

**INCIDENTAL CATCHES OF SALMONIDS
BY U.S. GROUND FISH FISHERIES
IN THE BERING SEA/ALEUTIAN ISLANDS,
GULF OF ALASKA, AND PACIFIC COAST AREAS, 1990-1994**

by

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Submitted to the

NORTH PACIFIC ANADROMOUS FISH COMMISSION

by the

United States of America

August 1994

THIS PAPER MAY BE CITED IN THE FOLLOWING MANNER:

Berger, J.D. and Loh-Lee Low. 1994. Incidental catches of salmonids in U.S. groundfish fisheries in the Bering Sea/Aleutians, Gulf of Alaska and Pacific Coast Areas, 1990-1994. 4p. (Document submitted to the Annual Meeting of the NPAFC, Vladivostok, October, 1994). Resource Ecology and Fisheries Management Div., Alaska Fish. Sci. Cent., NMFS, NOAA, U.S. Dep. Commerce, 7600 Sand Point Way NE, Seattle, Wa 98115-0070.

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ABSTRACT

Incidental catches of Pacific salmonids in U.S. groundfish trawl fisheries off Alaska and the Pacific West Coast are presented for 1977 through July 1994. Estimated numbers of salmonids caught incidentally in recent years in the Bering Sea/Aleutians groundfish fisheries were 30,500 in 1990; 67,000 in 1991; 76,300 in 1992; and 291,600 in 1993. In the Gulf of Alaska, incidental catches were 21,000 in 1990; 53,800 in 1991; 36,300 in 1992; and 80,900 in 1993. The Pacific Coast groundfish fisheries off Washington-Oregon-California caught 620 salmon in 1990; 6,300 salmon in 1991; 5,100 salmon in 1992; and 8,400 salmon in 1993. Through July 30, 1994, the incidental catches were 49,200 salmon in the Bering Sea/Aleutians region; 47,900 salmon in the Gulf of Alaska; and 3,600 salmon off the Pacific Coast.

INTRODUCTION

Groundfish fisheries are conducted primarily by the use of trawl gear that occasionally encounters and catches Pacific salmonids. Other gear used to harvest groundfish - longline and pots - generally do not catch many salmonids. U.S. fishing regulations consider salmonids to be prohibited species for the groundfish fisheries, and when taken, they must immediately be returned to the sea. The incidental catches of salmonids are monitored by the U.S. National Marine Fisheries Service (NMFS) and estimated by its scientific observer program. At present, there are no specific limits set for salmonid bycatch off Alaska nor the Pacific Coast. Incidental catch rates of individual vessels and the fleet average are, however, monitored closely and made known to the fleet, so individual vessels can take voluntary actions to minimize their bycatch.

The observer program coverage for the groundfish fisheries off Alaska is 100% for the large-sized vessel fleet (greater than 125 ft. length overall) and 30% coverage for the medium-sized vessel fleet (60-125 ft. length overall). The small-sized vessel fleet (less than 60 ft. length overall) is not monitored by direct observer coverage. Instead, some of their catches are sampled when they deliver to motherships or shore-based processing plants. Motherships are staffed 100% of the time by observers and shore-based plants are staffed 30%-100%, depending upon the volume of fish processed. For the Pacific Coast, only the at-sea processors (catcher-processors and motherships), which catch the bulk of the groundfish catch are monitored by NMFS-trained observers.

RESULTS

Observers count salmonids, take length-weight measurements of salmonid samples, and estimate total groundfish catch weight. Tables 1-4 summarize the estimates from the observer sampling.

Table 1. Total groundfish catch and estimated bycatch of chinook and other Pacific salmon in U.S. groundfish fisheries, 1990-1994

Year	Region	Groundfish Catch (mt)	Chinook	Chum	Coho	Sockeye	Pink	Total
			-----numbers of fish-----					
1990	BSAI	1,706,379	14,085	16,202	153	3	31	30,501
1991	BSAI	2,154,903	34,958	31,417	444	89	89	66,996
1992	BSAI	1,963,523	41,955	-----41,449-----				83,404
1993	BSAI#	1,754,384	46,483	-----245,081-----				291,564
1994	BSAI**	1,019,825	40,045	-----9,137-----				49,182
1990	GOA	244,397	16,913	2,541	1,482	85	64	21,085
1991	GOA	269,616	38,894	13,713	1,129	51	57	53,844
1992	GOA	269,797	20,462	-----17,846-----				36,308
1993	GOA	255,434	24,465	-----56,388-----				80,853
1994	GOA**	191,372	11,149	-----36,798-----				47,947
1990	WOC*	4,478	617	0	0	0	0	617
1991	WOC*	198,953	6,153	11	131	0	23	6,318
1992	WOC*	155,293	4,862	-----237-----				5,099
1993	WOC*	99,698	4,843	-----3,530-----				8,373
1994	WOC***	163,783	3,332	-----229-----				3,561

Regions: BSAI = Bering Sea/Aleutian Islands
 GOA = Gulf of Alaska
 WOC = Washington-Oregon-California

5 steelheads were also reported in the Bering Sea/Aleutians area

* At sea processing only

** Through 7/30/94

***At sea processing only through 7/30/94

Table 2. Average body weight of chinook salmon incidentally caught in groundfish fisheries, 1990-1993

Year	Region	Male Average Weight (kg)	Female Average Weight (kg)
1990	BSAI	3.74	3.87
1991	BSAI	2.83	3.03
1992	BSAI	3.26	3.32
1993	BSAI	NA	NA
1990	GOA	3.57	3.88
1991	GOA	3.03	3.43
1992	GOA	3.46	3.32
1993	GOA	NA	NA
1990	WOC	NA	NA
1991	WOC	3.18	3.40
1992	WOC	-----3.17-----	
1993	WOC	-----2.23-----	

Regions: BSAI = Bering Sea/Aleutian Islands
 GOA = Gulf of Alaska
 WOC = Washington-Oregon-California

Table 3. Average body weight of chum salmon incidentally caught in groundfish fisheries, 1990-1993

Year	Region	Male Average weight (kg)	Female Average weight (kg)
1990	BSAI	2.28	2.18
1991	BSAI	2.44	2.29
1992	BSAI	2.53	2.51
1993	BSAI	NA	NA
1990	GOA	3.36	3.11
1991	GOA	3.11	2.89
1992	GOA	3.32	3.06
1993	GOA	NA	NA
1990	WOC	NA	NA
1991	WOC	2.20	3.00
1992	WOC	NA	NA
1993	WOC	-----1.63-----	

Regions: BSAI = Bering Sea/Aleutian Islands
 GOA = Gulf of Alaska
 WOC = Washington-Oregon-California

Table 4. Estimated incidental catches of Pacific salmonids previously reported to the International North Pacific Fisheries Commission, 1977-1989

Year	Bering Sea/ Aleutian*	Gulf of Alaska**	Washington- Oregon-California*
1977	47,840	5,222	14,627
1978	44,548	45,603	5,924
1979	107,706	21,460	8,666
1980	122,002	36,069	8,433
1981	43,191	30,860	11,474
1982	23,623	6,967	11,798
1983	42,666	13,874	5,143
1984	84,138	75,846	10,255
1985	20,423	14,102	2,288
1986	20,983	20,820	43,790
1987	14,234	1,221	13,285
1988	9,380	147	16,168
1989	14,153	0	9,199

* Reported in INPFC Doc. 3588, October 1990

** Reported in INPFC Doc. 3417, September 1989