.3	146.2	405.7	394.2
TOTAL ROUND FISH	1185.7	4097.6	1242.4	297.1	269.7	301.4	1923.9	1638.6
Spiny dogfish	0.0	0.0	0.0	0.0	0.9	0.0	120.9	15.7
Unsp. groundfish	90.8	142.0	62.1	3.8	0.5	0.0	232.7	5.4
TOTAL UNSP GROUND FISH	90.8	142.0	62.1	3.8	1.4	0.0	353.6	21.1
TOTAL ALL SPECIES	5021.4	16651.5	8841.0	1434.3	2629.5	1521.9	9903.6	4546.4

Table 25. continued.

PMFC Area	2		2		3D	4A	4B	5A
	3C	3C-US	3C-CAN					
SPECIES								
Dover sole	5.0	86.9	233.4	26.5	77.1	39.7	21.1	
English sole	0.0	18.9	96.0	3.8	860.5	201.8	17.5	
Petrale sole	4.1	156.5	311.4	62.0	0.1	2.7	36.3	
Rex sole	0.0	2.3	2.0	0.1	0.0	0.1	0.0	
Rock sole	1.4	0.9	86.8	35.2	142.5	51.4	83.5	
Arrowtooth flounder	7.7	81.8	272.0	5.5	13.3	6.1	155.1	
Starry flounder	0.0	0.0	1.6	0.0	510.2	38.7	0.0	
Other flatfish	0.0	0.0	0.2	0.0	104.5	10.5	0.1	
TOTAL FLATFISH	18.2	347.3	1003.4	133.1	1708.2	351.0	313.6	
Pacific ocean perch	0.0	583.6	87.5	1.1	0.0	0.6	255.0	
Other rockfish ¹	76.2	2150.2	336.0	645.6	22.7	147.5	2722.1	
Unsp. rockfish	0.0	19.2	50.5	0.3	50.2	18.1	5.7	
TOTAL ROCKFISH	76.2	2753.0	473.9	647.1	72.9	166.2	2982.8	
Ling cod	310.7	236.6	807.3	277.0	63.9	501.9	165.2	
Pacific cod	55.8	1000.7	2592.0	106.3	1265.3	1168.7	701.5	
Pacific whiting	0.0	0.0	0.0	0.0	2.3	0.0	0.0	
Walleye pollock	0.0	13.5	7.9	0.0	78.1	50.9	82.6	
Sablefish	5.9	623.9	360.8	85.7	0.2	27.1	26.5	
TOTAL ROUND FISH	372.4	1874.7	3768.0	469.0	1409.8	1748.6	975.8	
Spiny dogfish	0.0	0.9	23.5	9.5	2403.2	985.6	0.0	
Unsp. groundfish	25.4	4.9	48.4	10.4	163.9	92.2	100.0	
TOTAL UNSP GROUND FISH	25.4	5.8	71.9	19.9	2567.1	1077.8	100.0	
TOTAL ALL SPECIES	492.2	4980.8	5317.2	1269.1	5758.0	3343.6	4372.2	

Table 25. continued.

PMFC Area	5B	5C	5D	5E	6A	6B	Unknown Alaska ³
SPECIES							
Dover sole	49.5	7.4	467.2	101.4	1.4	0.0	0.0
English sole	6.1	206.0	971.5	1.8	0.0	0.0	0.0
Petracle sole	36.1	9.6	15.2	0.9	0.9	0.0	0.0
Rex sole	0.0	1.4	98.6	0.0	0.0	0.0	0.0
Rock sole	188.0	271.4	574.2	5.0	0.0	0.0	0.0
Arrowtooth flounder	98.4	35.6	987.9	110.7	0.0	0.0	0.0
Starry flounder	0.0	6.0	41.1	1.4	0.0	0.0	0.0
Other flatfish	0.0	0.9	5.3	0.0	669.7	0.0	0.0
TOTAL FLATFISH	378.1	538.3	3161.0	221.2	672.0	0.0	0.0
Pacific ocean perch	1452.1	43.1	30.6	1550.8	0.0	0.0	0.0
Other rockfish ⁴	2138.9	77.3	616.9	1554.0	1.0	1.5	0.0
Unsp. rockfish	4.4	11.8	102.6	85.5	235.2	16.1	0.0
TOTAL ROCKFISH	3595.4	132.3	750.1	3190.4	236.2	17.6	0.0
Ling cod	281.0	44.5	162.1	11.2	8.3	0.5	0.0
Pacific cod	567.4	679.6	2852.6	7.9	54.8	6.2	2.9
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock	184.9	15.8	567.6	11.8	184.1	0.0	0.0
Sablefish	70.4	20.0	60.8	159.4	1040.7	133.6	0.0
TOTAL ROUND FISH	1103.7	759.9	3643.1	190.3	1287.9	140.3	2.9
Spiny dogfish	0.0	1.4	10.0	0.0	0.0	0.0	0.0
Unsp. groundfish	191.6	14.4	197.5	11.3	20.4	3.5	0.0
TOTAL UNSP GROUND FISH	191.6	15.8	207.5	11.3	20.4	3.5	0.0
TOTAL ALL SPECIES	5268.8	1446.3	7761.7	3613.2	2216.5	161.4	2.9

Table 25. continued.

PMFC Area	7A	7B	7C	8A	8B	8C	8D	TOTAL
SPECIES								
Dover sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13524.6
English sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5254.0
Petrale sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2728.0
Rex sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1638.0
Rock sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1454.3
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1883.3
Starry flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1396.9
Other flatfish	9.4	4.9	0.0	2.3	0.0	0.0	0.0	1913.0
TOTAL FLATFISH	9.4	4.9	0.0	2.3	0.0	0.0	0.0	29792.1
Pacific ocean perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4799.3
Other rockfish ¹	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22807.3
Unsp. rockfish	0.7	0.0	0.0	0.0	0.0	0.0	0.0	5476.4
TOTAL ROCKFISH	0.7	0.0	0.0	0.0	0.0	0.0	0.0	33083.0
Ling cod	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4820.7
Pacific cod	135.2	35.9	38.0	15.1	0.0	0.0	0.0	12575.5
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	491.6
Walleye pollock	31.0	12.7	0.0	0.0	0.0	0.0	0.0	1247.3
Sablefish	1.6	0.0	1.2	1.6	0.0	0.0	0.0	9840.0
TOTAL ROUND FISH	167.8	48.6	39.2	16.7	0.0	0.0	0.0	28975.1
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3571.6
Unsp. groundfish	126.0	4.2	0.0	0.0	0.0	0.0	0.0	1551.4
TOTAL UNSP GROUND FISH	126.0	4.2	0.0	0.0	0.0	0.0	0.0	5123.0
TOTAL ALL SPECIES	303.9	57.7	39.2	19.0	0.0	0.0	0.0	96973.2

1-Landings are by all gears in metric tons, round weight.

2-Area "3C-US" and "3C-CAN" are trawl landings proportioned to the U.S. and Canadian portion of area 3C, and are not included in the 3C column totals.

3-These landings could not be apportioned to PMFC area by the Alaska Department of Fish and Game.

4-May contain unknown amounts of POP, *S. alutus*.

Source: See Appendix C.

Table 26. U.S. and Canadian groundfish landings by PMFC management area in 1978.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	131.1	4783.4	9598.2	198.0	1607.8	318.4	1962.8	368.3
English sole	258.8	900.1	1342.4	77.9	153.0	181.9	722.5	480.5
Petrале sole	213.2	621.5	694.2	18.1	361.6	161.0	674.9	376.9
Rex sole	24.5	264.7	852.7	11.9	88.5	18.4	726.8	30.4
Rock sole	0.0	6.2	0.0	0.0	7.7	4.5	13.2	4.5
Arrowtooth flounder	0.0	0.0	3.6	15.4	10.9	15.0	225.9	36.7
Starry flounder	0.0	0.0	4.1	5.9	55.3	26.8	463.5	71.3
Other flatfish	0.0	0.0	12.3	41.9	56.4	42.7	356.2	47.8
TOTAL FLATFISH	627.6	6575.9	12507.5	369.1	2341.2	768.7	5145.8	1416.4
Pacific ocean perch	0.0	0.0	33.9	5.6	21.7	173.3	903.2	284.2
Other rockfish	1651.2	4194.0	1912.0	262.9	1338.7	710.0	7852.5	1957.4
Unsp. rockfish	1683.3	557.3	421.7	294.7	21.5	55.8	90.5	4.4
TOTAL ROCKFISH	3334.5	4751.3	2367.6	563.2	1381.9	939.1	8846.2	2246.0
Ling cod	79.2	601.4	458.7	64.4	88.2	133.2	534.6	484.0
Pacific cod	0.0	0.0	0.0	0.5	5.5	22.4	814.5	1176.6
Pacific whiting	0.0	0.1	932.4	0.0	15.0	0.0	368.7	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.1	14.1
Sablefish	2656.4	4028.0	2701.8	229.7	718.6	647.3	806.3	666.6
TOTAL ROUND FISH	2735.6	4629.5	4092.9	294.6	827.3	802.9	2524.2	2341.3
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	56.7	65.1
Unsp. groundfish	0.0	0.0	1.4	5.1	2.8	0.8	184.2	17.3
TOTAL UNSP GROUND FISH	0.0	0.0	1.4	5.1	2.8	0.8	240.9	82.4

TOTAL ALL SPECIES	6697.7	15956.7	18969.4	1232.0	4553.2	2511.5	16757.1	6086.1

Table 26. continued.

PMFC Area	2		2		4A	4B	5A
	3C	3C-US	3C-CAN	3D			
SPECIES							
Dover sole	1.4	234.5	95.8	73.7	66.2	101.3	11.0
English sole	0.5	73.5	77.3	10.9	1031.5	155.3	7.5
Petrale sole	0.5	282.6	125.3	34.3	0.5	5.4	3.9
Rex sole	0.0	5.4	1.4	0.9	0.1	2.4	1.1
Rock sole	0.5	0.5	63.8	31.1	149.2	63.8	79.6
Arrowtooth flounder	2.7	87.1	220.4	46.1	18.6	32.8	405.2
Starry flounder	0.0	5.0	3.4	1.0	298.5	26.5	0.0
Other flatfish	0.0	0.0	0.2	3.8	153.0	13.3	1.0
TOTAL FLATFISH	5.6	688.6	587.6	201.8	1717.6	400.8	509.3
Pacific ocean perch	0.0	631.7	90.9	7.6	0.0	1.1	164.6
Other rockfish ⁴	49.9	1913.5	222.7	1148.9	32.2	168.6	1188.5
Unsp. rockfish	0.0	6.5	50.1	36.5	67.5	33.1	80.5
TOTAL ROCKFISH	49.9	2551.7	363.7	1192.9	99.7	202.8	1433.5
Ling cod	251.2	90.6	360.8	602.8	68.5	588.3	147.6
Pacific cod	13.6	842.4	1674.4	301.4	1200.7	1410.8	975.3
Pacific whiting	0.0	0.0	0.0	0.0	2893.1	0.0	0.0
Walleye pollock	0.0	13.9	5.7	0.8	576.6	380.2	107.9
Sablefish	0.5	297.3	94.8	380.2	6.0	4.6	10.0
TOTAL ROUNDFISH	265.3	1244.2	2135.7	1285.2	4744.9	2383.9	1240.8
Spiny dogfish	55.8	9.6	114.8	1.4	1903.1	2107.4	0.0
Unsp. groundfish	11.3	1.2	12.1	10.5	1327.8	37.8	170.0
TOTAL UNSP GROUND FISH	67.1	10.8	126.9	11.9	3230.9	2145.2	170.0
TOTAL ALL SPECIES	387.9	4495.3	3213.9	2691.8	9793.1	5132.7	3353.6

Table 26. continued.

	3						
PMFC Area	5B	5C	5D	5E	6A	6B	Unknown Alaska
SPECIES							
Dover sole	46.7	40.0	317.3	127.0	0.9	0.0	0.0
English sole	19.7	64.9	495.4	0.0	0.0	0.0	0.0
Petrale sole	39.1	5.5	7.6	35.4	0.0	0.0	0.0
Rex sole	0.1	0.1	98.9	1.0	0.0	0.0	0.0
Rock sole	216.9	355.5	51.8	0.0	0.2	0.0	0.0
Arrowtooth flounder	264.9	82.6	139.0	26.3	0.0	0.0	0.0
Starry flounder	0.0	0.5	42.4	0.0	8.2	0.0	0.0
Other flatfish	0.9	2.4	6.3	0.5	759.6	0.0	0.0
TOTAL FLATFISH	588.3	551.5	1158.7	190.2	768.9	0.0	0.0
Pacific ocean perch	1176.9	68.4	10.0	0.0	0.0	0.0	0.0
Other rockfish ⁴	2504.9	270.9	587.6	4183.4	44.9	0.0	0.0
Unsp. rockfish	4.6	20.5	62.6	34.2	173.9	1.2	0.2
TOTAL ROCKFISH	3686.4	359.7	660.2	4217.6	218.8	1.2	0.2
Ling cod	195.4	42.8	50.0	11.3	1.4	0.0	0.0
Pacific cod	987.1	711.3	1396.2	3.3	114.9	3.4	0.3
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock	187.0	11.6	1700.2	21.1	534.3	0.0	0.0
Sablefish	29.4	83.2	3.1	344.6	1616.3	124.3	6.0
TOTAL ROUND FISH	1398.9	848.9	3149.5	380.3	2266.9	127.7	6.3
Spiny dogfish	20.4	0.0	1.4	0.0	0.0	0.0	0.0
Unsp. groundfish	138.9	18.3	135.7	41.6	193.8	8.1	0.0
TOTAL UNSP GROUND FISH	159.3	18.3	137.1	41.6	193.8	8.1	0.0
TOTAL ALL SPECIES	5832.9	1778.4	5105.5	4829.7	3448.4	137.0	6.5

Table 26. continued.

PMFC Area	7A	7B	7C	8A	8B	8C	8D	TOTAL
SPECIES								
Dover sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20083.8
English sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6053.6
Petrale sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3661.5
Rex sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2129.3
Rock sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1049.0
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1633.2
Starry flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1012.4
Other flatfish	82.0	4.0	5.9	0.0	0.0	0.0	0.0	1590.2
TOTAL FLATFISH	82.0	4.0	5.9	0.0	0.0	0.0	0.0	37213.0
Pacific ocean perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3573.0
Other rockfish ¹	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31294.6
Unsp. rockfish	2.7	0.3	0.0	0.0	0.0	0.0	0.0	3703.4
TOTAL ROCKFISH	2.7	0.3	0.0	0.0	0.0	0.0	0.0	39471.0
Ling cod	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4854.4
Pacific cod	446.5	165.4	61.4	30.7	0.0	4.3	0.0	12362.9
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4209.3
Walleye pollock	490.3	19.1	0.0	23.3	0.0	0.0	0.0	4086.2
Sablefish	1.1	0.0	0.0	0.0	0.0	0.0	0.0	15456.1
TOTAL ROUNDFISH	937.9	184.5	61.4	54.0	0.0	4.3	0.0	40968.9
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4335.7
Unsp. groundfish	85.4	2.1	12.8	4.7	0.0	0.0	0.0	2423.7
TOTAL UNSP GROUND FISH	85.4	2.1	12.8	4.7	0.0	0.0	0.0	6759.4
TOTAL ALL SPECIES	1108.0	190.9	80.1	58.7	0.0	4.3	0.0	124412.4

1-Landings are by all gears in metric tons, round weight.

2-Area "SC-US" and "3C-CAN" are trawl landings proportioned to the U.S. and Canadian portion of area 3C. and are not included in the 3C column totals.

3-These landings could not be apportioned to PMFC area by the Alaska Department of Fish and Game.

4-May contain unknown amounts of POP, S. alutus.

Source: See Appendix C.

Table 27. U.S. and Canadian groundfish landings by PMFC management area in 1979.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	63.2	4128.8	6519.7	253.6	2457.9	957.5	2150.5	688.1
English sole	271.6	1013.5	1043.0	243.8	225.2	184.1	928.3	424.0
Petrале sole	248.9	677.8	479.1	96.2	444.5	126.6	667.2	148.0
Rex sole	37.4	308.2	532.8	37.1	136.2	61.3	848.8	67.7
Rock sole	0.0	0.8	0.0	0.0	1.8	6.2	73.9	9.1
Arrowtooth flounder	0.0	0.0	0.9	10.1	0.5	211.1	323.4	130.2
Starry flounder	0.0	0.1	6.0	10.9	15.7	17.1	303.7	72.6
Other flatfish	0.0	0.0	36.7	40.2	112.6	34.8	528.2	130.5
TOTAL FLATFISH	621.1	6129.2	8618.2	691.9	3394.4	1598.7	5824.0	1670.2
Pacific ocean perch	0.0	0.0	78.5	0.4	22.7	319.7	896.9	88.8
Other rockfish ¹⁾	1563.2	5492.0	4058.6	592.3	3046.7	3173.4	9093.5	2387.6
Unsp. rockfish	2570.7	775.2	295.6	224.6	94.1	131.2	43.1	200.6
TOTAL ROCKFISH	4133.9	6267.2	4432.7	817.3	3163.5	3624.3	10033.5	2677.0
Ling cod	285.3	855.4	390.0	77.3	199.9	122.5	902.6	802.8
Pacific cod	0.0	0.0	0.0	0.0	0.4	48.6	621.5	1420.5
Pacific whiting	0.3	21.7	812.3	0.0	0.0	0.0	141.5	5.4
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	4.1	8.7
Sablefish	5064.0	5116.2	2817.2	884.6	2611.4	2827.1	2953.7	902.3
TOTAL ROUNDFISH	5349.6	5993.3	4019.5	961.9	2811.7	2998.2	4623.4	3139.7
Spiny dogfish	0.0	0.0	0.0	0.1	0.0	4.1	361.1	58.6
Unsp. groundfish	0.0	0.0	1.0	8.4	0.4	1.3	279.9	76.0
TOTAL UNSP GROUND FISH	0.0	0.0	1.0	8.5	0.4	5.4	641.0	134.6
TOTAL ALL SPECIES	10104.6	18389.7	17071.4	2479.6	9370.0	8226.6	21121.9	7621.5

Table 27. continued.

PMFC Area	2		2		3D	4A	4B	5A
	3C	3C-US	3C-CAN					
SPECIES								
Dover sole	0.0	567.8	45.6	25.7	52.2	57.8	16.1	
English sole	0.0	67.0	58.4	5.8	737.6	114.8	15.2	
Petrale sole	0.0	255.1	92.4	24.0	0.0	3.2	31.5	
Rex sole	0.0	0.0	2.2	0.1	0.5	9.7	0.0	
Rock sole	0.0	0.5	83.6	11.7	156.5	64.1	202.0	
Arrowtooth flounder	0.0	167.4	53.3	36.9	13.6	10.4	140.2	
Starry flounder	0.0	0.0	4.2	0.0	434.6	15.3	0.0	
Other flatfish	0.5	17.7	17.3	2.0	84.0	35.0	0.0	
TOTAL FLATFISH	0.5	1075.5	357.0	106.2	1479.0	310.3	405.0	
Pacific ocean perch	0.0	561.7	45.5	44.8	0.0	0.9	367.8	
Other rockfish ⁴	49.5	1717.1	102.1	933.2	27.8	312.8	1365.1	
Unsp. rockfish	0.0	20.5	84.5	39.1	86.5	38.0	35.2	
TOTAL ROCKFISH	49.5	2299.3	232.1	1017.2	114.3	351.6	1768.1	
Ling cod	187.1	230.4	598.3	250.8	31.4	589.7	125.3	
Pacific cod	5.9	779.8	1629.9	191.0	1210.8	1233.4	988.0	
Pacific whiting	0.0	0.0	302.1	0.0	4433.1	516.3	0.0	
Walleye pollock	0.0	8.2	30.7	0.3	462.8	1342.1	76.4	
Sablefish	123.8	387.2	102.9	386.9	5.0	51.3	202.1	
TOTAL ROUNDFISH	316.8	1405.6	2663.9	829.0	6143.1	3732.8	1391.8	
Spiny dogfish	8.8	2.3	279.1	15.8	3808.2	3450.0	0.4	
Unsp. groundfish	21.7	1.7	10.4	7.8	346.3	53.9	37.0	
TOTAL UNSP GROUND FISH	30.5	4.0	289.5	23.6	4154.5	3503.9	37.4	
TOTAL ALL SPECIES	397.3	4784.4	3542.5	1976.0	11890.9	7898.6	3602.3	

Table 27. continued.

							3
PMFC Area	5B	5C	5D	5E	6A	6B	Unknown Alaska
SPECIES							
Dover sole	40.4	62.8	569.4	63.8	0.0	0.0	0.0
English sole	15.3	117.7	745.6	0.0	0.0	0.0	0.0
Petrale sole	34.6	23.1	15.8	2.2	0.0	0.0	0.0
Rex sole	0.6	28.0	163.3	1.3	0.0	0.0	0.0
Rock sole	207.4	64.9	335.9	0.0	0.0	0.0	0.0
Arrowtooth flounder	62.7	247.7	1280.0	7.4	0.0	0.0	0.0
Starry flounder	0.0	15.7	261.5	0.0	0.0	0.0	0.0
Other flatfish	0.0	0.1	3.7	0.0	315.8	11.4	0.0
TOTAL FLATFISH	361.0	560.0	3375.2	74.7	315.8	11.4	0.0
Pacific ocean perch	1157.6	145.2	0.0	0.0	0.0	0.0	0.0
Other rockfish	2220.8	659.7	616.4	1866.4	0.9	0.0	0.0
Unsp. rockfish	64.6	80.6	110.5	27.2	410.1	40.0	0.0
TOTAL ROCKFISH	3443.0	885.5	726.9	1893.6	411.0	40.0	0.0
Ling cod	260.9	59.3	100.1	9.4	0.5	0.0	0.0
Pacific cod	931.7	1727.3	2972.9	1.7	85.5	39.6	0.5
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock	70.9	238.2	1565.7	66.5	514.2	40.6	0.0
Sablefish	124.0	80.6	154.0	817.4	2830.4	567.4	0.0
TOTAL ROUND FISH	1387.5	2105.4	4792.7	895.0	3430.6	647.6	0.5
Spiny dogfish	0.0	0.5	26.3	0.0	0.0	0.0	0.0
Unsp. groundfish	139.5	65.4	232.8	50.0	182.3	5.4	0.0
TOTAL UNSP GROUND FISH	139.5	65.9	259.1	50.0	182.3	5.4	0.0
TOTAL ALL SPECIES	5331.0	3616.8	9153.9	2913.3	4339.7	704.4	0.5

Table 27. continued.

PMFC Area	7A	7B	7C	8A	8B	8C	8D	TOTAL
SPECIES								
Dover sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18720.9
English sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6210.9
Petrale sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3370.2
Rex sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2235.2
Rock sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1218.4
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2695.8
Starry flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1157.4
Other flatfish	49.7	1.3	0.0	0.0	0.0	0.0	0.0	1421.5
TOTAL FLATFISH	49.7	1.3	0.0	0.0	0.0	0.0	0.0	37030.3
Pacific ocean perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3730.6
Other rockfish ⁴	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39279.1
Unsp. rockfish	9.2	0.0	0.0	43.4	0.0	0.0	0.0	5424.4
TOTAL ROCKFISH	9.2	0.0	0.0	43.4	0.0	0.0	0.0	48434.1
Ling cod	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6079.0
Pacific cod	593.7	266.4	0.0	585.1	0.0	2.3	0.0	15336.5
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6232.7
Walleye pollock	1465.9	10.2	0.0	0.0	0.0	0.0	0.0	5905.5
Sablefish	48.7	0.0	0.0	0.0	0.0	0.0	0.0	29058.2
TOTAL ROUND FISH	2108.3	276.6	0.0	585.1	0.0	2.3	0.0	151308.3
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8015.3
Unsp. groundfish	251.2	5.5	0.0	24.9	0.0	2.5	0.0	1805.3
TOTAL UNSP GROUND FISH	251.2	5.5	0.0	24.9	0.0	2.5	0.0	9820.6
TOTAL ALL SPECIES	2418.4	283.4	0.0	653.4	0.0	4.8	0.0	157896.9

1-Landings are by all gears in metric tons, round weight.

2-Area "3C-US" and "3C-CAN" are trawl landings proportioned to the U.S. and Canadian portion of area 3C, and are not included in the 3C column totals.

3-These landings could not be apportioned to PMFC area by the Alaska Department of Fish and Game.

4-May contain unknown amounts of POP, S. alutus.

Source: See Appendix C.

Table 28. U.S. and Canadian groundfish landings by PMFC management area in 1980.

PMFC Area	1A	1B	1C	2A	2B	2C	2D/3A	3B
SPECIES								
Dover sole	55.3	3157.1	5038.7	492.7	2080.8	430.5	1856.8	456.7
English sole	117.9	1269.0	686.7	111.7	78.5	100.7	580.4	281.3
Petrale sole	127.6	612.7	330.8	86.1	259.7	124.3	702.2	123.1
Rex sole	72.9	317.6	476.7	30.0	72.9	37.2	533.6	39.9
Rock sole	0.0	0.5	0.0	0.0	4.5	8.6	19.1	14.2
Arrowtooth flounder	0.0	0.0	1.4	10.9	5.0	75.3	259.3	96.2
Starry flounder	1.1	0.2	1.8	2.3	15.8	25.4	202.9	85.3
Other flatfish	0.0	0.0	19.0	21.4	54.0	58.7	419.5	38.1
TOTAL FLATFISH	374.8	5357.1	6555.1	755.1	2571.2	860.7	4573.8	1134.8
Pacific ocean perch	0.0	3.0	3.0	0.0	19.1	179.4	1292.4	70.5
Other rockfish ⁵	1591.0	6784.0	5940.0	418.4	3069.4	5303.6	17489.3	2067.5
Unsp. rockfish	2137.0	821.1	641.6	167.5	112.4	122.8	172.2	3.4
TOTAL ROCKFISH	3728.0	7608.1	6584.6	585.9	3200.9	5605.8	18953.9	2141.4
Ling cod	146.0	904.5	240.5	77.0	113.2	95.2	1100.3	469.5
Pacific cod	0.0	0.0	0.0	5.7	6.3	6.5	285.9	787.3
Pacific whiting	0.0	9.1	685.1	0.0	0.0	0.0	256.6	0.0
Walleye pollock	0.0	0.0	0.0	0.0	0.0	0.0	0.2	20.0
Sablefish	882.7	1490.0	1533.7	99.9	1243.6	712.0	1738.1	140.7
TOTAL ROUNDFISH	1028.7	2403.6	2459.3	182.6	1363.1	813.7	3381.1	1417.5
Spiny dogfish	0.0	0.0	0.0	0.3	0.4	3.6	130.6	43.6
Unsp. groundfish	0.0	0.0	2.8	5.8	8.7	3.3	158.7	19.8
TOTAL UNSP GROUND FISH	0.0	0.0	2.8	6.1	9.1	6.9	289.3	63.4
TOTAL ALL SPECIES	5131.5	15368.8	15601.8	1529.7	7144.3	7287.1	27198.1	4757.1

Table 28. continued.

PMFC Area	2		2		3D	4A	4B	5A
	3C	3C-US	3C-CAN					
SPECIES								
Dover sole	0.0	679.5	165.7	122.6	43.1	97.1	50.8	
English sole	0.0	26.8	94.6	6.3	634.6	115.8	12.4	
Petrale sole	0.0	147.4	115.3	38.1	0.5	2.6	20.2	
Rex sole	0.0	1.4	5.8	0.1	0.5	8.5	2.4	
Rock sole	0.0	0.2	109.8	23.2	129.5	81.7	238.1	
Arrowtooth flounder	0.0	91.6	117.0	15.9	0.9	16.1	140.5	
Starry flounder	0.0	0.9	14.5	1.3	427.6	21.3	0.0	
Other flatfish	0.5	24.5	8.9	2.8	80.9	22.4	0.0	
TOTAL FLATFISH	0.5	972.3	631.6	210.3	1317.6	365.5	464.4	
Pacific ocean perch								
Pacific ocean perch	0.0	305.8	285.6	164.7	0.0	0.1	148.0	
Other rockfish ³	40.4	1358.2	111.1	1065.3	39.1	174.8	834.3	
Unsp. rockfish	0.0	0.9	84.0	14.2	131.2	26.0	4.9	
TOTAL ROCKFISH	40.4	1664.9	480.6	1244.2	170.3	200.8	987.1	
Ling cod								
Ling cod	225.9	239.5	623.3	220.9	69.9	423.7	134.8	
Pacific cod								
Pacific cod	0.2	235.7	978.7	186.6	1447.0	1623.8	609.2	
Pacific whiting								
Pacific whiting	0.0	362.9	96.6	5.5	10287.0	508.0	0.0	
Walleye pollock								
Walleye pollock	0.0	2.3	3.6	3.3	379.9	1055.7	15.1	
Sablefish								
Sablefish	677.7	188.9	86.4	1125.9	1.7	17.7	305.3	
TOTAL ROUND FISH	903.8	1029.3	1788.6	1542.2	12185.5	3628.9	1064.4	
Spiny dogfish								
Spiny dogfish	14.6	40.0	1732.1	40.2	2972.2	1543.1	5.2	
Unsp. groundfish								
Unsp. groundfish	29.3	105.7	18.5	39.4	636.8	47.1	19.0	
TOTAL UNSP GROUND FISH	43.9	145.7	1750.6	79.6	3609.0	1590.2	24.2	
TOTAL ALL SPECIES	988.6	3812.2	4651.4	3076.3	17282.4	5785.4	2540.1	

Table 28. continued.

PMFC Area	7A	7B	7C	8A	8B	8C	8D	TOTAL
SPECIES								
Dover sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15607.5
English sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5134.8
Petrale sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2907.4
Rex sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1729.1
Rock sole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2024.8
Arrowtooth flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2033.0
Starry flounder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	922.4
Other flatfish	47.5	0.0	0.0	43.8	0.0	0.0	0.0	958.8
TOTAL FLATFISH	47.5	0.0	0.0	43.8	0.0	0.0	0.0	31317.8
Pacific ocean perch	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7249.7
Other rockfish ²	1.4	0.9	0.0	0.0	0.0	0.0	0.0	49522.3
Unsp. rockfish	62.8	0.0	0.0	0.0	0.0	0.0	0.0	5266.0
TOTAL ROCKFISH	64.2	0.9	0.0	0.0	0.0	0.0	0.0	62038.0
Ling cod	0.5	0.1	0.0	0.0	0.0	0.0	0.0	5663.3
Pacific cod	412.8	48.4	70.6	2397.2	0.0	3141.2	0.0	17778.6
Pacific whiting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12211.7
Walleye pollock	478.5	0.0	1.4	101.8	0.0	20.0	0.0	3643.0
Sablefish	27.9	0.0	2.6	0.0	0.0	3.2	0.0	14202.8
TOTAL ROUND FISH	919.7	48.5	74.6	2499.0	0.0	3164.4	0.0	53499.4
Spiny dogfish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6629.8
Unsp. groundfish	373.8	0.3	0.0	32.6	0.0	0.0	0.0	2896.5
TOTAL UNSP GROUND FISH	373.8	0.3	0.0	32.6	0.0	0.0	0.0	9526.3
TOTAL ALL SPECIES	1405.2	49.7	74.6	2575.4	0.0	3164.4	0.0	156381.5

1-Landings are by all gears in metric tons, round weight.

2-Area "3C-US" and "3C-CAN" are trawl landings proportioned to the U.S. and Canadian portion of area 3C, and are not included in the 3C column totals.

3-May contain unknown amounts of POP, S. alutus.

Source: See Appendix C.

PMFC Groundfish Data Series

The primary source for U.S. and Canadian landings from 1956 to 1974 is the PMFC Data Series, Groundfish Section (Pacific Marine Fisheries Commission 1960). The Data Series was initiated in response to requests for coast-wide catch statistics, and distribution of the summaries was limited to persons and organizations having "immediate need for untreated data" (Pacific Marine Fisheries Commission 1960). The Data Series contains annual groundfish landings by month and PMFC area for the northeast Pacific Ocean and Bering Sea. State fisheries agencies of California, Oregon, Washington, and Alaska and the Department of Fisheries and Oceans (DFO) of Canada submitted annual summaries of landings by month and species for PMFC areas 1A through 5E to PMFC.

After 1961 PMFC areas 2D and 3A were reported together as one area (2D/3A) because the Willapa deep fishing ground is common to both areas and landings could not easily be separated. In 1970, PMFC areas 6A, 6B, and 7A were added, and in 1977 areas 7B-8D were added. Prior to 1971 landings were reported only for otter trawl gears although occasional footnotes to tables cited shrimp trawl landings. Also included were separate tables of landings used for reduction or for animal food: these fish were usually trawl caught and estimates of the species composition of these landings were not always complete. Beginning in 1971, separate categories for "shrimp trawl," "longline," and "pot & trap" were reported, and in 1976 categories for "other gears" and "recreational" landings were added.

The data for recreational landings were not incorporated into HAL as the Data Series records were incomplete. Recreational marine groundfish landings are an important component of the harvest, and to present a partial summary would be misleading. Additionally, the Data Series has a category, "hours".

for trawl hours as a measure of fishing effort. As with the recreational landings data, this information is incomplete and was not included in HAL.

Landings reported to the Data Series for 1956 through 1961 were recorded to the nearest 500 pounds; therefore, annual landings of individual species of less than 250 pounds were recorded as traces and were not included in HAL. Beginning in 1962 landings were rounded to the nearest 1,000 pounds, and landings less than 500 pounds were recorded as traces and not included in HAL.

Otter Trawl Landings from 1956 to 1974

The published Data Series landings tables from which trawl landings from 1956 to 1974 were taken summarize catch by areas but not by reporting agency. Therefore it is impossible to perform agency-specific updates to that data. After consulting members of the PFMC Groundfish Management Team, I decided to consider these the best data available. Additionally, I decided to use annual, rather than monthly, summaries of landings.

In 1971 the University of Washington NORFISH project took over responsibility for compiling the Data Series. NORFISH computerized data from U.S. and Canadian fisheries agencies and produced summary tables for the Data Series. Computer tapes of landings data from 1971 to 1974 have been lost, so all otter trawl landings and landings for reduction and animal food for 1956 through 1974 were keypunched into computer files for HAL from a bound copy of the Data Series. I have assumed that all landings data reported to the Data Series for 1956 to 1974 are complete and accurate.

Landings By Other Gears from 1956 Through 1974

Landings made using gears other than otter trawls from 1956 through 1970 were obtained from reports submitted by the Washington Department of Fisheries (WDF) and the Oregon Department of Fish and Wildlife (ODF&W). The California Department of Fish and Game (CDF&G) was unable to provide any non-trawl landings data for 1956 to 1974, although some sablefish (Anoplopoma fimbria) longline data for 1956 through 1969 were obtained from a report by Parrish (1973). Non-trawl landings of sablefish in Alaskan waters were obtained from Funk and Bracken (1984) and of Pacific cod (Gadus macrocephalus) from Rigby (1984). Canadian non-trawl landings for 1963 to 1970 were obtained from Forrester et al. (1978) with the exception of all sablefish landings obtained from McFarlane and Beamish (1983).

Beginning in 1971, categories for other gear types were added to the Data Series otter trawl reports: "longline," "shrimp trawl," "pot & trap," and "others." In consultation with the PFMC Groundfish Management Team, I decided to accept these data for other gear types from the Data Series as the best available for 1971 to 1974. Consequently, these data were also keypunched into HAL from a bound copy of the Data Series. One exception is Alaskan data obtained from a report by Rigby (1984) which updates the Data Series records for that time period. I have assumed that all landings data used from the Data Series for landings from 1971 to 1974 are complete and accurate.

Landings from 1975 to 1980

Beginning with data from 1975, NORFISH data tapes were transferred from the University of Washington's CDC computer to the National Marine Fisheries Service's (NMFS) Burroughs B7800 mainframe computer and the data records

subsequently downloaded to an IBM PC-XT into HAL. These data were separated by reporting agency, and summaries of agency data were submitted for review. Subsequent reports from WDF, ODF&W, and ADF&G updated the landings they had reported to the Data Series. The CDF&G had not reported any information to NORFISH since 1977, and they were unable to update their data for 1975 through 1977. I therefore assume that the CDF&G data for 1975 through 1977 is complete and correct. The CDF&G did submit a report of landings for 1978 to 1980, although this information did not include landings from PMFC areas 2A and 2B.

Alaska Department of Fish and Game

The Alaska Department of Fish and Game (ADF&G) continually updates their landings data as new information is received or previously unrecorded fish sales tickets are found (F. Funk, pers. commun. 1985)¹ As a result, many of their published reports of landings statistics may be outdated. At this time ADF&G has not updated the Rigby (1984) report for years prior to 1975.

Landings from 1956 to 1974

A description of historical fishing activity in Alaska is presented in Rigby (1984). Landings from 1956 to 1969 were not available by species or INPFC area with the exception of Alaskan sablefish landings which were obtained from a report by Funk and Bracken (1984). Landings data for groundfish species in Alaskan waters for 1970 through 1974 were obtained from Rigby (1984) as the Data Series did not include landings for several areas and gear types for that time period. Although not noted as such, sablefish landings from Rigby (1984) are

¹ A list of names and addresses for sources of personal communications and unpublished manuscripts is included in Appendix E.

listed in dressed weights(headed and gutted) and not round weights (whole fish). These were converted to round weights by multiplying by a conversion factor of 1.43 (provided by F. Funk of ADF&G).

Landings from 1975 to 1980

Alaskan landings data for the years 1975 to 1980 were received from ADF&G in November 1984. In these reports neither flatfish nor rockfish landings were separated by species. From 1975 to 1980 trawl species composition sampling was not carried out, so there are no data for estimating the species composition of flatfish or rockfish catches. Occasionally, separate species of these fish groups were recorded on the sales tickets, but this was not done consistently and ADF&G determined that to report landings by individual species could be misleading.

The data for 1975 to 1980 reflect considerable updating of the information found in the PMFC Groundfish Data Series and Rigby's (1984) report. Original Data Series reports allocated landings to incorrect PMFC and INPFC areas. In particular, catches were transposed between INPFC Southeast and Yakutat, and between Yakutat and Kodiak areas (F. Funk, ADF&G, pers. commun., 1985). In addition, it was discovered that, in contrast to all other reporting agencies, ADF&G had been reporting non-trawl landings of sablefish to NORFISH as dressed weight rather than round weight as had been requested. These errors have been corrected in HAL.

Washington Department of Fisheries

Otter Trawl Landings from 1956 to 1974

Otter trawl landings from 1956 to 1974 were obtained from the Data Series. Otter trawl data submitted to the Data Series for 1956 to 1962 are most likely adjusted for area of catch with data from interviews with fishermen (Brad Pattie, pers. commun., 1985). Otter trawl data from 1963 to 1974 are definitely adjusted with interview data (as described by Kimura and Pattie 1982).

Landings by Other Gears from 1956 to 1974

Landings made prior to 1970 with gear other than otter trawls and not included in the Data Series were summarized by Kurt Buchanan of WDF from computer generated year-end summaries of fish ticket data. These computer printouts are commonly referred to as the Bound Volumes, having been bound together into books on file at agency offices in Seattle and Olympia. Landings by "other gears" were not logbook adjusted. Gear categories reported were "shrimp trawl," "pot," "longline" and "miscellaneous." The miscellaneous category includes landings by handline, gill net, and salmon and bottomfish troll. Pot landings were not reported until 1970.

Buchanan discovered that the longline lingcod (Ophiodon elongatus) and sablefish fixed gear landings from 1956 to 1974 reported in the WDF year-end reports (the Bound Volumes) were in dressed weights. Therefore, the lingcod data were converted from dressed to round weights by multiplying by 1.75 when added to HAL. WDF also reported its longline lingcod landings to the Data Series as dressed weights, and these landings were converted. Non-trawl sablefish

landings were converted from dressed to round weights by applying WDF's multiplication factor for sablefish of 1.43. The conversion factors were obtained many years ago from results of sampling weights of whole and dressed fish. There have been no recent attempts to re-estimate the conversion factors.

Additional landings by other gears for 1971 to 1974 not previously in the Data Series were obtained from computer-run summaries of WDF fish ticket data provided by Buchanan.

Otter Trawl Landings from 1975 to 1980

Trawl data from 1975 to 1980 were provided by WDF through Kurt Buchanan from published annual Progress Reports (Pattie and Gormley 1977, Pattie and Gormley 1978, Pattie 1978, Pattie and Tagart 1981, Pattie et al. 1982, Pattie and Tagart 1983). These data are adjusted with interview data for more accurate area of catch (Kimura and Pattie 1982).

PMFC Area 3C Otter Trawl Landings

Pacific Marine Fisheries Commission (PMFC) area 3C lies in both U.S. and Canadian waters. Due to the implementation of the Magnuson Fisheries Conservation and Management Act (MFCMA) of 1976, it has become necessary to keep records of landings in U.S. waters separate from landings in Canadian waters. Trawl landings of rockfish (Sebastes) in the two areas were obtained from Tagart (1985). For other species, trawl data from 1975 to 1980 reported by WDF from-U.S. or Canadian waters was calculated by Buchanan. Fishermen interview data is not available for non-trawl landings so at present it is not possible to partition non-trawl landings into catches from the U.S. or Canadian portion of PMFC area 3C.

Landings by Other Gears from 1975 to 1980

The Washington Department of Fisheries summarized landings by gears other than otter trawl from 1975 to 1980 from year-end fish ticket data. These data were separated into four gear types: "shrimp trawl," "pot," "longline," and "other gears." "Other gears" include bottomfish and salmon troll, set net, gill net, drag seine, handline, and jig.

Non-trawl landings from PMFC areas 2A, 2B, and 2C were reported to WDF as a single statistical area and were assigned to 2C in HAL as suggested by Buchanan. Landings from the coastal estuaries, Grays Harbor, Willapa Harbor and the Columbia River are included in PMFC area 3A data for 1977 to 1980. WDF also reported landings by these gears from PMFC areas 5A, 5B, 5C and 5D together; they have been designated as area 5F in HAL. These data were originally reported in pounds and were converted to metric tons by WDF. The conversion and rounding algorithm used by WDF excluded total landings of individual species of less than 501 pounds.

Buchanan made no attempt to update any of the Data Series information for PMFC area 4A; therefore, all landings from that area were obtained from the Data Series.

Oregon Department of Fish and Wildlife

Landings from 1956 to 1974

Oregon otter trawl landings made from 1956 to 1974 were obtained from the Data Series. Oregon trawl data, like data from WDF, are adjusted with data derived from interviews with fishermen, and are considered more accurate with respect to area of catch than data obtained solely from fish tickets.

During this time period there were small landings of groundfish species by fixed gear types, although there were some incidental landings from the halibut longline fishery (R. Demory, pers. commun., 1985). Oregon shrimp trawl landings from 1966 to 1970 were obtained from ODF&W annual reports. Data from 1971 to 1974 were obtained from the Data Series and are assumed to be accurate and complete.

Landings from 1975 to 1980

Oregon landings data from Data Series computer files from 1975 to 1980 were summarized and submitted to Jim Golden, ODF&W, for review. Golden's revisions of Data Series landings were generally minor (usually less than 0.5 metric tons, t) and probably due to differences in rounding. Golden added missing troll landings from 1975 and 1976 and separated out troll landings from the "other gears" category for 1977 through 1980. Additionally, the category for "other rockfish" was revised significantly from that originally reported. In particular, in 1980 there were 3,032.2 t of "other rockfish," caught using midwater trawl gear not included in Data Series.

ODF&W is currently revising their historical landings data. According to Golden the changes will be generally minor. The data in HAL should be considered the best available until the ODF&W revisions have been completed.

California Department of Fish and Game

Landings from 1956 to 1974

California otter trawl landings for 1956 to 1974 were obtained from the Data Series and are assumed to be complete and correct.

Data for landings made with other gears were not generally available. Data from Parrish (1973) on the sablefish longline fishery from 1953 to 1969 were entered into HAL. The California Department of Fish and Game (CDF&G) was unable to provide any additional non-trawl landings data for years prior to 1971. The original fish ticket data are stored in California and would require considerable time and effort to compile and summarize (F. Henry, pers. commun., 1985). CDF&G does not plan or have the funds to undertake this task at present.

Landings from 1975 to 1980

Landings, made with all gears, which were reported by CDF&G from 1975 through 1977 were obtained directly from the Data Series computer files. The Department was unable to provide any updates or additions to these landings. Therefore, they are assumed to be complete and correct. Landings data from 1978 through 1980 were obtained from a summary of CDF&G computer files (F. Henry, pers. commun., 1985). No landings information was included for PMFC areas 2A or 2B. CDF&G has not submitted data to the Data Series since 1977 and I could not locate any source of information for these missing areas.

In general, the quality of historical data reported by CDF&G is poor; there have been no attempts to review past landings data. The landings included in HAL represent the best data available, and I believe efforts to improve upon this quality would yield incremental improvements at best.

Canadian Department of Fisheries and Oceans

Landings from 1956 to 1974

Canadian otter trawl data for 1956 through 1974 were obtained from the Data Series and are assumed to be complete and accurate.

Landings by other gears from 1963 through 1970 were obtained from Forrester et al. (1978), with the exception of sablefish longline landings for 1956 to 1970 which were obtained from McFarlane and Beamish (1983). Fixed gear landings of sablefish in McFarlane and Beamish (1983) were reported in dressed weights. The Canadian multiplication factor of 1.5 was used to convert sablefish landings from dressed to round weights before loading into HAL.

Landings from 1975 to 1980

Landings made with all gears from 1975 to 1980 were obtained from the computerized Data Series and generally match Canadian annual reports of catch and effort statistics. Landings for spiny dogfish (Squalus acanthias) for this time period were missing from the Data Series, so annual catch and effort reports by DFO (Smith 1976, 1977, 1978, 1979, 1980; Leaman, 1982) have been used as a data source.

PMFC Area 3C Otter Trawl Landings

An estimate of Canadian trawl landings from the U.S. portion of PMFC area 3C was provided by Janice Leaman (pers. commun., 1985). Canadian statistics do not separate the U.S. portion of the fishing ground from the Canadian portion, so these splits should be considered estimates only.

Rockfish Landings

In the Data Series it was often unclear whether the category for Pacific ocean perch (POP) included Sebastes alutus exclusively, or other species of rockfish as well. Therefore U.S. and Canadian landings from 1960 to 1980 for trawl "POP" and "other rockfish" for PMFC areas 2A through 6A were obtained

from Tagart(1985). This report contains rockfish trawl landings (including midwater trawl) by species, PMFC area and year. The rockfish species composition data as reported by Tagart have been entered into HAL as a separate data set. Tagart's data for S. alutus and for the sum of all species except S. alutus were used for the categories "POP" and "other rockfish." No such species breakdowns were available for non-trawl landings. Landings in PMFC areas 1A, 1B and 1C prior to 1975 were obtained from the Data Series. (Tagart's report contains ODF&W data but no CDF&G data prior to 1975 for those areas.) Rockfish landings reported by the Alaska Department of Fish and Game (ADF&G) were obtained from Rigby (1984) and ADF&G (F. Funk, pers. commun., 1985).

All non-trawl U.S. and Canadian rockfish data from other sources for 1975 to 1980 have been put into the "unspecified rockfish" category for areas 1A through 2A. Non-trawl U.S. and Canadian data prior to 1975, and for 1975 through 1980 in areas 2B through 5E listed in Tables 4-28 were included as listed in the original source (i.e. the category "other rockfish" may include some S. alutus). Future reports from the HAL database will assign all non-trawl rockfish landings to the "unspecified rockfish" category.

In general the quality of the species composition data for rockfish reported by California is poor, while the quality of the rest of the data is good (J. Tagart, pers. commun., 1985). There is little chance that the quality of the California data will be improved in the future;

FOREIGN AND JOINT VENTURE CATCH DATA

Overview

Foreign nations have been fishing in U.S. waters for many years harvesting species generally not exploited by American fishermen. During the 1930's,

Japanese trawlers entered the Bering Sea to fish for king crab, (Paralithodes camtschatica), and soon expanded operations to harvest flounders and walleye pollock (Theragra chalcogramma). During the late 1950's and early 1960's yellowfin sole (Limanda aspera) was the predominant species landed, to be replaced by walleye pollock again in the mid to late 1960's (Nelson et al. 1981). Walleye pollock in the Bering Sea and Pacific whiting (Merluccius productus) in the northeast Pacific are two examples of species only recently being harvested by U.S. fishermen. Several authors have described foreign fisheries (Berger et al. 1985, Chitwood 1969, Fadeev 1972, Forrester et al. 1978, 1983, French et al., 1981, Murai et al. 1981, Nelson et al. 1981, Wall et al. 1981), and presented corresponding catch statistics. However, there exists no single source of information on total foreign catches by INPFC area for years prior to 1977 (when the reporting requirements of the Magnuson Fishery Conservation and Management Act (MFCMA) came into law).

Information on landings prior to 1977 was obtained from INPFC documents, reports by NMFS biologists and law enforcement personnel, and reports submitted to NMFS or the INPFC by individual fishing nations. On many occasions it was impossible to confirm or comment on the accuracy of the data, and in light of the absence of either confirming or conflicting information some rather obscure sources have been taken at face value.

From the present to 1977, NMFS has produced summaries of foreign catch in U.S. waters by INPFC area. These data are based on reports submitted to NMFS by foreign fishing nations-and adjusted according to data collected by U.S. observers stationed aboard foreign fishing vessels. The procedures used for estimating the catch are described in Nelson et al. (1981). Species composition data for rockfish and flatfish catches by Japanese vessels for 1977 and 1978 are summarized in Nelson et al. (1981), French et al. (1981), and Wall et al. (1981).

In 1977, joint venture fishing operations between U.S. fishermen and foreign nations began. At times when fishery management councils determine domestic processors will not use the entire domestic allocation for a given species or species group, domestic fishermen may harvest the unused portion of the allocation. They then deliver their catches to foreign processors at sea. Catches by U.S. joint venture fishermen recorded in HAL were obtained from the NMFS Foreign Fisheries Observer Program. Canadian fishermen operate with foreign processors under a similar arrangement in Canadian waters. Catches by Canadian joint venture fishermen were obtained from reports by Smith (1980, 1981).

Foreign, joint venture, and U.S. and Canadian catch data in HAL are summarized by INPFC area, and species in Tables 29 through 53. A brief, general description of each foreign nation's fishing history in U.S. waters is presented below. The source documents and comments on specific items of catch data are presented in Appendix D.

Japan

Japanese vessels began fishing in waters off Alaska in 1930, targeting primarily on king crab. A groundfish trawl fishery began in 1933 with a mothership fleet in the Bering Sea processing flounder for fillets and walleye pollock for fish meal. Trawling for fish to be frozen for human consumption began in 1940, but from 1942 to 1953 World War II halted Japanese groundfish operations in the region. In 1954 the Japanese returned to the eastern Bering Sea and targeted primarily on flatfish and walleye pollock. Chitwood (1969) presents a comprehensive description of early Japanese fishing operations. Data for 1956 to 1970 were obtained from Forrester et al. (1978), and data for 1971 to 1976 were obtained from Forrester et al. (1983).

Table 29. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1956.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KOOIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	382.4	4309.6	3427.0	6508.3	6351.8	6409.7	141.5	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	382.4	4309.6	3427.0	6508.3	6351.8	6409.7	141.5	0.0	0.0
Pacific ocean perch									
U.S. & Canada	0.0	0.0	2.9	1295.9	1074.8	1299.8	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	1026.9	3892.1	900.4	2971.4	1652.5	1075.4	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1026.9	3892.1	903.3	4267.3	2727.3	2375.2	0.0	0.0	0.0
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	91.2	2361.1	4435.3	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	0.0	0.0	0.0	0.0	12.7	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	45.7	15.3	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	19.4	1129.2	138.4	219.3	2165.9	224.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	19.4	1129.2	138.4	310.3	4585.4	4674.8	0.0	0.0	0.0
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada ²	26.6	631.4	368.1	582.5	1885.2	877.1	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	1455.3	9962.3	4836.8	11668.6	15549.7	14336.5	141.5	0.0	0.0

Table 9 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	27530.3
Foreign	0.0	0.0	0.0	48842.0	0.0	0.0	48842.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	0.0	0.0	0.0	48842.0	0.0	0.0	76372.3
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3673.4
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	11518.7
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	15192.1
Pacific cod							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	6887.6
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	12.7
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	61.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3896.2
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	0.0	0.0	0.0	0.0	0.0	0.0	10857.5
Pacific herring							
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish							
U.S. & Canada ²	0.0	0.0	0.0	0.0	0.0	0.0	4370.9
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	0.0	0.0	0.0	48842.0	0.0	0.0	106792.8

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.
2-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C, for foreign and joint venture data see Appendix D.

Table 30. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1957.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	399.5	4080.1	4289.4	6699.9	4840.4	4499.0	78.3	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	399.5	4080.1	4289.4	6699.9	4840.4	4499.0	78.3	0.0	0.0
Pacific ocean perch									
U.S. & Canada	0.0	0.0	0.2	1442.6	1144.5	963.1	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	1421.8	3936.6	1049.9	2989.2	1365.1	761.3	0.2	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1421.8	3936.6	1050.1	4431.8	2509.6	1724.4	0.2	0.0	0.0
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	234.9	2516.7	3082.6	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	2.2	10.4	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	10.4	775.2	204.1	266.4	1740.7	425.3	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUND FISH	10.4	775.2	204.1	501.3	4259.6	3518.3	0.0	0.0	0.0
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada ²	45.3	662.8	530.1	487.5	1700.7	977.6	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	1877.0	9454.7	6073.7	12120.5	13310.3	10719.3	78.5	0.0	0.0

Table 30 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	24886.6
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	0.0	0.0	0.0	0.0	0.0	0.0	24886.6
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3550.4
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	11524.1
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	15074.5
Pacific cod							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	5834.2
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	12.6
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3422.1
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUND FISH	0.0	0.0	0.0	0.0	0.0	0.0	9268.9
Pacific herring							
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish							
U.S. & Canada ²	0.0	0.0	0.0	0.0	0.0	0.0	4404.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	0.0	0.0	0.0	0.0	0.0	0.0	53634.0

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget sound or area 4B, Georgia Straits.

2-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C, for foreign and joint venture data see Appendix D.

Table 31. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1958

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	397.1	3552.7	3459.5	6127.8	3906.6	4195.1	11.7	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	397.1	3552.7	3459.5	6127.8	3906.6	4195.1	11.7	0.0	0.0
Pacific ocean perch									
U.S. & Canada	0.0	0.0	2.0	1039.0	670.1	941.7	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	1303.2	410.2	1136.0	3307.2	1791.0	702.0	3.8	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1303.2	410.2	1136.0	4346.2	2461.1	1643.7	3.8	0.0	0.0
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	172.0	2027.8	6464.3	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	9.3	14.6	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	0.7	552.0	225.7	58.9	991.4	815.8	5.2	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUND FISH	0.7	552.0	225.7	230.9	3028.5	7294.7	5.2	0.0	0.0
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada ²	46.6	590.3	651.4	508.2	1702.1	784.6	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	1747.6	5105.2	5474.6	11213.1	11098.3	13918.0	20.7	0.0	0.0

Table. 31 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	21650.5
Foreign	0.0	0.0	0.0	39153.0	0.0	0.0	39153.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	0.0	0.0	0.0	39153.0	0.0	0.0	60803.5
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	2652.7
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	8653.4
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	11306.1
Pacific cod							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	8664.1
Foreign	0.0	0.0	0.0	154.0	17.0	52.0	223.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	23.9
Foreign	0.0	0.0	0.0	6924.0	52.0	0.0	6976.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	2649.7
Foreign	0.0	0.0	0.0	0.0	6.0	26.0	32.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	0.0	0.0	0.0	7078.0	75.0	78.0	18568.7
Pacific herring							
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish							
U.S. & Canada ²	0.0	0.0	0.0	0.0	0.0	0.0	4283.2
Foreign	0.0	0.0	0.0	147.0	0.0	2.0	149.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	0.0	0.0	0.0	46378.0	75.0	80.0	95110.5

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.
P-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C, for foreign & joint venture data see Appendix D.

Table 32 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	22854.8
Foreign	0.0	0.0	0.0	185102.0	219.0	0.0	185321.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	0.0	0.0	0.0	185102.0	219.0	0.0	208175.8
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3986.1
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	10634.7
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	14620.8
Pacific cod							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	8398.9
Foreign	0.0	0.0	0.0	2564.0	300.0	768.0	3632.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	10.8
Foreign	0.0	0.0	0.0	32735.0	58.0	0.0	32793.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3965.6
Foreign	0.0	0.0	0.0	0.0	289.0	104.0	393.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUND FISH	0.0	0.0	0.0	35299.0	647.0	872.0	49193.7
Pacific herring							
Foreign	0.0	0.0	0.0	0.0	10.0	0.0	10.0
Unsp. groundfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	5046.6
Foreign	0.0	0.0	0.0	378.0	2.0	8.0	388.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	0.0	0.0	0.0	220779.0	878.0	880.0	277434.9

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.

2-Includes landings of lingcod, which are listed as a separate category in Tables 4-26.

Sources: Par U.S. and Canadian data see Appendix C, for foreign and joint venture data see Appendix D.

Table 33. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1960.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER ¹	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	633.2	2770.8	4439.5	6567.2	4097.5	5520.0	80.7	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	633.2	2770.8	4439.5	6567.2	4097.5	5520.0	80.7	0.0	0.0
Pacific ocean perch									
U.S. & Canada	0.0	0.0	9.1	1077.8	1575.0	1708.2	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	1193.0	2923.5	1207.3	3082.6	2088.7	730.5	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1193.0	2923.5	1216.4	4160.4	3663.7	2438.7	0.0	0.0	0.0
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	98.6	1334.6	3070.9	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	0.0	0.0	0.0	0.0	0.2	0.7	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	4.5	14.5	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	10.7	691.0	392.6	166.8	2238.4	350.1	2110.4	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUND FISH	10.7	691.0	392.6	265.4	3577.7	3436.2	2110.4	0.0	0.0
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada ²	64.6	359.7	354.0	678.8	2863.9	1539.6	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	1901.5	6745.0	6402.5	11671.8	14202.8	12934.5	2191.1	0.0	0.0

Table 33 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	24108.9
Foreign	0.0	0.0	0.0	489911.0	3035.0	0.0	492946.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	0.0	0.0	0.0	489911.0	3035.0	0.0	517054.9
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	4370.1
Foreign	0.0	0.0	0.0	0.0	1075.0	0.0	1075.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	11225.6
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	0.0	0.0	0.0	0.0	1075.0	0.0	16670.7
Pacific cod							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	4504.1
Foreign	0.0	0.0	0.0	800.0	4879.0	0.0	5679.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	19.0
Foreign	0.0	0.0	0.0	23597.0	2500.0	0.0	26097.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	5960.0
Foreign	0.0	0.0	0.0	0.0	1861.0	0.0	1861.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUND FISH	0.0	0.0	0.0	24397.0	9240.0	0.0	44121.0
Pacific herring							
Foreign	0.0	0.0	0.0	806.0	10.0	0.0	816.0
Unsp. groundfish							
U.S. & Canada ²	0.0	0.0	0.0	0.0	0.0	0.0	5860.6
Foreign	0.0	0.0	0.0	8928.0	1332.0	0.0	10260.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	0.0	0.0	0.0	524042.0	14692.0	0.0	594783.2

1-INPFC Vancouver does not include landings in PMFC area 4A, Pudget Sound or area 4B, Georgia Straits.

2-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C. for foreign and joint venture data see Appendix D.

Table 34. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1961.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	878.3	3501.3	4114.7	11551.8	6388.4	5061.2	162.4	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	878.3	3501.3	4114.7	11551.8	6388.4	5061.2	162.4	0.0	0.0
Pacific ocean perch									
U.S. & Canada	0.0	0.0	0.5	2089.3	2484.8	1199.4	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	1061.2	2461.0	727.1	2573.5	2468.6	889.3	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1061.2	2461.0	727.6	4662.8	4953.4	2088.7	0.0	0.0	0.0
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	39.4	771.5	1859.9	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	102.5	46.3	60.8	0.7	0.0	1.4	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	0.2	7.7	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	118.6	697.6	389.3	83.9	1341.7	450.1	897.4	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	221.1	743.9	450.1	124.0	2113.4	2319.1	897.4	0.0	0.0
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada ²	36.1	473.1	186.8	522.8	3509.3	1222.7	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	2196.7	7179.3	5479.2	16861.4	16964.5	10691.7	1059.8	0.0	0.0

Table 34 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	31658.1
Foreign	0.0	0.0	0.0	560954.0	49131.0	1005.0	611090.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	0.0	0.0	0.0	560954.0	49131.0	1005.0	642748.1
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	5774.0
Foreign	0.0	0.0	0.0	4284.0	5873.0	2845.0	13002.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	10180.7
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	0.0	0.0	0.0	4284.0	5873.0	2845.0	28956.7
Pacific cod							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	2670.8
Foreign	0.0	0.0	0.0	1566.0	882.0	4435.0	6883.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	211.7
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	7.9
Foreign	0.0	0.0	0.0	22880.0	1336.0	242.0	24458.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3978.6
Foreign	0.0	0.0	0.0	770.0	14857.0	10555.0	26182.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	0.0	0.0	0.0	25216.0	17075.0	15232.0	64392.0
Pacific herring							
Foreign	0.0	0.0	0.0	675.0	177.0	73378.0	74230.0
Unsp. groundfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	5950.8
Foreign	0.0	0.0	0.0	315.0	239.0	414.0	968.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	0.0	0.0	0.0	591444.0	72495.0	92874.0	817245.6

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.

2-Includes landings of lingcod, which are listed as a separate category in Tables 4-26.

Sources: For U.S. and Canadian data See Appendix C, for foreign and joint venture data see Appendix D.

Table 35. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and Eastern Bering Sea in 1962.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	904.4	3874.6	4023.1	7582.1	4810.3	4898.5	78.9	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	904.4	3874.6	4023.1	7582.1	4810.3	4898.5	78.9	0.0	0.0
Pacific ocean perch									
U.S. & Canada	0.0	0.0	0.0	2515.4	3857.0	1837.5	5.8	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	966.1	2044.4	752.1	3652.3	2999.2	1780.2	0.9	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	966.1	2044.4	752.1	6267.7	6856.2	3617.7	7.7	0.0	0.0
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	7.2	896.7	2141.1	0.9	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	152.0	2.3	2.3	0.0	0.0	0.5	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	5.4	11.8	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	101.1	777.7	196.1	115.6	1889.0	900.6	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	253.1	780.0	198.4	122.8	2791.1	3054.0	0.9	0.0	0.0
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada ²	119.7	313.9	197.8	527.0	1564.6	1170.1	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	2243.3	7012.9	5171.4	14499.6	16022.2	12740.3	87.5	0.0	0.0

Table 35 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	0.0	251853.0	1567.0	0.0	253420.0
Other flatfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	26171.9
Foreign	0.0	0.0	0.0	171810.0	60453.0	1738.0	234001.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	0.0	0.0	0.0	423663.0	62020.0	1738.0	513592.9
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	8316.7
Foreign	0.0	0.0	0.0	3968.0	7382.0	457.0	11807.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	12195.2
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	0.0	0.0	0.0	3968.0	7382.0	457.0	32318.9
Pacific cod							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3045.9
Foreign	0.0	0.0	0.0	1070.0	4984.0	3844.0	9898.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	157.1
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	17.2
Foreign	0.0	0.0	0.0	6544.0	52221.0	731.0	59496.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3980.1
Foreign	0.0	0.0	0.0	8189.0	17800.0	3734.0	29723.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	0.0	0.0	0.0	15803.0	75005.0	8309.0	106317.3
Pacific herring							
Foreign	0.0	0.0	0.0	2.0	461.0	9633.0	10096.0
Unsp. groundfish							
U.S. & Canada ²	0.0	0.0	0.0	0.0	0.0	0.0	3893.1
Foreign	0.0	0.0	0.0	1214.0	4717.0	1233.0	7164.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	0.0	0.0	0.0	444650.0	149585.0	21370.0	673382.2

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.

2-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C, for foreign and joint venture data see Appendix D.

Table 36. All nation removals of groundfish (mt) by INPFC management area in the northeast pacific and eastern Bering Sea in 1963.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	764.5	4135.6	4552.7	7140.2	3759.6	3893.1	17.2	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	247.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	764.5	4135.6	4552.7	7140.2	3759.6	3893.1	17.2	1.0	247.0
Pacific ocean perch									
U.S. & Canada	0.0	0.0	2.7	3550.0	2.4	452.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1852.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	1139.4	2209.9	988.8	2260.4	5902.1	4877.7	0.1	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	20.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1139.4	2209.9	991.5	5810.4	5904.4	5329.7	0.1	6.0	1872.0
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	20.0	1795.8	3655.9	14.1	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	103.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	6.4	9.5	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	505.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	167.4	570.7	222.2	190.0	1156.2	1129.3	109.3	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	229.0	1263.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	270.4	570.7	222.2	210.0	2958.4	4794.7	123.4	229.0	1832.0
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada ²	44.5	458.6	171.5	387.1	2650.1	1327.9	1.9	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	231.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	2218.8	7374.8	5937.9	13547.7	15272.5	15345.4	142.6	236.0	4182.0

Table 36 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	2.0	20299.0	505.0	672.0	21478.0
Other flatfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	24262.9
Foreign	94.0	324.0	417.2	96046.3	29808.1	6985.1	133922.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	94.0	324.0	419.2	116345.3	30313.1	7657.1	179663.6
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	4007.1
Foreign	1442.0	3012.0	7696.6	2931.1	4839.1	1490.7	23263.5
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	17378.3
Foreign	0.0	6.0	0.0	0.0	0.0	0.0	32.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1442.0	3018.0	7696.6	2931.1	4839.1	1490.7	44680.9
Pacific cod							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	5485.8
Foreign	61.0	55.0	602.8	1137.4	2753.2	8302.8	12976.2
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	103.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	15.9
Foreign	214.0	422.0	1367.0	14029.8	89929.6	6388.3	112855.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3545.1
Foreign	61.0	266.0	664.1	5759.0	7946.8	3308.2	19497.1
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	336.0	743.0	2633.9	20926.2	100629.6	17999.3	154478.8
Pacific herring							
Foreign	0.0	0.0	0.0	0.0	284.4	10180.6	10465.0
Unsp. groundfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	5041.6
Foreign	42.0	316.0	516.5	292.0	617.6	1158.9	3374.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	1914.0	4401.0	11266.2	140494.6	136883.8	38486.6	397703.9

1-INPFC Vancouver does not include landings in PMFC area 4A, Pudget Sound or area 4B, Georgia Straits.

2-Includes landings of lingcod, which are listed as a separate category in Tables 4-20.

Sources: For U.S. and Canadian data see Appendix C, for foreign and joint Venture data see Appendix D.

Table 37. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1964.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	740.3	4595.8	3975.2	6476.8	3094.0	3959.2	177.4	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	803.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	740.3	4595.8	3975.2	6476.8	3094.0	3959.2	177.4	7.0	803.0
Pacific ocean perch									
U.S. & Canada	0.0	0.0	7.3	3645.0	44.7	424.7	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	10611.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	689.0	1827.1	554.7	2651.6	4106.3	4524.9	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	689.0	1827.1	562.0	6296.6	4151.0	4949.7	0.0	11.0	10611.0
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	58.0	1885.2	6690.1	1.8	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	181.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	93.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	1.8	6.8	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	796.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	198.2	652.9	554.3	87.5	1209.9	1494.0	237.7	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	907.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUND FISH	291.2	652.9	563.4	145.5	3096.9	8190.9	239.5	3.0	1884.0
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada	42.1	483.6	142.0	331.2	3007.5	1449.9	2.7	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	755.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	1762.6	7559.4	5242.6	13250.1	13349.4	18549.7	419.6	22.0	14053.0

Table 37. continued.

SPECIES	CHIRIKOF	SHUMAGIN	GULF ALA ²	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole								
Foreign	0.0	0.0	0.0	1.0	44427.0	4497.0	1734.0	50659.0
Other flatfish								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23018.7
Foreign	28.0	30.0	0.0	744.1	87563.5	18244.2	2844.5	110264.3
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	28.0	30.0	0.0	745.1	131990.5	22741.2	4578.5	183942.0
Pacific ocean perch								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4121.7
Foreign	1150.0	1612.0	230000.0	105872.5	10400.7	3216.0	207.2	363080.4
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14353.6
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1150.0	1612.0	230000.0	105872.5	10400.7	3216.0	207.2	381555.8
Pacific cod								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8635.1
Foreign	3.0	9.0	0.0	285.0	3997.9	9426.8	5509.8	19412.5
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	102.1
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6
Foreign	239.0	88.0	0.0	560.0	73921.3	98002.7	2835.0	176445.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4434.5
Foreign	48.0	92.0	0.0	1540.5	1014.3	2530.7	3334.1	9466.6
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	290.0	189.0	0.0	2385.5	78933.5	109960.2	11678.9	218504.4
Pacific herring								
Foreign	0.0	0.0	0.0	0.0	0.0	1030.8	1296.3	2327.1
Unsp. groundfish								
U.S. & Canada ³	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5459.0
Foreign	2.0	54.0	0.0	1248.0	274.8	428.3	1105.6	3868.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	1470.0	1889.0	230000.0	110251.1	221599.5	137376.5	18866.5	795656.9

1-INPFC Vancouver does not include landings in FMFC area 4A, Puget Sound or area 4B, Georgia Straits.

2-These catches from the Gulf of Alaska could not be apportioned to INPFC areas.

3-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C, for foreign and joint venture data see Appendix D.

Table 38. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1965.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	930.7	4825.5	4468.8	5242.7	3292.4	3862.3	13.6	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	2598.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	930.7	4825.5	4468.8	5242.7	3292.4	3862.3	13.6	22.0	2598.0
Pacific ocean perch									
U.S. & Canada	0.0	0.0	16.8	5379.0	6.5	1387.5	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0	20832.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	742.6	1998.1	805.1	2665.0	4836.8	5189.3	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	742.6	1998.1	821.9	8044.0	4843.3	6576.8	0.0	33.0	20832.0
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	83.9	3415.6	6521.9	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	120.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	283.5	3.2	24.0	679.5	0.0	9.1	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	10.0	9.1	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1186.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	146.5	1017.8	570.3	153.0	763.6	393.7	194.1	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	1207.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUND FISH	430.0	1021.0	594.3	916.4	4189.2	6933.8	194.1	7.0	2713.0
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada	25.8	325.7	250.0	417.4	3820.5	1648.5	2.3	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	247.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	2129.1	8170.3	6135.0	14620.5	16145.4	19021.4	210.0	62.0	26390.0

Table 38. continued.

SPECIES	CHIRIKOF	SHUMAGIN	GULF ALA ²	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole								
Foreign	0.0	0.0	0.0	92.0	24165.0	1874.0	1738.0	27869.0
Other flatfish								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22636.0
Foreign	620.0	1443.0	0.0	651.0	42203.0	6285.0	83.0	53905.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	620.0	1443.0	0.0	743.0	66368.0	8159.0	1821.0	104410.0
Pacific ocean perch								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6789.8
Foreign	12551.0	9065.0	340000.0	109782.1	13491.9	4207.9	101.0	510063.9
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16236.9
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	12551.0	9065.0	340000.0	109782.1	13491.9	4207.9	101.0	533090.6
Pacific cod								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10021.4
Foreign	24.0	236.0	0.0	459.1	4455.8	10233.8	1984.3	17716.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	999.3
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.1
Foreign	745.0	815.0	0.0	697.0	60874.6	168394.0	1320.0	234031.6
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3239.0
Foreign	242.0	764.0	0.0	1248.8	846.5	3991.5	1184.8	9488.6
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	1011.0	1815.0	0.0	2404.9	66176.9	182619.3	4489.1	275515.0
Pacific herring								
Foreign	0.0	0.0	0.0	0.0	0.0	771.0	166.0	937.0
Unsp. groundfish								
U.S. & Canada ³	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6490.2
Foreign	102.0	188.0	0.0	757.0	654.0	1320.0	291.0	3569.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	14284.0	12511.0	340000.0	113697.0	146690.8	197077.2	6868.1	924011.8

1-INPFC Vancouver does not include landings in PMFC 4A, Puget Sound or area 4B, Georgia Straits.

2-These catches from the Gulf of Alaska could not be apportioned to INPFC areas.

3-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C. for foreign and joint venture data see Appendix D.

Table 39 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	98.0	44297.0	1098.0	6.0	45499.0
Other flatfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	25302.6
Foreign	1597.6	1849.6	219.2	88844.4	4080.8	181.2	98741.2
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	1597.6	1849.6	317.2	133141.4	5178.8	187.2	169542.8
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3726.9
Foreign	37140.2	30693.6	32692.6	18556.8	27337.4	477.8	304763.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	19452.8
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	37140.2	30693.6	32692.6	18556.8	27337.4	477.8	327943.3
Pacific cod							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	6467.2
Foreign	161.9	48.6	171.2	15208.1	3007.4	497.6	19345.2
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	1817.5
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	128000.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	84.5
Foreign	2814.3	4145.2	1227.2	205959.0	55760.5	13.0	272075.6
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3722.8
Foreign	775.0	1092.9	1340.8	2995.3	6509.6	2004.7	16802.2
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	3751.2	5286.7	2739.2	224162.4	65277.5	2515.3	448315.0
Pacific herring							
Foreign	0.0	0.0	0.0	0.0	3386.0	0.0	3386.0
Unsp. groundfish							
U.S. & Canada ²	0.0	0.0	0.0	0.0	0.0	0.0	7888.8
Foreign	281.0	194.0	125.1	605.3	744.3	290.1	3783.8
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	42770.0	38023.9	35874.1	376465.9	101924.0	3470.4	960859.7

1-INPFC Vancouver does not include landings in PMFC areas 4A, Puget Sound or area 4B, Georgia Straits.
2-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C, for foreign and joint venture data see Appendix D.

Table 40. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1967.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER ¹	CHARLOTTE	SOUTHEAST	YAKUTAT	KOOTAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	565.4	4344.2	4588.6	5593.2	2861.9	7235.7	19.5	0.0	0.0
Foreign	0.0	4.0	254.2	157.7	293.4	660.1	832.0	589.8	1192.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	565.4	4348.2	4842.8	5750.9	3155.3	7895.8	851.5	589.8	1192.7
Pacific ocean perch									
U.S. & Canada	0.0	0.5	7.7	286.0	7.0	383.7	0.0	0.0	0.0
Foreign	0.0	1.0	203.7	4922.5	0.0	6379.4	9379.2	13939.3	18339.6
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	1337.2	1882.0	665.4	2501.0	2079.6	7620.6	0.0	0.0	0.0
Foreign	0.0	17766.0	179.0	16078.0	17181.2	9306.0	6741.0	6649.0	16895.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1337.2	19649.5	1055.8	23787.5	19267.9	23689.7	16120.2	20588.3	35234.6
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	172.0	2349.7	6722.3	3.6	0.0	0.0
Foreign	0.0	0.0	0.0	2.0	6.0	1.0	1.0	50.2	274.9
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	163.8	31.3	37.2	7437.2	1289.6	4.5	0.0	0.0	0.0
Foreign	0.0	42603.8	130.8	131849.0	28822.1	7890.6	0.0	22.0	93.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	0.9	55.8	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	6.1	0.0	187.9	601.0	913.1	1305.1
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	59.5	1418.1	609.5	45.7	301.4	1242.5	198.9	0.0	0.0
Foreign	0.0	7.1	643.9	676.3	818.1	385.6	859.7	1651.4	1583.5
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	223.3	44060.3	1421.4	140188.3	33587.8	16490.2	1674.2	2636.7	3256.5
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada ²	38.2	352.1	162.3	566.2	4429.3	2604.6	7.9	0.0	0.0
Foreign	0.0	749.5	698.5	4564.2	2385.5	725.1	743.3	426.8	732.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	2164.1	69159.6	8180.8	174857.1	62825.8	51405.4	19397.1	24241.6	40415.8

Table 40 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	18.0	53105.0	7325.0	65.0	60513.0
Other flatfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	25208.5
Foreign	508.4	1362.5	494.0	145902.0	11806.0	1137.0	165193.8
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	508.4	1362.5	512.0	199007.0	19131.0	1202.0	250915.3
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	684.9
Foreign	7129.9	6088.6	14293.8	5676.9	15258.3	2895.2	104507.4
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	16085.8
Foreign	13381.0	14198.0	46577.0	0.0	0.0	0.0	164951.2
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	20510.9	20286.6	60870.8	5676.9	15258.3	2895.2	286229.3
Pacific cod							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	9247.6
Foreign	278.9	1545.0	374.1	23811.9	8235.5	966.2	35546.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	8963.6
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	211411.3
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	56.7
Foreign	966.7	2645.5	1833.0	461366.0	88768.5	894.0	559486.9
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3875.6
Foreign	370.6	522.4	1652.2	3489.8	8218.2	2597.3	23486.1
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	1616.2	4712.9	3859.3	488667.7	105222.2	4457.5	852074.5
Pacific herring							
Foreign	0.0	0.0	0.0	209.0	2502.0	30.0	2741.0
Unsp. groundfish							
U.S. & Canada ²	0.0	0.0	0.0	0.0	0.0	0.0	8160.6
Foreign	333.9	81.7	618.0	521.0	3720.0	1096.0	17395.5
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	22969.4	26443.7	65860.1	694081.6	145833.5	9680.7	1417516.2

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.
2-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C, for foreign and joint venture data see Appendix D.

Table 41. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea and 1968.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	408.2	3253.8	6832.0	4666.8	3502.6	6297.9	29.5	0.0	0.0
Foreign	0.0	0.0	2.0	70.0	240.5	630.1	517.5	1955.2	720.4
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	408.2	3253.8	6834.0	4736.8	3743.1	6928.0	547.0	1955.2	720.4
Pacific ocean perch									
U.S. & Canada	0.0	0.0	10.4	170.0	0.2	5385.7	0.0	0.0	0.0
Foreign	0.0	0.0	34.2	3326.0	3711.8	11127.2	12216.0	31030.1	8269.3
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	1165.8	1716.0	783.0	1949.2	3242.2	2978.3	0.0	0.0	0.0
Foreign	0.0	4899.0	4590.0	5070.3	5251.9	5612.4	17815.7	7735.7	5808.1
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1165.8	6615.0	5417.6	10515.5	12206.0	25103.6	30031.7	38765.8	14077.4
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	56.6	1970.5	6171.2	2.7	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	5.0	9.0	77.0	323.0	479.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	127.9	26.8	1.8	1.8	0.5	9.2	0.0	0.0	0.0
Foreign	0.0	2938.8	2396.6	54539.4	46565.4	14796.4	284.0	182.0	315.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	1.8	13.2	2.3	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	11.0	170.7	584.5	3120.2	1228.2
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	46.7	1141.9	627.4	29.6	294.3	471.0	128.1	0.0	0.0
Foreign	0.0	0.0	9.0	411.1	521.4	1875.1	7223.7	5581.3	1330.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	174.6	4107.5	3034.8	55038.5	49369.9	23515.8	8302.3	9206.5	3352.9
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada	23.5	325.2	369.2	899.7	4695.0	3379.8	14.5	0.0	0.0
Foreign	0.0	47.1	47.4	1413.0	1116.5	695.9	474.9	1065.4	423.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	1772.1	14348.6	15703.0	72603.5	71130.5	59623.1	39370.4	50992.9	18574.4

Table 41 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	6.0	37952.0	2882.0	469.0	41309.0
Other flatfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	24990.8
Foreign	121.8	122.8	415.0	88289.0	19726.0	2430.0	115240.3
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	121.8	122.8	421.0	126241.0	22608.0	2899.0	181540.1
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	5566.3
Foreign	2493.3	1219.5	23876.0	11485.0	14745.0	3381.0	126914.4
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	11834.4
Foreign	11124.0	10882.0	19514.0	899.0	2088.0	0.0	101290.1
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	13617.3	12101.5	43390.0	12384.0	16833.0	3381.0	245605.2
Pacific cod							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	8201.0
Foreign	87.0	77.0	294.0	20080.0	37800.0	4902.0	64133.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	168.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	122017.6
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	17.3
Foreign	371.6	860.6	2732.0	422544.0	279666.0	1303.0	712611.8
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	2739.0
Foreign	326.9	296.8	1673.0	5349.0	9026.0	3078.0	36702.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUND FISH	785.5	1234.4	4719.0	447973.0	326492.0	9283.0	946589.7
Pacific herring							
Foreign	0.0	0.0	3.0	10482.0	50401.0	166.0	61052.0
Unsp. groundfish							
U.S. & Canada ²	0.0	0.0	0.0	0.0	0.0	0.0	9706.9
Foreign	29.1	38.2	317.0	288.0	1443.0	616.0	8015.2
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	14553.7	13496.9	48850.0	597368.0	417777.0	16345.0	1452509.1

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.
2-Includes landing of lingcod, which are listed as a separate category in Tables 4-29.

Sources: For U.S. and Canadian data see Appendix C, for foreign and joint venture see Appendix D.

Table 42. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1969.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	412.3	2965.7	8358.0	5201.3	2423.5	7231.9	6.8	0.0	0.0
Foreign	0.0	13.3	8.2	43.9	306.2	437.9	699.2	1037.0	430.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	412.3	2979.0	8366.2	5245.2	2729.7	7669.8	706.0	1037.0	430.7
Pacific ocean perch									
U.S. & Canada	0.0	0.9	21.3	162.0	530.3	5998.2	0.0	0.0	0.0
Foreign	0.0	52.7	2.0	16.2	1928.6	9926.9	16329.7	18661.8	11503.5
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	1094.6	1484.6	900.0	2291.3	3585.8	5683.8	0.0	0.0	0.0
Foreign	0.0	370.1	22.0	1702.0	2319.2	1244.6	872.5	1042.1	8873.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1094.6	1908.3	945.3	4171.5	8363.9	22853.5	17202.2	19703.9	20376.5
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	10.8	1354.0	3697.7	20.9	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	10.1	30.4	99.5	633.3
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	59.0	4.1	30.0	0.5	0.0	9.1	0.0	0.0	0.0
Foreign	0.0	11583.6	912.3	73687.9	92480.1	138.9	3.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	13.6	81.2	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	4.0	319.9	710.5	1895.2	2394.8
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	26.4	1211.4	1053.4	69.3	274.3	510.4	72.1	0.0	0.0
Foreign	0.0	160.3	30.3	722.0	2205.3	2554.3	7109.2	6843.9	3278.3
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	85.4	12959.4	2026.0	74490.5	96331.3	7321.6	7946.1	8838.6	6306.4
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada	22.6	253.2	411.4	896.6	3392.9	2479.2	5.2	0.0	0.0
Foreign	0.0	352.0	25.8	2050.2	2974.8	317.3	642.9	573.4	321.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	1614.9	18451.9	11774.7	86854.0	113792.6	40641.4	26502.4	30152.9	27435.3

Table 42. continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	20.0	69915.0	11534.0	815.0	82284.0
Other flatfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	26599.5
Foreign	187.8	314.4	233.0	134905.8	21553.2	4008.8	164179.4
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	187.8	314.4	253.0	204820.8	33087.2	4823.8	273062.9
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	6712.7
Foreign	5853.7	2049.3	15610.6	6028.3	8772.7	419.4	97155.4
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	15040.1
Foreign	8390.4	5661.0	18610.0	0.0	0.0	0.0	49106.9
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	14244.1	7710.3	34220.6	6028.3	8772.7	419.4	168015.1
Pacific cod							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	5083.4
Foreign	142.1	431.3	222.0	27877.6	22088.3	2365.1	53899.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	102.7
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	178805.8
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	94.8
Foreign	1492.6	11419.9	512.1	648213.0	214063.0	132.0	881157.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3217.3
Foreign	934.8	836.0	1673.4	5279.2	10727.7	2268.6	44623.3
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	2569.5	12687.2	2407.5	681369.8	246879.0	4765.7	1166984.0
Pacific herring							
Foreign	0.0	0.0	0.0	10402.5	118842.3	465.1	129709.9
Unsp. groundfish							
U.S. & Canada ²	0.0	0.0	0.0	0.0	0.0	0.0	7461.1
Foreign	186.4	42.1	2394.0	801.0	3778.0	1516.0	15975.6
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	17187.8	20754.0	39275.1	903422.4	411359.2	11990.0	1761208.6

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.
2-Includes landings of lingcod, which are listed as a separate Category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C, for foreign and joint venture data see Appendix D.

Table 43. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1970.

SPECIES	INPFC	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole										
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish										
U.S. & Canada	400.7	4202.5	7206.8	5489.4	2153.8	5469.6	92.5	0.0	0.9	
Foreign	0.0	0.0	0.0	0.0	43.1	285.4	1831.7	1004.5	523.8	
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
TOTAL FLATFISH	400.7	4202.5	7206.8	5489.4	2196.9	5755.0	1924.2	1004.5	524.7	
Pacific ocean perch										
U.S. & Canada	0.0	0.5	24.9	149.0	1477.2	5562.9	0.0	0.0	0.0	
Foreign	0.0	0.0	0.0	22.1	2192.8	5003.4	16384.4	10645.7	11415.1	
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Unsp. rockfish										
U.S. & Canada	1011.0	2011.3	1118.0	1727.5	3149.5	4473.7	626.7	0.0	0.9	
Foreign	0.0	0.0	2.0	2018.1	1006.5	273.7	300.7	385.9	40.1	
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
TOTAL ROCKFISH	1011.0	2011.8	1144.9	3916.7	7826.0	15313.7	17311.8	11031.6	11456.1	
Pacific cod										
U.S. & Canada	0.0	0.0	0.0	23.6	1246.9	1640.7	19.3	0.0	94.3	
Foreign	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1137.9	
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Pacific whiting										
U.S. & Canada	50.8	0.0	0.5	0.0	13.2	0.9	0.0	0.0	0.0	
Foreign	0.0	0.0	127.8	159380.9	74935.9	73.3	0.0	0.0	0.0	
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Walleye pollock										
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	6.8	8.2	0.0	28.6	
Foreign	0.0	0.0	0.0	0.0	0.0	13.4	303.8	302.7	1482.6	
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Sablefish										
U.S. & Canada	18.1	636.4	675.9	75.7	332.1	731.1	636.1	33.4	6.3	
Foreign	0.0	0.0	0.0	972.9	1284.3	4005.0	7927.4	8304.8	5277.9	
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
TOTAL ROUND FISH	68.9	636.4	804.2	160453.1	77812.4	6472.2	8894.8	8640.9	8027.6	
Pacific herring										
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	
Unsp. groundfish										
U.S. & Canada	120.7	460.9	542.1	721.1	2954.2	1783.2	46.6	0.2	2864.2	
Foreign	0.0	0.0	0.0	4917.5	2412.6	482.6	499.7	207.3	1865.1	
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
TOTAL ALL SPECIES	1601.3	7311.6	9698.0	175497.8	93202.1	29806.7	28677.1	20884.5	24743.7	

Table 43 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	9.0	39158.0	20695.0	103.0	59965.0
Other flatfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	25016.2
Foreign	255.4	149.1	939.1	117440.4	44542.8	6948.7	173964.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	255.4	149.1	948.1	156598.4	65237.8	7051.7	258945.2
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	7214.5
Foreign	5617.2	502.2	13665.6	2728.1	6000.4	389.4	74566.4
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	14118.6
Foreign	832.0	16919.0	44572.0	0.0	0.0	0.0	66350.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	6449.2	17421.2	58237.6	2728.1	6000.4	389.4	162249.5
Pacific cod							
U.S. & Canada	0.1	0.0	0.0	0.0	0.0	0.0	3024.9
Foreign	262.1	315.5	284.0	27506.4	42535.6	4031.0	76073.5
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	65.4
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	234517.9
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	43.6
Foreign	1566.6	12275.6	3665.1	517831.0	777291.0	103.0	1314834.8
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3145.1
Foreign	1419.9	1565.8	1247.7	4342.7	7395.9	1069.6	44813.9
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUND FISH	3248.7	14156.9	5196.8	549680.1	827222.5	5203.6	1676519.1
Pacific herring							
Foreign	0.0	0.0	0.0	1722.0	143817.0	0.0	145545.0
Unsp. groundfish							
U.S. & Canada ²	0.0	0.0	0.0	0.0	0.0	0.0	9493.2
Foreign	3130.1	2478.0	1715.4	1548.3	0.0	1252.3	20508.9
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	13083.4	34205.2	66097.9	712276.9	1042277.7	13897.0	2273260.9

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.

2-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C, for foreign and joint venture data see Appendix D.

Table 44. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1971.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	531.7	4823.2	6086.8	5181.0	2051.3	4212.7	0.0	0.0	0.7
Foreign	0.0	0.0	0.0	1803.0	289.0	15.0	456.0	424.0	1029.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	531.7	4823.2	6086.8	6984.0	2340.3	4227.7	456.0	424.0	1029.7
Pacific ocean perch									
U.S. & Canada	0.0	10.0	36.3	168.6	856.0	3212.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	276.0	1562.0	2764.0	13688.0	14155.0	12126.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	1041.6	1928.7	1604.8	1721.1	2414.7	4250.6	26.9	3.4	4.5
Foreign	0.0	0.0	0.0	1678.0	1417.0	378.0	3567.0	6013.0	16064.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1041.6	1938.7	1641.1	3843.7	6249.7	10604.6	17281.9	20171.4	28194.5
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	97.5	3781.2	2409.6	27.1	1.1	38.1
Foreign	0.0	0.0	0.0	0.0	1.0	0.0	0.0	29.0	363.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	39.9	0.0	0.9	1361.7	24.5	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	126485.0	26107.0	592.0	0.0	1.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	4.0	224.0	468.0	3531.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	80.3	1325.4	700.9	175.7	346.1	142.6	276.7	26.7	10.4
Foreign	0.0	0.0	0.0	652.0	989.0	2180.0	8692.0	7503.0	5375.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	120.2	1325.4	701.8	128771.9	31253.8	5328.2	9219.8	8028.8	9317.5
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.0	0.0
Unsp. groundfish									
U.S. & Canada ²	64.5	470.8	467.2	1062.3	1572.8	1132.3	24.7	1.0	12.2
Foreign	0.0	0.0	0.0	66.0	155.0	99.0	295.0	259.0	126.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	1758.0	8558.1	8896.9	140727.9	41571.6	21391.8	27277.4	28929.2	38679.9

Table 44 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	1.0	65628.0	16552.0	177.0	82358.0
Other flatfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	22887.4
Foreign	176.0	279.0	2347.0	133526.0	92940.0	7037.0	240321.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	176.0	279.0	2348.0	199154.0	109492.0	7214.0	345566.4
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	4282.9
Foreign	5032.0	2799.0	14664.0	3347.0	5753.0	375.0	76541.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	12996.3
Foreign	3867.0	640.0	3899.0	88236.0	0.0	0.0	125759.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	8899.0	3439.0	18563.0	91583.0	5753.0	375.0	219579.2
Pacific cod							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	6354.6
Foreign	92.0	153.0	1725.0	20104.0	22991.0	4955.0	50413.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	1427.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	153185.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	5.0
Foreign	747.0	4488.0	2606.0	757415.0	913728.0	111.0	1683322.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3084.8
Foreign	1611.0	2047.0	2881.0	5736.0	14555.0	821.0	53042.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUND FISH	2450.0	6688.0	7212.0	783255.0	951274.0	5887.0	1950833.4
Pacific herring							
Foreign	0.0	0.0	8.0	4653.0	35336.0	3.0	40045.0
Unsp. groundfish							
U.S. & Canada ²	2.6	0.0	0.0	0.0	0.0	0.0	4810.4
Foreign	30.0	71.0	1641.0	2356.0	5520.0	2628.0	13246.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	11557.6	10477.0	29772.0	1081001.0	1107375.0	16107.0	2574080.4

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget sound or area 4B, Georgia Straits.

2-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C. for foreign and joint venture data see Appendix D.

Table 45. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1972.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	457.8	6428.4	8250.1	5768.1	2233.0	3447.5	69.4	0.0	0.6
Foreign	0.0	0.0	0.0	1515.0	1130.0	155.0	3506.0	1906.0	2355.3
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	457.8	6428.4	8250.1	7283.1	3363.0	3602.5	3575.4	1906.0	2355.9
Pacific ocean perch									
U.S. & Canada	0.0	3.6	35.8	181.5	584.4	4969.6	0.0	0.0	0.0
Foreign	0.0	0.0	191.0	880.0	4295.0	6079.0	16617.0	15481.0	11436.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	1715.5	3530.4	1832.6	2300.6	1759.9	5337.6	2.5	2.2	4.6
Foreign	0.0	129.0	471.0	1528.0	1368.0	335.0	542.0	1083.0	18509.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1715.5	3663.0	2530.4	4890.1	8007.3	16721.1	17161.5	16566.2	29949.6
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	349.8	1940.5	5015.5	0.9	1.5	20.4
Foreign	0.0	0.0	0.0	0.0	8.0	3.0	50.0	72.0	1129.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	36.3	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	1125.0	5080.0	67888.0	40456.0	2957.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	2.4
Foreign	0.0	0.0	0.0	0.0	0.0	25.0	509.0	1031.0	17863.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	34.8	2518.9	1329.0	214.1	757.5	296.6	21.8	26.3	3.6
Foreign	0.0	0.0	174.0	754.0	1582.0	2784.0	11001.0	9948.0	8504.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	71.1	3643.9	5583.0	69209.5	44744.0	11082.0	11582.7	11078.8	28522.4
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	1028.0	896.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada ²	217.3	659.1	587.0	972.3	975.6	1349.4	0.5	2.1	0.2
Foreign	0.0	57.0	1085.0	3911.0	2655.0	925.0	723.0	289.0	14176.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	2461.7	14451.4	19035.5	86266.0	60772.9	34576.0	33043.1	29842.1	75004.1

Table 45 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	0.0	32041.0	2805.0	69.0	34915.0
Other flatfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	26654.9
Foreign	762.0	343.0	13835.0	93175.0	74369.1	19814.0	212865.4
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	762.0	343.0	13835.0	125216.0	77174.1	19883.0	274435.3
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	5774.8
Foreign	2841.0	4227.0	8560.0	2247.0	2498.0	290.0	75642.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	16485.9
Foreign	6682.0	137.0	27155.0	150.0	0.0	0.0	58089.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	9523.0	4364.0	35715.0	2397.0	2498.0	290.0	155991.7
Pacific cod							
U.S. & Canada	0.0	24.4	0.0	0.0	0.0	0.0	7353.0
Foreign	1109.0	166.0	438.0	20199.0	22666.0	3299.0	50139.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	39.9
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	117506.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3.3
Foreign	7828.0	6933.0	2082.0	676983.0	1162575.0	35295.0	1911124.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	5202.6
Foreign	3091.0	3857.0	3531.0	4119.0	8639.0	1649.0	59633.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	12028.0	10980.4	6051.0	701301.0	1193880.0	40243.0	2151000.8
Pacific herring							
Foreign	0.0	0.0	0.0	602.0	5736.0	115.0	8377.0
Unsp. groundfish							
U.S. & Canada	0.0	0.3	0.0	0.0	0.0	0.0	4763.8
Foreign	5739.0	123.0	26262.0	48501.0	38199.0	2165.0	144810.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	28052.0	15810.7	81863.0	878017.0	1317487.1	62696.0	2739378.6

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.

2-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data See Appendix C. for foreign and joint venture data see Appendix D.

Table 46. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1973.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	469.8	2026.8	8249.2	5730.5	2276.9	3521.0	22.6	0.7	48.1
Foreign	0.0	0.0	16.0	21.0	162.0	265.0	6651.0	5569.0	3290.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	469.8	2026.8	8265.2	5751.5	2438.9	3786.0	6673.6	5569.7	3328.1
Pacific ocean perch									
U.S. & Canada	0.0	1.8	49.4	108.4	307.7	3425.6	0.0	0.0	0.0
Foreign	0.0	158.1	405.2	539.0	2037.5	2896.2	10305.8	17231.0	11382.2
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	1972.3	826.5	1312.8	2217.1	1517.9	5723.3	12.3	11.1	9.5
Foreign	522.6	3468.1	2212.2	4131.3	1727.4	5725.5	3961.7	3422.9	1732.3
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	2494.9	4454.5	3979.6	6995.8	5590.6	17770.6	14279.8	20665.0	13124.0
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	135.2	4132.3	5922.1	2.6	5.7	28.8
Foreign	0.0	0.0	0.0	2.0	7.0	3.0	17.0	425.0	2221.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	68.5	0.0	0.0	3.7	0.0	0.9	0.0	0.0	0.0
Foreign	208.1	33455.2	9269.5	102125.7	15104.4	21.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0	24.1
Foreign	0.0	0.0	25.0	176.0	1.0	6.0	271.0	1745.0	17097.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	43.5	2367.3	1550.4	718.5	463.6	563.9	37.1	4.1	15.0
Foreign	0.0	0.0	29.0	113.0	813.0	2143.0	6535.0	7307.0	6202.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	320.1	35822.5	10873.9	103274.1	20521.3	8666.7	6862.7	9486.8	25587.9
Pacific herring									
Foreign	0.0	0.0	0.0	58.0	20.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada	368.8	975.7	604.3	1337.1	1625.5	2089.0	19.0	2.6	14.5
Foreign	51.6	2029.9	1595.3	2748.3	1155.6	374.4	1117.2	3528.7	2813.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	3705.2	45309.4	25318.3	120164.8	31351.9	32686.7	28952.3	39252.8	44868.2

Table 46 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	0.0	72291.0	3432.0	143.0	75866.0
Other flatfish							
U.S. & Canada	2.2	0.0	0.0	0.0	0.0	0.0	22347.8
Foreign	3237.0	756.0	12499.0	51253.0	58890.0	13682.0	156281.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	3239.2	756.0	12499.0	123544.0	62322.0	13825.0	254494.8
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3892.9
Foreign	6926.3	5502.6	12262.0	1452.6	4066.0	325.0	75489.5
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	13602.9
Foreign	551.0	365.0	2987.0	7.0	11.9	0.0	30825.9
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	7477.3	5867.6	15249.0	1459.6	4077.9	325.0	123811.2
Pacific cod							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	10226.7
Foreign	1783.0	1064.0	981.0	19839.0	33469.0	3799.0	63610.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	73.1
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	160183.9
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	30.9
Foreign	9111.0	8740.0	11724.0	521997.0	1231724.0	4927.0	1807544.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	5763.4
Foreign	3425.0	3962.0	2902.0	2094.0	3863.0	1250.0	40638.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	14319.0	13766.0	15607.0	543930.0	1269056.0	9976.0	2088070.0
Pacific herring							
Foreign	0.0	0.0	41.0	1881.0	34675.0	304.0	36979.0
Unsp. groundfish							
U.S. & Canada ²	0.0	0.0	0.0	0.0	0.0	0.0	7036.5
Foreign	6313.0	3808.6	5423.0	11204.0	15057.0	1828.0	59048.3
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	31348.5	24198.2	48819.0	682018.6	1385187.9	26258.0	2569439.8

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget sound or area 4B, Georgia Straits.
2-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C, for foreign and joint venture data see Appendix D.

Table 47. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1974.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	420.2	6266.2	7448.6	5826.6	3068.2	3345.4	133.4	0.0	185.9
Foreign	0.0	74.0	1.0	0.0	8.0	26.0	115.0	1635.0	4556.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	420.2	6340.2	7449.6	5826.6	3076.2	3371.4	248.4	1635.0	4741.9
Pacific ocean perch									
U.S. & Canada	0.0	3.2	43.5	115.8	258.5	3343.0	0.0	0.0	0.0
Foreign	12.0	569.0	373.0	1301.0	972.0	10151.0	10661.0	12330.0	10698.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	2086.5	351.1	1550.0	2105.1	1667.4	3588.7	9.4	7.1	14.0
Foreign	55.0	5405.0	121.0	177.0	5356.0	6739.0	1474.0	2424.0	6473.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	2153.5	6328.3	2087.5	3698.9	8253.9	23821.7	12144.4	14761.1	17585.0
Pacific cod									
U.S. & Canada	0.0	0.0	0.5	206.4	4416.7	7059.4	125.7	2.6	133.5
Foreign	0.0	0.0	0.0	93.0	8.0	6.0	45.0	433.0	3271.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	0.0	0.0	0.0	0.9	0.0	3.7	0.0	0.0	0.0
Foreign	221.0	66486.0	38139.0	89262.0	17146.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	24.0	0.0	0.0	42.5
Foreign	0.0	0.0	0.0	0.0	10.0	2.0	735.0	3202.0	38358.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	24.5	4305.1	1239.7	462.2	436.8	277.6	789.0	2.5	0.7
Foreign	0.0	34.0	15.0	494.0	1893.0	2084.0	8812.0	6605.0	4758.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	245.5	70825.1	39394.2	90518.5	23910.5	9456.7	10506.7	10245.1	46563.7
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada	246.8	987.0	497.6	1412.6	1989.5	1690.3	60.8	3.8	75.3
Foreign	327.0	4666.0	1095.0	1696.0	1823.0	693.0	1975.0	1725.0	15708.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	3393.0	89146.6	50523.9	103152.6	39053.1	39033.1	24935.3	28370.0	84673.9

Table 47 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	0.0	35104.0	2843.0	526.0	38473.0
Other flatfish							
U.S. & Canada	0.0	0.2	0.0	0.0	0.0	0.0	26694.7
Foreign	1715.0	1392.0	12062.0	53819.0	78864.0	10384.0	164651.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	1715.0	1392.2	12062.0	88923.0	81707.0	10910.0	229818.7
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	3764.1
Foreign	6159.0	8064.0	22494.0	7878.0	5573.0	250.0	97485.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	11379.3
Foreign	1912.0	568.0	0.0	17622.0	12058.0	0.0	60784.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	8071.0	8632.0	22494.0	25500.0	17631.0	250.0	173412.3
Pacific cod							
U.S. & Canada	0.0	2.9	0.0	0.0	0.0	0.0	11947.7
Foreign	613.0	725.0	1350.0	27692.0	34089.0	2319.0	70644.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	4.6
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	211254.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock							
U.S. & Canada	2.3	8.3	0.0	0.0	0.0	0.0	77.1
Foreign	8648.0	10478.0	22661.0	644162.0	944265.0	4063.0	1676584.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	7538.1
Foreign	2832.0	4207.0	2477.0	1610.0	2648.0	510.0	38979.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	12095.3	15421.2	26488.0	673464.0	981002.0	6892.0	2017028.5
Pacific herring							
Foreign	0.0	0.0	0.0	5314.0	198509.0	1437.0	205260.0
Unsp. groundfish							
U.S. & Canada ²	2.3	0.0	0.0	0.0	0.0	0.0	6966.0
Foreign	4124.0	7291.0	10898.0	11373.0	11149.0	7355.0	81898.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	26007.6	32736.4	71942.0	804574.0	1289998.0	26844.0	2714383.5

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.

2-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C. for foreign and joint venture data see Appendix D.

Table 48. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1975.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	692.7	6657.0	8065.3	6108.0	3164.5	4902.8	0.0	0.0	4.2
Foreign	0.0	284.0	31.0	91.0	33.0	84.0	342.0	1039.0	3122.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	692.7	6941.0	8096.3	6199.0	3197.5	4986.8	342.0	1039.0	3126.2
Pacific ocean perch									
U.S. & Canada	0.0	0.0	0.0	193.1	313.4	2780.9	0.0	0.0	0.0
Foreign	0.0	15.0	201.5	994.7	411.1	5060.2	7546.8	8716.2	19162.2
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	1679.7	4692.8	1870.1	2111.7	1907.6	2545.4	183.9	16.4	0.6
Foreign	0.0	1671.0	18.0	291.0	12995.0	3989.0	3379.0	4583.0	2134.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	1679.7	6378.8	2089.6	3590.5	15627.1	14375.5	11109.7	13315.6	21296.8
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	317.8	5670.4	7508.6	39.4	10.3	40.6
Foreign	0.0	0.0	0.0	0.0	8.0	9.0	30.0	361.0	2913.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	0.0	0.0	0.0	2.3	49.4	0.0	0.0	0.0	0.0
Foreign	798.0	122209.0	28302.0	64918.0	15704.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	8.7	102.7	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	9.0	150.0	2391.0	32831.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	79.0	1325.2	1476.5	706.6	873.0	671.2	1404.9	166.1	0.1
Foreign	0.0	243.0	220.0	3432.0	2818.0	3522.0	7607.0	6109.0	4264.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	877.0	123777.2	29998.5	69376.7	25131.5	11822.5	9231.3	9037.4	40048.7
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada	198.9	819.2	377.6	993.6	3013.7	1236.7	40.4	3.2	24.8
Foreign	0.0	4746.0	2945.0	4078.0	2370.0	772.0	1546.0	3967.0	30510.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	3448.3	142662.2	43507.0	84237.8	49339.8	33193.5	22269.4	27362.2	95006.5

Table 48 continued.

SPECIES	CHIRIKOF	SHUMAGIN	ALEUTIANS	B.S. I	B.S. II	B.S. III	BERING SEA ²	TOTAL
Yellowfin sole								
Foreign	0.0	0.0	0.0	51798.0	7916.0	59.0	0.0	59773.0
Other flatfish								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29594.5
Foreign	253.0	727.0	3846.0	20899.0	49918.0	17593.0	40187.0	138449.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	253.0	727.0	3846.0	72697.0	57834.0	17652.0	40187.0	227816.5
Pacific ocean perch								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3287.3
Foreign	5235.0	6802.2	17718.6	1505.0	1757.0	110.0	5389.0	80624.5
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15008.2
Foreign	429.0	818.0	0.0	0.0	0.0	0.0	11076.0	41383.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	5664.0	7620.2	17718.6	1505.0	1757.0	110.0	16465.0	140303.0
Pacific cod								
U.S. & Canada	41.8	1.3	0.0	0.0	0.0	0.0	0.0	13630.2
Foreign	744.0	1804.0	2831.0	15301.0	17976.0	2622.0	18229.0	62828.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.7
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	231931.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	111.4
Foreign	6912.0	11284.4	13785.0	47770.0	58787.6	815.0	216567.0	1350329.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6702.6
Foreign	2302.0	4240.0	1709.0	886.0	1842.0	944.0	38.0	40176.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	9999.8	17329.7	18325.0	493894.0	607695.6	4381.0	234834.0	1705759.9
Pacific herring								
Foreign	0.0	0.0	0.0	831.0	998.0	0.0	14201.0	16030.0
Unsp. groundfish								
U.S. & Canada ³	0.8	0.1	0.0	0.0	0.0	0.0	0.0	6709.0
Foreign	1663.5	5099.1	17107.0	2674.0	7315.0	6610.0	13562.0	104964.6
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	17581.1	30776.1	56996.6	571601.0	675599.6	28753.0	319249.0	2201583.1

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.

2-These catches from the Bering Sea could not be apportioned by INPFC area.

3-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C, for foreign and joint venture data see Appendix D.

Table 49. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1976.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	737.7	10794.7	8015.8	6762.1	3538.1	5791.6	130.1	0.0	24.5
Foreign	0.0	106.0	19.0	134.0	26.0	216.0	453.8	1235.3	2064.6
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	737.7	10900.7	8034.8	6896.1	3564.1	6007.6	583.9	1235.3	2089.1
Pacific ocean perch									
U.S. & Canada	0.0	0.0	0.0	610.1	730.8	1902.1	0.0	0.0	0.0
Foreign	2.7	57.4	332.6	690.9	479.3	3354.2	8817.6	10056.4	13801.8
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	3198.3	6088.2	2037.6	4823.2	3212.6	3898.7	262.3	10.9	0.7
Foreign	0.0	2183.0	167.0	473.0	5048.0	3911.0	3967.0	3540.0	1928.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	3201.0	8328.6	2537.2	6597.2	9470.7	13066.0	13046.9	13607.3	15730.5
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	492.3	5680.5	7297.8	53.3	7.6	100.3
Foreign	0.0	0.0	0.0	0.0	7.0	8.0	36.0	1168.9	2274.8
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	0.0	0.0	0.0	217.7	0.0	0.0	0.0	0.0	0.0
Foreign	32.0	44777.0	27626.0	159801.0	5972.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	7.0	1314.9	185.8	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	2.0	33.0	91.0	3302.0	26090.1
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	167.4	4745.6	1314.8	629.6	733.0	484.4	1160.9	8.0	0.0
Foreign	2705.0	3400.0	2625.0	5181.0	3370.0	3978.0	9200.0	6048.0	4345.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUND FISH	2904.4	52922.6	31565.8	166321.6	15771.5	13116.1	10727.0	10534.5	32810.2
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada	338.4	972.5	483.0	1080.5	2337.0	1456.3	32.3	5.7	128.9
Foreign	3.0	2483.0	449.0	1546.0	257.0	573.0	2202.2	2984.6	18414.3
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	7184.5	75607.4	43069.8	182441.4	31400.3	34219.0	26592.3	28367.4	69173.0

Table 49 continued.

SPECIES	2								TOTAL
	CHIRIKOF	SHUMAGIN	GULF ALA	ALEUTIANS	B.S. I	B.S. II	B.S. III	BERING SEA	
Yellowfin sole									
Foreign	0.0	0.0	0.0	12.0	46355.0	6312.0	17.0	0.0	52696.0
Other flatfish									
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35794.6
Foreign	1311.2	870.5	0.0	3766.9	26994.9	48469.7	11860.0	30132.0	127659.9
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	1311.2	870.5	0.0	3778.9	73349.9	54781.7	11877.0	30132.0	216150.5
Pacific ocean perch									
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3243.0
Foreign	5206.0	7562.4	0.0	17741.7	1661.9	1445.2	148.0	4114.0	75472.1
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23534.3
Foreign	501.0	1457.0	0.0	0.0	0.0	0.0	0.0	8010.0	31185.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	5708.8	9019.4	0.0	17741.7	1661.9	1445.2	148.0	12124.0	126594.7
Pacific cod									
U.S. & Canada	51.1	10.5	12.8	0.0	0.0	0.0	0.0	0.0	13706.2
Foreign	1363.0	2007.5	0.0	4174.0	15448.2	17232.8	2078.0	17756.0	63554.2
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	217.7
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	238208.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1507.7
Foreign	17029.0	32828.1	0.0	4492.4	510333.4	561484.1	2709.0	175539.0	1333933.1
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9243.7
Foreign	2134.0	4837.0	0.0	1626.0	1614.8	1291.7	145.0	5133.0	57633.5
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	20577.1	39683.1	12.8	10292.4	527396.4	580008.6	4932.0	198428.0	1718004.1
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	2607.0	12733.0	522.0	16812.0	32674.0
Unsp. groundfish									
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6834.6
Foreign	1047.6	3377.5	0.0	25695.3	2934.7	9125.0	3954.0	12294.0	87340.2
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	28644.7	52950.5	12.8	57508.3	607949.9	658093.5	21433.0	269790.0	2194437.8

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.

2-These catches from the Gulf of Alaska could not be apportioned by INPFC area.

3-These catches from the Bering Sea could not be apportioned by INPFC area.

4-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C. for foreign and joint venture data see Appendix D.

Table 50. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1977.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	556.2	7639.6	6493.3	5207.5	2535.5	4612.2	672.0	0.0	9.4
Foreign	0.0	0.0	0.0	1.9	4.0	73.0	3848.8	3955.1	4216.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	556.2	7639.6	6493.3	5209.4	2539.5	4685.2	4520.8	3955.1	4225.4
Pacific ocean perch									
U.S. & Canada	0.0	0.0	80.8	473.4	912.8	3331.7	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	6.0	2134.0	3.5	108.0	540.5
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	3188.7	4772.3	2095.8	5524.1	4890.6	7319.2	236.2	17.6	0.7
Foreign	0.0	0.0	80.9	438.3	68.0	871.0	5292.5	5587.8	3421.2
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	3188.7	4722.3	2257.5	6435.8	5877.5	13655.9	5532.2	5713.4	3962.4
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	531.0	4513.4	4809.0	54.8	6.2	135.2
Foreign	0.0	0.0	0.0	0.0	0.0	1.0	15.1	231.4	725.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	2.3	3.2	33.6	450.2	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	41439.4	85572.7	5191.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.0	27.8	862.7	184.1	0.0	31.0
Foreign	0.0	0.0	0.0	0.0	91.0	61.0	1277.3	4467.7	28016.5
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	1121.5	3680.3	1287.4	737.2	1470.5	337.1	1040.7	133.6	1.6
Foreign	0.0	0.0	0.0	77.8	1322.0	1818.0	4078.2	4642.3	2996.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	1123.8	3683.5	42760.4	87368.9	12615.7	7888.8	6650.2	9481.2	31906.7
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada	152.7	556.1	284.4	1131.6	2255.1	1190.2	28.7	4.0	126.0
Foreign	0.0	0.0	262.6	1934.6	535.0	32.0	270.7	742.6	18888.5
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	5021.4	16651.5	52058.2	102020.3	23822.8	27452.1	17002.6	19896.3	59109.0

Table 50 continued.

SPECIES	CHIRIKOF	SHUMAGIN	GULF ALA ²	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole								
Foreign	0.0	0.0	0.0	0.0	156.0	127.7	0.0	283.7
Other flatfish								
U.S. & Canada	4.9	0.0	0.0	0.0	2.3	0.0	0.0	27732.9
Foreign	1739.7	2277.1	0.0	5081.0	71394.1	59264.6	610.5	152465.8
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	1744.6	2277.1	0.0	5081.0	71552.4	59392.3	610.5	180482.4
Pacific ocean perch								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4798.7
Foreign	579.5	1052.9	0.0	8009.5	1022.2	1762.1	21.7	15239.9
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28045.3
Foreign	1757.0	5235.3	0.0	0.0	0.0	0.0	0.0	22752.0
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	2336.5	6288.2	0.0	8009.5	1022.2	1762.1	21.7	70835.9
Pacific cod								
U.S. & Canada	35.9	38.0	2.9	0.0	15.1	0.0	0.0	10141.5
Foreign	341.9	672.8	0.0	3291.6	14588.6	17918.0	90.6	37876.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	489.3
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	132203.1
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walleye pollock								
U.S. & Canada	12.7	0.0	0.0	0.0	0.0	0.0	0.0	1118.3
Foreign	22575.7	61495.5	0.0	7367.0	326764.0	643731.9	502.3	1096349.9
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish								
U.S. & Canada	0.0	1.2	0.0	0.0	1.6	0.0	0.0	9812.7
Foreign	1272.6	2967.3	0.0	1896.7	1392.8	1323.6	26.2	23814.2
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ROUNDFISH	24238.8	65174.8	2.9	12555.3	342762.1	662973.5	619.1	1311805.7
Pacific herring								
Foreign	0.0	0.0	0.0	48.6	925.1	18328.4	20.5	19322.6
Unsp. groundfish								
U.S. & Canada ³	4.2	0.0	0.0	0.0	0.0	0.0	0.0	5733.0
Foreign	2677.4	1516.9	0.0	50521.5	6338.6	36992.0	857.9	121570.3
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	31001.5	75257.0	2.9	76215.9	422600.4	779448.3	2129.7	1709749.4

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.

2-These catches from the Gulf of Alaska could not be apportioned by INPFC area.

3-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C. for foreign and joint venture data see Appendix D.

Table 51. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1978.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	627.6	6575.9	12876.6	8255.7	2900.0	2998.0	768.9	0.0	82.0
Foreign	0.0	0.0	0.0	3.8	0.0	2.0	2536.4	2955.3	3829.7
Joint Venture	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
TOTAL FLATFISH	627.6	6575.9	12876.6	8259.6	2900.0	3000.0	3305.3	2955.3	3911.7
Pacific ocean perch									
U.S. & Canada	0.0	0.0	39.5	1098.2	1014.3	1419.9	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	15.0	6.0	1160.4	1343.6	1288.8
Joint Venture	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0
Unsp. rockfish									
U.S. & Canada	3334.5	4751.3	2891.3	10069.0	5389.9	8937.5	218.8	1.2	2.7
Foreign	0.0	0.0	83.1	620.7	62.0	27.0	144.3	420.8	398.9
Joint Venture	0.0	0.0	0.0	12.7	0.0	0.0	0.0	0.0	0.0
TOTAL ROCKFISH	3334.5	4751.3	3013.9	11801.9	6481.2	10390.4	1523.5	1765.6	1690.4
Pacific cod									
U.S. & Canada	0.0	0.0	0.5	842.4	4008.4	4073.2	114.9	3.4	446.5
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	65.8	199.0	1044.3
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pacific whiting									
U.S. & Canada	0.0	0.1	932.4	383.7	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	676.0	25924.0	70227.1	4650.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	0.0	856.0	1814.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.1	34.5	2027.8	534.3	0.0	490.3
Foreign	0.0	0.0	0.0	0.0	26.0	0.0	990.3	2538.0	17697.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sablefish									
U.S. & Canada	2656.4	4028.0	2931.5	2172.2	1439.4	470.3	1616.3	124.3	1.1
Foreign	0.0	0.0	16.3	81.8	764.0	1339.0	35.3	2584.7	2197.4
Joint Venture	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
TOTAL ROUND FISH	2656.4	4704.1	29804.7	74563.5	12736.3	7910.3	3356.9	5449.4	21877.3
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada	79.2	601.4	529.6	1000.5	2088.5	973.4	195.2	8.1	85.4
Foreign	0.0	0.0	95.6	953.9	10.0	14.0	383.7	930.3	2661.9
Joint Venture	0.0	0.0	0.0	24.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SPECIES	6697.7	16632.7	46320.4	96603.4	24216.0	22288.1	8764.6	11108.7	30226.7

Table 51 continued.

SPECIES	2							TOTAL
	CHIRIKOF	SHUMAGIN	GULF ALA	ALEUTIANS	B.S. I	B.S. II	B.S. III	
Yellowfin sole								
Foreign	0.0	0.0	0.0	741.5	100805.1	8786.4	3.4	110336.4
Other flatfish								
U.S. & Canada	4.0	5.9	0.0	0.0	0.0	0.0	0.0	35094.6
Foreign	2454.1	2538.3	0.0	10326.3	59643.6	55552.8	21.6	139863.9
Joint Venture	0.0	5.2	0.0	0.0	0.0	0.0	0.0	5.3
TOTAL FLATFISH	2458.1	2549.4	0.0	11067.8	160448.7	64339.2	25.0	285300.2
Pacific ocean perch								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3571.9
Foreign	734.2	3642.1	0.0	5285.9	887.1	1332.1	10.8	15706.0
Joint Venture	0.0	0.3	0.0	0.0	0.0	0.0	0.0	1.6
Unsp. rockfish								
U.S. & Canada	0.3	0.0	0.2	0.0	0.0	0.0	0.0	35596.6
Foreign	182.4	749.3	0.0	0.0	0.0	0.0	0.0	2688.5
Joint Venture	0.0	0.6	0.0	0.0	0.0	0.0	0.0	13.3
TOTAL ROCKFISH	916.8	4392.3	0.2	5285.9	887.1	1332.1	10.8	50947.6
Pacific cod								
U.S. & Canada	165.4	61.4	0.3	4.3	30.7	0.0	0.0	9751.4
Foreign	4540.3	5518.8	0.0	3393.8	22227.4	21764.6	13.1	58767.1
Joint Venture	0.0	6.7	0.0	0.0	0.0	0.0	0.0	6.7
Pacific whiting								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1316.2
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	101477.1
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2670.0
Walleye pollock								
U.S. & Canada	19.1	0.0	0.0	0.0	23.3	0.0	0.0	3129.4
Foreign	43800.6	31300.5	0.0	6282.9	365713.7	607390.0	52.8	1075792.5
Joint Venture	0.0	33.7	0.0	0.0	0.0	0.0	0.0	33.7
Sablefish								
U.S. & Canada	0.0	0.0	6.0	0.0	0.0	0.0	0.0	15445.5
Foreign	890.5	1418.9	0.0	820.7	661.9	530.5	1.4	11342.4
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
TOTAL ROUNDFISH	49415.9	38340.0	6.3	10501.7	388657.0	629685.1	67.3	1279732.2
Pacific herring								
Foreign	0.0	0.0	0.0	3.7	157.4	8273.8	5.7	8440.6
Unsp. groundfish								
U.S. & Canada ³	2.1	12.8	0.0	0.0	4.7	0.0	0.0	5580.9
Foreign	18584.1	3011.5	0.0	38826.8	20543.2	70304.4	928.9	157248.3
Joint Venture	0.0	0.9	0.0	0.0	0.0	0.0	0.0	24.9
TOTAL ALL SPECIES	71377.0	48306.9	6.5	65685.9	570698.1	773934.6	1037.7	1793905.1

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.

2-These catches from the Gulf of Alaska could not be apportioned by INPFC area.

3-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C. for foreign and joint venture data see Appendix D.

Table 52. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1979.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	621.1	6129.2	9310.1	10817.1	3209.4	4775.9	315.8	11.4	49.7
Foreign	0.0	0.0	0.1	14.1	0.0	1.0	2341.9	3242.7	4455.5
Joint Venture	0.0	0.0	0.1	0.1	0.0	0.0	0.0	1.2	61.6
TOTAL FLATFISH	621.1	6129.2	9310.3	10831.3	3209.4	4776.9	2657.7	3255.3	4566.8
Pacific ocean perch									
U.S. & Canada	0.0	0.0	78.9	1239.3	740.9	1670.6	0.0	0.0	0.0
Foreign	0.0	0.0	1.2	52.9	2.0	0.0	4083.2	1719.1	2246.3
Joint Venture	0.0	0.0	0.0	1.5	0.0	0.0	9.8	25.1	26.2
Unsp. rockfish									
U.S. & Canada	4133.9	6267.2	5171.1	15582.0	5534.2	7046.5	411.0	40.0	9.2
Foreign	0.0	0.0	54.6	884.1	77.0	13.0	610.0	534.2	195.3
Joint Venture	0.0	0.0	1.8	69.3	0.0	0.0	1.7	3.7	17.0
TOTAL ROCKFISH	4133.9	6267.2	5307.6	17829.1	6354.1	8730.1	5115.7	2322.1	2494.0
Pacific cod									
U.S. & Canada	0.0	0.0	0.0	670.5	4027.1	6621.6	85.5	39.6	593.7
Foreign	0.0	0.0	0.0	0.0	4.0	0.0	62.5	295.0	2589.8
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	683.4
Pacific whiting									
U.S. & Canada	0.3	21.7	812.3	141.5	307.5	0.0	0.0	0.0	0.0
Foreign	0.0	287.7	46916.6	67705.0	7900.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	221.8	8611.7	4233.0	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	4.1	47.9	2017.7	514.2	40.6	1465.9
Foreign	0.0	0.0	0.0	0.0	103.0	0.0	555.5	4816.3	38413.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.9	491.7
Sablefish									
U.S. & Canada	5064.0	5116.2	3701.8	8392.2	1903.1	1378.1	2830.4	567.4	48.7
Foreign	0.0	0.0	11.5	186.9	437.0	569.0	93.4	2632.8	2050.5
Joint Venture	0.0	0.0	3.0	47.8	0.0	0.0	0.0	0.1	17.8
TOTAL ROUNDFISH	5064.3	5425.6	51667.0	85759.7	18962.6	10586.4	4141.5	8409.2	46355.2
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada ²	285.3	855.4	476.8	1871.8	2551.6	1106.9	182.8	5.4	251.2
Foreign	0.0	0.1	122.3	1091.5	21.0	7.0	279.1	705.9	11173.5
Joint Venture	0.0	0.0	0.3	98.0	0.0	0.0	0.0	0.2	34.6
TOTAL ALL SPECIES	10104.6	18677.5	66366.9	117481.4	31098.7	25207.3	12376.8	14698.1	64875.3

Table 52 continued.

SPECIES	CHIRIKOF	SHUMAGIN	GULF ALA ²	ALEUTIANS	B.S. I	B.S. II	B.S. III	TOTAL
Yellowfin sole								
Foreign	0.0	0.0	0.0	1206.0	93326.5	6574.6	1.3	101108.4
Other flatfish								
U.S. & Canada	1.3	0.0	0.0	0.0	0.0	0.0	0.0	35241.0
Foreign	617.5	2816.7	0.0	16787.7	35152.8	37963.6	40.9	103434.5
Joint Venture	0.4	6.7	0.0	0.0	0.0	0.0	0.0	70.1
TOTAL FLATFISH	619.2	2823.4	0.0	17993.7	128479.3	44538.2	42.2	239854.0
Pacific ocean perch								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3729.7
Foreign	756.6	944.6	0.0	5486.6	949.7	768.2	4.5	17014.9
Joint Venture	5.4	0.8	0.0	0.0	0.0	0.0	0.0	68.8
Unsp. rockfish								
U.S. & Canada	0.0	0.0	0.0	0.0	43.4	0.0	0.0	44238.5
Foreign	39.9	44.5	0.0	0.0	0.0	0.0	0.0	2452.6
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93.5
TOTAL ROCKFISH	801.9	989.9	0.0	5486.6	993.1	768.2	4.5	67598.0
Pacific cod								
U.S. & Canada	266.4	0.0	0.5	2.3	585.1	0.0	0.0	12892.3
Foreign	6257.5	3969.4	0.0	5407.3	19263.9	16739.9	5.4	54594.7
Joint Venture	17.9	7.5	0.0	0.0	0.0	0.0	0.0	712.3
Pacific whiting								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1283.3
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	122809.3
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13066.5
Walleye pollock								
U.S. & Canada	10.2	0.0	0.0	0.0	0.0	0.0	0.0	4100.6
Foreign	29184.2	30217.6	0.0	9446.4	367634.8	566881.2	0.7	1047253.4
Joint Venture	37.8	22.4	0.0	0.0	0.0	0.0	0.0	565.8
Sablefish								
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29001.9
Foreign	1108.5	999.4	0.0	781.6	1026.3	350.0	13.0	10259.9
Joint Venture	0.0	0.2	0.0	0.0	0.0	0.0	0.0	68.9
TOTAL ROUND FISH	36882.5	35216.5	0.5	15637.6	388510.1	583971.1	19.1	1296608.9
Pacific herring								
Foreign	0.0	0.0	0.0	1.2	170.4	7357.2	4.3	7533.1
Unsp. groundfish								
U.S. & Canada ³	5.5	0.0	0.0	2.5	24.9	0.0	0.0	7620.1
Foreign	1522.9	1947.6	0.0	26863.1	13010.0	29785.6	120.7	86050.3
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	133.1
TOTAL ALL SPECIES	39832.0	40377.4	0.5	65984.7	531187.8	666420.3	190.8	1705395.5

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.

2-These catches from the Gulf of Alaska could not be apportioned by INPFC area.

3-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C. for foreign and joint venture data see Appendix D.

Table 53. All nation removals of groundfish (mt) by INPFC management area in the northeast Pacific and eastern Bering Sea in 1980.

SPECIES	CONCEPTION	MONTEREY	EUREKA	COLUMBIA	VANCOUVER	CHARLOTTE	SOUTHEAST	YAKUTAT	KODIAK
Yellowfin sole									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other flatfish									
U.S. & Canada	374.8	5357.1	7310.2	8005.7	2949.5	5409.9	136.2	0.0	47.5
Foreign	0.0	0.0	0.0	2.1	1.0	0.5	1494.8	4094.6	5909.4
Joint Venture	0.0	0.0	0.1	45.6	0.2	0.0	0.0	0.0	92.4
TOTAL FLATFISH	374.8	5357.1	7310.3	8053.4	2950.7	5410.4	1631.0	4094.6	6049.3
Pacific ocean perch									
U.S. & Canada	0.0	3.0	3.0	1490.9	826.6	4926.2	0.0	0.0	0.0
Foreign	0.0	0.0	1.6	30.8	0.5	1.0	2912.3	4703.5	3332.8
Joint Venture	0.0	0.0	21.4	0.0	8.2	0.0	0.0	0.0	7.6
Unsp. rockfish									
U.S. & Canada	3728.0	7605.1	7167.5	26269.7	4744.9	4496.4	313.3	27.2	64.2
Foreign	0.0	0.0	6.2	951.8	20.0	2.0	1352.4	1268.2	115.3
Joint Venture	0.0	0.0	229.3	164.5	54.5	0.0	0.0	0.0	4.6
TOTAL ROCKFISH	3728.0	7608.1	7429.0	28907.7	5654.7	9425.5	4578.0	5998.9	3524.5
Pacific cod									
U.S. & Canada	0.0	0.0	5.7	298.7	2188.5	6062.0	75.0	7.7	412.8
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	42.8	1999.8	5226.7
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	230.0
Pacific whiting									
U.S. & Canada	0.0	9.1	685.1	256.6	465.0	0.9	0.0	0.0	0.0
Foreign	0.0	0.0	1514.1	42508.8	5351.0	0.0	0.0	0.0	0.0
Joint Venture	0.0	0.0	11974.9	12961.2	14815.4	0.0	0.0	0.0	0.0
Walleye pollock									
U.S. & Canada	0.0	0.0	0.0	0.2	29.2	1152.6	419.3	4.4	478.5
Foreign	0.0	0.0	0.0	0.0	697.0	0.0	433.5	4198.2	26616.2
Joint Venture	0.0	0.0	0.0	14.8	995.2	0.0	0.0	0.0	526.9
Sablefish									
U.S. & Canada	882.7	1490.0	1633.6	3693.7	2219.6	1909.1	2147.1	173.9	27.9
Foreign	0.0	0.0	0.2	92.6	133.0	66.0	55.6	1538.3	1640.7
Joint Venture	0.0	0.0	115.5	53.8	43.8	0.0	0.0	0.0	13.0
TOTAL ROUNDFISH	882.7	1499.1	15929.1	59880.4	26937.7	9190.6	3173.3	8022.3	35172.7
Pacific herring									
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsp. groundfish									
U.S. & Canada	146.0	904.5	326.4	1614.0	3862.3	2085.3	146.7	4.3	374.3
Foreign	0.0	0.0	13.1	1806.8	20.0	1.0	148.2	1177.1	14424.4
Joint Venture	0.0	0.0	124.4	43.9	28.6	0.0	0.0	0.0	23.7
TOTAL ALL SPECIES	5131.5	15362.5	31132.3	100306.2	39454.0	26112.8	9677.2	19297.2	59568.9

Table 53 continued.

SPECIES	CHIRIKOF	SHUMAGIN	GULF ALA	ALEUTIANS	B.S. I	B.S. II	TOTAL
Yellowfin sole							
Foreign	0.0	0.0	449.8	605954.9	2363.9	0.0	608768.6
Other flatfish							
U.S. & Canada	0.0	0.0	0.0	43.8	0.0	0.0	29634.7
Foreign	975.5	3021.6	12391.1	34223.9	41910.1	3.9	104028.5
Joint Venture	105.8	10.6	0.0	0.0	0.0	0.0	254.7
TOTAL FLATFISH	1081.3	3032.2	12840.9	640222.6	44274.0	3.9	742686.5
Pacific ocean perch							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	7249.6
Foreign	656.5	842.6	4009.9	441.3	465.9	0.0	17398.7
Joint Venture	12.2	0.0	0.0	0.0	0.0	0.0	49.4
Unsp. rockfish							
U.S. & Canada	0.9	0.0	0.0	0.0	0.0	0.0	54417.3
Foreign	55.8	58.3	2055.8	303.8	1191.9	0.0	7381.5
Joint Venture	3.6	0.0	0.0	0.0	0.0	0.0	456.5
TOTAL ROCKFISH	729.0	900.9	6065.7	745.1	1657.8	0.0	86953.0
Pacific cod							
U.S. & Canada	48.4	70.6	3141.2	2397.2	0.0	0.0	14707.8
Foreign	18354.2	8619.9	2927.0	19033.4	14808.6	0.0	71012.4
Joint Venture	223.0	12.7	0.0	0.0	0.0	0.0	465.7
Pacific whiting							
U.S. & Canada	0.0	0.0	0.0	0.0	0.0	0.0	1416.7
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	49373.9
Joint Venture	0.0	0.0	0.0	0.0	0.0	0.0	39751.5
Walleye pollock							
U.S. & Canada	0.0	1.4	20.0	101.8	0.0	0.0	2207.4
Foreign	35101.1	46647.0	58156.5	426912.4	518321.7	172.9	1117256.5
Joint Venture	496.1	112.6	0.0	0.0	0.0	0.0	2145.6
Sablefish							
U.S. & Canada	0.0	2.6	3.2	0.0	0.0	0.0	14183.4
Foreign	1354.6	1449.5	266.7	1600.1	570.7	0.4	8868.4
Joint Venture	7.2	0.0	0.0	0.0	0.0	0.0	233.4
TOTAL ROUNDFISH	55584.6	56916.3	64514.6	450044.9	533701.0	173.3	1321622.7
Pacific herring							
Foreign	0.0	0.0	0.0	252.6	530.0	0.0	782.6
Unsp. groundfish							
U.S. & Canada ²	0.4	0.0	0.0	32.6	0.0	0.0	9496.8
Foreign	1712.7	4214.4	28537.7	15475.5	23169.9	24.1	90724.9
Joint Venture	28.9	0.0	0.0	0.0	0.0	0.0	249.5
TOTAL ALL SPECIES	59136.9	65063.8	111959.0	1106773.3	603332.7	201.3	2252516.1

1-INPFC Vancouver does not include landings in PMFC area 4A, Puget Sound or area 4B, Georgia Straits.
2-Includes landings of lingcod, which are listed as a separate category in Tables 4-28.

Sources: For U.S. and Canadian data see Appendix C, for foreign and joint venture data see Appendix D.

Japanese catch data for 1977 to 1980 from U.S. waters were obtained from reports of the NMFS Foreign Fisheries Observer Program. Catch data from Canadian waters for 1977 to 1980 were supplied by G. A. McFarlane (pers. commun., 1985).

Union of Soviet Socialist Republics (U.S.S.R.)

Soviet catch data for 1959 through 1966 were obtained from Forrester et al. (1978). The distribution of the catch data by INPFC areas was interpreted from Chitwood (1969). Information for 1967 through 1976 came from various sources listed below.

In many instances subjective judgment had to be used to determine which source of data to believe. Soviet-reported statistics often appear to be inconsistent and unrealistic. A report prepared by NMFS Alaska and Seattle Regional Office personnel (National Marine Fisheries Service 1975) contains results of a comparison of data the Soviets reported to NMFS and data they reported to the Food and Agriculture Organization (FAO) of the United Nations. This report states that "44% of Northeast Pacific catch data reported to FAO during the period 1968 to 1973 differ significantly from that reported to the U.S." (National Marine Fisheries Service 1975, p. 2). Nevertheless for the years prior to the implementation of the MFCMA, the only available source is Soviet reported catch data.

Summaries of Soviet catches (Parks 1974, 1975, 1976) used surveillance reports by NMFS's Law Enforcement Branch to determine which locations the U.S.S.R. was fishing during the year in order that a distribution of the catch by INPFC area could be made. The catch numbers for the Parks reports were obtained directly from U.S.-U.S.S.R. bilateral meeting documents.

There were several instances in which the Soviets reported catch in a given area where surveillance by the United States or Canada did not detect any Soviet vessels. Conversely, the Soviets sometimes did not report catch from areas where surveillance reported fishing activity. Catch data from Parks (1974, 1975, 1976) were used in HAL with some corrections as noted in Appendix D.

U.S.S.R. catch statistics from 1977 through 1980 were taken from NMFS Foreign Fisheries Observer Program summary reports: J. Berger (unpubl. manusc., 1985), Northwest and Alaska Fisheries Center (1979), Nelson et al. (1980), and French et al. (1981). Data on Soviet catches from Canadian waters from 1977 through 1980 were obtained from DFO reports and personal communication with members of that agency.

Republic of Korea (South Korea)

The Republic of Korea (R.O.K.) initiated an exploratory fishery for walleye pollock in the Bering Sea during 1967. Catch levels from that fishery are unknown (Chitwood 1969), and I could find no mention of R.O.K. fishing activity during 1967. In 1968 R.O.K. began fishing for walleye pollock in the Bering Sea and they continued to do so in the Bering Sea and Gulf of Alaska for the next 6 years. In 1975 they began targeting on sablefish both in the Gulf of Alaska and off the west coast of the United States.

Catch data for 1968 to 1974 was taken from Parks and Dark (1972), Anonymous (1973b), and Parks (1974, 1975, 1976). Data for 1975 and 1976 were obtained from bilateral meeting documents (Anonymous 1976, 1977). Landings for 1977 were from J. Berger (unpubl. manusc., 1985) and G. A. McFarlane (pers. commun., 1985). Catch data for 1978 to 1980 came from Northwest and Alaska Fisheries Center (1979), Nelson et al. (1980); and French et al. (1981).

Polish People's Republic (Poland)

Poland began fishing for Pacific whiting in U.S. waters in 1973, joining the Soviet and Japanese fleets. Incidental landings of walleye pollock, rockfishes, jack mackerel (Trachurus symmetricus) and other species were recorded. Data for 1973 to 1974 were taken from a report submitted to the INPFC by Poland (Morski Instytut Rybacki 1975). Data for catch in U.S. waters from 1975 to 1976 are from Morski Instytut Rybacki (1977, as cited by Kaczynski, 1981). Data for Canadian waters for 1975 are from Ketchen (1977). Polish catches in U.S. waters for 1977, 1978, 1979 and 1980 came from J. Berger (unpubl. manusc., 1985), Northwest and Alaska Fisheries Center (1979), Nelson et al. (1980), and French et al. (1981). Data for catch in Canadian waters for 1977 to 1980 are from G. A. McFarlane (pers. commun., 1985).

Republic of China (Taiwan)

Catch data for the Republic of China (R.O.C.) prior to 1977 are not widely reported. Listed as unavailable in Murai et al. (1981), Taiwanese catch data are not mentioned at all in Forrester et al. (1983). There were no bilateral meeting documents or other processed reports which mentioned Taiwanese fishing activity other than the surveillance reports, so catch statistics for 1975 and 1976 should be considered rough estimates at best. They were derived from interpretation of surveillance reports (Anonymous (1976a, 1977)).

Federal Republic of Germany (West Germany)

The only mention of vessels from the Federal Republic of Germany (FRG) fishing in U.S. waters prior to 1980 was in surveillance reports for 1976 (National Marine Fisheries Service (1976a) and in Murai et al. (1981)). The FAO yearbooks (FAO, 1977) do not report any FRG fishing activity in the

northeast Pacific at all. An estimated catch of 2,000 t of Pacific whiting, based on the surveillance reports was entered into HAL. During 1980, vessels from the FRG returned to the Bering Sea and targeted on walleye pollock (French et al. 1981).

German Democratic Republic (East Germany)

Fishing by the German Democratic Republic (GDR) in the northeast Pacific is mentioned in an FAO yearbook (1977), Murai et al. (1981), and Kaczynski, (1981). U.S. surveillance reports (National Marine Fisheries Service 1976a, Anonymous 1977) document the presence of GDR vessels in the U.S. Pacific whiting fishing grounds. Estimates from Kaczynski (1981) of the Pacific whiting catch were entered into HAL as other statistics in that document were considered accurate. I was unable to locate a source which presented any incidental catches of other species from the Pacific whiting fishery.

Bulgaria

The Bulgarians first began fishing in the northeast Pacific in 1976, targeting on Pacific whiting. The area distribution of the catch was interpreted from surveillance reports, and the numerical data came from Murai et al. (1981). After 1976, the Bulgarians did not fish in U.S. waters again until 1981.

Republic of Mexico

Mexican vessels fished in the Gulf of Alaska during 1979, harvesting various groundfish species. They took over 8,200 t of walleye pollock from the Shumagin and Kodiak INPFC areas. There is no further record of Mexican fishing in U.S. waters.

SUMMARY

It is important to remember that the U.S. and Canadian data in HAL represent reported landings of groundfish and not actual catch. There are no time series of data on the considerable by-catch and discards at sea for most fisheries. The majority of fish that are returned to the ocean as discards are dead or moribund and so constitute a percentage of the fishing mortality that is not quantified. This factor cannot be ignored when using landings statistics in stock assessments.

The objectives of compiling a Historical Annotated Landings database have been achieved. A single, documented source of landings and catch data for all groundfish removals from the northeast Pacific and eastern Bering Sea is now available. As stated earlier, historical data is dynamic; there is always room for revisions and improvement. However, given the input and cooperation received from five U.S. and Canadian fisheries agencies and NMFS personnel in Seattle, I believe that this database constitutes the best compilation of data of its kind. All known sources of data have been examined, and even given a major effort it is doubtful that this information can be significantly improved.

The ability to extract and summarize any combination of the landings data with ease will enable researchers to perform analyses that previously would have been too time consuming to consider. The R:base program and numerous others designed for data analysis on microcomputers are powerful tools which can be taken advantage of now that the data exist in an easily retrievable form.

The HAL database can be of practical use to fishery scientists and managers. There are numerous types of studies and analyses that require landings data, and in many cases it is important to know the sources, strengths, and weaknesses

of the data so that correct assumptions can be made. Preliminary data summaries already have been requested and received by several scientists preparing reports on lingcod, sablefish and Pacific whiting for the PFMC Groundfish Management Team.

What are some of the questions which one could answer using the HAL database? One could examine changes in species composition and quantity of landings within a particular area in response to changes in price or consumer preferences. Has one species dominated landings in a particular area or year? If so, are the causes environmental, biological, technological, economic, or a combination of these factors? One could examine the effects of the MFCMA upon the landings, as prior to the MFCMA there were fewer restrictive regulations. One could study the effects of shifts of targeting on landings, or how environmental fluctuations affect production. Which areas appear to be more productive for a particular species, and why? Competition between gear types for the same species could be analyzed. These are only a few topics which could be investigated with the aid of the information found in HAL.

The expression "Garbage in--garbage out" is one to remember when using any data. The quality of output can be no better than the quality of input, and in compiling this database I have attempted to improve the quality of historical groundfish catch statistics used in fisheries management. The Historical Annotated Landings database can effectively be used to help fisheries managers and biologists make more informed decisions on the use of fisheries resources.

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APPENDIX A

PHYSICAL DEPTH CHARACTERISTICS OF PMFC AND INPFC MANAGEMENT AREAS AND BOUNDARIES.

The boundaries of the International North Pacific Fisheries Commission (INPFC) statistical areas do not coincide exactly with those of the Pacific Marine Fisheries Commission (PMFC) (Figure 1, Table 1); however, in the HAL database it was assumed that they did. Washington Department of Fisheries (WDF) and Oregon Department of Fish and Wildlife (ODF&W) also treat the PMFC areas as additive to INPFC areas. For the domestic landings, the INPFC area designations were derived from PMFC areas as listed in Table 1.

In an effort to quantify differences between physical characteristics, the surface area (in square nautical miles (nmi²)) of inshore (<50 m), inner shelf (50 m to 100 m), middle shelf (100 m to 200 m) and outer shelf (>200 m) zones of PMFC and INPFC areas were calculated (Table A.2) by the process described below.

The depth contours came from various sources. The 200 m and 1,000 m contours were inherent in the (RACE0010)MAP program which resides on the Burroughs B7800 mainframe computer at the Northwest and Alaska Fisheries Center in Seattle. For some areas the 50 m and 100 m contours came from the (RACE0010)MAP program as well. From Monterey, California north to Washington state, members of the Resource Assessment and Conservation Engineering (RACE) Division had digitized the 30, 100, 200, and 500 fathom lines. These lines were interpolated to arrive at 50 m and 100 m contours. From Washington to the INPFC Charlotte area, Canadian depth charts were used in digitizing the depth contours and subsequently read into the (RACE0010)MAP program.

One source of error to be aware of is that the charts used to draw the depth contours (the ones used by me and the RACE Division) were not the same ones used to create the coastline files in the MAP program. The RACE MAP program coastline files come from U.S. Department of Defense charts, while the depth contours come from the Department of Commerce National Ocean Survey (NOS) charts (Table A.2). This results in an error when computing actual distance between shore and the depth contours (in some areas the 50 m contours appear to occur a mile inland). However, when the scale of the maps is increased, the magnitude of this error decreases and can be discounted. For this reason I would be hesitant to use these estimates of area as absolute, for they are off by an unknown amount. Although these are the best estimates available at this time, it may be prudent to use the areas relative to one another.

Table A-1.--Surface area in square nautical miles (nmi) of different shelf depth zones.

INPFC/ PMFC AREA	(shore-50 m)		(50 m-100 m)		(100 m-200 m)		(>200 m)		TOTAL nmi
	INSHORE		INNER SHELF		MIDDLE SHELF		OUTER SHELF		
	nmi	%	nmi	%	nmi	%	nmi	%	
Conception									
1A	299.3	2.28	284.4	2.17	2,021.9	15.41	10,517.6	80.1	
Monterey									
1B	1,838.2	23.24	1,204.9	15.23	1,947.8	24.62	2,920.1	36.9	7,911.0
Eureka									
All	2,119.5	31.78	1,036.9	15.55	1,414.5	21.21	2,097.9	31.4	6,668.8
1C	1,901.5	34.35	895.2	16.17	1,141.1	20.61	1,597.5	28.8	5,535.3
2A	218.0	19.23	141.7	12.50	273.4	24.12	500.4	44.1	1,133.5

Table A-1 .--Continued.

INPFC/ PMFC AREA	INSHORE		INNER SHELF		MIDDLE SHELF		OUTER SHELF		TOTAL nmi
	nmi	%	nmi	%	nmi	%	nmi	%	
Columbia									
All	1,826.6	17.87	1,475.1	14.43	1,157.4	30.88	3,763.8	36.8	10,222.9
2B	263.1	11.69	177.3	7.88	913.6	40.58	897.2	39.8	2,251.2
2C	445.4	11.00	626.7	15.48	1,089.6	26.92	1,885.4	46.5	4,047.1
2D	591.3	26.83	343.2	15.57	673.3	30.55	595.8	27.0	2,203.6
3A	526.8	30.61	327.9	19.05	480.9	27.94	385.4	22.3	1,721.0
Vancouver									
3B/3C/3D	2,310.2	17.41	4,981.8	37.54	2,797.6	21.08	3,179.3	23.9	13,268.9
3B	608.7	34.48	281.4	15.94	413.1	23.40	461.9	26.1	1,765.1
3C-ALL	478.9	12.95	483.5	13.07	1,489.4	40.27	1,246.6	33.7	3,698.4
3C-US	0.0	0.00	5.8	0.08	321.0	44.46	395.2	54.7	722.0
3C-CAN	478.9	16.50	477.7	16.46	1,168.4	40.26	851.4	29.3	2,976.4
3D	1,222.6	15.66	4,216.9	54.02	895.1	11.47	1,470.8	18.8	7,805.4
4A	2,131.4								2,131.4
4B	3,607.1								3,607.1
Charlotte									
All			16,038.9 ²	56.51	4,892.2	17.24	7,451.8	26.2	28,382.9
5A	1,309.2	35.89	630.6	17.29	966.0	26.48	742.2	20.3	3,648.0
5B	4,577.1	48.25	2,115.1	22.29	519.0	5.47	2,275.5	23.9	9,486.7
5C			3,302.52	51.75	2,051.7	32.15	1,026.8	16.0	6,381.0
5D			3,623.42	67.74	642.4	12.01	1,083.2	20.2	5,349.0
5E	240.5	6.84	240.5	6.84	713.1	20.27	2,324.1	66.0	3,518.2

Table A-1 .--Continued.

INPFC/ PMFC AREA	INSHORE		INNER SHELF		MIDDLE SHELF		OUTER SHELF		TOTAL nmi
	nmi	%	nmi	%	nmi	%	nmi	%	
Columbia									
All	1,826.6	17.87	1,475.1	14.43	1,157.4	30.88	3,763.8	36.8	10,222.9
Southeast									
6A			9,823.4 ²	58.02	3,346.9	19.77	3,761.1	22.2	16,931.4
Yakutat									
6B	2,465.9	15.11	1,457.4	8.93	9,143.8	56.03	3,252.3	19.9	16,319.4
Kodiak									
6C			12,367.5 ²	38.83	15,483.6	48.61	4,000.3	12.5	31,851.4
Chirikof									
7B	1,909.1	10.87	6,199.6	35.30	6,953.0	39.59	2,501.5	14.2	17,563.2
Shumagin									
7C	2,871.2	11.54	8,894.6	35.76	10,325.5	41.52	2,779.7	11.1	24,871.0
Bering Sea I									
8A	61,454.4	51.15	41,231.8	34.32	12,310.4	10.25	5,151.2	4.2	12,147.8
Bering Sea II									
8B	112.0	00.29	8,736.4	22.87	23,759.8	62.19	5,592.7	14.6	38,200.9
Aleutians									
8C	3,052.2	12.46			8,679.1 ⁴	35.43	12,767.7	52.1	24,499.0

¹ Considered all inshore.² Shore to 100 m all considered Inner Shelf.³ Greater than 200 m.⁴ 50 m to 200 m considered Middle Shelf.

Table A2. --Bathymetry charts used in calculating area of depth zones of PFMC and INPFC management areas.

CHART NO.	DATE	AREA
INT 514	APRIL 81	NORTH BS
INT 513	OCT. 80	SOUTH BS
16006	JUNE 78	BERING SEA
INT 500	NOV. 80	GULF OF ALASKA
INT 501	FEB. 79	WEST COAST
18740	JAN. 79	CONCEPTION
18720	AUG. 79	CONCEPTION
18700	JUNE 78	CONCEPTION
18680	SEPT. 78	MONTEREY
18640	AUG. 79	MONTEREY
18620	AUG. 78	MONTEREY
18600	DEC. 76	EUREKA
18580	AUG. 80	EUREKA
18520	NOV. 82	COLUMBIA
18500	SEPT. 82	COLUMBIA
18480	OCT. 81	VANCOUVER
LC 3602	1981	VANCOUVER CANADIAN CHART
LC 3603	1981	VANCOUVER CANADIAN CHART
L 3002	1976	VANCOUVER CANADIAN CHART
391	1972	VANCOUVER CANADIAN CHART
16016	MAR. 81	GULF OF ALASKA
16013	SEPT. 82	GULF OF ALASKA
16011	APRIL 83	ALEUTIANS
16012	SEPT. 77	ALEUTIANS

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APPENDIX B

CODES USED IN HAL AND SYSTEM REQUIREMENTS FOR R:BASE 5000

R:base 5000 will run on any IBM PC, PC-XT, PC-AT and 100% compatible microcomputers.

System requirements:

1. DOS version 2.0 or higher.
2. At least 237K RAM must be available after system configuration.
(A minimum of 320K RAM is recommended.)

Source: Microrim 1985.

Table B1.--Nations, agencies and codes in the
Historical Annotated Landings (HAL)
database.

<u>AGENCY/NATION</u>	<u>CODE</u>
ADF&G, CDF&G, DFO, ODF&W, WDF combined	0
California Department of Fish and Game	01
Oregon Department of Fish and Wildlife	02
Washington Department of Fisheries	03
Alaska Department of Fish and Game	04
Canadian Department of Fisheries and Oceans	05
Japan	06
U.S.S.R.	07
South Korea (R.O.K.)	08
Poland (P.P.R.)	09
Taiwan (R.O.C.)	10
Mexico	11
West Germany	12
East Germany	13
Bulgaria	14
Canada joint venture	20
U.S. joint venture	21

Table B2.--Species and species codes in the Historical Annotated Landings (HAL) database.

SPECIES		
COMMON NAME	SCIENTIFIC NAME	CODE ^{1/}
Arrowtooth flounder	<u>Atherestes stomias</u>	ARTH
Dover sole	<u>Microstomus pacificus</u>	DOVR
English sole	<u>Parophrys vetulus</u>	EGLS
Petrale sole	<u>Eopsetta jordani</u>	PTRL
Rex sole	<u>Glyptocephalus zachirus</u>	REX
Rock sole	<u>Lepidopsetta bilineata</u>	RSOL
Starry flounder	<u>Platichthys stellatus</u>	STRY
Yellowfin sole	<u>Limanda aspera</u>	YSOL
Other flatfish	Not Applicable	OFLT
Unsp. flatfish	N.A.	UFLT
Pacific ocean perch	<u>Sebastes alutus</u>	POP
Other rockfish	N.A.	ORCK
Unsp. rockfish	N.A.	URCK
Thornyhead rockfish	<u>Sebastolobus spp.</u>	THDS
Atka mackerel	<u>Pleurogrammus monopterygius</u>	AMCK
Jack mackerel	<u>Trachurus symmetricus</u>	JMCK
Lingcod	<u>Ophiodon elongatus</u>	LCOD
Pacific cod	<u>Gadus macrocephalus</u>	PCOD
Pacific herring	<u>Clupea harengus</u>	HRNG
Pacific whiting	<u>Merluccius productus</u>	PWHT
Sablefish	<u>Anoplopoma fimbria</u>	SABL
Walleye pollock	<u>Theragra chalcogramma</u>	PLCK
Spiny dogfish	<u>Squalus acanthius</u>	DSRK
Unsp. groundfish	N.A.	UGRN

1/ The species codes are the same as those used by the Pacific Fisheries Information Network (PacFIN).

Table B3.--Gear types 1/ and gear codes
in the Historical Annotated
Landings (HAL) database.

GEAR	CODE
Otter trawl	OTTR
Shrimp trawl	SHTR
Midwater trawl	MWTR
Longline	LONG
Pot and Trap	PTTR
Gillnet	GLN
Handline and Troll	H&TR
Hook and Line	HOOK
Jig	JIG
Other gears	OTHR
Unknown gears	UNKN
Industrial landings	INDU

1/ Not all gear types are represented as separate categories. When data for individual categories was available it was included.

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APPENDIX C

SOURCES AND NOTES ON U.S. AND CANADIAN LANDINGS IN HAL.

Please refer to the text for a more complete description of the data sources.

1956-1974

Trawl landings

Trawl landings for all agencies except Alaska Department of Fish and Game were taken from the PMFC Groundfish Data Series. The Alaska Department of Fish and Game reported landings were taken from reports by Funk and Bracken (1984) and Rigby (1984). Trawl rockfish data for 1960 to 1974 for areas 24 to 5E are from Tagart (1985). The "other rockfish" category may include unknown amounts of S. alutus.

Non-trawl Landings

California Department of Fish and Game

Sablefish longline data for 1956 to 1969 were obtained from Parrish, 1973. Data for other species and gear types were unavailable. Data for 1971 to 1974 were taken from the PMFC Groundfish Data Series.

Oregon Department of Fish and Wildlife

Shrimp trawl landings for 1966 to 1970 were obtained from reports prepared for the Technical Sub-Committee of the International Groundfish Committee. These reports were provided by Jim Golden, ODF&W, Newport; Oregon. Data for 1971 to 1974 were taken from the PMFC Groundfish Data Series.

Washington Department of Fisheries

Non-trawl landings for 1956 to 1970 were obtained from annual reports by WDF known as the Bound Volumes, (unpublished reports on file at WDF offices in Seattle and Olympia). Lingcod longline landings in those documents were converted from dressed to round weight by multiplying by 1.75. Sablefish non-trawl landings were converted to round weight by multiplying by 1.43. Data for 1971 to 1974 were taken from the PMFC Groundfish Data Series.

Department of Fisheries and Oceans

Non-trawl data for 1963 through 1970 were obtained from Forrester et al. (1978). Sablefish longline landings for 1956 to 1970 were taken from McFarlane and Beamish (1983). The sablefish landings listed in the latter report were converted from dressed to round weight by multiplying by 1.5. Data for 1971 to 1974 were taken from the PMFC Groundfish Data Series.

Alaska Department of Fish and Game

Data for years prior to 1970 were taken from Funk and Bracken (1984). Data for 1970 through 1974 came from Rigby (1984).

1975 to 1980

California Department of Fish and Game

All data were taken from computerized files of the PMFC Groundfish Data Series maintained by NORFISH at the University of Washington, Seattle, Wash.

Oregon Department of Fish and Wildlife

All data were taken from computerized files of the PMFC Groundfish Data Series maintained by NORFISH at the University of Washington, Seattle, Wash., with corrections made by Jim Golden, ODF&W, Newport, Oregon.

Washington Department of Fisheries

All trawl data were provided by Kurt Buchanan of WDF, Seattle who summarized information from Pattie and Gormley (1977), Pattie and Gormley (1978), Pattie (1978), Pattie and Tagart (1981), Pattie et al. (1982), and Pattie and Tagart (1983) for 1975 to 1980. Buchanan also provided data for the 3C-US, 3C-CAN splits for trawl landings in area 3C. Non-trawl data were provided by Buchanan.

Alaska Department of -Fish and Game

All data were received electronically from Fritz Funk, ADF&G, Juneau, AK.

Department of Fisheries and Oceans,

All data were taken from computerized files of the PMFC Groundfish Data Series maintained by NORFISH at the University of Washington, Seattle, Wash. Janice Leaman of DFO, Nanaimo, British Columbia, provided data for splits for 3C-US and 3C-CAN trawl landings in area 3C.

APPENDIX D

SOURCES AND NOTES ON FOREIGN AND JOINT VENTURE DATA IN HAL.

Please refer to the text for a general discussion of the sources of data in these tables.

1956-1966

JAPAN

Forrester et al. (1978). Catches of individual species listed from "Area Unknown" in this document were prorated among INPFC areas in proportion to the total catch of that particular species from an area.

U.S.S.R.

Forrester et al. (1978); Chitwood, (1969). Beginning with 1959, catch numbers were taken from Forrester et al. (1978) and area distributions were interpreted from Chitwood (19.69).

1967

JAPAN

Forrester et al. (1978). Catches of individual species listed from "Area Unknown" in this document were prorated among INPFC areas in proportion to the total catch of that particular species from an area.

U.S.S.R.

Parks and Dark (1972). The authors of this document reallocated Soviet reported catches (Anonymous 1968) to INPFC areas. Based on remarks made by Soviets scientists at bilateral meetings, other authors, Larkins (1975), Forrester, et al. (1978) have allocated 90% of the "Other Fish" category to Pacific whiting for the Washington-Oregon-California area. No such allocation was made for the British Columbia area. In an effort to be consistent, 90% of the "Other Fish" category from British Columbia was added to the Pacific whiting category for that area.

1968

JAPAN

Forrester et al. (1978). Catches of individual species listed from "Area Unknown" in this document were prorated among INPFC areas in proportion to the total catch of that particular species from an area.

Republic of Korea

Parks and Dark (1972).

U.S.S.R.

Parks and Dark (1972). As in 1967, 1969 and 1970 it was assumed that 90% of the U.S.S.R. reported "Other Fish" category was indeed Pacific whiting (despite the fact that other authors did not make this assumption for this year). For the category "Rockfish" the U.S.-U.S.S.R. bilateral meeting documents (Anonymous 1969) list a catch of 98,214 metric tons (t) while Parks and Dark (1972) list 101,417 t. Parks and Dark (1972) mistakenly added 3,203 t of catch into both Yakutat and Southeast INPFC areas during their area allocations (Parks and Dark 1972). Therefore the 3,203 t were prorated among the two areas based on the percentage of total catch in each.

1969

JAPAN

Forrester et al. (1978). Catches of individual species listed from "Area Unknown" in this document were prorated among INPFC areas in proportion to the total catch of that particular species from an area.

Republic of Korea

Parks and Dark (1972).

U.S.S.R.

Parks and Dark (1972). In 1969 both Larkins (1975) and Forrester et al. (1978) include 90% of the "Other Fish" category as Pacific whiting for U.S. waters. The same procedure for calculating Pacific whiting landings was

followed for 1969 as for 1967 and 1968. For British Columbia waters there was no category for "Other Fish" in bilateral meeting documents so that any catches of Pacific whiting in Canadian waters were most likely not reported.

1970

JAPAN

Forrester et al. (1978). Catches of individual species listed from "Area Unknown" in this document were prorated among INPFC areas in proportion to the total catch of that particular species from an area.

Republic of Korea

Parks and Dark (1972).

U . S . S . R .

Parks and Dark (1972). Ninety percent of the "Other Fish" category was allocated to Pacific whiting totals, and the total reapportioned according to this document's estimates. Parks and Dark (1972) omitted 5,989 t reported by U.S.S.R. in California waters (Anonymous, 1971). In HAL this amount was included in the totals for reapportionment in other areas.

1971

JAPAN

Forrester et al. (1983).

Republic of Korea

Parks and Dark (1972).

U.S.S.R.

Anonymous (1973a). The totals in HAL reflect the allocation of percentages of "Others" category to various species as footnoted in this bilateral meeting document.

JAPAN

Forrester et al. (1983).

Republic of Korea

Anonymous (1973b).

U.S.S.R.

Parks (1974). This document states that the U.S.S.R. reported no catch in California waters during the third quarter while U.S. surveillance reports state that a Soviet trawler was then operating in the Eureka area. Parks (1974) also omits 2,831 t Pacific whiting, 194 t rockfish and 162 t other species reported by the U.S.S.R. (Anonymous, 1973a) in the fourth quarter because surveillance reports did not observe any Soviet vessels fishing off California during this time. These data were included in HAL as it was assumed they were actually caught by the trawler operating in Eureka during the third quarter.

JAPAN

Forrester et al. (1978). Catches of individual species listed from "Area Unknown" in this document were prorated among INPFC areas in proportion to the total catch of that particular species from an area.

Republic of Korea

Parks (1975).

POLAND

Morski Instytut Rybacki (1975).

U.S.S.R.

Parks (1975). This document (and Ketchen 1977) omits 10,502 t catch from Charlotte (9,142 t of this assumed to be Pacific whiting) because Canadian surveillance reported that the U.S.S.R. did not fish north of 50° N during 1973. Based on the assumption that the U.S.S.R. most likely misstated the area of catch, these landings were apportioned to the Vancouver INPFC area in HAL.

1974

JAPAN

Forrester et al. (1983).

POLAND

Morski Instytut Rybacki (1975).

Republic of Korea

Parks (1976).

U.S.S.R.

Parks (1976).

1975

FEDERAL REPUBLIC OF GERMANY

National Marine Fisheries Service (1976b); Mural et al. (1981). Area distribution of 2,000 t Pacific whiting from Murai et al. (1981) was based on surveillance reports of trawlers from the Federal Republic of Germany fishing off the coast of San Francisco (National Marine Fisheries Service, 1976b). Food and Agriculture Organization of the United Nations (FAO) yearbooks (FAO 1976, 1977) do not report any FRG fishing activity in the northeast Pacific.

GERMAN DEMOCRATIC REPUBLIC

Kaczynski (1981). Food and Agriculture Organization (1977) lists German Democratic Republic catch in the northeast Pacific in 1975 as 12,223 t, while Kaczynski (1981) lists 10,573 t Pacific whiting. The Pacific whiting data from Kaczynski was entered into HAL as other statistics in this report appear to be accurate. Data on incidental catches of other species were not available.

JAPAN

Forrester et al. (1983).

POLAND

Data for U.S. waters are from Morski Instytut Rybacki (1976, cited by Kaczynski 1981). Data for Canadian waters are from Ketchen (1977).

REPUBLIC OF CHINA (Taiwan)

National Marine Fisheries Service (1980); Murai et al. (1981). FAO yearbooks (FAO 1976, 1977) do not list any Republic of China fishing activity in the northeast Pacific in 1975.

REPUBLIC OF KOREA

Anonymous (1976b).

U.S.S.R.

Forrester et al. (1983). Surveillance reports for 1975 (National Marine Fisheries Service 1975, 1976b) and Ketchen (1977) report that the U.S.S.R. did not fish in the INPFC Vancouver area. Based on the assumption that the U.S.S.R. would not likely report catch unless they were fishing somewhere, the catches listed for INPFC Vancouver in Forrester et al. (1983) were reassigned to INPFC Columbia in HAL.

BULGARIA

Anonymous (1977); Murai et al. (1981).

GERMAN DEMOCRATIC REPUBLIC (East Germany)

Kaczynski (1981). FAO (1977) lists catch by the German Democratic Republic (GDR) in the northeast Pacific in 1976 as 27,436 t. while Kaczynski (1981) lists 26,905 t Pacific whiting. The data from the latter report were entered into HAL as the Food and Agriculture Organization of the United Nations statistics do not appear to be accurate in most cases for this region. Data on incidental catches of other species were not available.

JAPAN

Forrester et al. (1983).

POLISH PEOPLE'S REPUBLIC

Morski Instytut Rybacki (1977).

REPUBLIC OF KOREA

Anonymous (1977).

REPUBLIC OF CHINA

National Marine Fisheries Service (1980). FAO yearbooks (FAO 1976, 1977) do not list any Republic of China fishing activity in the northeast Pacific in 1976. Data from the surveillance estimates of catch (National Marine Fisheries Service, 1980) were entered into HAL.

U.S.S.R.

Forrester et al. (1983).

194

1977

FOREIGN AND JOINT VENTURE CATCH

Data for U.S. waters were received from J. Berger (pers. commun.) from data on file at the Northwest and Alaska Fisheries Center, 7600 Sand Point Way N.E., Seattle, WA 98115. The species category of "other flatfish" (OFLT) contains all species of flatfish except Pacific halibut. In Gulf of Alaska areas, the category "other rockfish" (ORCK) includes all species of rockfish including Sebastes alutus, Pacific ocean perch (POP), while in Bering Sea areas the category "POP" is S. alutus only and "other rockfish" is all other rockfish species.

Data for Canadian waters are from INPFC (1981), and G. A. McFarlane pers. commun., 1985).

1978

FOREIGN AND JOINT VENTURE CATCH

Data for U.S. waters are from National Marine Fisheries Service (1979). Atka mackerel is reported as a separate category for the first time as opposed to being included in the "Unspecified groundfish" (UGRN) category.

Data for Canadian waters are from INPFC (1981), and G. A. McFarlane pers. commun., 1985).

1979

FOREIGN AND JOINT VENTURE CATCH

Data from U.S. waters are from Nelson et al. (1980). The POP category in all areas except Washington-Oregon-California now represents the "POP complex" and includes Pacific ocean perch (Sebastes alutus), sharpchin rockfish (S. zacentrus), shortraker rockfish (S. borealis), northern rockfish (S. poiyspinis) and roughey rockfish (S. aleutianus). Also thornyhead rockfish (Sebastolobus spp.) are now reported in the "Unspecified groundfish" (UGRN) rather than the "other rockfish" (ORCK) category.

Data for Canadian waters are from INPFC (1981c) and G. A. McFarlane (pers. commun., 1985). The U.S.S.R. did not fish in Canadian waters during 1979.

195

1980

FOREIGN AND JOINT VENTURE CATCH

Data for U.S. waters are from French et al. (1981). The category "other rockfish" (ORCK) contains all Sebastes spp. not included in the POP complex. Thornyhead rockfish for the first time (Sebastolobus spp.) is listed in a separate category, although they have been included in the "Unsp. groundfish" column in this report.

Data for Canadian waters are from INPFC (1983), and G. A. McFarlane (pers. commun.). The catch total for sablefish in Canadian waters as listed in INPFC (1983) was updated by DFO.

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APPENDIX E

SOURCES OF PERSONAL COMMUNICATIONS AND UNPUBLISHED
MANUSCRIPTS CITED IN TEXT

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