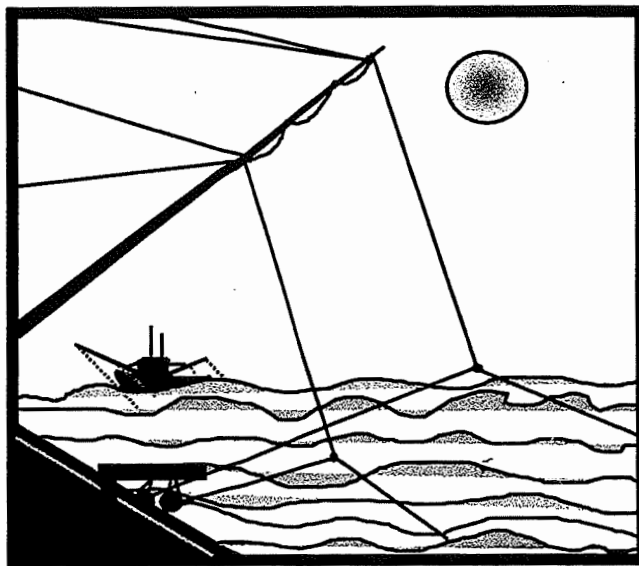


The 1997 Oregon Ocean Salmon Fisheries



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THE 1997 OREGON OCEAN SALMON FISHERIES

Annual Report
1997

by
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Fish Division
Marine Resources Program
Ocean Salmon Management Program

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INTRODUCTION

The Ocean Salmon Management Program (OSMP) monitors ocean commercial and recreational salmon fisheries, and conducts ocean and coastal river's investigations for the Oregon Department of Fish and Wildlife (ODFW). The program uses data from these and other sources to assist in the development of management strategies to effectively manage Oregon's salmon resources and to evaluate proposed ocean salmon fishery regulations.

This report summarizes the activities of OSMP's Ocean Salmon Sampling Project for the 1997 ocean season. In 1997, we collected and analyzed data on Oregon's catch and fishing effort, recovered coded wire tags (CWTs), and gathered average weight data from commercial salmon landings. We collected tissue samples from chinook for genetic stock analysis of the troll fishery in the Newport Catch Area on the central Oregon Coast.

The OSMP sampling project is permanently staffed by a project leader and an assistant project leader at Newport, and two field sampling coordinators; one each at Tillamook and Charleston (seasonal position). The sampling coordinators serve as liaison between seasonal field samplers, fishery participants, and program staff at Newport; deliver data and coded wire tags to Newport; and also provide additional sampling when needed.

The Oregon Coast has twelve substantial ocean ports or access points to the ocean salmon fishery. In 1997, we sampled eleven of the primary Oregon coastal ports, utilizing twenty seasonal samplers: three were commercial troll samplers, nine were recreational samplers, seven were "combination" commercial-recreational samplers, and one seasonal employee worked 40% of the time sampling the recreational fishery and 60% of the time processing data. In addition, two sampling coordinators, the project leader, and assistant project leader also assisted in field sampling at times. One employee was hired to collect genetic tissue samples from the commercial chinook landings at Newport, and several additional samplers were picked up on loan from other projects for short time periods (Appendix Table 1).

1997 OCEAN TROLL SALMON FISHERY

BACKGROUND

The commercial salmon troll fishery was developing off the Oregon Coast by the year 1912 (Mullen, 1981). By 1919, there were between one and two thousand boats trolling off the mouth of the Columbia River. The State of Oregon began recording troll landings separately from gillnet fisheries in 1925. Of the seven species of Pacific salmon and anadromous trout that are regularly found in the ocean waters off Oregon, coho salmon (*Oncorhynchus kisutch*) and chinook salmon (*Oncorhynchus tshawytscha*) have always made up the vast majority of the catch. Pink salmon (*Oncorhynchus gorbuscha*), are infrequently caught in even years, but usually make up a small portion of the catch in odd numbered years, although in some years (most notably: 1967, 1969, 1977, 1981, and 1985) they have shown up in the catch in substantial numbers (Table 1). Chum salmon (*Oncorhynchus keta*) and steelhead trout (*Oncorhynchus mykiss*) are infrequently caught. Steelhead were classed as a gamefish beginning in 1973 (Oregon Revised Statute 496.009), and have not been allowed to be landed or sold in the commercial troll fishery since 1975 (ORS 509.031). Sockeye salmon (*Oncorhynchus nerka*) and cutthroat trout (*Oncorhynchus clarkii*) are rarely caught in the troll salmon fishery, and cutthroat are also considered a gamefish and prohibited in the commercial catch.

Landings of ocean troll caught coho salmon remained relatively stable from 1925 to 1941, with landings between 2,000,000 and 4,000,000 pounds (dressed weight: head-on, viscera removed) for most years (Figure 1). From 1942 to 1950 catches remained near 1,000,000 pounds annually, but by 1957 landings had climbed back up to 3,400,000 pounds. The El Niño of 1958-59 resulted in landings dropping back below 1,000,000 pounds or 200,000 fish. During the 1960s and early 1970s, improved hatchery production and rearing techniques, a growing troll fleet, and good ocean survival rates of smolts to adults resulted in record landings that peaked in 1976 with 1,800,000 coho landed. From the mid 1970s and continuing into the 1990s, Oregon's ocean coho fishery has been characterized by continuing poor ocean environmental conditions and poor overall survival, increasing management restrictions, and reduced ocean harvest opportunities.

Although chinook harvest by the Oregon troll fishery has also seen dramatic fluctuations, the long term trend has been one of increasing landings. The troll chinook fishery had record harvests in 1987 and 1988. The late 1980s and early 1990s saw a decline in harvest due to decreases in many stocks, concern for critical natural stocks under both state and federal management and the federal Endangered Species Act (ESA), together with increasing allocation conflicts between river and ocean user groups. In addition, recent years have continued the trend in decreasing numbers of participants in the fishery due to decreasing opportunities, and low prices being paid for troll caught salmon (largely a result of competition from pen reared salmon and Alaska salmon fisheries).

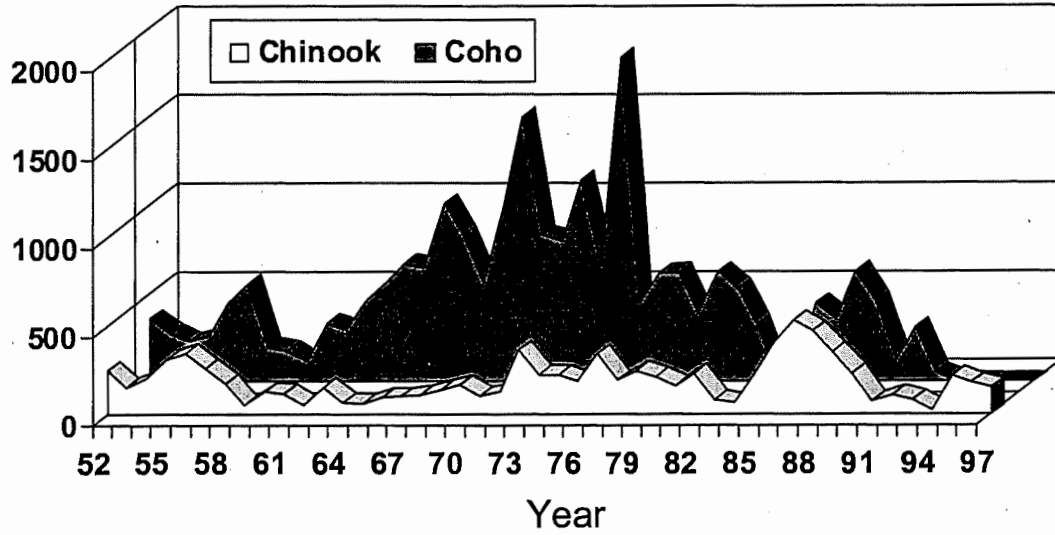
Table 1. Oregon commercial troll salmon effort (deliveries and boat days) and landings (number of fish and pounds dressed), 1952-97. Includes effort and catches made off California, Washington, and Alaska and landed in Oregon.

Year	Effort		Chinook		Coho		Pink	
	Del.	Bt. Days	No.	Lbs. Dr.	No.	Lbs. Dr.	No. ^a	Lbs. Dr. ^b
1952	-	-	247,747	2,686,323	356,487	2,491,705	1	3
1953	-	-	150,922	1,675,517	274,957	2,041,681	653	3,527
1954	-	-	197,396	1,924,210	227,197	1,508,204	0	0
1955	-	-	309,876	3,219,518	255,951	1,693,561	1,145	6,187
1956	-	-	343,045	3,825,914	443,214	2,781,851	0	0
1957	-	-	256,917	2,630,601	551,074	3,355,135	16,119	87,090
1958	-	-	174,876	1,595,335	196,612	1,165,957	0	0
1959	-	-	53,884	463,217	175,362	873,483	1,036	5,597
1960	-	-	127,834	1,328,362	112,472	731,819	10	54
1961	-	-	116,136	1,227,542	328,817	2,007,231	33	180
1962	-	-	52,559	597,664	293,234	1,870,442	0	0
1963	-	-	152,771	1,407,486	457,710	2,609,320	3,805	20,557
1964	-	-	67,505	628,387	558,109	3,683,144	12	67
1965	-	-	57,724	572,600	666,665	4,202,189	35,194	190,156
1966	-	-	95,569	799,680	646,145	4,488,517	0	0
1967	-	-	99,745	1,115,939	1,003,994	7,201,349	172,546	932,269
1968	-	-	110,150	993,410	825,352	4,398,335	659	3,560
1969	-	-	140,285	1,201,470	557,337	3,171,539	48,050	259,613
1970	-	-	164,688	1,685,028	989,743	7,536,094	162	873
1971	43,934	-	102,926	1,000,710	1,490,122	8,765,148	1,676	9,054
1972	38,354	-	127,287	1,303,729	824,602	4,856,335	21	115
1973	33,378	-	363,267	3,461,321	795,477	5,137,061	2,634	14,229
1974	51,058	-	224,110	2,290,403	1,137,193	7,230,870	13	70
1975	44,627	-	224,708	2,583,326	657,387	4,087,541	167	905
1976	71,868	-	184,345	1,921,577	1,826,968	9,061,161	1,026	5,546
1977	85,086	-	340,014	3,464,945	446,122	2,640,800	73,319	396,144
1978	45,693	-	191,532	1,893,620	611,638	2,778,964	45	244
1979	43,598	49,028	246,153	2,259,676	697,430	4,586,255	20,111	106,248
1980	29,880	39,719	209,009	2,170,873	392,946	2,188,896	524	1,570
1981	35,098	45,334	160,666	1,572,489	622,490	3,324,309	60,173	323,982
1982	26,478	33,715	232,125	2,351,252	518,421	2,708,375	0	0
1983	17,388	22,066	79,541	654,992	319,630	1,097,881	79	231
1984	5,595	7,927	64,302	549,448	13,793	69,806	0	0
1985	15,671	21,005	217,075	2,029,935	84,222	483,827	44,318	258,631
1986	25,696	32,517	402,648	3,370,301	440,398	1,904,649	4	11
1987	30,977	39,480	529,252	5,182,350	354,049	1,915,935	17,648	87,343
1988	40,860	51,007	470,103	4,389,031	623,207	3,335,987	4	11
1989	33,393	42,138	353,509	3,531,858	455,726	1,995,515	3,833	17,629
1990	20,220	26,231	232,439	2,180,867	122,295	633,804	0	0
1991	10,965	14,878	74,620	694,676	307,130	1,411,048	1,779	7,561
1992	6,212	9,224	110,526	1,012,622	49,775	206,622	3	16
1993	6,018	9,471	81,523	760,574	1,672	9,075	12	29
1994	2,426	3,766	25,313	286,638	0	0	0	0
1995	5,012	7,860	214,580	1,940,626	0	0	129	364
1996	5,106	8,485	177,127	1,924,728	8	38	0	0
1997	4,304	7,815	149,710	1,540,004	0	0	48	127

^a Numbers of pink salmon from 1952-78 were estimated by dividing the pounds landed by the 1979-94 average weight of pink salmon landed in Oregon from 1979-94 (5.403 lbs./per pink salmon).

^b Pounds dressed for pink salmon for the period of 1952-78 were back calculated from round weights landed by dividing total pounds by the standard conversion factor of 1.15. Poundages from this period may also include landings of pinks from other commercial fisheries.

FISH (thousands)



POUNDS DRESSED (thousands)

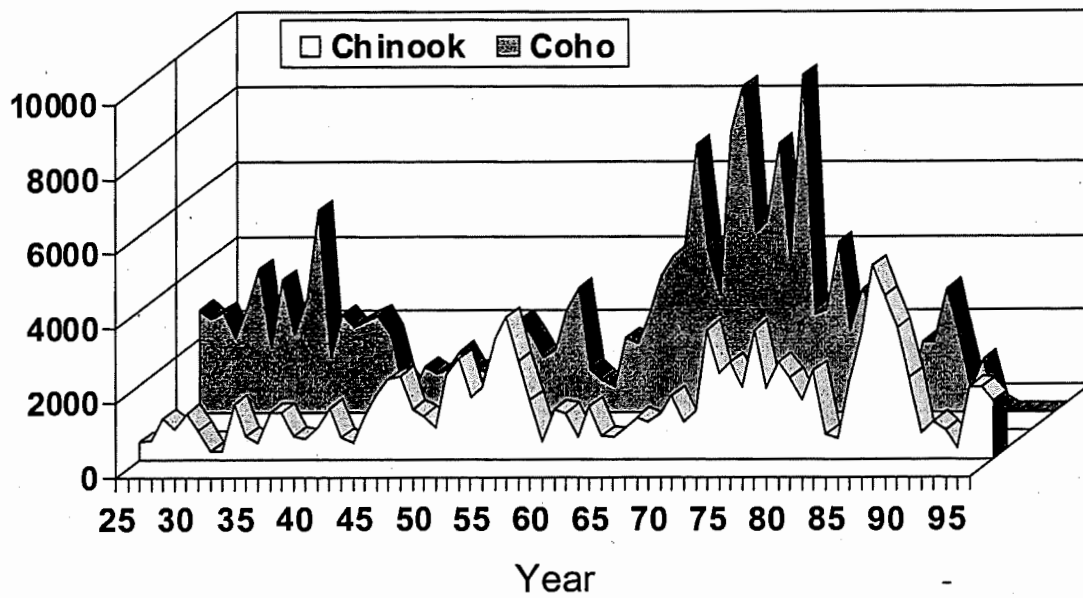


Figure 1. Historical Oregon troll salmon landings in numbers of fish (1952-97) and in pounds dressed, head on viscera removed (1925-97).

Historically, coho salmon predominated in the landings, but for the last decade chinook landings have equaled coho, and in many years made up the majority of the catch. This is primarily due to low coho survival rates and much higher chinook survival rates and catch in the late 1980s (Figure 1, Table 1). Chinook will continue to predominate in the landings until coho abundance increases enough to allow fisheries to resume.

Entry into the troll fishery was unrestricted until 1980 when a permit moratorium was adopted. Although 4,311 vessels already had Oregon troll permits, a goal of 2,400 vessels licensed to troll for salmon in Oregon was established. The Oregon legislature lowered the troll permit ceiling to 1,800 vessels in 1993. Following recommendations of an industry panel that reviewed the troll permit limited entry status, the 1995 legislature lowered the permit cap further to 1,200. In 1997, the number of renewed troll permits declined to 1,295 from 1,377 permits renewed in 1996. Of the permitted vessels, only 433 recorded landings of salmon in 1997.

Oregon ocean troll coho salmon fishing was prohibited for the fourth straight year in 1997. July was closed in the area from Cape Falcon to Humbug Mountain to reduce incidental hooking mortality impacts on wild coho salmon. The area south of Humbug Mountain saw limited troll chinook salmon opportunities in 1997 (Figure 2).

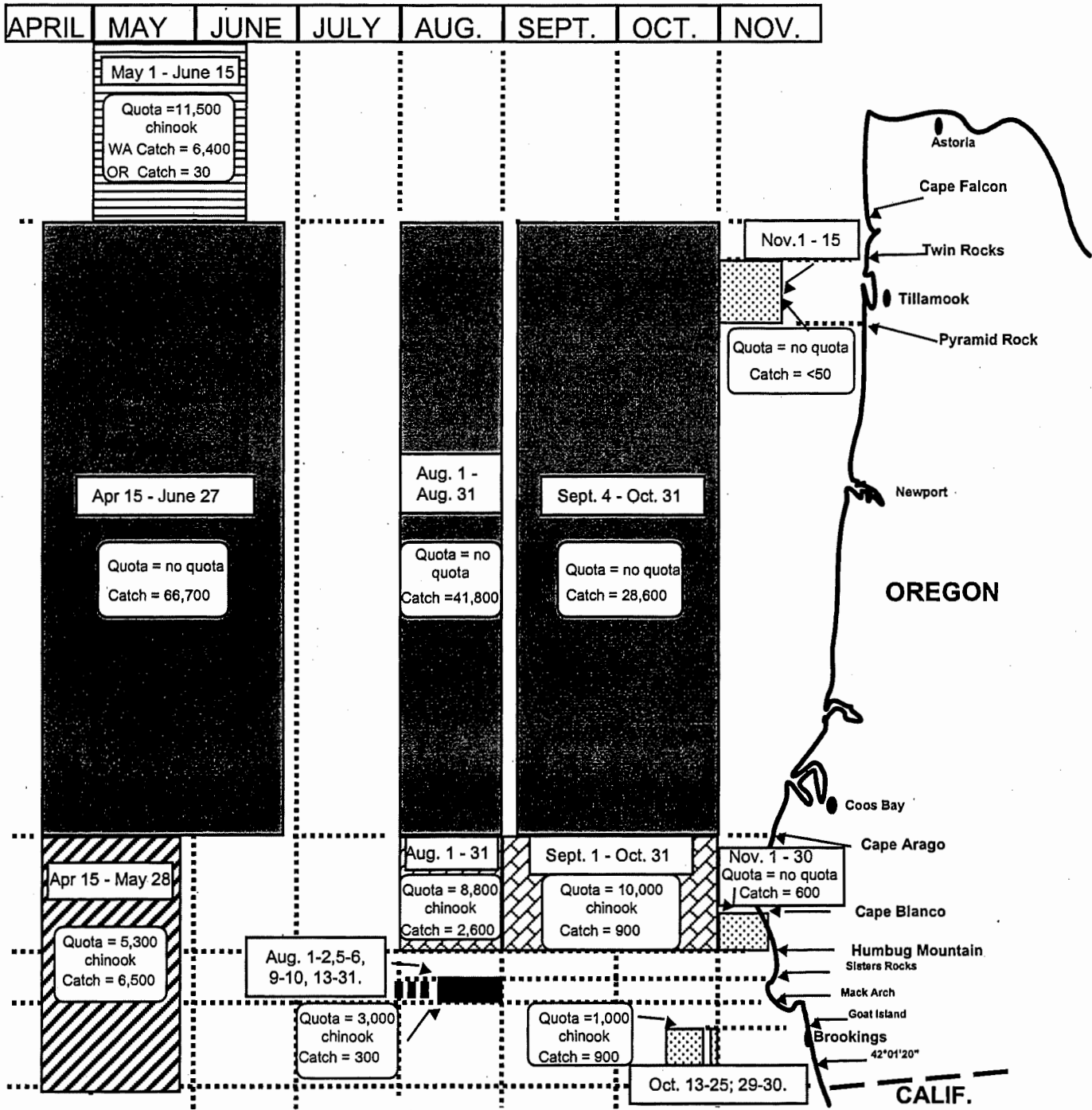
SAMPLING METHODOLOGY

Sampling Areas and Staffing

For 1997, a seasonal staff of 3 troll salmon samplers and 7 combination (troll/recreational) samplers were deployed at Oregon coastal ports (Appendix Tables 1 and 2). Samplers worked at both permanent and temporary buying stations in Garibaldi, Newport, Florence, Winchester Bay, Charleston, Port Orford, Gold Beach, and Brookings. Sampling at Port Orford was limited to the October/November time period, and was accomplished by utilizing staff from the Elk River Fall Chinook Indicator Stock Project. Troll sampling was also supplemented at times by sampling coordinators and other permanent staff.

Sampling Design

Sampling is conducted via an established sampling plan using a stratified random design. Samplers are instructed to sample proportionate landings from trip boats and day boats, from landings throughout the week, and from all major buyers. Sampling data is recorded in the field on handheld data entry computers with software designed for the collection of the necessary field data. Handheld computerized data is then transferred weekly to the Newport office and downloaded to a computer for summarization and analysis. All individual landings are kept confidential.



- Chinook minimum size: 28" north of Cape Falcon. Closed to the retention of coho.
- No more than 4 spreads per wire. Tillamook Bay control zone was closed April 15 through Sept. 15. All salmon except coho. Chinook minimum size: 26".
- ◌ No more than 4 spreads per wire. All salmon except coho. Chinook minimum size: 26".
- Open 0 - 4 nautical miles. All salmon had to be landed and delivered to Gold Beach, Port Orford or Brookings within 24 hours of each closure. Chinook minimum size: 26". No more than 4 spreads per wire.
- ◌ No more than 4 spreads per wire. All salmon except coho. Chinook minimum size: 26".
- ◌ State waters chinook fisheries off Tillamook Bay, Elk River and the Chetco River. Chinook only, no more than 4 spreads per wire, state waters only (0-3 miles). Chinook minimum size: 26".

Figure 2. Oregon commercial ocean troll salmon seasons, quotas, and landings, 1997.

Average Weights and Coded Wire Tags

Salmon are sorted and weighed by fish plant personnel. Simultaneously, OSMP employees tally fish by species and grade, record corresponding total weights that are taken by the processor, and examine the salmon for clipped adipose fins. A clipped adipose fin has traditionally indicated that the fish has a coded wire tag (CWT) implanted in its snout, although several projects are now using the adipose fin clip to indicate that the fish is a hatchery release without including a CWT implant.

Quota Assessment

The PFMC area ocean salmon harvests are managed to achieve specific spawning escapement goals for regional salmon stocks as adopted by the PFMC, provide for in-river fisheries, and Native American treaty requirements or allocations. Quotas or harvest ceilings for specific time and area fisheries are a primary tool of harvest management. Quotas are set based on estimates of adult recruitment, stock contribution and distribution, anticipated ocean harvest patterns, impacts on critical stocks, and spawning escapement goals.

A fish receiving ticket is required for each troll salmon landing. Estimates of the number of salmon landed are derived by taking poundages from fish receiving tickets and applying average weight data from port sampling. Intensive ocean troll fisheries and quotas make it necessary for managers to be able to monitor catches timely and with reasonable accuracy. Standard processing of fish ticket data may take more than three weeks, and cannot be effectively used for in-season quota management.

To overcome the fish ticket "time lag", the OSMP developed a commercial troll fishery "key buyer" program in 1983. This program monitors daily or periodic troll landings at major ("key") buyers along the coast as needed to provide assessment of landings under quota managed fisheries. Sampling staff contact major salmon buyers in each port and summarize total pounds of salmon purchased for a specific time period and fishery. The sampler then contacts OSMP staff at the Newport office with the poundages and the summarized sample data for the same period. Total poundages landed at key buyers are expanded to account for the buyers who were not contacted. By dividing the estimated poundage of salmon landed within a given port by the average weight from the sampling data for that port, a reasonable estimate of the landings can be made within 24 hours. Key buyers typically represent more than 90% of the landings and allow for expansion of the landings with minimal error.

Estimates are also made for fish "on the water", and buyer percentages are adjusted in season to reflect current delivery patterns. As "hard data" from the fish ticket system becomes available, it is used to replace the early key buyer "soft data". Assessment of fish on the water becomes less precise as the level of trip boat participation increases, and can be complicated by buyer boats, out of area landings, and mobile buying stations.

REGULATIONS AND SEASON LANDINGS

Ocean salmon regulations are set by the PFMC for all ocean salmon fisheries in the Exclusive Economic Zone (EEZ) from 3 to 200 miles. For state waters (0 to 3 miles), ocean salmon regulations are set by the Oregon Fish and Wildlife Commission (OFWC) within the ocean salmon harvest impact guidelines established by the PFMC. Special all-species-except-coho fisheries are set by the OFWC for state waters within 3 miles of shore. These are typically fisheries to target on returning stocks of fall chinook.

All 1997, Oregon and PFMC area ocean troll salmon fisheries were restricted to gear containing single point, single shank barbless hooks, and not more than four terminal gear spreads per wire. Coho were prohibited in all seasons. Minimum length restrictions were 28 inches total length for chinook caught north of Cape Falcon and 26 inches for chinook caught south of Cape Falcon (Figure 2, Appendix Table 3).

U.S./Canada Border to Cape Falcon

Season was scheduled to be open for all species except coho from May 1 through earlier of June 15 or quota of 11,500 chinook. The quota was not met, and the season continued as scheduled through June 15 (46 fishing days). Total landings in this season were approximately 6,400 chinook, but less than 50 chinook were landed in Oregon.

Cape Falcon to Cape Arago

The all-salmon-except-coho fishery from Cape Falcon to Cape Arago was open from April 15 through June 27, August 1 through 31, and September 4 through October 31 (163 fishing days). There were no chinook quota restrictions in this area, and no in-season adjustments to the regulations. A control zone (Appendix Figure 1) off the mouth of Tillamook Bay was closed April 15 through September 15 to limit catch on locally depressed stocks of spring chinook through June, and to reduce incidental hooking mortality on coho in August and September (Appendix Figure 1). Approximate chinook landings for the three seasonal breaks in this area were 66,700 for April through June, 41,800 chinook for August, and 28,600 chinook for the September through October period.

There was also a state waters (0-3 miles) chinook fishery established by the OFWC off Tillamook Bay to target returning fall chinook. This fishery was open for chinook only from Twin Rocks to Pyramid Rock from November 1 through 15 (15 fishing days) without quota limitations. Total catch in this season was 7 chinook.

Cape Arago to Oregon - California Border

The all species except coho season from Cape Arago to the Oregon - California border was scheduled to be open April 15 through earlier of May 31 or 5,300 chinook quota. If quota remained after May 31, the season was to continue in the area from Cape Arago to Humbug Mtn. through June 30. The quota was met and the season closed on May 28 (44 fishing days) with an estimated catch of 6,500 chinook.

Cape Arago to Humbug Mountain

The all species except coho season from Cape Arago to Humbug Mountain was scheduled for two open periods with separate chinook quotas. The first season was to run from August 1 through the earlier of August 31 or a chinook quota of 8,800 fish. The quota was not met and the season continued through its scheduled closure date (31 fishing days). Approximately 2,600 chinook were landed in this season.

The second season ran concurrent to the first since the quota was not met in August. This season opened September 1 and was scheduled to continue through the earlier of October 31 or the chinook quota of 10,000 fish. Total catch for this season was estimated at only 900 chinook and the season continued through to the scheduled ending date of October 31 (61 fishing days) without any regulatory adjustments.

A chinook only season was authorized by the OFWC for state waters (0-3 miles) for the area from Cape Blanco to Humbug Mountain to target fall chinook returning to the Elk River. This fishery was scheduled for November 1-30 (30 fishing days) with no chinook quota limitation. All chinook were required to be landed in Port Orford. An estimated 500 chinook were caught in this season.

Humbug Mountain to Horse Mountain

An all-salmon-except-coho season was scheduled to be open August 1 through the earlier of August 31 or 3,000 chinook quota for waters from Sisters Rock to Mack Arch within 4 miles of shore. This fishery was initially scheduled for a cycle of two days open and two days closed, but was opened to 7 days per week beginning August 13 due to low effort and slow catches. The season was actually open August 1-2, 5-6, 9-10, and 13-31 (25 fishing days). Vessels were required to land and deliver their fish in either Port Orford, Gold Beach, or Brookings within 24 hours of each closure. An estimated 300 chinook were taken in this season.

A chinook only season was authorized by the OFWC for state waters (0-3 miles) for the area from Goat Island to 42° 01' 20" N. Lat. This fishery was scheduled to open October 13 and continue through the earlier of October 31 or the quota of 1,000 chinook. A single daily landing limit of 20 fish per vessel was in effect to help keep the fishery manageable. The season opened October 13 and closed midnight on October 25 in anticipation of quota attainment. Bad weather on October 24 and 25 resulted in landings coming up short of projections, and the fishery was reopened October 29 and

30. This season was open a total of 15 fishing days. All chinook were required to be landed into Brookings, and landings totaled approximately 900 chinook.

EFFORT AND CATCH STATISTICS

Landed poundage, dollar value, area of catch, and days fished are obtained directly from Oregon's commercial fish receiving tickets. Pounds landed are converted to number of fish by using average weight information collected by port samplers. Prior to 1979, all Oregon troll catch statistics were reported by port of landing. Beginning in 1979, catch and effort estimates have also been reported by ocean catch area (Figure 3). Landings are allocated to correct catch areas to properly assess ocean fishery impacts. Area of catch data are recorded on fish tickets by buyers and are cross-checked with available OSMP sampling data.

Effort

Historically, Oregon's troll effort has been estimated in vessel deliveries and, since 1979, in boat days. Troll effort for 1997 totaled 7,800 boat days. This is 8% below the 1996 effort of 8,500 boat days, and only 31% of the 1979-96 average of 25,800 boat days. The 1997 effort was only 15% of the record 51,000 days observed in 1988 (Table 1). The continued low effort level was due in part to continued poor prices being paid for chinook, no coho fishing opportunities, and time and area closures to limit hooking mortality impacts on coho and chinook stocks of specific concern (primarily Klamath River fall chinook with tribal fishery obligations and specific ocean/river sharing agreements, and Snake River fall chinook which are listed as threatened under the Endangered Species Act).

Most 1997 effort (66%) occurred within the Newport catch area where 5,171 boat days were recorded. Newport effort increased by almost 9% over the 1996 level of 4,758 boat days. However, effort was down substantially in all other catch areas, except the Columbia River catch area which had been closed to all troll salmon fishing in 1996 (Figure 4, and Appendix Tables 4).

Historically, peak effort levels have occurred during the general coho season in July and August. Due to the continued coho season closure and July being closed to limit coho hooking mortality, the 1997 season followed the more recent trend where most troll effort occurs in June and August. June accounted for 24% of the effort, August added 19%, but surprisingly May made up almost 27% of the 1997 effort (Figure 4).

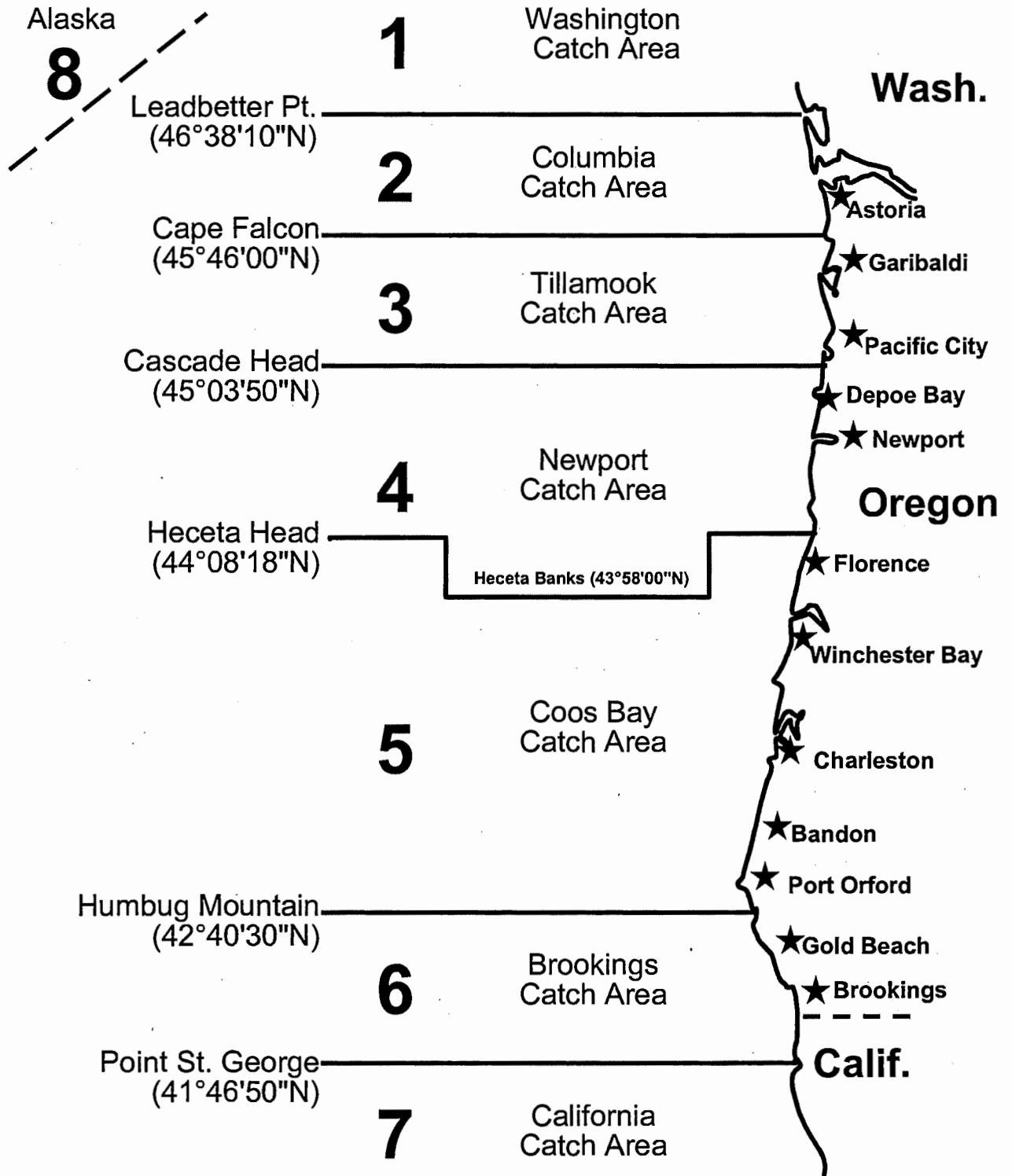
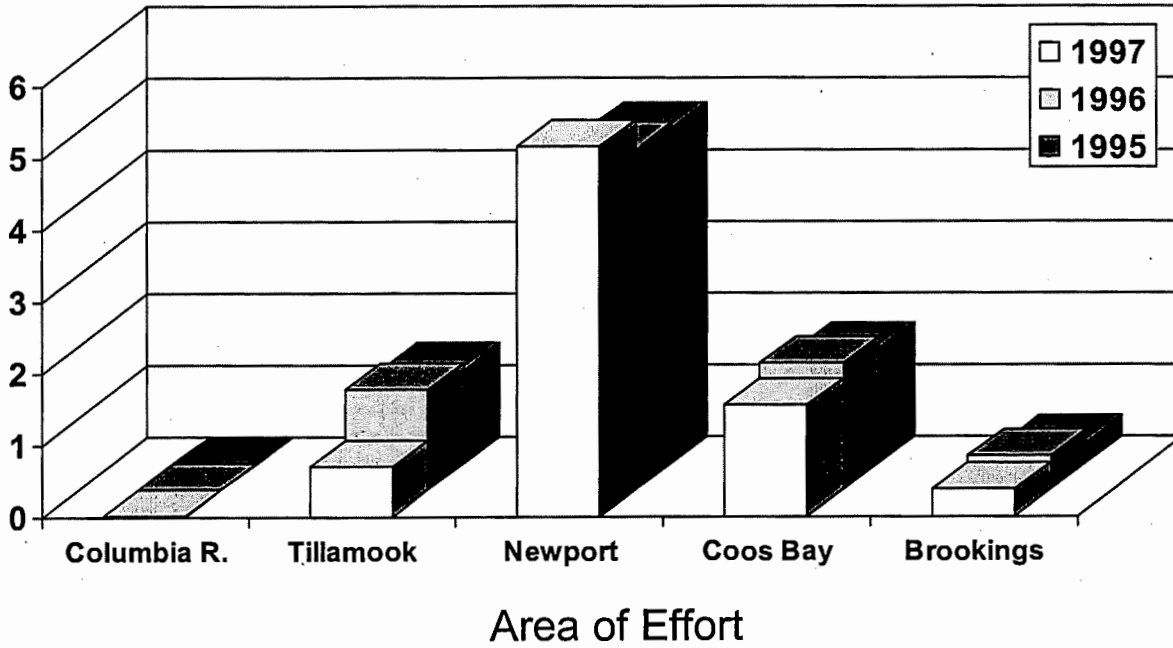


Figure 3. Oregon catch areas and major ports where commercial troll salmon are landed.

Effort

BOAT DAYS (thousands)



BOAT DAYS (thousands)

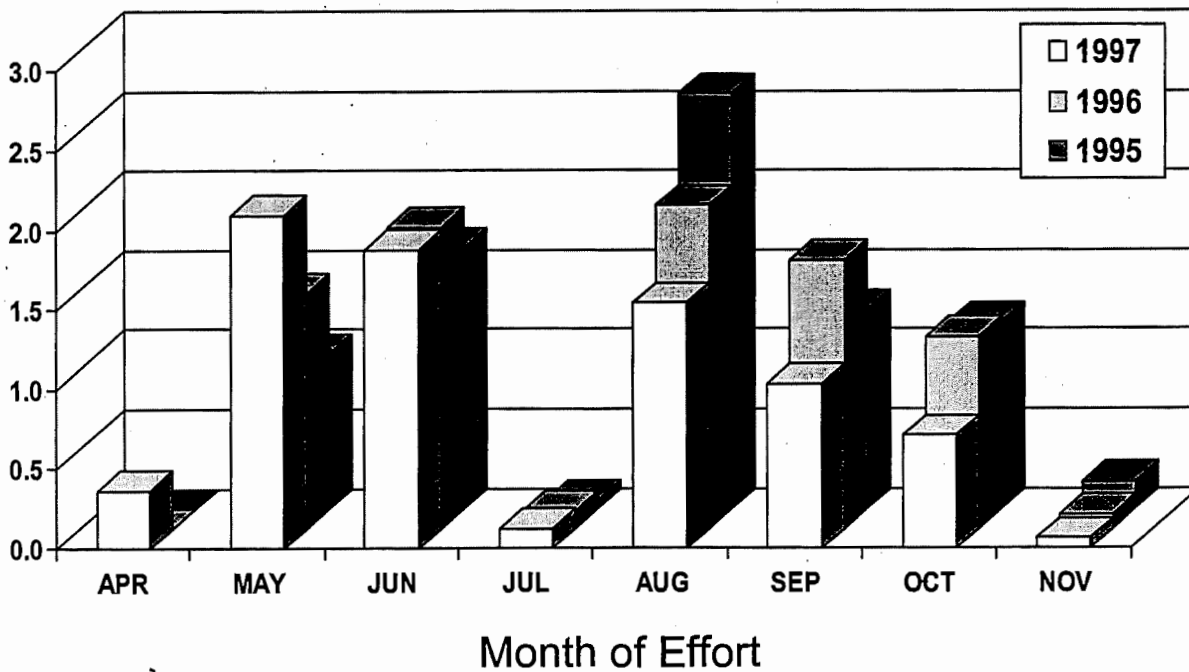


Figure 4. Oregon commercial ocean troll salmon effort in boat days by area of catch and month, 1995-97.

Landings

Chinook: The 1997 Oregon ocean troll chinook landings totaled 149,700 fish. The landings declined 15% from the 1996 catch of 177,100 chinook, and were only 69% of the 1979-96 average of 215,600 chinook (Table 1; and Appendix Tables 5 and 6). Total landings in pounds of dressed chinook (head on, gills and viscera removed) was 1,540,000 lbs (Table 2), and was a 20% drop in poundage landed from the 1996 deliveries.

Most chinook were caught in the Newport catch area (79%), although total landings in this area declined 7% from the 1996 catch. Catches were down 82% from 1996 chinook landings in the Tillamook catch area and down 58% in the Brookings catch area (Figure 5). July is typically the month of greatest chinook landings. However, a general statewide closure during July resulted in August constituting 30% of the catch, June 24%, September 18%, and May 20% (Table 3).

Table 2. Oregon commercial troll chinook salmon landings in pounds dressed, by calendar month, and port of landing, 1997.

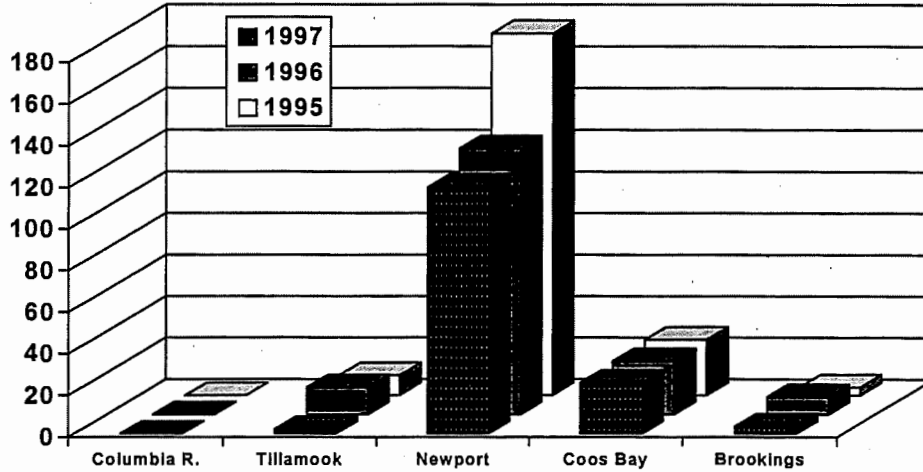
Port	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Total
Astoria	0	260	828	0	1,636	286	0	0	3,010
Nehalem Bay	0	0	0	0	76	104	0	0	180
Garibaldi	53	1,099	5,957	0	3,253	12,105	7,634	578	30,679
Pacific City	0	249	118	0	128	211	228	0	934
Depoe Bay	30	576	0	0	1,796	82	908	0	3,392
Newport	50,039	221,041	283,689	0	280,101	198,900	15,014	0	1,048,784
Florence	1,567	12,158	28,451	0	38,518	6,626	62	0	87,382
Winchester	238	7,572	8,024	0	2,125	6,860	1,172	0	25,991
Charleston	27,143	64,885	65,948	0	80,279	17,052	2,047	0	257,354
Bandon	340	2,602	1,777	0	3,276	1,586	0	0	9,581
Port Orford	341	6,089	0	0	64	87	9,558	9,798	25,937
Gold Beach	0	276	0	0	505	0	0	0	781
Brookings	1,342	25,189	628	1,741	2,427	38	14,634	0	45,999
Total	81,093	341,996	395,420	1,741	414,184	243,937	51,257	10,376	1,540,004

AVERAGE WEIGHT DATA

Average ocean troll salmon weight data is collected from most ports by OSMP port samplers and allows for conversion of fish ticket poundage information to numbers of fish. The 1997 seasonal average dressed weight (head on, viscera removed) for chinook was 10.3 pounds (Table 3). This was down 5% from the 1996 average weight of 10.9 pounds, but was 6% above the 1987-96 ten year average of 9.8 pounds.

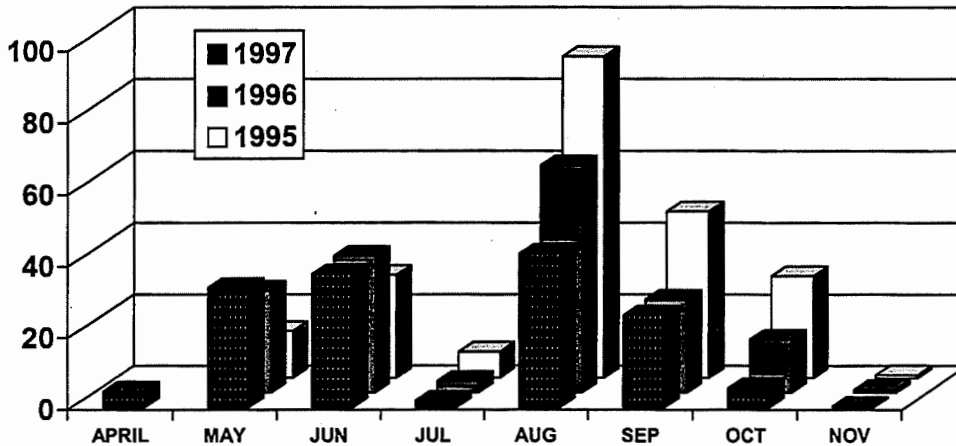
Chinook

FISH (thousands)



Area of Catch

FISH (thousands)



Month of Catch

Figure 5. - Oregon commercial ocean troll chinook landings by area of catch and month, 1995-97.

Table 3. Observed average dressed weight and calculated number of chinook landed in the Oregon ocean commercial troll fishery by calendar month and area of catch, 1997.

Area of Landing	Month								Total
	April	May	June	July	Aug.	Sept.	Oct.	Nov.	
<u>Columbia R. (2)</u>									
Numbers	-	25	3	-	-	-	-	-	28
Pounds	-	260	33	-	-	-	-	-	293
Ave. wt.	-	10.4	11.0	-	-	-	-	-	10.5
<u>Tillamook (3)</u>									
Numbers	41	225	586	-	292	734	414	39	2,331
Pounds	523	2,623	6,567	-	3,418	12,706	7,933	578	34,348
Ave. wt.	12.8	11.7	11.2	-	11.7	17.3	19.2	14.8	14.7
<u>Newport (4)</u>									
Numbers	4,213	21,663	27,438	-	38,656	24,969	1,836	-	118,775
Pounds	52,718	249,214	309,748	-	359,478	220,627	15,577	-	1,207,362
Ave. wt.	12.5	11.5	11.3	-	9.3	8.8	8.5	-	10.2
<u>Coos Bay (5)</u>									
Numbers	2,510	6,145	7,940	-	5,476	1,148	1,006	616	24,841
Pounds	26,575	65,536	79,072	-	48,940	10,566	13,167	9,798	253,654
Ave. wt.	10.6	10.7	10.0	-	8.9	9.2	13.1	15.9	10.2
<u>Brookings (6)</u>									
Numbers	108	2,341	-	-	252	3	883	-	3,587
Pounds	1,277	24,363	-	-	2,310	38	14,580	-	42,568
Ave. wt.	11.8	10.4	-	-	9.2	12.7	16.5	-	11.9
<u>Oregon Subtotal</u>									
Numbers	6,872	30,399	35,967	0	44,676	26,854	4,139	655	149,563
Pounds	81,093	341,996	395,420	0	414,146	243,937	51,257	10,376	1,538,225
Ave. Wt.	11.8	11.3	11.0	NA	9.3	9.1	12.4	15.8	10.3
<u>Alaska (8)</u>									
Numbers	-	-	-	-	-	-	-	-	0
Pounds	-	-	-	-	-	-	-	-	0
Ave. Wt.	-	-	-	-	-	-	-	-	NA
<u>Washington (1)</u>									
Numbers	-	-	-	-	-	-	-	-	0
Pounds	-	-	-	-	-	-	-	-	0
Ave. Wt.	-	-	-	-	-	-	-	-	NA
<u>California (7)</u>									
Numbers	-	-	-	146	2	-	-	-	148
Pounds	-	-	-	1,741	38	-	-	-	1,779
Ave. Wt.	-	-	-	11.9	19.0	-	-	-	12.0
<u>Total</u>									
Numbers	6,872	30,399	35,967	146	44,678	26,854	4,139	655	149,710
Pounds	81,093	341,996	395,420	1,741	414,184	243,937	51,257	10,376	1,540,004
Ave. Wt.	11.8	11.3	11.0	11.9	9.3	9.1	12.4	15.8	10.3

THE DOLLAR VALUE OF OCEAN SALMON LANDINGS

The 1997 Oregon troll chinook landings had an ex-vessel value of \$2,469,000. This was 18% lower than the ex-vessel value in 1996. The average price of \$1.60 per pound was up slightly from the 1996 average price of \$1.56 per pound, the lowest price paid since 1975 (dollar values are not corrected for inflation) (Appendix Table 7).

CODED WIRE TAG SAMPLING

In 1997, OSM samplers examined 61,343 chinook (41%) from the troll fishery for CWTs (Table 4), of which 5.0% or 3,039 chinook were marked (adipose fin clipped). Technicians recovered readable tags from 2,676 snouts (94%). Most of the CWTs recovered were released by California Department of Fish and Game (48%), and ODFW (27%). Most recovered CWTs were released in California's Sacramento/ San Joaquin Basin (64%), Oregon coastal streams (18%), and the Columbia Basin (10%) (Figure 6). It should be noted that 294 of the CWTs (11%) were recovered from the terminal area fishery off the Elk River in October and November (see next section). These recoveries from the Elk terminal fishery account for 41% of the total ODFW tags recovered and 57% of the Oregon coastal stream CWT recoveries, even though they made up only 1% of the chinook sampled and less than 1% of the troll chinook landed in Oregon.

SPECIAL FISHERIES AND STUDIES

Elk River State Waters Chinook Fishery

A terminal ocean troll fishery designed to target returning Elk River fall chinook salmon opened immediately following the end of the general season. This fishery was open from November 1-30 within state waters (0-3 miles) in the area between Cape Blanco and Humbug Mountain. This fishery immediately follows the general ocean season, but in recent years the Port Orford troll fleet has almost exclusively limited themselves to fishing the same area as the terminal fishery during the month of October. Landings were required to be made into Port Orford during November.

A total of 455 chinook were landed in Port Orford during the month of November averaging 15.7 pounds. In the October portion of the general season just prior to the state waters fishery, an additional 792 chinook were landed. During the October through November fishery, there were 299 snouts collected from the 586 chinook that were examined for fin clips (51% mark rate). There were a total of 294 readable tags. All readable CWTs were from Elk River chinook releases. Of the Elk River CWTs recovered, 42 (14%) were three year olds (1994 brood), 209 (71%) were four year olds (1993 brood), 42 (14%) were five year olds (1992 brood), and there was 1 six year old (1991 brood).

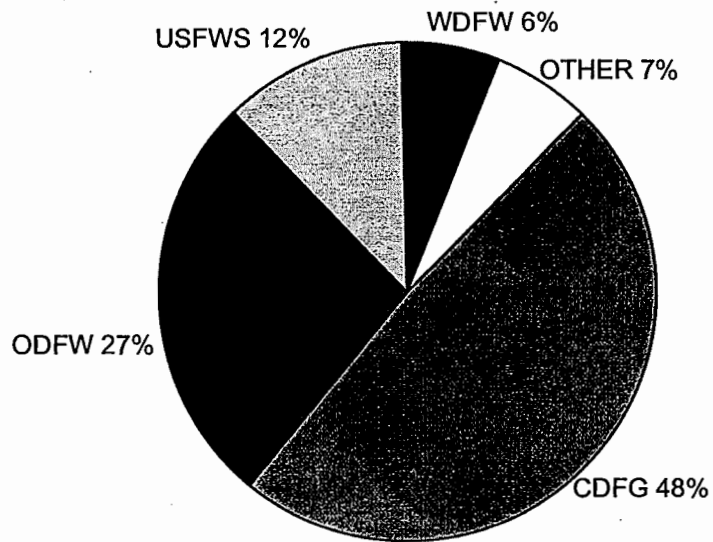
Table 4. Oregon ocean commercial troll chinook mark sampling by statistical month and port of landing, 1997.

Area of Landing	Month								Total
	April	May	June	July	Aug.	Sept.	Oct.	Nov.	
<u>Astoria</u>									
No. Examined	0	0	0	0	0	0	0	0	0
No. Landed	0	25	73	31	146	22	0	0	297
% Examined	0	0	0	0	0	0	0	0	0
No. Marks	0	0	0	0	0	0	0	0	0
<u>Nehalem Bay</u>									
No. Examined	0	0	0	0	0	0	0	0	0
No. Landed	0	0	0	0	5	6	0	0	11
% Examined	0	0	0	0	0	0	0	0	0
No. Marks	0	0	0	0	0	0	0	0	0
<u>Garibaldi</u>									
No. Examined	0	66	295	30	69	325	197	0	982
No. Landed	4	103	536	63	218	670	417	37	2,048
% Examined	0	64	55	48	32	49	47	0	48
No. Marks	0	6	22	1	3	30	12	0	74
<u>Pacific City</u>									
No. Examined	0	0	0	0	0	0	0	0	0
No. Landed	0	32	6	4	5	12	11	0	70
% Examined	0	0	0	0	0	0	0	0	0
No. Marks	0	0	0	0	0	0	0	0	0
<u>Depoe Bay</u>									
No. Examined	0	0	0	0	0	0	0	0	0
No. Landed	2	56	0	7	174	5	107	0	351
% Examined	0	0	0	0	0	0	0	0	0
No. Marks	0	0	0	0	0	0	0	0	0
<u>Newport</u>									
No. Examined	732	9,462	11,708	1,063	14,296	8,287	563	0	46,111
No. Landed	2,121	21,695	24,746	1,316	28,908	21,585	2,687	0	103,058
% Examined	35	44	47	81	49	38	21	0	45
No. Marks	45	488	561	57	607	333	12	0	2,103
<u>Florence</u>									
No. Examined	0	141	711	34	1,058	114	0	0	2,058
No. Landed	115	1,037	2,396	47	3,891	681	54	0	8,221
% Examined	0	14	30	72	27	17	0	0	25
No. Marks	0	9	38	2	48	6	0	0	103
<u>Winchester Bay</u>									
No. Examined	0	287	322	38	49	246	0	0	942
No. Landed	28	747	730	44	175	754	127	0	2,605
% Examined	0	38	44	86	28	33	0	0	36
No. Marks	0	6	14	2	1	14	0	0	37

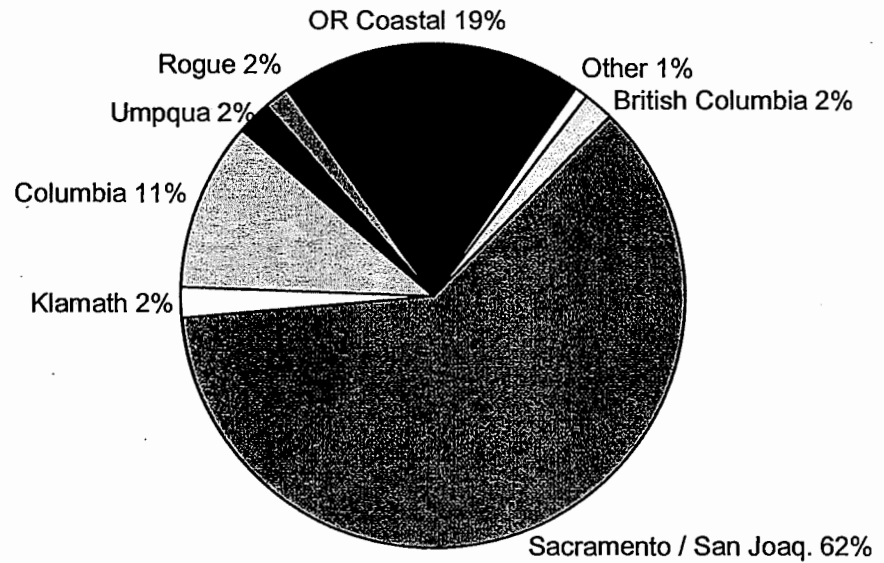
Table 4 continued. Oregon ocean commercial troll chinook mark sampling, 1997.

Area of Landing	Month								Total
	April	May	June	July	Aug.	Sept.	Oct.	Nov.	
<u>Charleston</u>									
No. Examined	802	3,031	1,735	3	2,070	1,243	13	0	8,897
No. Landed	2,061	6,377	6,655	154	8,811	1,860	267	0	26,185
% Examined	39	48	26	2	23	67	5	0	34
No. Marks	36	125	64	0	60	57	1	0	343
<u>Bandon</u>									
No. Examined	0	0	20	0	0	0	0	0	20
No. Landed	34	251	170	0	352	184	0	0	991
% Examined	0	0	12	0	0	0	0	0	2
No. Marks	0	0	1	0	0	0	0	0	1
<u>Port Orford</u>									
No. Examined	0	17	0	1	0	0	525	61	604
No. Landed	37	579	0	1	7	6	793	455	1,878
% Examined	0	3	0	100	0	0	66	13	32
No. Marks	0	1	0	0	0	0	270	29	300
<u>Gold Beach</u>									
No. Examined	0	0	0	36	1	0	0	0	37
No. Landed	0	18	0	36	17	0	0	0	71
% Examined	0	0	0	100	6	0	0	0	52
No. Marks	0	0	0	0	1	0	0	0	1
<u>Brookings</u>									
No. Examined	28	788	0	214	107	0	555	0	1,692
No. Landed	91	2,443	70	253	159	3	905	0	3,924
% Examined	31	32	0	85	67	0	61	0	43
No. Marks	2	37	0	10	4	0	24	0	77
<u>Total</u>									
No. Examined	1,562	13,792	14,791	1,419	17,650	10,215	1,853	61	61,343
No. Landed	4,493	33,363	35,382	1,956	42,868	25,788	5,368	492	149,710
% Examined	35	41	42	76	41	40	35	12	41
No. Marks	83	672	700	72	724	440	319	29	3,039

Release Agency



Basin of Release



Note: Data does not represent stock contribution rates since tagging is not representative of all stocks.

Figure 6. Observed recoveries of chinook coded wire tags from Oregon commercial ocean troll salmon landings by release agency and basin of release, 1997 (N=2,676).

Chetco River State Waters Chinook Fishery

A late season ocean terminal troll fishery designed to target on returning Chetco River fall chinook was open October 13 through 25 and October 29 and 30. This fishery was open within state waters (0-3 miles) in the area between Goat Island and 42° 01' 20" N. Lat., had a quota of 1,000 chinook, daily landing limit of 20 chinook per vessel, and all fish were required to be landed into Brookings.

A total of 869 chinook were landed averaging 16.5 pounds (Table 5). There were 20 snouts taken from adipose fin-clipped chinook all of which contained readable CWTs. Chetco River releases accounted for 17 of the CWTs, 1 was from Elk River, 1 was from the Klamath River, and 1 was from the Sacramento Basin in California. Of the Chetco River CWTs, there were 6 three year olds (1994 brood), and 11 were four year olds (1993 brood). This information does not represent stock composition percentages as tags are not expanded for CWT marking rates or fishery sampling rates, and not all stocks are tagged.

Table 5. Summary of Oregon ocean commercial troll terminal ocean fisheries, 1997

Chetco Terminal Ocean Commercial Troll Chinook Fishery

Statistical Week	Number of Tickets	Number Landed	Pounds Landed	Number Sampled	Number Marked	Percent Sampled	No tag	Coded Wire Tags by Basin		
								Elk R.	Feather R., CA	Klamath R., CA
42	80	502	8,517	308	9	61.4	0	8	1	
43	61	322	5,377	211	11	65.5	0	10		1
Totals	141	824	13,894	519	20	63.0	0	18	1	1

Elk River Terminal Ocean Commercial Troll Chinook Fishery

Statistical Week	Number of Tickets	Number Landed	Pounds Landed	Number Sampled ^a	Number Marked	Percent Sampled	No tag	Coded Wire Tags by Basin	
								Elk River	
40	1	1	8	0	0	0.0	0		0
41	11	118	2,036	45	22	38.1	1		21
42	28	185	2,899	125	59	67.6	0		59
43	30	251	3,986	181	100	72.1	2		98
44	21	202	3,281	174	89	86.1	1		88
45	36	290	4,749	61	29	21.0	1		28
46	8	85	1,226	0 ^a	0	0.0	0		0
47	4	38	569	0 ^a	0	0.0	0		0
48	6	42	610	0 ^a	0	0.0	0		0
Totals	145	1,212	19,364	586	299	48.3	5		294

^a Elk River terminal ocean fishery was open and landings occurred during weeks 46-48, however, this period was not sampled.

Newport Catch Area Genetic Stock Identification Sampling

Introduction: Federal funds were available under the West Coast Salmon Disaster declaration from the Pacific States Marine Fisheries Commission to conduct genetic stock identification (GSI) sampling of troll caught chinook from the Newport catch area. A similar GSI sampling project was conducted in 1992 (Schindler, 1993). The 1992 GSI data is included for comparison purposes in Table 6. A GSI sampler was hired specifically to collect the tissue samples (cheek and retinal), and samples were sent to the Washington Department of Fish and Wildlife's genetics laboratory for analysis. GSI relies on genetic differences between salmon runs to estimate the most likely proportion of salmon from each run or stock. Gel electrophoretic techniques were used to identify allelic genotypes at 44 allozyme loci.

Methods: The GSI sampler was instructed to collect samples throughout each month with a sampling goal of 100 fish per week, with not more than 10 fish sampled per vessel landing. Samples were limited to boats that fished exclusively in the Newport catch area, and all samples were collected in Newport. The total monthly sample of approximately 400 to 500 fish would then be subsampled down to a 250 fish sample for analysis based on the weekly proportion of the months total troll landings. Samples were placed on dry ice immediately after collection, and then kept on dry ice until they could be transferred to the super cold freezer (-70 C) at the Hatfield Marine Science Center.

Sampling began in May and continued through September, but insufficient samples were collected in May or early June for analysis. June samples prior to June 15 were discarded (28 total), and the remaining 263 were subsampled by week based on total landings and using a random number generator to select out the excess samples. A total of 405 samples were collected in August, and subsampled to the goal of 250. In September a total of 276 chinook were sampled, and then subsampled to 250. Separate analyses were run for June, August, and September with 250 samples run for each month.

Results: The stock contribution estimates for all three months indicated that the Sacramento/San Joaquin system (California Central Valley) was the primary contributor to the Newport area fishery in all sampling periods. Stock contribution ranged from a low of 70% in June to a high of 86% in August. Columbia River Basin stocks (including Snake R., Willamette R., etc.) ranged from a high of 15% in June to a low of 3% in September. As expected, Oregon coastal stocks contributed highest in August and September in time with the returning fall chinook runs, but only made up only 9% of the catch even at their peak in September (Figure 7).

Discussion and Conclusions: The Newport chinook fishery has relied heavily on Sacramento/San Joaquin chinook in many years. These stocks have been the largest contributor to the fishery in recent history based on both CWT and GSI data. The low Oregon coastal contribution in these data is due in part to the fact that Oregon coastal chinook rear to maturity in ocean waters off British Columbia and southeast Alaska, and

are only available to Oregon fishers as they migrate back to their rivers of origin. In addition the character of the Newport fleet is such that boats fishing out of Newport usually fish in offshore areas and do not target the mouths of bays where returning fall chinook are more likely to be caught. GSI sampling continues to be an excellent tool for assessing stock contributions to time and area fisheries, but is very expensive, requires a large number of samples for accuracy, and it can be logistically difficult to maintain dry ice supplies on some parts of the coast.

Table 6. Estimated chinook stock composition rates and standard deviations (SD) from the Oregon troll fishery off the Oregon Coast^a for June, August and September, 1997. Data is compared to a similar analysis from 1992. Estimates are based on genetic stock identification (GSI) tissue sample analysis.^{bcd} Data is preliminary.

Stock Grouping	June 1997 <u>Stock Contribution</u>		August 1997 <u>Stock Contribution</u>		September 1997 <u>Stock Contribution</u>		1992 <u>Stock Contribution</u>	
	Rate	SD	Rate	SD	Rate	SD	Rate	SD
Sacramento Basin (ChS + ChF + ChW)	0.73	0.05	0.86	0.04	0.82	0.04	0.629	0.039
California Coastal / Eel River (ChF)	0.04	0.03	0.03	0.03	0.01	0.03	0.004	0.006
Klamath River (ChS + ChF)	0.01	0.01	0.00	0.00	0.00	0.02	0.036	0.023
Smith River (ChF)	0.02	0.04	0.00	0.00	0.06	0.03	0.000	0.000
Southern Oregon Coastal (ChS + ChF) ^b	0.00	0.00	0.00	0.04	0.04	0.03	0.120	0.055
Northern Oregon Coastal (ChS + ChF)	0.08	0.03	0.01	0.01	0.04	0.02	0.009	0.012
Lower Columbia (ChS)	0.07	0.05	0.00	0.00	0.00	0.00	0.003	0.023
Lower Columbia (ChF)	0.01	0.06	0.07	0.02	0.01	0.01	0.140	0.030
Upper Columbia (ChS)	0.00	0.00	0.00	0.00	0.01	0.01	0.005	0.005
Upper Columbia & Snake (ChF)	0.02	0.01	0.02	0.02	0.01	0.01	0.024	0.011
Snake River (ChS + ChSu)	0.01	0.01	0.01	0.02	0.00	0.01	0.006	0.005
Washington Coastal (ChF)	0.00	0.00	0.00	0.00	0.00	0.00	0.024	0.034
	N=250		N=250		N=250		N=840	

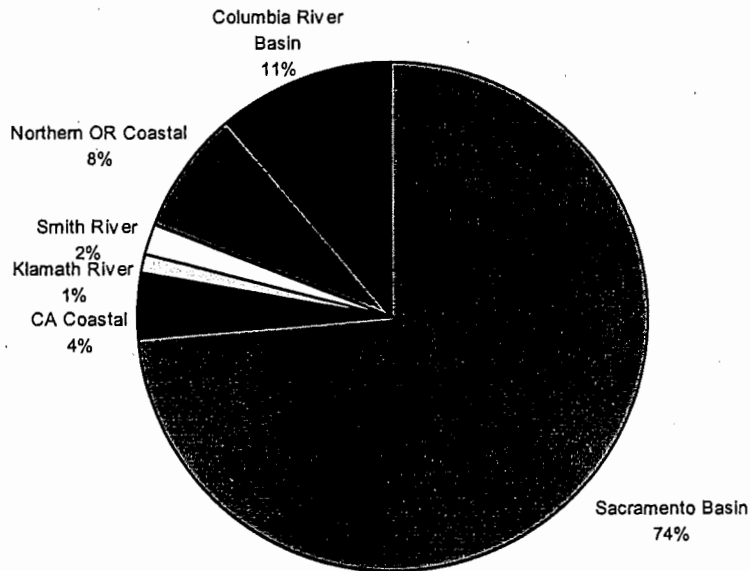
^a All 1997 samples were taken from landings at Newport. The 1992 samples were taken from the troll fishery south of Cape Falcon, primarily from Newport.

^b Southern Oregon Coastal includes: Rogue River, Chetco River, Pistol River, and the Winchuck River. Rogue River stock releases in the lower Columbia River also fall into this stock grouping.

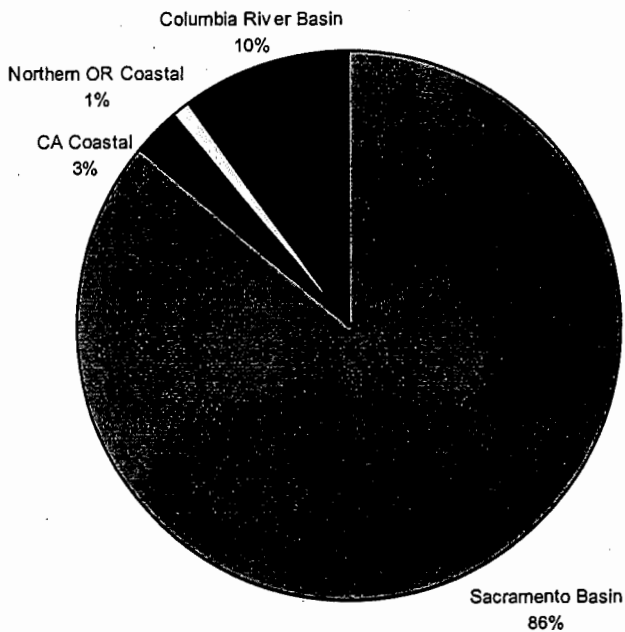
^c Northern Oregon Coastal includes all Oregon Coastal stocks from the Elk River north.

^d ChS = Spring chinook
 ChSu = Summer chinook
 ChF = Fall chinook
 ChW = Winter chinook

June 1997



August 1997



September 1997

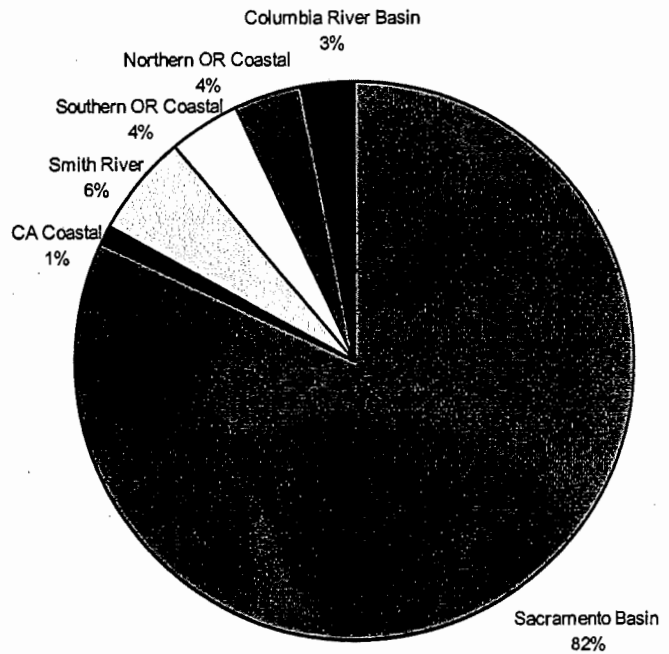


Figure 7. Estimated Oregon chinook stock composition from the Newport troll fishery, 1997. Estimates are based on genetic stock composition tissue samples (June, n=250; August, n=250; September, n=250). (Preliminary data)

THE 1997 OCEAN RECREATIONAL SALMON FISHERY

BACKGROUND

Oregon's ocean recreational salmon fishery originated with boats fishing in the lower bays on mature salmon returning to freshwater in the fall. Boats would sometimes venture out into the ocean on favorable days. The late 1940s and early 1950s showed substantial growth in ocean fishing effort by both the charter and private boat fleet. Better and safer equipment plus the development of small boat basins and launching ramps and other support facilities in many coastal towns encouraged ocean fishing (PFMC, 1978).

The primary targeted species of the Oregon recreational fleet has traditionally been coho salmon (*Oncorhynchus kisutch*) with chinook (*Oncorhynchus tshawytscha*) a distant second. Pink salmon (*Oncorhynchus gorbuscha*), are seldom caught in even years, but may make up a small portion (~1%) of the catch in odd numbered years. Chum salmon (*Oncorhynchus keta*) and steelhead trout (*Oncorhynchus mykiss*) are occasionally caught when anglers are targeting coho salmon, but state wide season totals for each species have seldom exceeded 100 fish from the ocean fishery. Sockeye salmon (*Oncorhynchus nerka*) and cutthroat trout (*Oncorhynchus clarkii*) are rarely caught in the ocean recreational salmon fishery, and cutthroat trout are prohibited from retention in the ocean fishery.

The recreational ocean fishery has been sampled by ODFW's Ocean Salmon Management Program since the early 1960s. Ocean creel data was supplemented by salmon/steelhead tag license data through the 1980 season. Creel data alone have been used since 1981.

The peak catch and effort year was 1976 when 538,400 angler trips resulted in a catch of 79,300 chinook and 501,300 coho. The daily bag limit in 1976 was 3 salmon and the season lasted from April 10 to December 31. Following the 1983 El Niño, restrictive quota limitations began to be placed on the recreational fishery. Then in 1994, all ocean coho seasons were closed, and this closure has continued through 1997 for all areas south of Cape Falcon, and only limited coho quotas allowed to the north. In 1997, the seasons and catch quotas were very limited; and resulted in an ocean catch of 7,686 chinook and 5,972 coho from 30,203 salmon angler trips (Table 7).

SAMPLING METHODOLOGY

Sampling areas and staffing

Seventeen seasonal employees were hired to fill sixteen separate positions to sample the ocean recreational fishery at nine coastal ports in 1997 (Appendix Table 1). This

Table 7. Oregon ocean recreational salmon catch and effort for 1966-97^a.

Year	Effort (Angler Trips)		Salmon Catch			Fish/Angler
	Salmon	Total	Coho	Chinook	Pink	
1966	-	-	227,900	37,400	-	-
1967	-	-	351,000	42,800	-	-
1968	-	-	265,800	25,100	-	-
1969	-	-	232,900	31,800	-	-
1970	-	-	257,400	42,900	-	-
1971	-	303,700	311,700	29,600	121	1.12
1972	-	331,700	248,400	44,100	58	0.88
1973	-	350,400	232,068	60,984	2,008	0.84
1974	-	335,849	314,501	36,729	34	1.05
1975	-	407,498	252,209	75,719	1,218	0.81
1976	-	538,414	501,306	79,316	50	1.08
1977	-	404,534	195,277	61,364	4,037	0.62
1978	-	403,740	259,769	22,844	24	0.70
1979	301,343	341,770	180,834	20,902	607	0.67
1980	331,443	362,015	325,843	19,014	24	1.04
1981	311,027	350,937	199,812	29,173	1,589	0.74
1982	226,022	275,947	175,128	38,716	14	0.95
1983	226,029	261,456	146,904	24,677	69	0.76
1984	153,061	203,591	123,325	16,992	3	0.91
1985	251,583	270,860	182,486	55,867	7,711	0.97
1986	186,971	216,068	218,907	22,829	8	1.29
1987	255,077	279,520	180,534	59,420	930	0.94
1988	250,651	282,849	226,873	38,327	0	1.06
1989	266,260	311,393	273,271	32,043	1,328	1.15
1990	246,555	294,031	200,646	26,548	3	0.92
1991	190,062	228,103	259,086	14,416	280	1.44
1992	165,317	219,330	185,845	12,573	19	1.20
1993	79,612	140,853	58,108	6,420	25	0.81
1994	26,897	95,143	46	6,037	0	0.23
1995	35,850	105,185	11,913	6,733	6	0.52
1996	43,962	109,810	7,176	11,210	0	0.42
1979-96 average	197,096	241,644	164,263	24,550	1,394 ^b	0.97
1997	30,203	105,304	5,972	7,686	2	0.45

^a Prior to 1981, sampling data were supplemented with salmon/steelhead tag data for ports and time periods not sampled.

^b Odd year average.

included seven seasonal employees who were combination commercial troll/recreational samplers and one seasonal employee who worked two days per week sampling the recreational fishery and three days per week processing sampler data. The remaining three commercial troll samplers assisted in recreational effort counts during the commercial troll fishery closure in July.

Very limited sampling began in mid-April in Newport and Coos Bay. All other ports except Astoria were being sampled by mid-May. Some of the sampling was supported by other funds such as ocean sport halibut license moneys to assist monitoring of the concurrent halibut season. Additional seasonal time was allocated to cover late season terminal ocean area state waters salmon fisheries at Garibaldi and Brookings during September and October. All samplers counted ocean boats and checked returning anglers (Appendix Table 8).

Sampling Design

A statistical recreational creel survey using a modified random sampling design has been used in all recent years. Ocean anglers are interviewed at boat ramps, moorages, and charter docks to determine average number of anglers per boat, trip type, average length of trip, and catch rate by species. Samplers usually work from early morning to late afternoon, but work hours vary to reflect fishing activity. Snouts are collected from marked (adipose fin-clipped) fish and forwarded to the ODFW tag recovery laboratory in Clackamas for decoding. Bottomfish catch is also recorded. In 1997, all OSMP ocean recreational sampling data was collected with hand held data collection computers. Data was collected weekly and transported to the Newport ODFW office for error checking and analysis.

Estimates of private boat effort is primarily obtained through boat counts by ODFW samplers, but Coast Guard bar crossing counts are used in Florence and occasionally at other locations. In Astoria, Newport, Winchester Bay, Coos Bay, and Brookings ODFW boat counters monitor bar crossings beginning at dawn (usually starting at 5:00 AM) and continue until 10:00 AM, and then sample for the remainder of their shift. An expansion factor based on full boat counts from several previous years is applied by OSM staff to account for boats exiting ports after 10:00 AM (Appendix Table 23). Similar bar crossing counts and expansions are made at Garibaldi, but these counts are made from dawn until 11:00 AM to account for the often later rush of boats at the turn of the tide in Garibaldi. In Pacific City and Depoe Bay, total effort is estimated from a combination of boat trailer and moorage slip counts and a tally of outgoing vessels during the sampling period (usually 8:00 AM until 4:00 PM). Counts are averaged using adjacent days of the same type (i.e. weekday vs weekend/holiday) with similar weather/ocean conditions for days when no bar crossing counts were available.

Although charter vessels are counted separately in the bar crossings by the samplers, these counts are typically only used for charter effort at Astoria/Warrenton. In all other ports, charter effort estimates are made by contacting individual charter offices to determine the number of charter boat trips by trip type (i.e. salmon, bottomfish, combination salmon/bottomfish, halibut, or tuna) for each day.

Quota Assessment

Catch and effort data are error-checked and then processed on the Department's Unisys computer (Portland) by Newport OSMP data staff. Angler interviews are stratified by charter and private boat angler to provide average catch rates by species for each boat type (i.e. charter and private). These catch rates, when multiplied by total effort for a particular period, give a catch estimate for that period. The same method is used to estimate total angler trips. The survey provides weekly estimates of Oregon's ocean recreational effort and catch within 4 days of the end of each statistical week. A preliminary catch estimate is available within one day of the end of the statistical week. These catch estimates are necessary for timely monitoring of fishery catch quotas.

Department samplers checked 5,711 salmon in 1997 compared to 6,593 in 1996. Catch sampling rates in 1997 ranged from a high of 82% at Pacific City, to a low of 27% at Garibaldi. Samplers checked 42% of the total salmon catch from all ports in 1997 compared to 36% in 1996 (Appendix Table 8).

REGULATIONS

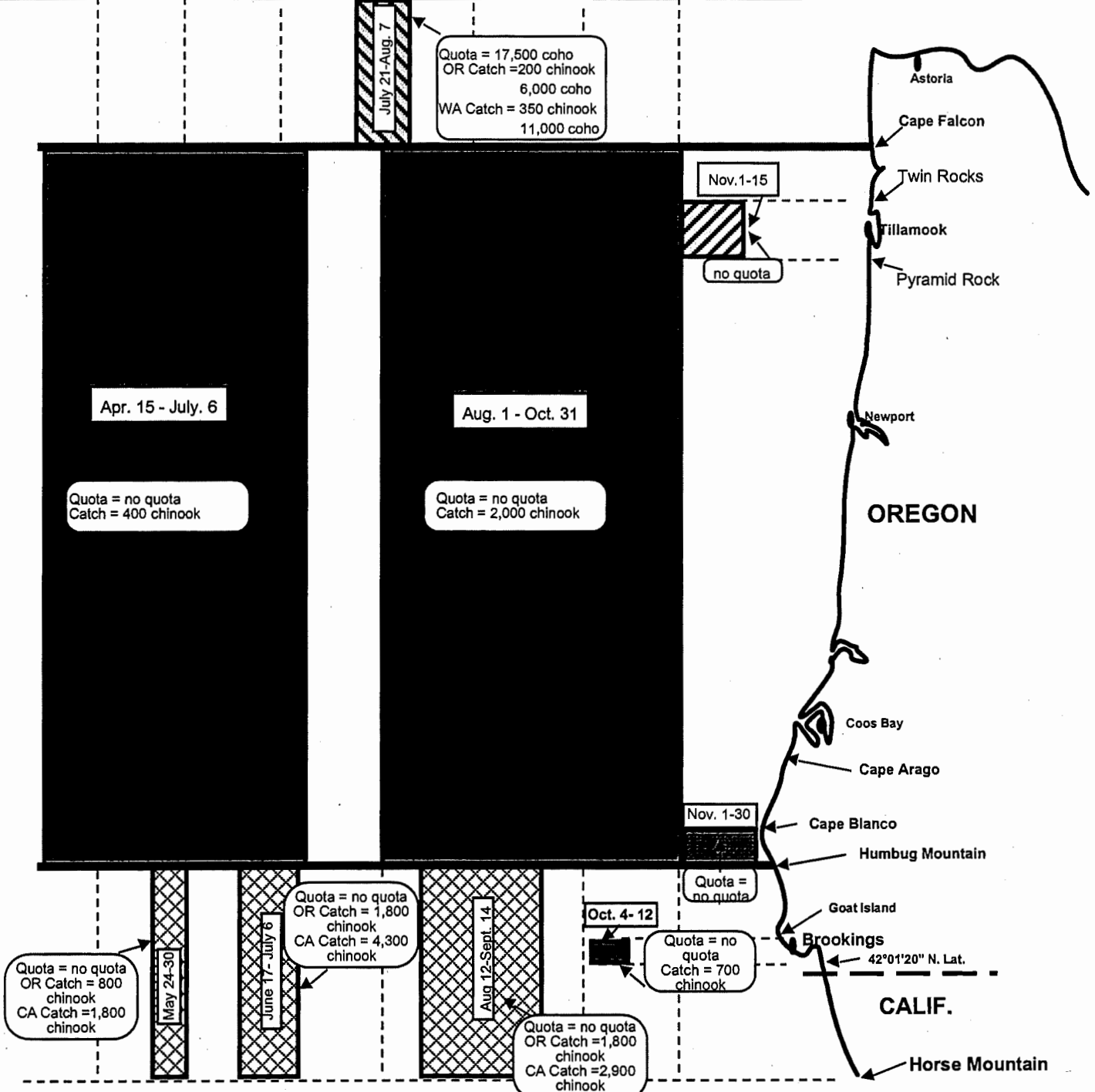
General

The Oregon Coast is divided into three general salmon management areas: north of Cape Falcon, Cape Falcon to Humbug Mountain, and south of Humbug Mountain. The 1997 regulations (Figure 8) were adopted in April by the PFMC and signed into law by the Secretary of Commerce. The OFWC adopted the regulations as written by the PFMC for state waters (0-3 miles) and adopted three additional special seasons in state waters. Appendix Table 9 summarizes the history of Oregon's recreational ocean salmon regulations.

North of Cape Falcon

An "all species" salmon season was adopted for the area from Leadbetter Point, Washington to Cape Falcon, Oregon opening July 21 and continuing through the earlier of September 25 or the quota of 17,500 coho. The season opened on July 21 and closed August 7 when the coho quota was estimated to have been taken. This fishery was closed within 3 miles of shore to the North of the Columbia River, and the remainder of the area was open Sunday through Thursday only. The bag limit was 2 salmon per day, but not more than 4 in 7 days. The minimum size limits were: 16" for coho, 24" for chinook, 20" for steelhead, and no minimum size for pink, chum, or sockeye salmon. A chinook guideline of 1,500 fish was also adopted for the area, and additional management measures were to be implemented as needed to keep chinook catches within the guideline, but no actions were required or taken. Single point, single shank

APRIL | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV.



- ⊘ All salmon except chinook, 2 per day, not more than 4 in 7 days. Sun - Thurs only.
- All salmon except coho, 2 per day, not more than 6 in 7 days. Special gear restrictions.
- ⊘ Chinook salmon only, 2 per day, no more than 4 in 7 days, or 10 per season. Open in state waters (0-3 miles). Special gear restrictions.
- ⊘ All salmon except coho, 1 per day, no more than 4 in 7 days.
- Chinook salmon only, 1 per day, not more than 4 in 7 days. Open in state waters (0-3 miles).

Figure 8. Oregon ocean recreational salmon seasons, quotas, and landings, 1997.

barbless hooks were required, and the Columbia River control zone was closed to salmon angling.

Cape Falcon to Humbug Mountain

The daily bag limit was 2 salmon, not more than 6 fish allowed in 7 consecutive days, the annual limit was 20 salmon, and coho were prohibited in the catch. Minimum size limits were 20" for chinook and steelhead, and there were no size restriction for pink, chum, or sockeye salmon. Special gear restrictions were in effect which limited terminal tackle to: Artificial plugs, lures, or whole bait any of which must be 6" or larger (excluding the hooks and swivels); no more than two single point, single shank barbless hooks; "divers" were prohibited; prior to May 1 "flashers" were prohibited; and from May 1 flashers were allowed only with a downrigger (note variance in the Tillamook area in next paragraph). The general season was open April 15 through July 6 and August 1 through October 31. There were no quotas in this area.

A fishery control zone was established around the mouth of Tillamook Bay beginning in 1996 (Appendix Figure 1) to provide added protection for local salmon stocks of concern (spring chinook and coho). OSMP staff erected US Coast Guard approved markers at the northern and southern boundaries of the zone in 1996, and enlarged the southern marker from 4'x4' to 8'x8' late in 1996 following comments from fishers about the poor visibility of the sign. The control zone was closed April 15 through September 15, 1997 to reduce fishing impacts on local spring chinook (during the spring) and coho (during the summer and fall). In addition, within the control zone and within the Tillamook Terminal Area (state waters between Twin Rocks and Pyramid Rock), special regulations were in effect from August 1 through November 15. These special regulations included all the ocean restrictions listed in the previous paragraph and also prohibited the use of flashers at all times; and had a modified bag limit that allowed only chinook with a limit of 2 adult chinook (≥ 24 inches) and 5 jack chinook (15-24 inches) per day, 4 adult chinook in 7 consecutive days, and not more than 10 adult chinook for the season (this bag limit also included all waters in the Tillamook, Nehalem, and Nestucca basins).

Humbug Mountain to Horse Mountain, California

The season in the area from Humbug Mountain, Oregon to Horse Mountain, California was open from May 24 through 30, June 17 through July 6, and August 12 through September 14. This area is referred to as the Klamath Management Zone (KMZ). This fishery was 7 days per week with a bag limit of 1 salmon per day no more than 4 in 7 consecutive days. Oregon had an annual bag limit of 20 salmon. The minimum size limit for chinook and steelhead was 20", there was no size restriction for pink, chum, or sockeye salmon, and the area was closed to coho salmon retention. There were no quota restrictions in this fishery in 1997.

Late Season State Waters Fisheries

November 1-15 fishery off Tillamook Bay: The Oregon Fish and Wildlife Commission extended the general ocean chinook season within state waters (0-3 miles) season off Tillamook Bay between Twin Rocks and Pyramid Rock for the period of November 1 through 15. Gear restrictions and bag limits are described above in the Cape Falcon to Humbug Mtn. section. No quota was in effect during this season.

November Fishery off Port Orford: This state waters (0-3 miles) chinook fishery extended from Cape Blanco south to Humbug Mountain and had no quota. The area was open to both commercial and recreational fishers. The season was open November 1 through 30. A bag limit of one chinook per day and no more than four in seven days was in effect. Minimum size for chinook was 20", and single point, single shank barbless hooks were required. We did not sample this recreational fishery, but concentrated on commercial landings. The sport effort and catch in this ocean season has traditionally been minimal due to the remote location and specialized equipment needed to launch at Port Orford. The OSM program checks salmon punchcard estimates on this and other non-sampled ports or seasons to verify that salmon catch has not increased in these areas, but there is approximately a two year lag time prior to punchcard estimates becoming available.

October Fishery off Brookings: The Oregon Fish and Wildlife Commission set a state waters (0-3 miles) season for a chinook only off Brookings between Goat Island and the latitude of 42° 01' 20" N. The season was open October 4 through 12 without a chinook quota. Minimum size for chinook was 20" and single point, single shank barbless hooks were required. A bag limit of one chinook per day and no more than four in seven days was in effect.

EFFORT AND CATCH STATISTICS

Effort

Before 1979, ocean recreational effort data included a small number of bottomfishing trips. Since 1979, salmon fishing trips have been separated from bottomfishing trips. Usually ocean anglers choose salmon fishing over bottomfishing when both fisheries are available. However this has not been the case for ports from Coos Bay north where recent chinook-only seasons have generated only mild interest in the fishing community, and bottomfishing trips tend to predominate throughout the season in most areas.

The sharp drop in effort caused by limited salmon seasons in recent years has not been buffered by a comparable increase in bottomfishing effort. A total of 75,766 bottomfishing trips were taken by anglers in 1997, a 12% decrease from the 67,534 trips in the 1996 season. The total combined 1997 salmon and bottomfishing effort of

105,304 angler trips was down 4% from the 109,810 trips in 1996, and was 56% below the 1971-96 average of 241,644 angler trips (Table 7).

In 1997, only 30,203 angler trips (29%) targeted salmon coastwide. Salmon angler trips in 1997 were down 31% from the 1996 season trip totals, and were only 15% of the 1979-96 average.

August was the peak month for salmon effort with 9,471 salmon angler trips or 31% of the total. July was the top month for bottomfishing effort with 24,905 trips or 33% of the total (Table 8, Figures 9 and 11, and Appendix Table 10). Historically, July has the highest effort for salmon, especially from Depoe Bay south, while August is often the top month for the Tillamook and Astoria areas. Variable closure periods and reduced fishing seasons have obscured this trend in recent years (Appendix Table 11).

Brookings had the most total angler trips (29,250 salmon and bottomfishing trips combined) and also the most salmon fishing effort in 1997 with 16,584 angler trips or 55% of the state's total. Garibaldi and Astoria followed with 3,850 and 3,303 salmon angler trips, respectively (Figure 11).

Newport had the most bottomfishing activity with 21,748 trips in 1997. Depoe Bay, Brookings, and Garibaldi followed with 18,044, 12,672 and 12,256 bottomfishing trips each, respectively (Table 8). Appendix Table 11 shows past ocean recreational salmon effort and catch by catch areas. Please note that "port" and "catch areas" are not synonymous.

Catch

As with effort, catches were strongly influenced by reduced quotas, restricted fishing time, and area closures. The sport sampling survey estimated the total Oregon 1997 ocean salmon catch by species and port, except for landings from some minor unsurveyed ports and time periods where activity has historically shown to be minimal. Salmon landed at minor ports historically have represented less than two percent of the total catch, and punchcard catch estimates are periodically referenced for unsampled ports and time periods to confirm low activity levels.

Chinook: The 1997 Oregon ocean recreational chinook salmon catch was estimated at 7,686 fish, 31% less than the 1996 landings. Catches continue to be well below the record catch of 79,300 fish taken in 1976 and the 1979-96 average of 24,550 chinook (Tables 7 and 9, and Figure 14). Historical catch patterns are shown in Appendix Tables 12, 13, and 14. Brookings anglers caught 5,087 of the chinook (66%), and anglers fishing out of Newport caught 1,193 chinook (16%) (Table 8). August was the month with the highest catch, and made up 70% of the Newport chinook landings.

ANGLER TRIPS

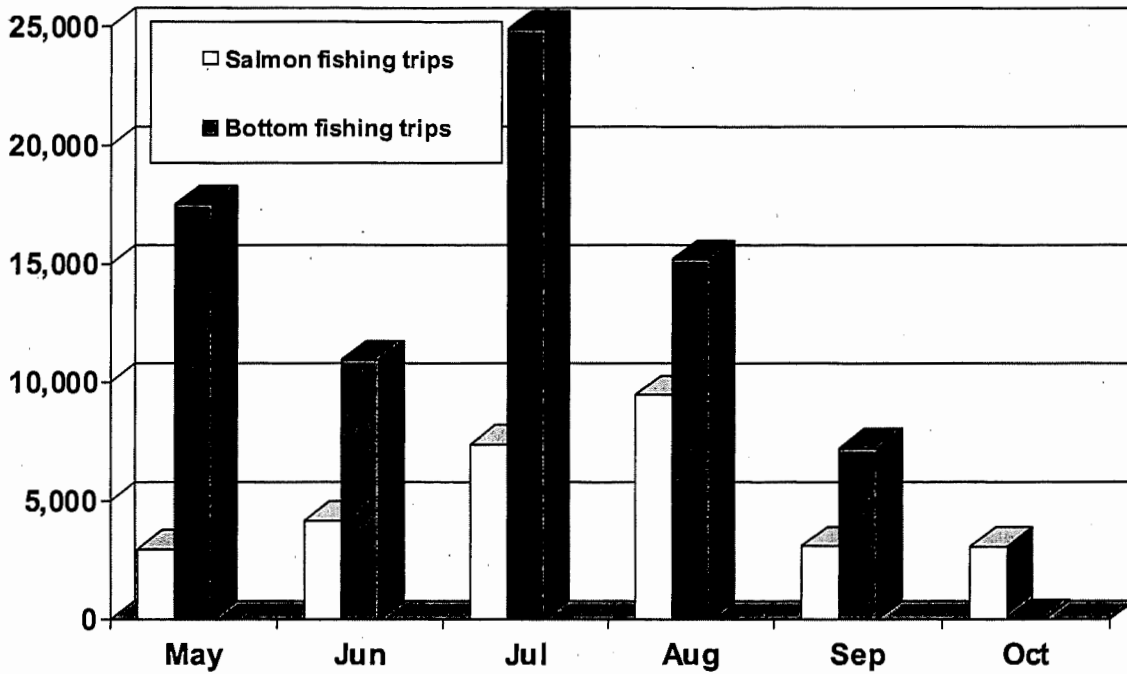


Figure 9. Oregon ocean angler trips by target species during the 1997 salmon season.

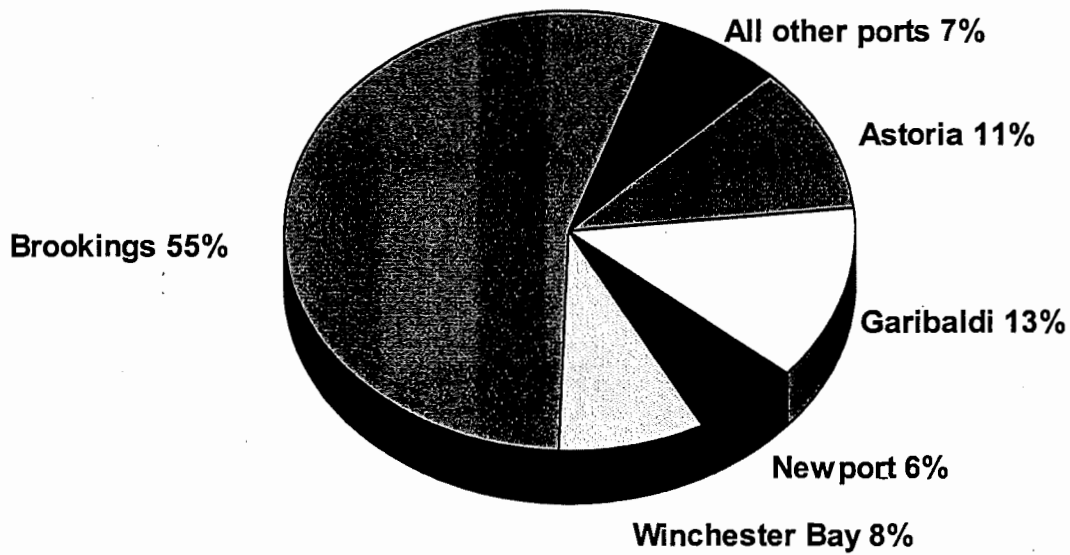
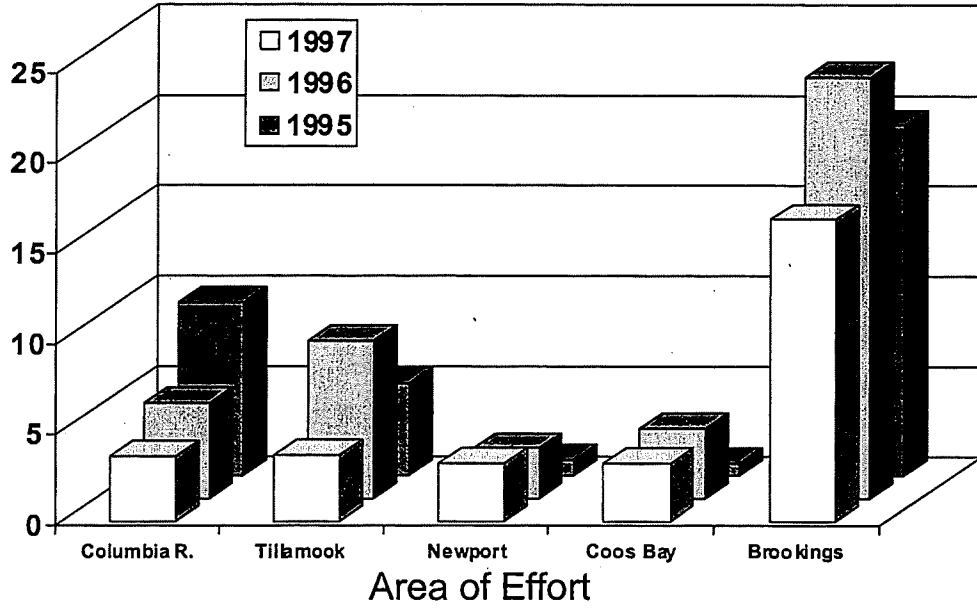


Figure 10. Oregon recreational ocean salmon angler trips by port, 1997.

Effort

ANGLER TRIPS (thousands)



ANGLER TRIPS (thousands)

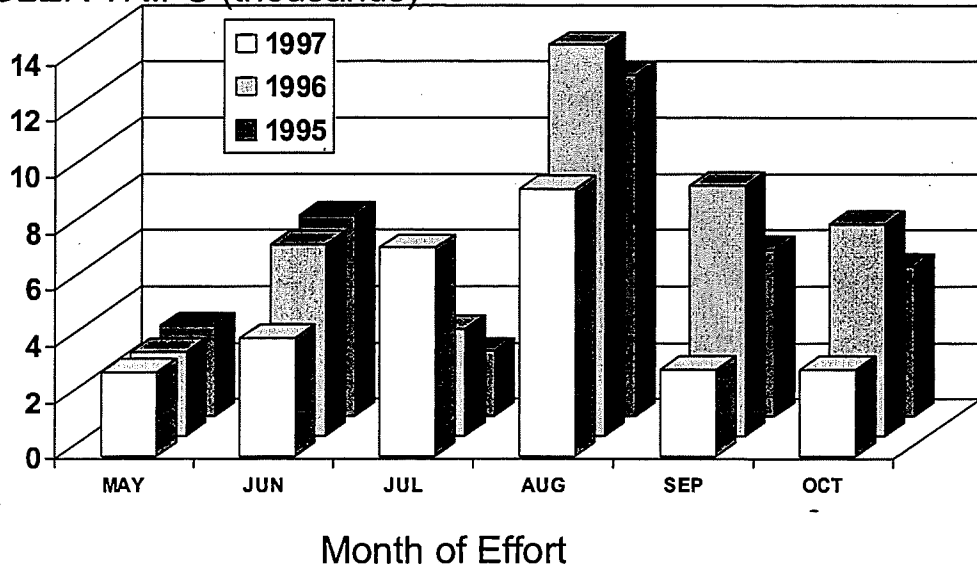


Figure 11. Oregon ocean recreational salmon angler trips by catch area and month, 1995-97.

Table 8. Oregon ocean recreational effort in angler trips by port, statistical month, and trip type^a, 1997.
(NS = no sampling)^b

Port/Trip Type	Month							Total ^c
	April	May	June	July	Aug.	Sept.	Oct.	
Astoria								
Salmon	NS	NS	NS	2,530	773	NS	NS	3,303
Bottomfish	NS	NS	NS	6	0	NS	NS	6
Total	NS	NS	NS	2,536	773	NS	NS	3,309
Garibaldi								
Salmon	NS	34	69	359	225	1,352	1,811	3,850
Bottomfish	NS	3,705	1,617	3,917	2,297	720	0	12,256
Total	NS	3,739	1,686	4,214	2,510	2,062	1,811	16,022
Pacific City								
Salmon	NS	2	0	40	45	12	NS	99
Bottomfish	NS	623	497	1,534	609	140	NS	3,403
Total	NS	625	497	1,574	654	152	NS	3,502
Depoe Bay								
Salmon	NS	25	42	92	304	116	NS	579
Bottomfish	NS	3,385	3,050	5,399	4,343	1,867	NS	18,044
Total	NS	3,398	3,084	5,449	4,590	1,919	NS	18,440
Newport								
Salmon	25	105	127	231	1,171	197	NS	1,856
Bottomfish	773	6,441	2,974	6,043	3,672	1,845	NS	21,748
Total	798	6,497	3,063	6,217	4,624	2,013	NS	23,212
Florence								
Salmon	NS	65	92	228	273	54	NS	712
Bottomfish	NS	89	24	41	12	0	NS	166
Total	NS	154	116	269	285	54	NS	878
Winchester Bay								
Salmon	NS	164	257	743	1,000	306	NS	2,470
Bottomfish	NS	6	25	105	13	55	NS	204
Total	NS	170	282	848	1,013	361	NS	2,674
Coos Bay								
Salmon	4	67	127	282	219	51	NS	750
Bottomfish	201	1,513	754	2,439	1,492	868	NS	7,267
Total	205	1,580	881	2,721	1,711	919	NS	8,017
Brookings								
Salmon	NS	2,477	3,466	2,892	5,461	1,019	1,269	16,584
Bottomfish	NS	785	2,018	5,421	2,652	1,748	48	12,672
Total	NS	3,262	5,484	8,313	8,113	2,761	1,317	29,250
State Total								
Salmon	29	2,939	4,180	7,397	9,471	3,107	3,080	30,203
Bottomfish	974	16,547	10,959	24,905	15,090	7,243	48	75,766
Total	1,003	19,425	15,093	32,141	24,273	10,241	3,128	105,304

^a Bottomfish effort is estimated only for those time periods when port sampling occurred.

^b Seasonal field sampling dates for each port are listed in Appendix Table 1.

^c Totals may be less than the sum of trip types because of a small number of combination trips on charter boats.

Table 9. Oregon ocean recreational chinook catch by port by month ^a, 1997.

Port	Month							Total
	April	May	June	July	Aug.	Sept.	Oct.	
Astoria	0	0	0	109	55	0	0	164
Garibaldi (NOF) ^b	0	0	0	19	0	0	0	19
Garibaldi (SOF) ^b	0	0	4	3	5	152	287	451
Pacific City	0	0	1	5	3	2	0	11
Depoe Bay	0	4	10	12	78	3	0	107
Newport	0	41	82	138	837	95	0	1,193
Florence	0	24	24	9	21	2	0	80
Winchester Bay	0	19	18	177	191	52	0	457
Coos Bay	2	0	24	50	38	3	0	117
Brookings	0	844	769	1,034	1,616	149	675	5,087
Statewide Total	2	932	932	1,556	2,844	458	962	7,686

^a Monthly totals are the sum of statistical weeks estimates with closest fit to calendar month.

^b (NOF) refers to the Columbia River catch area defined as the area from Cape Falcon, Oregon to Leadbetter Point, Washington. References catches landed in Garibaldi that were made either north of Cape Falcon (NOF), or south of Cape Falcon (SOF).

Table 10. Oregon ocean recreational coho catch by port by month ^a, 1997.

Port	Month						Total
	May	June	July	Aug.	Sept.	Oct.	
Astoria	0	0	4,178	1,303	0	0	5,481
Garibaldi (NOF) ^b	0	0	277	49	0	0	326
Garibaldi (SOF) ^b	0	0	0	0	6 ^c	0	6
Pacific City	0	0	1 ^c	0	0	0	1
Depoe Bay	0	0	0	0	0	0	0
Newport	0	0	0	14 ^c	0	0	14
Florence	0	0	0	2 ^c	0	0	2
Winchester Bay	0	0	7	4 ^c	0	0	11
Coos Bay	0	0	0	4 ^c	0	0	4
Brookings	17 ^c	26 ^c	41 ^c	39 ^c	4 ^c	0	127
Statewide Total	17	26	4,504	1,415	10	0	5,972

^a Monthly totals are the sum of statistical weeks estimates with closest fit to calendar month.

^b (NOF) refers to the Columbia River catch area defined as the area between Cape Falcon, Oregon and Leadbetter Point, Washington. References catches landed in Garibaldi that were made either north of Cape Falcon (NOF), or south of Cape Falcon (SOF).

^c Illegal landings.

Coho: The recreational harvest of 5,972 coho in 1997 represents the lowest annual landing on record, excluding 1994 when coho fishing was prohibited coast wide. While this landing is the lowest on record, only the Columbia River catch area was open to recreational coho angling in 1997. Catches in this area accounted for 5,807 (97%) of the total coho landings. Some of these fish (326) were caught in the Columbia River catch area and landed back into Garibaldi. The remaining 165 coho that were landed in 1997 were illegal catches (Figures 12 and 15, Table 10, and Appendix Table 12, 15, and 16).

CHARTER/PRIVATE BOAT FISHERIES

Background

Approximately 83 charter boats actively participated in Oregon ocean fisheries in 1997, compared to 102 vessels in 1996. Exact estimates of active vessels is difficult due to no logbook requirements and the fact that not all licensed vessels actively participate in the fishery. Some "river guides" also participate in the ocean fishery, but are not included in the charter boat estimates. Since 1983, we have monitored charter boat participation in Oregon. Active vessels have ranged from 158 boats in 1988 to 81 boats in 1994 (Appendix Table 17). Salmon is the primary pursuit in all ports when coho are allowed to be retained, but bottomfishing is also important to charter fleets and has become their primary target in recent years. The ODFW is expecting to increase sampling of the non-salmonid ocean recreational fishery in 1998.

No estimate is available on the number of individual private boats that fished in the ocean. Estimates of total boat trips are calculated for private boats, but the number of individual vessels that fished is unknown.

Charter angler effort: The 1997 charter boat effort was estimated at 3,852 salmon angler trips, down 32% from 1996 effort levels, and only 9% of the 1979-96 average of 42,132 angler trips. Charter anglers made up 13% of the total ocean salmon trips in 1997 similar to that seen in 1996 and the 1979-96 average of 22%. When bottomfishing trips are added in; charters in 1997 accounted for 47% of the total angler trips compared to 44% in 1996 (Tables 11 and 12, and Figure 16).

Astoria with 16 charter boats fished almost exclusively for salmon, and led the coast with 1,201 salmon angler trips. Depoe Bay, with the largest charter fleet on the coast (22 boats), had the highest bottomfishing effort of any port with 16,300 bottomfishing angler trips. Newport (20 boats) had the second highest bottomfishing effort with 14,761 bottomfishing angler trips. Garibaldi (13 boats) ranked third with 7,990 bottomfishing trips.

Restrictions on salmon fishing again in 1997 resulted in a high percentage (92%) of charter anglers that went bottomfishing. A total of 45,275 charter anglers targeted on bottomfish during our sampling period. An additional 665 angler trips were taken on combination trips that fished for both salmon and bottomfish. The high interest in

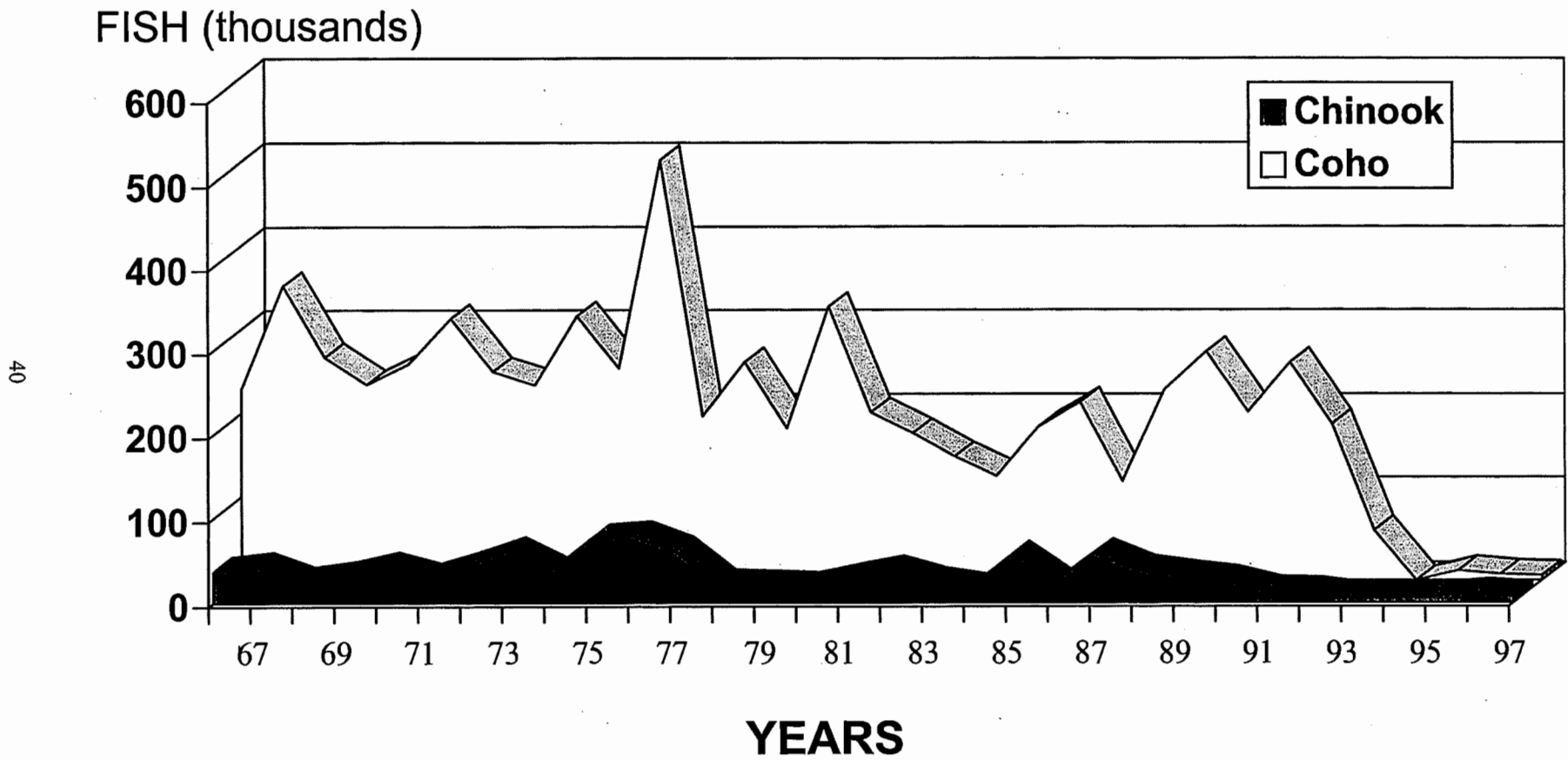
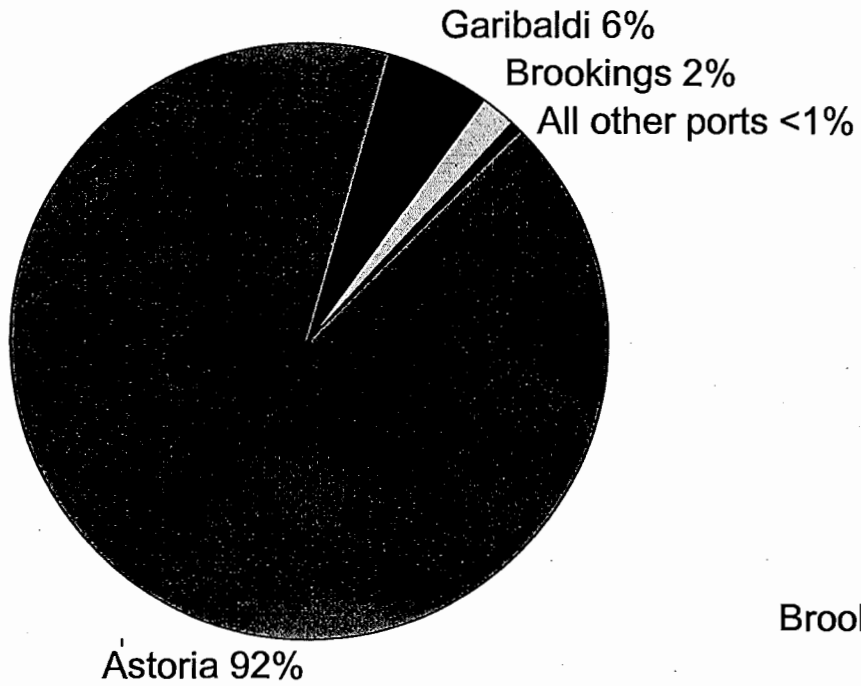


Figure 12. Trends in Oregon's recreational ocean salmon catch, 1966-97.

Coho



Chinook

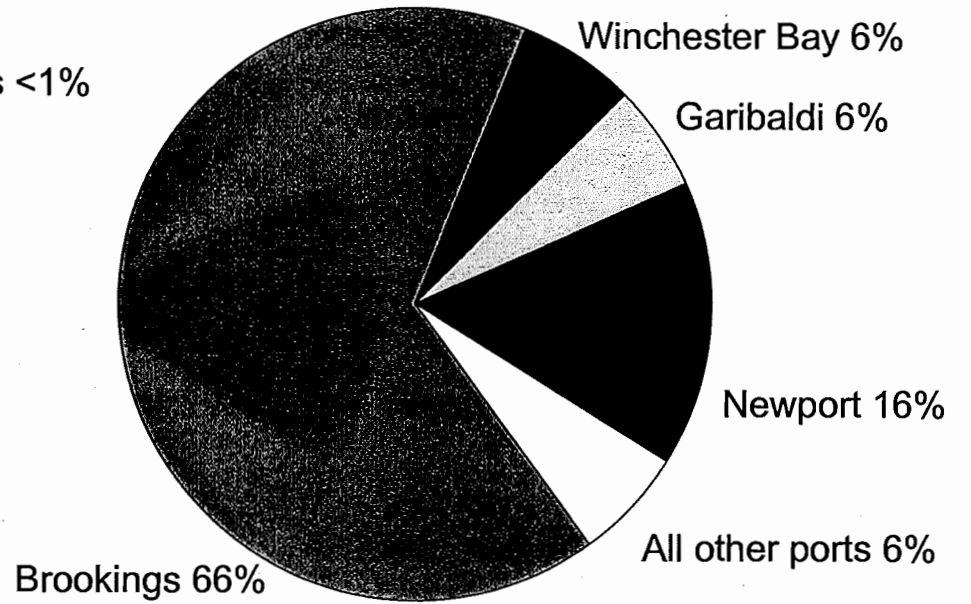
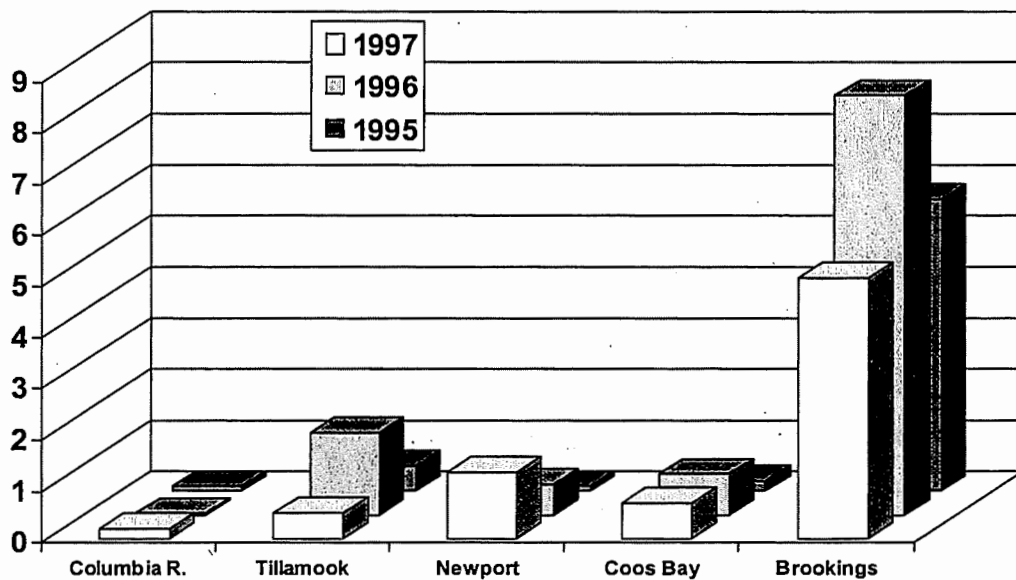


Figure 13. Oregon ocean recreational chinook and coho catch by port, 1997.

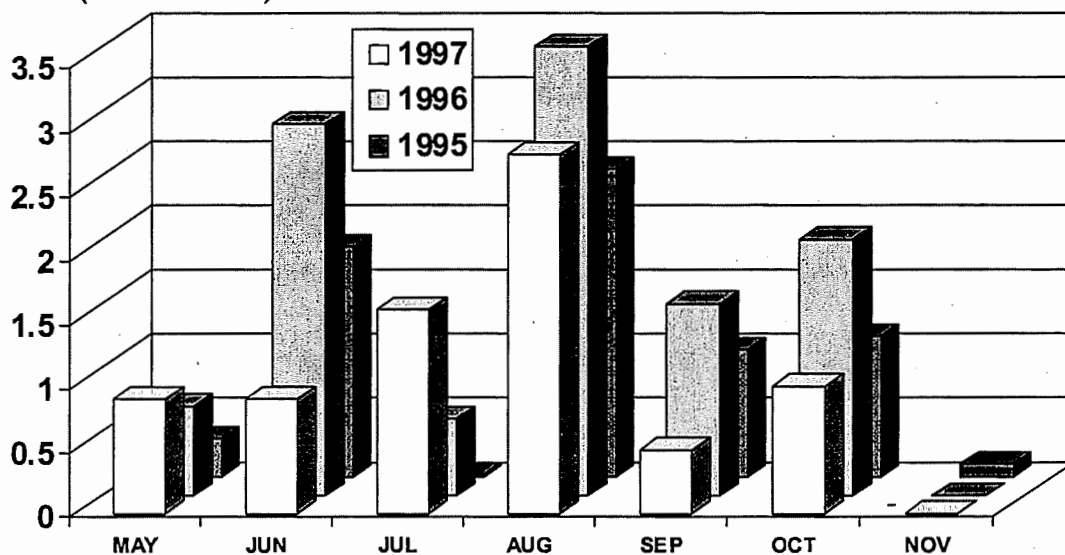
Chinook

Fish (thousands)



Area of Catch

Fish (thousands)



Month of Catch

Figure 14. Oregon ocean recreational chinook catch by catch area and month, 1995-97.

Coho

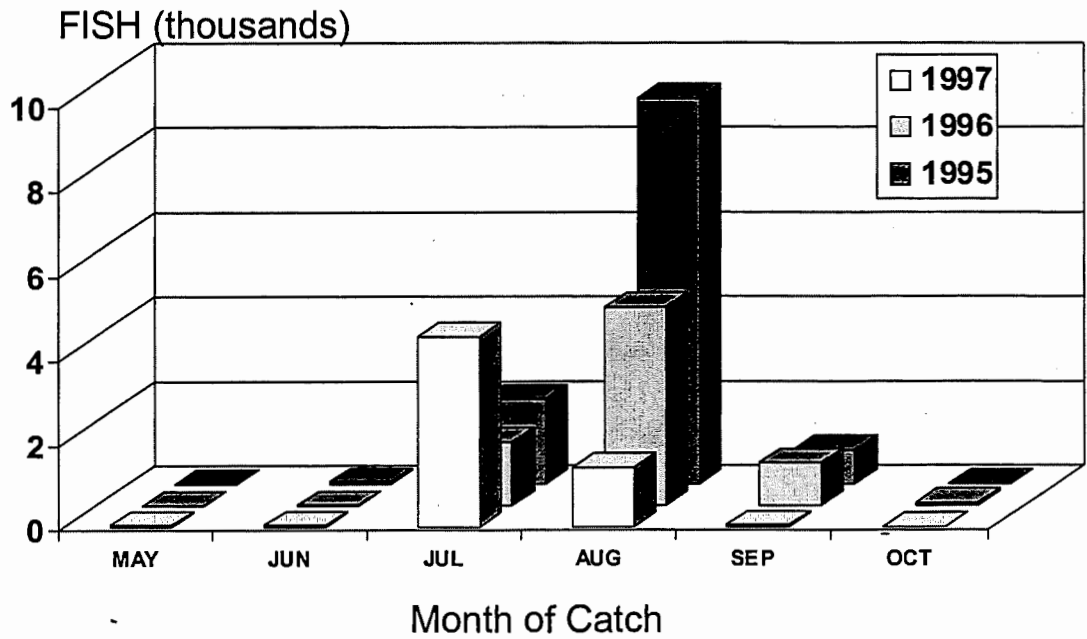
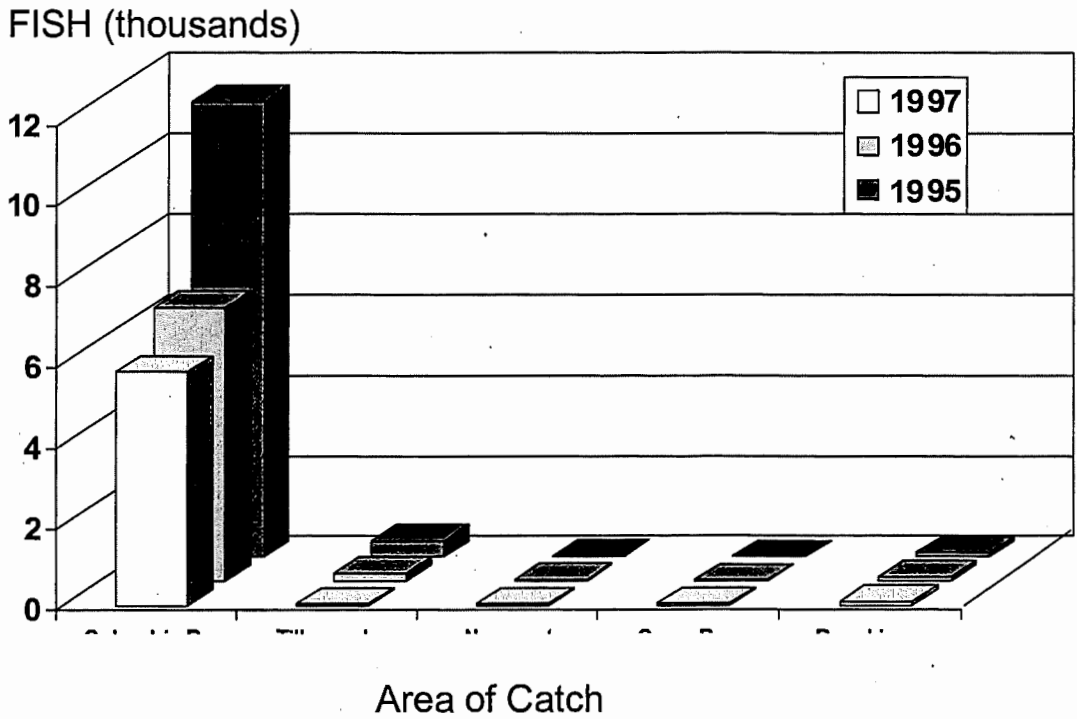


Figure 15. Oregon ocean recreational coho catch by catch area and month, 1995-97.

bottomfishing reflected both the tight restrictions on salmon fishing and an increasing interest in halibut fishing. It is important to remember that some additional bottomfishing effort takes place before and after the salmon season, and is not estimated by this report.

Charter angler catch: The catch of 3,860 salmon by charter anglers was a modest decrease from the 1996 catch of 4,142 salmon. This primarily reflects a decrease in effort and catch rates in the open coho season north of Cape Falcon. The charter fleet landed 28% of the total recreational salmon catch in 1997, up from the 23% share seen in 1996, and on par with the 1979-96 average of 29% (Tables 11 and 12, and Figure 16).

The Astoria charter fleet took 2,271 fish or 59% of the charter caught salmon. Newport charters took 1,100 salmon (28%); Brookings caught 218 salmon (6%); and Garibaldi charters took 164 salmon (4%). Salmon per angler averages ranged from 1.89 in Astoria to 0.19 salmon per angler in Depoe Bay. In 1997 the state-wide charter average of 1.0 salmon/angler was up substantially from the 1996 level of 0.74 salmon/angler.

Private boat angler effort: The 1997 salmon effort from private boats was estimated at 26,211 angler trips or 68% of the total salmon effort. Effort was 83% below the 1979-96 average of 150,717 salmon angler trips (Tables 11, 12, and Figure 16).

Brookings and Garibaldi recorded the most private boat effort for salmon in 1997. Brookings had 15,973 salmon angler trips or 61% of the private boat total, followed by Garibaldi with 3,474 trips (13%).

Some private boats fish only for bottomfish even during the salmon season. Trip type (salmon or bottomfish) ratios were calculated from angler interviews, and applied to the total effort. In years with full salmon seasons, that figure has been less than 10%. In the 1997 season; 29,826 angler trips or 53% of the private trips targeted on bottomfish, compared to 22,971 angler trips or 37% in 1996. Brookings had the most private bottomfish anglers with 10,254; followed by Newport with 6,595; and Garibaldi with 4,182 angler trips.

Private boat angler catch: Anglers from private boats landed 6,176 chinook and 3,622 coho in 1997. The total catch of 9,800 salmon was slightly less than the 1996 catch but only 7% of the 1979-96 average of 132,519 fish. Private boat anglers caught 72% of the total recreational salmon landed in 1997 similar to the 77% share in 1996, and 1979-96 average of 71% (Appendix Table 18 and Figure 16).

Brookings private boat anglers averaged 0.31 salmon per angler trip and landed 4,996 salmon (51%) of the total private boat angler catch. Astoria private boat anglers had landings of 3,374 salmon with an average success rate of 1.60 salmon per angler. These two ports accounted for 85% of the total private boat salmon angler catch. The

Table 11. Oregon ocean recreational salmon effort and catch by boat type, 1997.

Port	Salmon Charter Boats ^a					Salmon Private Boats				
	Boat Trips	Angler Trips	Salmon Catch			Boat Trips	Angler Trips	Salmon Catch		
			Chinook	Coho	Pink			Chinook	Coho	Pink
Astoria	147	1,201	34	2,237	0	682	2,102	130	3,244	0
Garibaldi	70	376	51	113	0	1,488	3,474	419	219	2
Pacific City	0	0	0	0	0	40	99	11	1 ^b	0
Depoe Bay	72	550	105	0	0	12	29	2	0	0
Newport	195	1,254	1,100	0	0	277	602	93	14 ^b	0
Florence	0	0	0	0	0	318	712	80	2 ^b	0
Winchester Bay	0	0	0	0	0	1,100	2,470	457	11 ^b	0
Coos Bay	0	0	2 ^c	0	0	370	750	115	4 ^b	0
Brookings	96	471	218	0	0	6,882	16,113	4,869	127 ^b	0
Total	580	3,852	1,510	2,350	0	11,169	26,351	6,176	3,622	2
Combined totals for all Oregon craft	11,749	30,203	7,686	5,972	2					

^a Includes combination salmon & bottomfish trips.

^b Illegal coho landings.

^c Incidental chinook catch.

Table 12. Oregon ocean recreational salmon and bottomfish effort and catch by boat and trip type^a, 1997.

Port	Charter						Private							
	Boat Trips			Angler Trips			Total Catch		Boat Trips		Angler Trips		Total Catch	
	Salmon	Combination	Bottom	Salmon	Combination	Bottom	Salmon ^b	Bottom ^c	Salmon	Bottom	Salmon	Bottom	Salmon ^b	Bottom ^c
Astoria	147	0	0	1,201	0	0	2,271	0	682	3	2,102	6	3,374	320
Garibaldi	60	10	667	292	84	7,990	164	63,246	1,488	1,469	3,474	4,182	640	13,769
Pacific City	0	0	37	0	0	148	0	1,097	40	1,081	99	3,255	12	14,239
Depoe Bay	52	20	1,693	367	183	16,300	105	98,130	12	631	29	1,561	2	5,415
Newport	149	46	1,325	862	392	14,761	1,100	108,098	277	2,476	602	6,595	107	18,657
Florence	0	0	0	0	0	0	0	0	318	66	712	166	82	715
Winchester Bay	0	0	0	0	0	0	0	0	1,100	90	2,470	204	468	1,341
Coos Bay	0	0	283	0	0	3,664	2	39,920	370	1,486	750	3,603	119	21,002
Brookings	95	1	323	465	6	2,412	218	28,233	6,882	3,953	15,973	10,254	4,996	60,649
Total	503	77	4,328	3,187	665	45,275	3,860	338,724	11,169	11,255	26,211	29,826	9,800	136,107

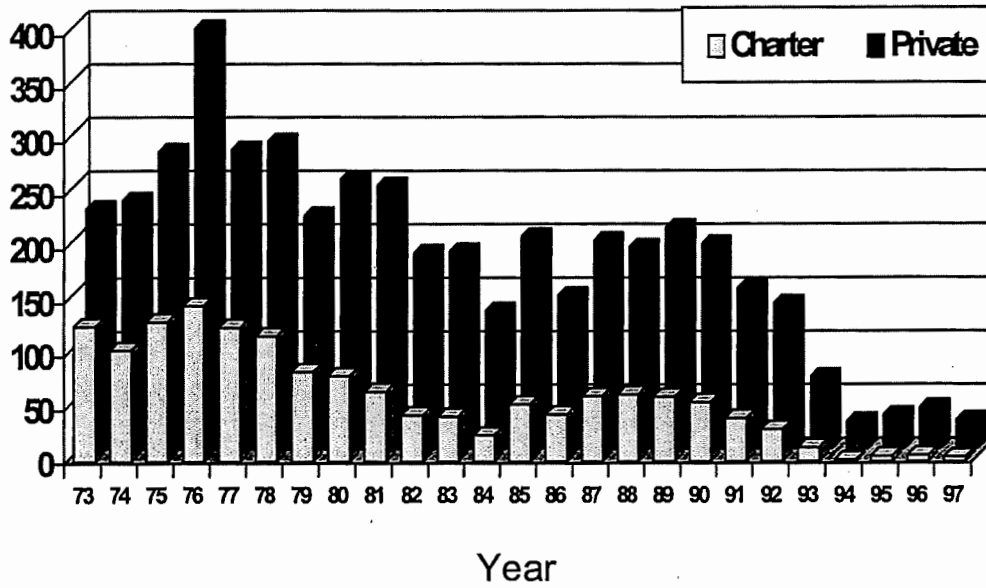
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^a Trip types are separated by trips that target salmon, bottomfish, or combination trips. For private boats, combination trips are included as salmon trips.

^b Includes: coho, chinook, and pink salmon.

^c Bottomfish includes: rockfish, lingcod, flatfish, and miscellaneous species.

Angler Trips (Thousands)



Salmon (Thousands)

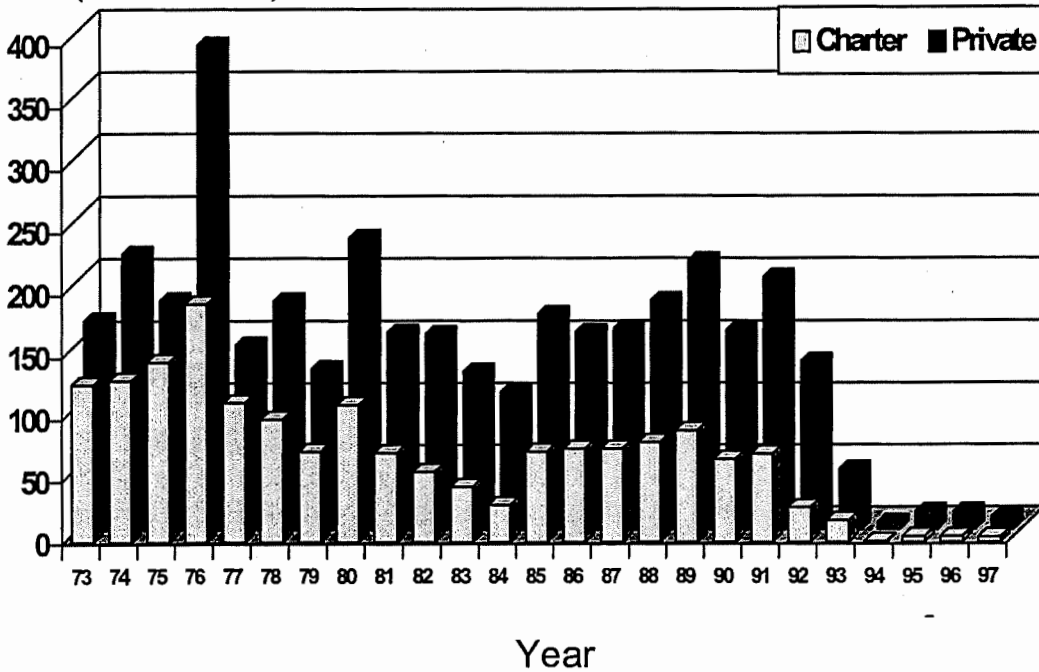


Figure 16. A comparison of effort and catch by Oregon ocean salmon charter and private anglers, 1973-97.

coastwide angler success rate was 0.37 salmon per angler, the same as in 1996, but less than half the 1979-96 average of 0.81 salmon per angler.

ESTIMATES OF RELEASED SALMON

Background

The number of salmon released ("shakers") in the recreational fishery is estimated each year from interview data collected from anglers at the conclusion of their fishing trips by OSM sampling staff. This data is variable and depends on anglers correctly recalling the number and species of salmon released. This data is also variable depending on the cooperation, expertise, and attitude of the angler. This information, while not exact, is valuable to assess trends in released fish by time and catch area. This data is not used in active management, but can be used as a rough estimate to evaluate shaker mortality or other regulation impacts (Tables 13, 14, and Appendix Table 22).

Chinook

In 1997, a total of 13,706 chinook were caught by anglers and 6,020 of these were released (44%). In most ports, the rate of released chinook per retained chinook peaked in September and coincides with the annual recruitment of age two chinook to the fishery (Table 13). Brookings with the highest chinook fishing effort and catch, also had the most released chinook with 4,690 (48%).

Coho

Since coho were prohibited in all areas south of Cape Falcon, release rates on coho exceeded 90% in almost all port and month stratifications (Table 14). In the Columbia River Management Area, an average of 18% of the coho caught were released. Brookings had the most released coho with 3,236 (54% of all released coho). August accounted for only 27% of the released coho statewide, but in Newport 94% of the released coho occurred in August.

RECREATIONAL OCEAN SALMON CODED WIRE TAG SAMPLING

Recreational samplers from the OSMP working at nine Oregon coastal ports examined 38% of the chinook and 47% of the coho landed for fin clips indicating the presence of a coded wire tag during the 1997 ocean recreational season.

Chinook

Samplers examined 2,908 of the 7,686 chinook landed in 1997, and found 106 (4%) that had adipose fin clips (Table 15). Department staff found readable tags in 96 of the

Table 13. Chinook salmon released by Oregon ocean recreational anglers by port and statistical month, 1997.

Port of Landing		Month							Total
		April	May	June	July	Aug.	Sept.	Oct.	
Astoria	No. Released	-	-	-	247	20	-	-	267
	No. Retained	-	-	-	109	55	-	-	164
	% Released	-	-	-	69	27	-	-	62
Garibaldi (NOF) ^a	No. Released	-	-	-	15	2	-	-	17
	No. Retained	-	-	-	19	0	-	-	19
	% Released	-	-	-	44	100	-	-	47
Garibaldi (SOF) ^a	No. Released	-	0	0	19	14	17	5	55
	No. Retained	-	0	4	3	5	152	287	451
	% Released	-	-	-	86	74	10	2	11
Pacific City	No. Released	-	0	0	0	0	0	-	0
	No. Retained	-	0	1	5	3	2	-	11
	% Released	-	-	-	-	-	-	-	0
Depoe Bay	No. Released	-	0	1	2	37	1	-	41
	No. Retained	-	4	10	12	78	3	-	107
	% Released	-	-	9	14	32	25	-	28
Newport	No. Released	-	1	3	19	349	16	-	388
	No. Retained	-	41	82	138	837	95	-	1,193
	% Released	-	2	4	12	29	14	-	25
Florence	No. Released	-	2	2	0	9	0	-	13
	No. Retained	-	24	24	9	21	2	-	80
	% Released	-	8	8	-	30	-	-	14
Winchester Bay	No. Released	-	0	5	93	299	72	-	469
	No. Retained	-	19	18	177	191	52	-	457
	% Released	-	-	22	34	61	58	-	51
Charleston	No. Released	0	1	11	47	15	6	-	80
	No. Retained	2	0	24	50	38	3	-	117
	% Released	-	100	31	48	28	67	-	41
Brookings	No. Released	-	282	686	2,423	1,000	102	197	4,690
	No. Retained	-	844	769	1,034	1,616	149	675	5,087
	% Released	-	25	47	70	38	41	23	48
Total	No. Released	0	286	708	2,865	1,745	214	202	6,020
	No. Retained	2	932	932	1,556	2,844	458	962	7,686
	% Released	-	23	43	65	38	32	17	44

^a (NOF) refers to the Columbia River catch area defined as the area between Cape Falcon, Oregon and Leadbetter Point, Washington. References catches landed in Garibaldi that were either made north of Cape Falcon (NOF), or south of Cape Falcon (SOF).

Table 14. Coho salmon released by Oregon ocean recreational anglers by port and statistical month, 1997.

Port of Landing		Month							Total
		April	May	June	July	Aug.	Sept.	Oct.	
Astoria	No. Released	-	-	-	851	331	-	-	1,182
	No. Retained	-	-	-	4,178	1,303	-	-	5,481
	% Released	-	-	-	17	20	-	-	18
Garibaldi (NOF) ^a	No. Released	-	-	-	37	10	-	-	47
	No. Retained	-	-	-	277	49	-	-	326
	% Released	-	-	-	12	17	-	-	13
Garibaldi (SOF) ^a	No. Released	-	0	2	46	14	62	0	124
	No. Retained	-	0	0	0	0	6	0	6
	% Released	-	-	100	100	100	91	-	95
Pacific City	No. Released	-	0	0	0	1	0	-	1
	No. Retained	-	0	0	1	0	0	-	1
	% Released	-	-	-	0	100	-	-	50
Depoe Bay	No. Released	-	0	18	11	157	10	-	196
	No. Retained	-	0	0	0	0	0	-	0
	% Released	-	-	100	100	100	100	-	100
Newport	No. Released	-	0	3	4	416	19	-	442
	No. Retained	-	0	0	0	14	0	-	14
	% Released	-	-	100	100	97	100	-	97
Florence	No. Released	-	2	13	7	13	2	-	37
	No. Retained	-	0	0	0	2	0	-	2
	% Released	-	100	100	100	87	100	-	95
Winchester Bay	No. Released	-	0	46	162	151	233	-	592
	No. Retained	-	0	0	7	4	0	-	11
	% Released	-	-	100	96	97	100	-	98
Charleston	No. Released	0	0	47	50	25	4	-	126
	No. Retained	0	0	0	0	4	0	-	4
	% Released	-	-	100	100	86	100	-	97
Brookings	No. Released	-	720	921	905	507	104	79	3,236
	No. Retained	-	17	26	41	39	4	0	127
	% Released	-	98	97	96	93	96	100	96
Total	No. Released	0	722	1,050	2,073	1,625	434	79	5,983
	No. Retained	0	17	26	4,504	1,415	10	0	5,972
	% Released	-	98	98	32	53	98	100	50

^a (NOF) refers to the Columbia River catch area defined as the area between Cape Falcon, Oregon and Leadbetter Point, Washington. References catches landed in Garibaldi that were either made north of Cape Falcon (NOF), or south of Cape Falcon (SOF).

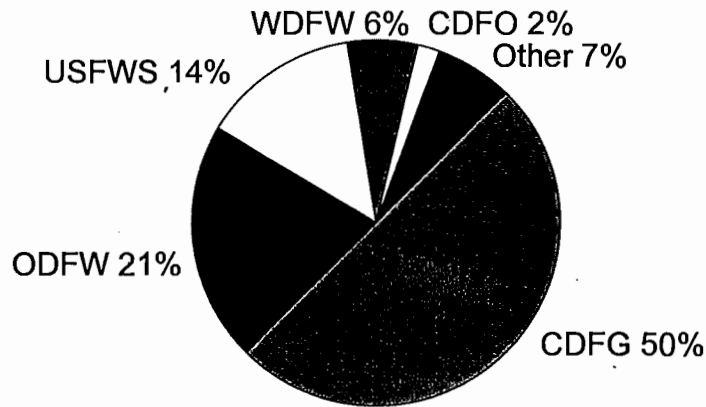
Table 15. Chinook coded-wire tag sampling from the ocean recreational fishery, by port and month, 1997.

Port	Apr.	May	June	July	Aug.	Sept.	Oct.	Total
<u>Astoria</u>								
No. Examined	0	0	0	44	32	0	0	76
No. Landed	0	0	0	109	55	0	0	164
% Examined	0	0	0	40	58	0	0	46
No. Marks	0	0	0	2	3	0	0	5
<u>Garibaldi</u>								
No. Examined	0	0	2	13	4	77	32	128
No. Landed	0	0	4	22	5	152	287	470
% Examined	0	0	50	59	80	51	11	27
No. Marks	0	0	0	2	0	3	0	5
<u>Pacific City</u>								
No. Examined	0	0	1	4	2	2	0	9
No. Landed	0	0	1	5	3	2	0	11
% Examined	0	0	100	80	67	100	0	82
No. Marks	0	0	0	0	0	0	0	0
<u>Depoe Bay</u>								
No. Examined	0	3	7	9	53	2	0	74
No. Landed	0	4	10	12	78	3	0	107
% Examined	0	75	70	75	68	67	0	69
No. Marks	0	0	0	0	4	0	0	4
<u>Newport</u>								
No. Examined	0	21	60	106	418	52	0	657
No. Landed	0	41	82	138	837	95	0	1,193
% Examined	0	51	73	77	50	55	0	55
No. Marks	0	2	0	4	22	3	0	31
<u>Florence</u>								
No. Examined	0	11	11	6	10	1	0	39
No. Landed	0	24	24	9	21	2	0	80
% Examined	0	46	46	67	48	50	0	49
No. Marks	0	0	0	0	0	0	0	0
<u>Winchester Bay</u>								
No. Examined	0	8	9	122	90	23	0	252
No. Landed	0	19	18	177	191	52	0	457
% Examined	0	42	50	69	47	44	0	55
No. Marks	0	0	0	6	4	0	0	10
<u>Coos Bay</u>								
No. Examined	0	0	14	25	14	2	0	55
No. Landed	0	0	24	50	38	5	0	117
% Examined	0	0	58	50	37	40	0	47
No. Marks	0	0	1	1	0	0	0	2
<u>Brookings</u>								
No. Examined	0	230	246	294	446	44	358	1,618
No. Landed	0	844	769	1,034	1,616	149	675	5,087
% Examined	0	27	32	28	28	30	53	32
No. Marks	0	6	10	8	11	1	13	49
<u>Total</u>								
No. Examined	0	273	350	623	1,069	203	390	2,908
No. Landed	0	931	932	1,556	2,844	460	962	7,686
% Examined	0	29	38	40	38	44	41	38
No. Marks	0	8	11	23	44	7	13	106

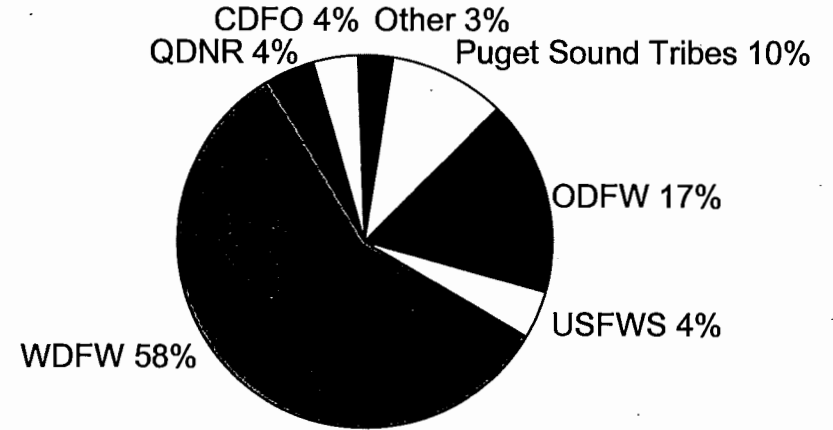
Table 16. Coho coded-wire tag sampling data from the ocean recreational fishery, by port and month, 1997.

Port	May	June	July	Aug.	Sept.	Oct.	Total
<u>Astoria</u>							
No. Examined	0	0	1,795	760	0	0	2,555
No. Landed	0	0	4,178	1,303	0	0	5,481
% Examined	0	0	43	58	0	0	47
No. Marks	0	0	48	21	0	0	69
<u>Garibaldi</u>							
No. Examined	0	0	168	30	3	0	201
No. Landed	0	0	277	49	6	0	332
% Examined	0	0	61	61	50	0	61
No. Marks	0	0	9	0	0	0	9
<u>Pacific City</u>							
No. Examined	0	0	1	0	0	0	1
No. Landed	0	0	1	0	0	0	1
% Examined	0	0	100	0	0	0	100
No. Marks	0	0	0	0	0	0	0
<u>Depoe Bay</u>							
No. Examined	0	0	0	0	0	0	0
No. Landed	0	0	0	0	0	0	0
% Examined	0	0	0	0	0	0	0
No. Marks	0	0	0	0	0	0	0
<u>Newport</u>							
No. Examined	0	0	0	2	0	0	2
No. Landed	0	0	0	14	0	0	14
% Examined	0	0	0	14	0	0	14
No. Marks	0	0	0	1	0	0	1
<u>Florence</u>							
No. Examined	0	0	0	1	0	0	1
No. Landed	0	0	0	2	0	0	2
% Examined	0	0	0	50	0	0	50
No. Marks	0	0	0	1	0	0	1
<u>Winchester Bay</u>							
No. Examined	0	0	5	2	0	0	7
No. Landed	0	0	7	4	0	0	11
% Examined	0	0	71	50	0	0	64
No. Marks	0	0	3	0	0	0	3
<u>Coos Bay</u>							
No. Examined	0	0	0	2	0	0	2
No. Landed	0	0	0	4	0	0	4
% Examined	0	0	0	50	0	0	50
No. Marks	0	0	0	1	0	0	1
<u>Brookings</u>							
No. Examined	4	8	11	10	1	0	34
No. Landed	17	26	41	39	4	0	127
% Examined	24	31	27	26	25	0	27
No. Marks	0	0	3	2	1	0	6
<u>Total</u>							
No. Examined	4	8	1,980	807	4	0	2,803
No. Landed	17	26	4,504	1,415	10	0	5,972
% Examined	24	31	44	57	40	0	47
No. Marks	0	0	63	26	1	0	90

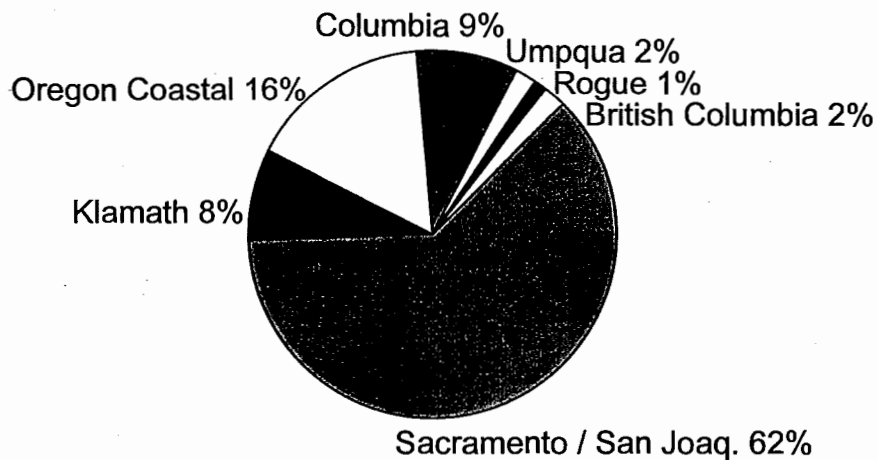
CHINOOK RELEASE AGENCY



COHO RELEASE AGENCY



BASIN OF RELEASE



BASIN OF RELEASE

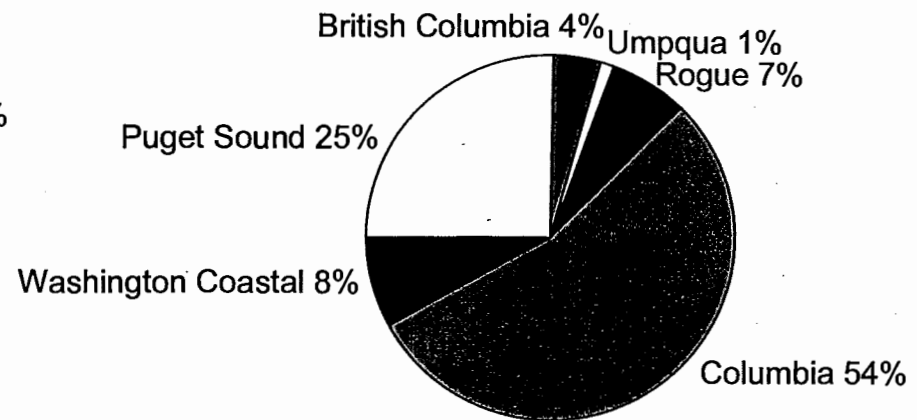


Figure 17. Recoveries of chinook (N=96) and coho (N=71) coded wire tags, by release agency and by basin of release from Oregon's ocean recreational catch, 1997. Note: Data does not represent stock contribution rates since tagging is not representative of all stocks.

106 chinook heads, a 91% recovery rate. Most of the observed CWTs were released by California Dept. of Fish and Game (50%); ODFW (21%), and the U.S. Fish and Wildlife Service (14%). By basin, most of the tagged fish were released in California's Sacramento/San Joaquin Basin (62%) and Oregon's Coastal streams (16%) (Figure 17).

Coho

Samplers examined 2,803 of the 5,972 coho landed in 1997, and found 90 (3%) with adipose fin clips. Staff found readable tags in 71 of the 90 coho heads for a 79% recovery rate. Most of the observed CWTs were released by Washington Dept. of Fish and Wildlife (58%) and ODFW (17%) (Table 16 and Figure 17). Most of the tagged fish were released in the Columbia Basin (54%), Puget Sound (25%), and Washington Coastal streams (8%)(Figure 17).

NOTE: The above CWT data does not represent stock contribution rates since tagging is not representative of all stocks and most stocks of wild fish have no tagging program associated with them.

SPECIAL FISHERIES AND STUDIES

Columbia River Buoy 10 Estuary Fishery

The Columbia River estuary opened from Buoy 10 upstream to the Astoria/Megler Bridge on August 1 for salmon fishing seven days a week, without quotas or a weekly bag limit. This fishery is intended to target surplus Columbia River hatchery coho. The Oregon/Washington combined effort was 55,725 angler trips with a catch of 13,123 chinook and 20,357 coho (Table 17).

Coho Weight to Length Sampling

Coho salmon were sampled for condition factor (weight to length ratio) from recreational ocean catches off the Columbia River in 1997. All sampling occurred during statistical weeks 30, 31, and 32. Historically this data was collected from commercial troll caught salmon that were landed already dressed (head-on, gills and viscera removed). In order to maintain consistency with the historical data, recreational fish must also be in the same dressed state. This usually entails the sampler cleaning the fish for the angler, although occasionally anglers will have cleaned their fish following commercial standards. Lengths were taken using a measuring board to the nearest millimeter, and weights were collected using a Chatillon hand scale to the nearest-0.125 lb.

A total of 290 coho were sampled for condition, and the results are presented by week in Table 18. The coho had an average weight of 3.65 lbs during the sampling period, but were gaining in weight rapidly between week 30 (avg. wt.= 3.45 lb) and week 32 (avg. wt. = 3.92 lb). The average weight at each length node is plotted in Figure 18,

and other years with weight to length data are plotted for comparison. The condition of the coho was similar to what has been seen in several years. The coho were in better condition than those sampled during the disastrous 1983 El Niño event, but appeared to be in poorer condition than those sampled in a number of other years.

Table 17. Buoy 10 Columbia River estuary salmon season. Total salmon angler trips and catch 1997, and totals for 1982-96 (Oregon and Washington combined data).

Year	Angler Trips	Catch		Catch/Angler	Chinook/Angler	Coho/Angler
		Chinook	Coho			
1982	17,336	723	18,857	1.13	0.04	1.09
1983	7,128	604	3,574	0.59	0.08	0.50
1984	67,365	12,177	74,370	1.29	0.18	1.10
1985	32,156	2,655	25,387	0.87	0.08	0.79
1986	102,190	15,600	120,422	1.33	0.15	1.18
1987	124,594	42,100	47,170	0.72	0.34	0.38
1988	186,051	30,770	143,417	0.94	0.17	0.77
1989	144,848	15,900	78,720	0.65	0.11	0.54
1990	76,411	5,149	18,435	0.31	0.07	0.24
1991	168,921	11,549	207,527	1.30	0.07	1.23
1992	115,481	10,655	43,082	0.47	0.09	0.37
1993	75,774	5,288	20,932	0.35	0.07	0.28
1994	9,253	0	1,795	0.19	NA	0.19
1995	25,186	853	5,026	0.23	0.03	0.20
1996	18,034	1,409	4,537	0.33	0.08	0.25
1997						
OR Boat	17,278	4,305	6,003	0.60	0.25	0.35
OR Bank	2,744	0	761	0.28	NA	0.28
WA Boat	33,948	8,826	13,433	0.66	0.26	0.40
WA Bank	1,755	22	160	0.10	0.01	0.09
Total	55,725	13,153	20,357	0.60	0.24	0.37

Table 18. Coho salmon fork length to dressed weight sample summary at Astoria, Oregon, 1997 by statistical week. Number of samples by length unit and average weight (lbs) of samples at length.

Length (mm)	Week 30		Week 31		Week 32		Total	
	n	Avg	n	Avg	n	Avg	n	Avg
		Wt		Wt		Wt		Wt
400-449	1	1.88	2	1.94	1	1.50	4	1.81
450-499	26	2.57	18	2.63	13	2.48	57	2.57
500-549	34	3.32	47	3.24	32	3.20	113	3.25
550-599	35	4.09	35	4.24	15	4.23	85	4.18
600-649	4	5.19	7	4.88	12	5.30	23	5.15
650-699			1	8.0	4	6.59	5	6.88
700-749			1	8.5	1	9.50	2	9.00
750-799					1	10.63	1	10.63
Total / Avg. Wt.	100	3.45	111	3.63	79	3.92	290	3.65

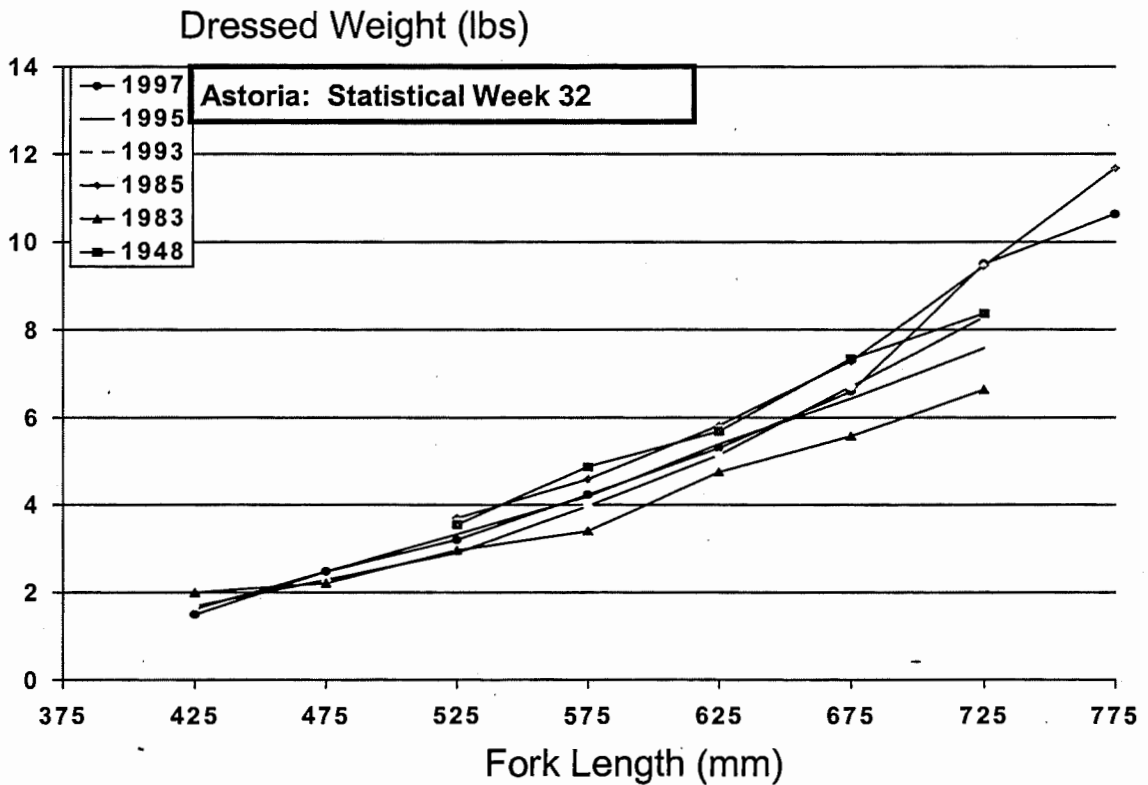
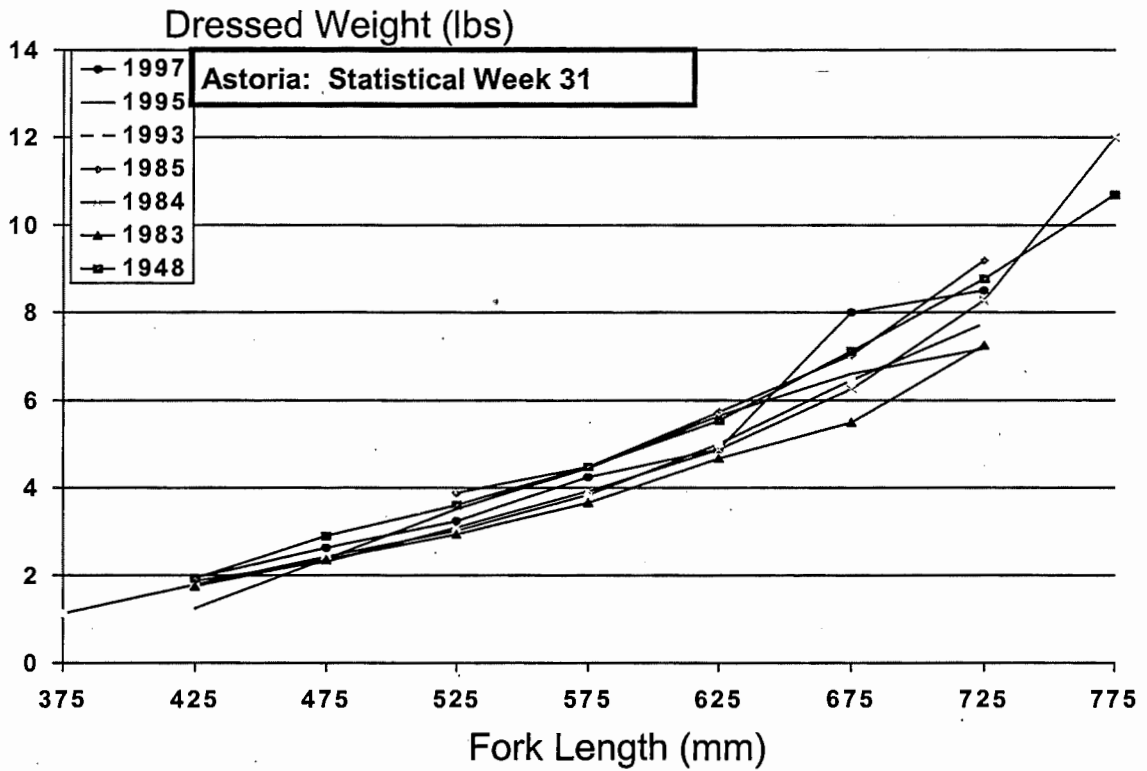


Figure 18. Coho fork length to weight (head-on, viscera and gills removed) relationship from ocean recreational landings into Astoria and Warrenton, 1997. Data from prior years (except 1993 and 1995) are from commercial troll salmon landings.

November Chinook Fishery off Tillamook Bay

The fall chinook state waters (0-3 miles) recreational fishery off Tillamook Bay was extended for the period of November 1-15, from Twin Rocks south to Pyramid Rock. This fishery, commonly referred to as the "Tillamook bubble", targets fall chinook returning to tributary streams of Tillamook Bay, and coincides with the very popular and larger fishery that takes place within Tillamook Bay and its tributaries. Most anglers fish within a mile of the jetties, and many troll back and forth over the bar.

Sampling of the ocean fishery off Tillamook Bay ended on October 19, 1997. No sampling of the November extension occurred in 1997.

October/November Fishery off Port Orford

We did not sample the recreational portion of this fishery in 1997. Based on estimates of catch from salmon punchcards, the sport catch in this fishery has been nonexistent or minimal (<50 fish) in all years.

October Fishery off Brookings

The fall state waters (0-3 miles) recreational fishery off Brookings is designed to target on fall chinook returning to the Chetco River. This fishery extended from Goat Island south to the latitude of 42° 01' 20" N. The season was open from Oct. 4 through Oct. 12. Effort for this fishery totaled 1,269 angler trips (Table 19). Private boats made up 95% of the total effort for this fishery. The chinook catch totaled 715 fish. Angler success averaged 0.69 chinook per angler. A total of 81 coho were estimated to have been released by anglers, and no coho were retained. An average ratio of 0.06 coho per angler was observed during the season. Eleven readable chinook CWT's were recovered in this fishery. These tags were from the Chetco River (7), Hunter Creek (1), Pistol River (2), and Klamath River (1).

Table 19. Summary of Chetco River Area recreational terminal ocean fishery by boat type, 1997.

Statistical Week	Brookings: Chetco River Area Terminal Recreational Ocean Chinook Fishery														
	CHARTER				PRIVATE				TOTAL						
	Angler Trips	Landed		Released		Angler Trips	Landed		Released		Angler Trips	Landed		Released	
	Chin.	Coho	Chin.	Coho		Chin.	Coho	Chin.	Coho		Chin.	Coho	Chin.	Coho	
40	0	0	0	0	0	50	19	0	0	0	50	19	0	0	0
41	66	40	0	20	2	1,153	616	0	177	77	1,219	656	0	197	79
Totals	66	40	0	20	2	1,203	635	0	177	77	1,269	675	0	197	79

Tillamook Bay Fall Creel

In 1994, 1995, and 1996; the OSMP was funded to conduct an intensive statistical creel survey of the fall chinook fishery in Tillamook Bay. In 1997, the OSMP continued to collect Tillamook Bay fishery effort and catch data, but only to the extent allowed by utilizing existing ocean sampling staff. The fall creel data collection began September 1 and continued through October 19 when all sampling ceased. The bay fishery is

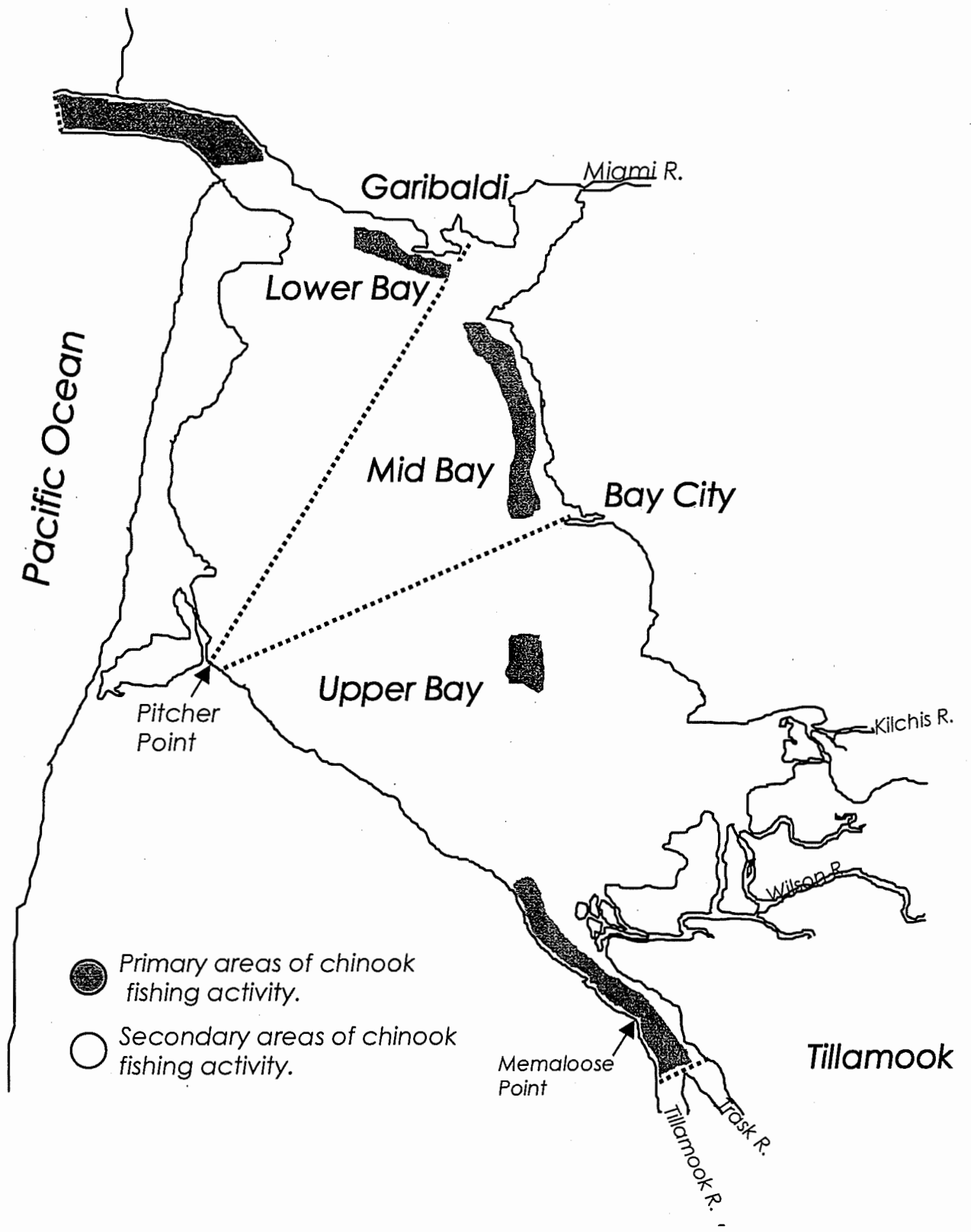


Figure 19. Map of Tillamook Bay, Oregon showing the boundaries for the bay zones used in the 1997 creel survey, and areas of primary and secondary fishing activity.

divided into three sampling/fishing zones: The lower bay zone (mouth of Tillamook Bay upstream to the Garibaldi boat basin entrance), the mid bay zone (Garibaldi boat basin entrance upstream to the Bay City flats), and the upper bay zone (Bay City flats to the confluence of the Trask and Tillamook Rivers) (Figure 18). Due to staffing limitations, all 1997 sampling occurred at Garibaldi. This resulted in estimates of catch being made only for the lower and mid bay zones, since very few trips from the upper bay zone return to Garibaldi.

Boat counts were made for each area at two hour intervals, stratified by weekday and weekend categories, and Area Under the Curve (AUC) methodology was used to calculate boat hours by area each week. Boat hours were then converted to boat trips by dividing the boat hours for each area by the average hours fished per boat in those areas. The 1997 effort totaled 21,835 angler trips, and the lower bay accounted for 72% of the effort (Table 20).

Catches in the bay totaled 2,503 chinook and 4 coho (illegal). An additional 16 chinook and 89 coho were reported released by anglers. The lower bay accounted for 82% of the chinook catch and had the an average catch rate at 0.13 chinook per angler trip. The mid bay area accounted for 18% of the chinook catch with a catch rate of 0.07 chinook per angler trip.

Table 20. Tillamook Bay recreational fishery creel 1997 (only lower and mid bay sampled); effort a by statistical week and by zone.^a

Lower Bay (Garibaldi Basin entrance to mouth)				Landed Chinook	Landed Coho	Released Chinook	Released Coho
Statistical Week	Boat Trips	Angler Trips					
36 Sept. 1-7	83	194	25	0	0	0	0
37 Sept. 8-14	320	696	86	2	2	2	2
38 Sept. 15-21	962	2,274	400	0	5	34	34
39 Sept. 22-28	1,186	2,885	296	2	4	12	12
40 Sept. 29-Oct. 5	724	1,681	204	0	3	8	8
41 Oct. 6-12	1,832	4,410	712	0	0	19	19
42 Oct. 13-19	1,489	3,521	342	0	0	0	0
Totals	6,596	15,661	2,065	4	14	75	75
Mid Bay (Bay City Flats to Garibaldi Boat Basin)				Landed Chinook	Landed Coho	Released Chinook	Released Coho
Statistical Week	Boat Trips	Angler Trips					
36 Sept. 1-7	30	60	3	0	0	0	0
37 Sept. 8-14	149	333	37	0	2	4	4
38 Sept. 15-21	329	815	70	0	0	0	0
39 Sept. 22-28	567	1,366	58	0	0	4	4
40 Sept. 29-Oct. 5	323	713	10	0	0	0	0
41 Oct. 6-12	546	1,313	117	0	0	6	6
42 Oct. 13-19	660	1,574	143	0	0	0	0
Totals	2,604	6,174	438	0	2	14	14
All Areas Combined				Landed Chinook	Landed Coho	Released Chinook	Released Coho
Statistical Week	Boat Trips	Angler Trips					
36 Sept. 1-7	113	254	28	0	0	0	0
37 Sept. 8-14	469	1,029	123	2	4	6	6
38 Sept. 15-21	1,291	3,089	470	0	5	34	34
39 Sept. 22-28	1,753	4,251	354	2	4	16	16
40 Sept. 29-Oct. 5	1,047	2,394	214	0	3	8	8
41 Oct. 6-12	2,378	5,723	829	0	0	25	25
42 Oct. 13-19	2,149	5,095	485	0	0	0	0
Totals	9,200	21,835	2,503	4	16	89	89

^a Refer to Figure 18 for fishery zone designations.

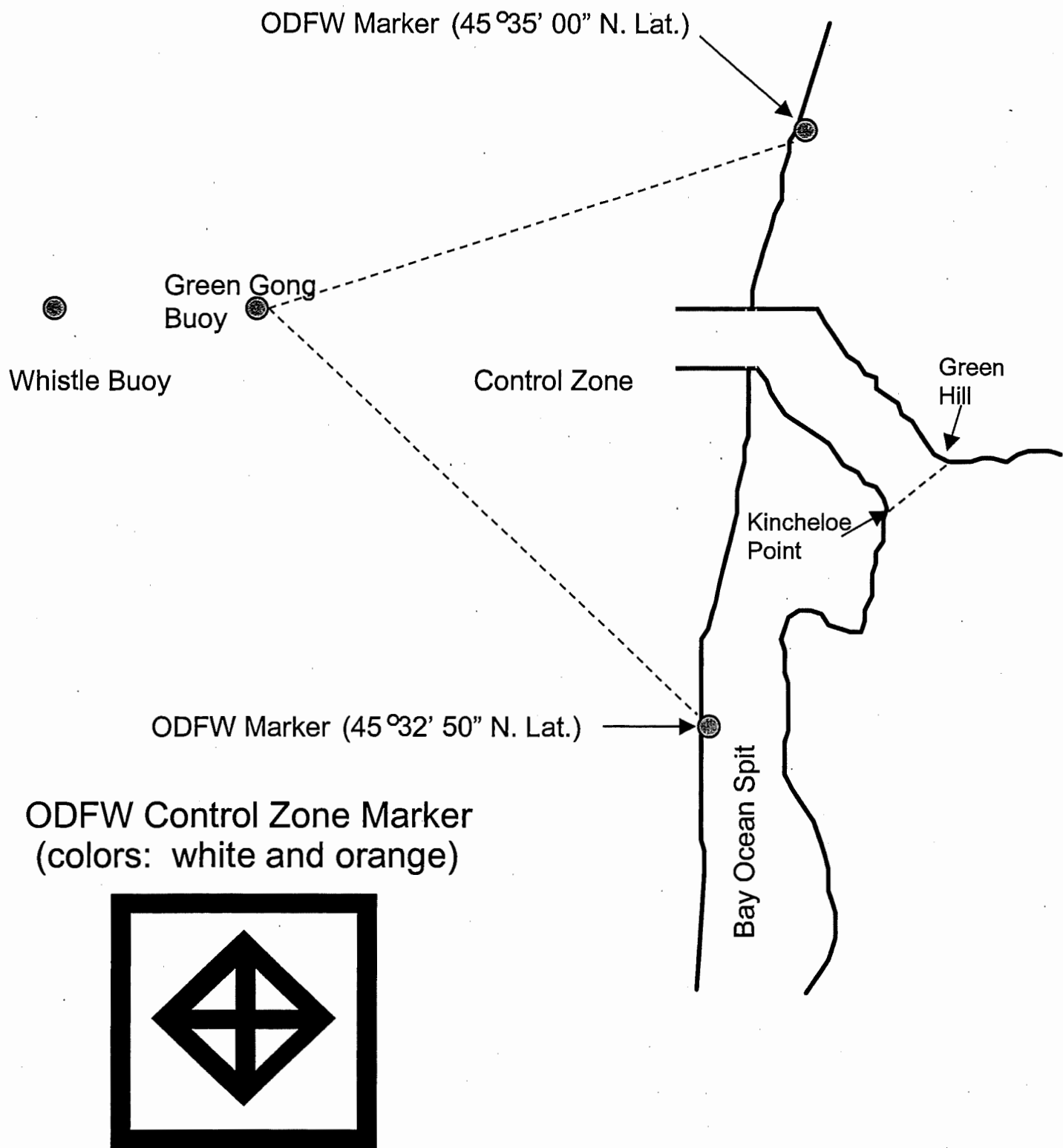
ACKNOWLEDGMENTS

Almost everyone in the Ocean Salmon Management Program at one time or another provided assistance to the ocean sampling program. However, we especially appreciate the help of sampling coordinators Robert Bradley and John Spangler and all seasonal samplers. Special recognition is due the Data Management Project Leader Phil Flanders, Administrative Specialist Donna Lamb, and Justine Benson for their help in processing the data, training, and general assistance throughout the year. In addition, Anne Marshall and the Washington Department of Fish and Wildlife's genetic laboratory performed the analysis of the GSI tissue samples from the Newport area troll fishery.

REFERENCES

- Mullen, R.E. 1981. Oregon's Commercial Harvest of Coho Salmon, *Oncorhynchus kisutch* (Walbaum), 1892-1960. Oregon Department of Fish and Wildlife, Information Reports (Fish) 81-3, Portland, Oregon.
- Pacific Fishery Management Council. 1978. Final Fishery Management Plan for Commercial and Recreational Salmon Fisheries Off the Coasts of Washington, Oregon, and California Commencing in 1978. 157 pp.
- Schindler, E., L. Osis, and R.J. Kaiser. 1993. The 1992 Oregon Ocean Salmon Fisheries. Oregon Department of Fish and Wildlife, Annual Report. 101 pp.

APPENDIX



Appendix Figure 1. Location of the control zone off Tillamook Bay with diagram of ODFW marker.

Appendix Table 1. Seasonal field sampling personnel hired by the ODFW Ocean Salmon Management Program, 1997.

Port	Troll		Recreational	
	Sampler	Dates	Sampler	Dates
Astoria			Leontine Eskola David Walsh	July 15- Aug. 7 July 15- Aug. 7
Garibaldi	Jeff Johnson ¹	April 28 - Oct. 26	James Deel Laurie Wilkinson	April 30 - Oct. 19 April 30 - Oct. 2
Pacific City			Kim Hatfield	May 7- Sept. 15
Depoe Bay			Reed Duston	April 29 -Sept. 28
Newport	Howard Takata Mike Black Jeffry Johnson	April 28 - Sept. 21 June 9 - Oct. 26 April 15 - 27	Nattinee Nipataruedi Lori Spencer Justine Benson ²	April 28 -Sept. 28 April 18 -Sept. 21 May 1 - Sept. 28
Florence			Chris Reis ¹	April 28 - Sept. 7
Winchester Bay			Chris Hunt ¹ Geoff Gribble ¹	June 16 -Sept. 15 April 26 -Sept. 28
Coos Bay	Jason Fredrickson	April 15 - Oct. 18	Mary O' Neal	April 15 -Sept. 28
Port Orford	Elk River Fall Chinook Indicator Stock Project Staff Ken Flizsar, Bret Morgan, Mike Black, Debra Henry			
Brookings			Rod Black ¹ Debra Henry ¹ Chris Grosso	April 15 - Oct. 31 June 23 - Oct. 20 May 23 - June 14

North Coast Sampling Coordinator
Robert Bradley June 16 - Oct. 31

South Coast Sampling Coordinator
John Spangler June 23 - Oct. 28

Summary of Seasonal Port Sampling Staffing
(Does not include staff at Fall Chinook Indicator Stock Projects, or Sampling Coordinators)

Total individuals hired = 20
Total positions filled = 19
Total months of field sampling = 85

¹ Combination troll/recreational sampler.

² Half time sampler.

Appendix Table 2. Ocean troll fishery mark sampling rates by port, year, and species, 1988-1997.

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
CHINOOK										
Astoria	24	36	28	11	52	2	0	0	0	0
Gearhart	-	27	15	8	0	0	-	-	-	-
Cannon Beach	0	17	0	0	0	0	-	-	-	-
Nehalem	-	-	-	-	-	-	-	-	0	0
Garibaldi	20	10	23	7	40	13	31	30	21	48
Netarts	0	0	0	0	0	-	0	-	0	0
Pacific City	15	19	28	19	2	0	0	0	0	0
Salmon River	-	0	0	-	-	-	0	-	-	-
Depoe Bay	38	0	0	0	0	0	0	0	0	0
Newport	28	21	34	29	32	30	18	31	43	45
Florence	30	15	29	52	37	9	12	7	9	25
Winchester Bay	29	18	36	15	0	0	0	0	29	36
Coos Bay	25	14	26	21	0	21	26	23	28	34
Bandon	0	0	0	0	0	0	0	0	0	2
Port Orford	59	61	24	0	94	50	61	47	49	32
Gold Beach	10	10	0	0	-	-	95	52	99	52
Brookings	71	63	65	58	0	0	52	46	27	43
Total	30	21	27	24	29	24	23	27	36	41
COHO										
Astoria	6	34	37	24	14	14	-	-	-	-
Gearhart	-	22	9	40	0	0	-	-	-	-
Cannon Beach	0	6	0	2	0	0	-	-	-	-
Nehalem	-	-	-	-	-	-	-	-	-	-
Garibaldi	32	28	26	21	45	0	-	-	-	-
Netarts	0	0	0	0	0	-	-	-	-	-
Pacific City	21	32	32	31	19	-	-	-	-	-
Salmon River	-	0	0	-	-	-	-	-	-	-
Depoe Bay	63	0	0	2	0	-	-	-	-	-
Newport	27	22	41	29	32	0	-	-	-	-
Florence	28	13	34	48	49	-	-	-	-	-
Winchester Bay	35	17	39	28	0	-	-	-	-	-
Coos Bay	31	16	28	28	0	0	-	-	-	-
Bandon	0	0	0	0	0	-	-	-	-	-
Port Orford	66	70	10	0	-	-	-	-	-	-
Gold Beach	0	-	0	0	-	-	-	-	-	-
Brookings	49	41	44	1	-	-	-	-	-	-
Total	30	22	30	27	30	9	NA	NA	NA	NA
# Samplers	10	14	9 ^b	8 ^b	10 ^a	6 ^a	4 ^a	2 ^b	2 ^c	4 ^d

a Two additional employees sampled the troll fishery on a part-time basis.

b Three additional employees sampled the troll fishery on a part-time basis.

c Six additional employees sampled the troll fishery during limited periods or on a part time basis.

d Eight additional employees sampled the troll fishery during limited periods or on a part time basis.

Appendix Table 3. History of actual Oregon ocean commercial troll fishery regulations, 1948-97.

AREA AND SEASON	SPECIES	SIZE, GEAR, AND OTHER RESTRICTIONS
Prior to 1948	No restrictions	
1948 <u>Oregon Coast</u> 1/1 - 12/31 7/1 - 11/15	All except coho All salmon	size limit: chinook - 27", no gear restrictions. chinook - 27", coho - none.
1949-55 <u>Oregon Coast</u> 3/15 - 10/31 6/15 - 10/31	All except coho All salmon	Chin. 26". Chin. 26".
1956-75 <u>Oregon Coast</u> 4/15 - 10/31 6/15 - 10/31	All except coho All salmon	Chin. 26". Chin. 26"; coho 15" beginning in 1965.
1974-75 <u>Elk & Chetco River areas</u> 11/1 - 12/31	All except coho	Chin. 26" - state waters only.
1976 <u>North of Tillamook Head</u> 5/1 - 6/14 7/1 - 9/15	All except coho All salmon	Chin. 28"; until 6/6; then 26". Chin. 26"; coho, 16".
<u>South of Tillamook Head</u> 5/1 - 6/14 6/15 - 10/31	All except coho All salmon	Chin. 26"; barbless hooks, except on whole bait or plugs. Chin. 26"; coho, 16".
<u>Elk & Chetco River areas</u> 11/1 - 11/30	All except coho	Chin. 26" - state waters only.
1977 as above	as above	Chin. 28" N. of Tillamook Head; 26" S. of Tillamook Head. Coho 16". Gear restrictions as above.
1978 Area boundary moved from Tillamook Head to Cape Falcon	as above	
1979 <u>North of Cape Falcon</u> 5/1 - 5/31 7/1 - 24; 8/4 - 31	All except coho All salmon	Chin. 28"; barbless hooks, except on whole bait or plugs. Chin. 28"; coho 16".
<u>South of Cape Falcon</u> 5/1 - 5/31 7/1 - 9/3 9/4 - 10/31	All except coho All salmon All except coho	Chin. 26"; barbless hooks except on whole bait or plugs. Chin. 26"; coho 16". Chin. 26".
<u>Elk & Chetco River areas</u> 11/1 - 11/30	All except coho	Chin. 26". State waters only.
1980 <u>North of Cape Falcon</u> 5/1 - 5/31 7/15 - 9/8	All except coho All salmon	Chin. 28"; barbless hooks, except on whole bait or plugs. Chin. 28"; coho 16".
<u>South of Cape Falcon</u> 5/1 - 5/31	All except coho	Chin. 26"; barbless hooks, except on whole bait or plugs.
<u>Cape Falcon to Cape Blanco</u> 6/16 - 6/30	All except coho	Chin. 26"; whole bait, or plugs 6" or longer.
<u>South of Cape Falcon</u> 7/15 - 9/8 9/9 - 10/31	All salmon All except coho	Chin. 26"; coho 16". Chin. 26".
<u>Elk & Chetco River areas</u> 11/1 - 11/30	All except coho	Chin. 26". State waters only.
1981 <u>North of Cape Falcon</u> 5/1 - 5/31 7/15 - 8/21 8/22 - 8/24	All except coho All salmon All salmon	Chin. 28", barbless hooks, except on whole bait or plugs. Chin. 28"; coho 16". Chin. 28"; coho 16". State waters only.
<u>South of Cape Falcon</u> 5/1 - 5/31 7/1 - 8/21 8/22 - 8/24	All except coho All salmon All salmon	Chin. 26"; barbless hooks, except on whole bait or plugs. Chin. 26"; coho 16". Chin. 26"; coho 16". State waters only.
<u>C. Falcon to Cape Sebastian</u> 8/22 - 8/24 8/25 - 9/8	All except coho All except coho	Chin. 26"; whole bait, or plugs 5" or larger. Chin. 26"; whole bait, or plugs 5" or larger. State waters only.

Appendix Table 3 continued. History of actual Oregon ocean commercial troll fishery regulations, 1948-97.

AREA AND SEASON	SPECIES	SIZE, GEAR, AND OTHER RESTRICTIONS
(1981 continued)		
<u>South of Cape Falcon</u> 9/9 - 10/31	All except coho	Chin. 26".
<u>Elk & Chetco River areas</u> 11/1 - 11/30	All except coho	Chin. 26". State waters only.
1982 <u>North of Cape Falcon</u> 5/1 - 5/31 7/1 - 7/8	All except coho All salmon	Chin. 28"; barbless hooks, except on whole bait or plugs. Chin. 28"; coho 16".
<u>South of Cape Falcon</u> 5/1 - 5/31 6/1 - 6/15 7/1 - 7/12 7/13 - 9/5 9/6 - 10/31	All except coho All except coho All salmon All except coho All except coho	Chin. 26"; barbless hooks, except on whole bait. Chin. 26"; whole bait, or plugs not less than 5" long. Chin. 26"; coho 16". Chin. 26"; whole bait, or plugs not less than 5" long. Chin. 26"; barbless hooks, except on whole bait or plugs.
<u>South of Cape Blanco</u> 5/1 - 6/8	All except coho	Chin. 26"; whole bait, or plugs not less than 5" long.
<u>Elk & Chetco River areas</u> 11/1 - 11/30	All except coho	Chin. 26". State waters only.
1983 <u>North of Cape Falcon</u> 5/1 - 5/31 7/1 - 7/31	All except coho All salmon	Chin. 28"; barbless hooks, except on plugs not less than 5". Chin. 28"; coho, 16"; only plugs not less than 6". Must land 2 chin. for each coho retained.
<u>Columbia River S. Jetty to Cape Falcon</u> 8/10 - 9/8	All salmon	Chin. 28"; coho 16"; open out to 10 miles only.
<u>Cape Falcon to Cape Blanco</u> 5/1 - 5/31 6/1 - 6/15 9/5 - 10/31	All except coho All except coho All except coho	Chin. 26"; barbless hooks, except on whole bait or plugs (not less than 5"). Chin. 26"; whole bait, or plugs not less than 5" long. Chin. 26".
<u>Cape Falcon to Cape Kiwanda</u> 8/1 - 9/4	All salmon	Chin. 26"; coho 16".
<u>Cape Kiwanda to Heceta Head</u> 7/1 - 7/25; 8/1 - 9/4	All salmon	Chin. 26"; coho 16".
<u>Cape Perpetua to Cape Blanco</u> 7/26 - 7/31	All except coho	Chin. 26"; whole bait or plugs not less than 5".
<u>Heceta Head to Cape Blanco</u> 7/1 - 25 8/1 - 9/9	All salmon All except coho	Chin. 26", coho 16". Chin. 26"; whole bait, or plugs not less than 5".
<u>Cape Blanco to OR/CA border</u> 5/16 - 5/31 6/1 - 6/15 7/1 - 7/25 7/26 - 8/31 9/1 - 9/15 10/1 - 10/31	All except coho All except coho All salmon All except coho All except coho All except coho	Chin. 26"; barbless hooks only, not more than 6 troll lines. Chin. 26"; whole bait, or plugs not less than 5" long. Chin. 26", coho 16". Chin. 26"; whole bait, or plugs not less than 5" long. Chin. 26". Open area is 12 x 24 mile rectangle around mouth of Rogue River. Chin. 26".
<u>Cape Blanco to Humbug Mtn.</u> 11/1 - 11/30	All except coho	Chin. 26". State waters only.
1984 <u>North of Cape Falcon</u> 5/1 - 5/7	All except coho	Chin. 28"; barbless hooks. Columbia River Mouth Conservation Zone closed.
<u>Columbia River S. Jetty to Cape Falcon</u> 8/4 - 8/6	All salmon	Chin. 28"; coho 16"; barbless hooks.
<u>Cape Falcon to Cape Blanco</u> 5/1 - 6/15; 7/1 - 8/31 9/1 - 9/21	All except coho All except coho	Chin. 26"; barbless hooks. Chin. 26"; state waters only. Contravention of fed. regulation.

Appendix Table 3 continued. History of actual Oregon ocean commercial troll fishery regulations, 1948-97.

AREA AND SEASON	SPECIES	SIZE, GEAR, AND OTHER RESTRICTIONS
(1984 continued)		
<u>Manhattan Beach to Pyramid Rock (Tillamook)</u> 10/1 - 10/31	All except coho	Chin. 26"; barbless hooks. State waters only.
<u>Cape Blanco to OR/CA border</u> 5/16 - 6/6; 7/16 - 8/22	All except coho	Chin. 26"; barbless hooks.
<u>Cape Blanco to Humbug Mtn.</u> 10/1 - 11/30	All except coho	Chin. 26"; state waters only; barbless hooks.
1985		
<u>North of Cape Falcon</u> 5/1 - 5/14; 5/21 - 5/31	All except coho	Chin. 28"; barbless hooks, except on whole bait or plugs. Columbia River Mouth Conservation Zone closed.
<u>Columbia River S. Jetty to Cape Falcon</u> 8/21	All salmon	Chin. 28"; coho 16"; barbless hooks, except on whole bait or plugs.
<u>Cape Falcon to Cape Blanco</u> 5/1 - 6/30 7/1 - 7/26 7/27 - 10/31	All except coho All salmon All except coho	Chin. 26"; barbless hooks, except on whole bait or plugs. Chin. 26"; coho 16"; barbless hooks. One more coho than chinook may be kept, provided at least 1 chinook is kept. Chin. 26"; barbless hooks.
<u>Tower Rock to Cape Blanco</u> 11/1 - 11/30	All except coho	Chin. 26"; barbless hooks. State waters only.
<u>Cape Blanco to Humbug Mtn.</u> 10/1 - 11/30	All except coho	Chin. 26"; barbless hooks. State waters only.
1986		
<u>North of Cape Falcon</u> 5/1-10; 5/14-17; 5/24-27; 5/30-31 8/2-3; 8/7-9	All except coho All salmon	Chin. 28"; barbless hooks. Columbia River Mouth Conservation Zone closed. Chin. 28"; Coho 16". Barbless hooks.
<u>Cape Falcon to Cape Perpetua</u> 5/1 - 6/30 7/1-20; 7/23-24 7/25 - 10/31	All except coho All salmon All except coho	Chin. 26"; barbless hooks. Chin. 26"; coho 16"; barbless hooks. Single daily landing or possession of up to 50 coho. No additional coho can be landed or possessed unless chinook are also landed at a ratio of at least 1 chinook for every 2 coho. Chin. 26"; barbless hooks.
<u>Twin Rocks to Pyramid Rock (Tillamook)</u> 11/1 - 15	All except coho	Chin. 26"; barbless hooks. State waters only.
<u>Cape Perpetua to Cape Blanco</u> 5/1 - 6/30 7/1 - 20 7/23 - 24 7/25 - 10/31	All except coho All salmon All salmon All except coho	Chin. 26"; barbless hooks. Chin. 26"; Coho 16"; barbless hooks. No coho could be landed without landing chinook at a ratio of at least 1 chinook for each 2 coho. Same regulations as in Cape Falcon to Cape Perpetua (for 7/1-24 see above). Chin. 26"; barbless hooks.
<u>Sisters Rocks to Chetco Point</u> 5/1 - 6/6	All except coho	Chin. 26"; barbless hooks. Open only within 6 nautical miles of shore.
<u>Cape Blanco to OR/CA border</u> 6/16 - 19; 6/23 - 26 6/30 - 7/5; 7/17-24 7/25 - 8/26	All salmon All except coho	Chin. 26"; Coho 22"; barbless hooks. At least one chinook must be possessed or landed for each 2 coho possessed or landed. Chin. 26"; barbless hooks.
<u>Sisters Rock to Mack Arch</u> 8/29	All except coho	Chin. 26"; barbless hooks. Open only within 6 nautical miles of shore.
<u>Cape Blanco to Humbug Mtn.</u> 10/1 - 11/26	All except coho	Chin. 26"; barbless hooks. State waters only.

Appendix Table 3 continued. History of actual Oregon ocean commercial troll fishery regulations, 1948-97.

AREA AND SEASON	SPECIES	SIZE, GEAR, AND OTHER RESTRICTIONS
1987 <u>North of Cape Falcon</u> 5/1-10; 5/14-15	All except coho	Chin. 28"; barbless hooks. Columbia River Mouth Conservation Zone closed. Chinook harvested in this fishery must be landed north of Cape Falcon unless reported to the U.S. Coast Guard.
7/25-26	All salmon	Chin. 28"; coho 16"; barbless hooks. Landing restrictions as above. Columbia River Mouth Conservation Zone closed; nearshore area closure 0 to 3 miles from Tillamook Head to Red Buoy Line and 0 to 10 miles between Red Buoy Line and Queets River.
<u>Cape Falcon to Cape Perpetua</u> 5/1 - 7/14 7/15-28; 8/1-28	All except coho All salmon	Chin. 26"; barbless hooks. Chin. 26"; coho 16"; barbless hooks. Single daily possession or landing of up to 100 coho/vessel. At least 1 chinook required for each 2 coho over 100.
<u>Cape Falcon to Cape Blanco</u> 8/29 - 9/15	All salmon	Chin. 26"; coho 16"; barbless hooks. 200 coho may be possessed or landed without chinook restrictions. Over 200 coho, at least 1 chinook must be possessed or landed for each 2 coho possessed or landed.
9/16 - 10/31	All except coho	Chin. 26"; barbless hooks. All commercial salmon fishing closed 9/16-18 from Cape Arago to Cape Blanco.
<u>Cape Perpetua to Cape Blanco</u> 5/1 - 6/30 7/1-28; 8/1-28	All except coho All salmon	Chin. 26"; barbless hooks. Chin. 26"; coho, 16"; barbless hooks. At least 1 chinook must be possessed or landed for each 2 coho possessed or landed except that 1 coho may be possessed or landed without having a chinook.
<u>Sisters Rocks to Chetco Point</u> 5/1-14	All except coho	Chin. 26"; barbless hooks.
<u>Cape Blanco to OR/CA border</u> 6/1-3; 6/7-10; 6/14-25	All salmon	Chin. 26"; coho 22"; barbless hooks. At least 1 chinook must be possessed or landed for each 1 coho except that 1 coho may be possessed or landed without having a chinook.
<u>Cape Blanco to Humbug Mtn.</u> 10/1 - 11/30	All except coho	Chin. 26"; barbless hooks. State waters fishery.
1988 <u>North of Cape Falcon</u> 5/1 - 6/14	All except coho	Chin. 28"; barbless hooks. Columbia River Mouth Conservation Zone closed.
<u>Cape Falcon to Orford Reef Red Buoy</u> 5/1 - 6/30	All except coho	Chin. 26"; barbless hooks.
<u>Cape Falcon to Cascade Head</u> 7/1 - 8/19	All salmon	Chin. 26"; coho 16"; barbless hooks. From 7/1-13 mixed loads of chinook and coho or coho only loads could not be landed between Cascade Head and Cape Arago unless the load met the possession and landing ratios for that area.
8/20 - 10/31	All except coho	Chin. 26"; barbless hooks.
<u>Cascade Head to Cape Arago</u> 7/1 - 13	All salmon	Chin. 26"; coho 16"; barbless hooks. At least 1 chinook must be possessed or landed for each 2 coho possessed or landed except there was a single daily possession or landing per vessel of 2 coho w/o the ratio requirement. Mixed loads of chinook and coho or coho only loads must be delivered in the sub-area.
7/16 - 8/19 8/20 - 10/31	All salmon All except coho	As above but no ratio requirement. Chin. 26"; barbless hooks.
<u>Cape Arago to Orford Reef Red Buoy</u> 7/16 - 8/19	All salmon	Chin. 26"; coho 16"; barbless hooks. No ratio requirement.
8/20 - 31; 9/16 - 10/31	All except coho	Chin. 26"; barbless hooks.
<u>Sisters Rocks to Chetco Point</u> 5/1 - 4	All except coho	Chin. 26"; barbless hooks. From shore out to 6 miles only.

Appendix Table 3 continued. History of actual Oregon ocean commercial troll fishery regulations, 1948-97.

AREA AND SEASON	SPECIES	SIZE, GEAR, AND OTHER RESTRICTIONS
(1988 continued)		
<u>Humbug Mtn. to Punta Gorda</u> 6/5 - 7	All salmon	Chin. 26"; coho 22"; barbless hooks. Sun. through Wed. only.
<u>Sisters Rocks to Mack Arch</u> 9/1 - 14	All except coho	Chin. 26"; barbless hooks.
<u>Orford Reef Red Buoy to Humbug Mountain</u> 10/1 - 31	All except coho	Chin. 26"; barbless hooks. State waters only.
<u>Cape Blanco to Humbug Mtn.</u> 11/1 - 30	All except coho	As above.
1989 <u>North of Cape Falcon</u> 5/1 - 6/8; 6/13 - 15	All except coho	Chin. 28"; barbless hooks. Columbia River Mouth Conservation Zone closed.
8/21; 8/24 - 9/10	All salmon	Chin. 28"; coho 16"; barbless hooks. Columbia River Mouth Conservation Zone closed. Open south of Columbia River 8/21; and extended north to Leadbetter Point from 8/24. Daily landing limit of 40 coho and 4 chinook in effect through 8/27; daily landing of 40 coho and 8 chinook from 8/28 through 9/10. All salmon must be landed within this area.
<u>Cape Falcon to Cascade Head</u> 5/1 - 7/11; 8/18 - 10/31 7/12 - 7/14	All except coho All salmon	Chin. 26"; barbless hooks. Chin. 26"; coho 16"; barbless hooks. Mixed loads of coho and chinook, or coho only must be landed in this area.
7/18 - 8/17	All salmon	Chin. 26"; coho 16"; barbless hooks. A daily landing limit of 50 coho through 8/13; from 8/14 through 17 at least 1 chinook must be possessed or landed for each 2 coho possessed or landed; except that if no chinook were possessed, a single daily landing of 2 coho was permitted. Mixed loads of coho and chinook, or coho only must be landed in this area.
<u>Cascade Head to Orford Reef Red Buoy</u> 5/1 - 6/23; 8/18 - 10/31 7/1 - 14	All except coho All salmon	Chin. 26"; barbless hooks. The subarea from Cape Arago to Port Orford Reef Red Buoy was closed 8/18 - 31. Chin. 26"; coho 16"; barbless hooks. A daily landing limit of 50 coho, plus 3 coho for each chinook landed. Mixed loads of chinook and coho, or coho only must be landed in this area. All chinook must be delivered with the coho.
7/18 - 8/17	All salmon	Chin. 26"; coho 16"; barbless hooks. At least 1 chinook must be landed for each 2 coho, except that a single daily landing of 2 coho without any chinook is permitted. Mixed loads of coho & chinook, or coho only loads must be landed in this area. All chinook must be delivered with the coho.
<u>Orford Reef Red Buoy to Humbug Mountain</u> 10/1 - 31	All except coho	Chin. 26"; barbless hooks. State waters only.
<u>Cape Blanco to Humbug Mountain</u> 11/1 - 30	All except coho	As above.
<u>Sisters Rocks to House Rock</u> 5/1 - 2	All except coho	Chin. 26"; barbless hooks. Open from 0-6 nautical miles only.
<u>Sisters Rocks to Mack Arch</u> 9/1 - 14	All except coho	As above.
<u>Humbug Mountain to OR/CA Border</u> 6/5 - 8	All salmon	Chin. 26"; coho 22"; barbless hooks. A single daily landing of 20 chinook per day. All salmon must be delivered in this area.
8/18 - 20; 8/22 - 31	All except coho	As above.
1990 <u>US-Canada Border to Cape Falcon</u> 5/1 - 5/14; 5/18 - 5/27; 5/31 - 6/2; 6/8 - 6/11; 6/14	All except coho	Chin. 28"; barbless hooks. Columbia River Mouth Conservation Zone closed.

Appendix Table 3 continued. History of actual Oregon ocean commercial troll fishery regulations, 1948-97.

AREA AND SEASON	SPECIES	SIZE, GEAR, AND OTHER RESTRICTIONS
(1990 continued) 8/18 - 21; 8/25 - 26	All salmon	Chin. 28"; coho 16"; barbless hooks. Columbia River Mouth Conservation Zone closed. Open period restriction of 20 chinook & 200 coho per vessel. All fish must be landed and delivered in the area.
<u>Leadbetter Point to Cape Falcon</u> 8/30-9/14; 9/18-19; 9/22-10/15	All salmon	Chin. 28"; coho 16"; barbless hooks. Columbia River Mouth Conservation Zone closed. Single daily landing of 50 coho, with one additional coho for each chinook landed. From 9/22 - 10/15 daily landing increased to 100 coho. All salmon must be landed in the area.
<u>Cape Falcon to Humbug Mtn.</u> 5/1 - 6/25; 9/1 - 10/31	All except coho	Chin. 26"; barbless hooks.
<u>Cape Falcon to Cascade Head</u> 7/4 - 7/15 7/16 - 8/31	All except coho All salmon	Chin. 26"; barbless hooks. Chin. 26"; coho 16"; barbless hooks. Single daily landing of 50 coho plus 1 coho for each chinook. All coho must be landed in area or in adjacent closed areas.
<u>Cascade Head to Humbug Mtn.</u> 7/4 - 31 (Cape Arago to Humbug Mtn. closed 7/10-17 & 7/24-31)	All salmon	Chin. 26"; coho 16"; barbless hooks. At least one chinook must be landed for each coho, except a landing of 1 coho and no chinook is permitted. Loads with coho must be delivered in this area.
8/1 - 31 (Cape Arago to Humbug Mtn. closed 8/7-14)	All except coho	Chin. 26"; barbless hooks.
<u>Sisters Rocks to House Rock</u> 5/1 - 24	All except coho	Chin. 26"; barbless hooks. Open 0-6 miles from shore. All salmon must be landed in this area.
<u>Sisters Rocks to Punta Gorda</u> 8/1 - 6; 8/8 - 31	All except coho	Chin. 26"; barbless hooks. All salmon must be landed in this area.
<u>Sisters Rocks to Mack Arch</u> 9/3 - 16	All except coho	Chin. 26"; barbless hooks. All salmon must be landed in this area.
<u>43°30'00"N to Cape Arago</u> 11/1 - 14	All salmon	Chin. 26"; coho 16"; barbless hooks. Open 0-3 miles from shore. Experimental fishery 10 vessels selected through drawing. All salmon must be landed into Coos Bay.
1991 <u>US-Canada Border to Cape Falcon</u> 5/1 - 6/15	All except coho	Chin. 28"; barbless hooks. Columbia River Mouth Conservation Zone closed.
<u>Leadbetter Point to Cape Falcon</u> 8/10 - 11	All salmon	Chin. 28"; coho 16"; barbless hooks. Columbia River Mouth Conservation Zone closed. Open period landing restriction of 100 coho per vessel.
<u>Copalis Head to Cape Falcon</u> 9/1 - 2	All salmon	Chin. 28"; coho 16"; barbless hooks. Columbia River Mouth Conservation Zone closed. Open period landing restriction of 75 coho per vessel. All salmon must be landed North of Cape Falcon.
<u>Cape Falcon to Cascade Head</u> 5/1 - 6/30 7/1 - 14 7/15 - 23; 8/1 - 10/31	All except coho All salmon All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per line. Chin. 26"; coho 16"; barbless hooks. Chin. 26"; barbless hooks.
<u>Cascade Head to Florence S. Jetty</u> 5/1 - 6/23 6/24 - 7/11 7/12 - 23; 8/1 - 10/31	All except coho All salmon All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per line. Chin. 26"; coho 16"; barbless hooks. Chin. 26"; barbless hooks.
<u>Florence S. Jetty to Cape Arago</u> 6/24 - 7/11 7/12 - 14; Aug. 1 - 9	All salmon All except coho	Chin. 26"; coho 16"; barbless hooks. Chin. 26"; barbless hooks.
<u>Florence S. Jetty to Humbug Mtn.</u> 9/1 - 10/31	All except coho	Chin. 26"; barbless hooks.

Appendix Table 3 continued. History of actual Oregon ocean commercial troll fishery regulations, 1948-97.

AREA AND SEASON	SPECIES	SIZE, GEAR, AND OTHER RESTRICTIONS
(1991 continued) <u>Sisters Rocks to Mack Arch</u> 9/1 - 15	All except coho	Chin. 26"; barbless hooks. Open 0-6 miles from shore. All salmon must be landed in this area.
1992 <u>US-Canada Border to Cape Falcon</u> 5/1 - 6/15	All except coho	Chin. 28"; barbless hooks. Columbia River Mouth Conservation Zone closed.
7/20 - 21	All salmon	Chin. 28"; coho 16"; barbless hooks. Columbia River Mouth Conservation Zone closed. No more than 4 spreads per line, 6 inch or larger plugs only. Open period landing restriction of 30 coho per vessel. All salmon must be delivered in this area or adjacent closed areas within 24 hours of closure.
7/25 - 27; 7/31 - 8/2; 8/6 - 8; 8/12 - 14; 8/20 - 22	All salmon	Chin. 28"; coho 16"; barbless hooks. Columbia River Mouth Conservation Zone closed. No more than 4 spreads per line, 6 inch or larger plugs only. Open period landing restriction of 44 coho per vessel. All salmon must be delivered in this area or adjacent closed areas within 24 hours of each closure.
<u>Cape Falcon to Florence S. Jetty</u> 5/1 - 31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per line.
<u>Cape Falcon to Cascade Head</u> 7/22 - 8/21	All salmon	Chin. 26"; coho 16"; barbless hooks. At least one chinook must be landed for each two coho. All loads with coho must be delivered in this area or in adjacent closed areas north of Cascade Head.
8/22 - 31	All salmon	Chin. 26"; coho 16"; barbless hooks. Single daily landing limit of 25 coho plus 2 coho for each chinook. All loads with coho must be delivered in this area or in adjacent closed areas north of Cascade Head.
9/1 - 10/31	All except coho	Chin. 26"; barbless hooks.
<u>Cascade Head to Florence S. Jetty</u> 7/22 - 8/7	All salmon	Chin. 26"; coho 16"; barbless hooks. At least one chinook must be landed for each two coho. All loads with coho must be delivered in this area or in adjacent closed areas south of Cascade Head.
8/8 - 10/31	All except coho	Chin. 26"; barbless hooks.
<u>Cape Blanco to Humbug Mtn.</u> 10/24 - 26	All except coho	Chin. 26"; barbless hooks. State waters fishery.
1993 <u>US-Canada Border to Cape Falcon</u> 5/1 - 6/15	All except coho	Chin. 28"; barbless hooks. Columbia River Mouth Control Zone closed.
7/14 - 17, 7/21 - 24 7/28 - 31, 8/4 - 6	All salmon	Chin. 28"; coho 16"; barbless hooks. Columbia River Mouth Control Zone closed. No more than 4 spreads per line. Gear restricted to plugs and/or whole bait 6 inches or larger. Open period landing restriction at 50 coho per opening. All salmon must be delivered in this area or adjacent closed area within 24 hours of each closure.
<u>Queets River to Cape Falcon</u> 8/27 - 28	All salmon	Chin. 28"; coho 16"; barbless hooks. Columbia River Mouth Control Zone closed. Open period landing restriction of 35 coho per opening. All salmon must be delivered in this area or adjacent closed area within 24 hours of each closure.
9/1 - 4; 9/9 - 12; 9/16 - 19	All salmon	Chin. 28"; coho 16"; barbless hooks. Columbia River Mouth Control Zone closed. Open period landing restriction of 70 coho per opening. All salmon must be delivered in this area or in adjacent closed area within 24 hours of each closure.
<u>Cape Falcon to Florence S. Jetty</u> 5/1 - 10/31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per line.
<u>Florence S. Jetty to Cape Arago</u> 5/1 - 6/30; 9/1 - 10/31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per line.
<u>Cape Arago to Humbug Mtn.</u> 5/1 - 31; 9/1 - 10/31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per line.
<u>Cape Blanco to Humbug Mtn.</u> 11/1 - 30	All except coho	Chin. 26"; barbless hooks. State waters fishery.
1994 <u>US-Canada border to Cape Falcon</u>	All salmon	Closed to all salmon trolling.
<u>Cape Falcon to Humbug Mtn</u> 5/1 - 6/30	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire.

Appendix Table 3 continued. History of actual Oregon ocean commercial troll fishery regulations, 1948-97.

AREA AND SEASON	SPECIES	SIZE, GEAR, AND OTHER RESTRICTIONS
(1994 continued)		
<u>Cape Falcon to Cascade Head</u> 10/1 - 31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire.
<u>Twin Rocks to Pyramid Rock</u> 11/1 - 15	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire.
<u>Cascade Head to Humbug Mtn.</u> 9/1 - 10/31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. State waters only (0-3 miles).
<u>Cape Blanco to Humbug Mtn.</u> 11/1 - 7	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. State waters only (0-3 miles).
<u>Sisters Rock to House Rock</u> 5/1 - 2; 5/5 - 6; 5/10 - 11; 5/14 - 15; 5/18 - 31.	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. (0-6 miles). All salmon must be landed at Gold Beach, Port Orford, or Brookings within 24 hours of each closure.
<u>Sisters Rock to Mack Arch</u> 8/8 - 9	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. (0-6 miles). Special registration fishery. Daily landing limit of 20 fish. All salmon must be landed at Gold Beach, Port Orford, or Brookings. Trip length limited to 3 days (72 hours).
8/10 - 31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. (0-6 miles). Special registration fishery. Daily landing limit of 60 fish. All salmon must be landed at Gold Beach, Port Orford, or Brookings. Trip length limited to 3 days (72 hours).
<u>Goat Island to Red Point</u> 10/10 - 25; 10/30 - 31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. State waters only (0-3 miles).
1995 <u>Cape Falcon to Cape Lookout</u> 8/1-31; 10/1-31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire.
9/1-30	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. State waters only (0-3 miles).
<u>Cape Falcon to Florence south jetty</u> 8/1-10/31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. Closed in Control Zone 2 (mouth of Tillamook Bay in August and September). Open only (0-3 miles) north of Cape Lookout in September.
<u>Florence south jetty to Cape Arago</u> 8/1-31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire.
9/1-10/31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire.
<u>Cape Arago to Humbug Mountain</u> 5/1-6/30	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire.
9/1-10/31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire.
<u>Cape Blanco to Humbug Mountain</u> 11/1-7	Chin. only	Chin. 26"; barbless hooks. No more than 4 spreads per wire. State waters only (0-3 miles).
<u>Sisters Rock to Mack Arch</u> 7/24-25	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. (0-4 miles). All salmon caught in the area must be delivered in Gold Beach, Port Orford or Brookings within 24 hours of each closure.
<u>Sisters Rock to House Rock</u> 5/1-2; 5/5-6; 5/10-11; 5/14-15; 5/18-31.	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. (0-6 miles). All salmon caught in the area must be delivered in Gold Beach, Port Orford or Brookings within 24 hours of each closure.
<u>Goat Island to 42° 01' 20"</u> 10/10-20	Chin. only	Chin. 26"; barbless hooks. No more than 4 spreads per wire. State waters only (0-3 miles). Daily landing limit of 20 chinook.

Appendix Table 3 continued. History of actual Oregon ocean commercial troll fishery regulations, 1948-97.

AREA AND SEASON	SPECIES	SIZE, GEAR, AND OTHER RESTRICTIONS
1996 <u>Cape Falcon to Cape Arago</u> 5/1-6/30	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. Closed at the mouth of Tillamook Bay June 1 to September 15.
8/7-10/31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. Closed at the mouth of Tillamook Bay June 1 to September 15.
<u>Cape Arago to the OR/CA border</u> 5/1-6/30	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. Season to follow a 4 day open/3 days closed cycle.
<u>Cape Arago to Humbug Mtn.</u> 8/7-31 and 9/1-10/31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire.
<u>Cape Blanco to Humbug Mtn.</u> 11/1-30	Chin. only	Chin. 26", barbless hooks. No more than 4 spreads per wire. State waters only (0-3 miles). Landings restricted to Port Orford.
<u>Sisters Rock to Mack Arch</u> 8/3-4, 7-8, 11-12, 15-31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. Open from 0-4 miles. All salmon caught in the area must be delivered in Gold Beach, Port Orford or Brookings within 24 hours of each closure. Closed within 1 mile of the Rogue River Mouth.
<u>Goat Island to 42° 01" 20' N</u> 10/14-31	Chin. only	Chin. 26"; barbless hooks. No more than 4 spreads per wire. State waters only (0-3 miles). Salmon must be delivered into Brookings. Single day landing limit of 20 chinook.
1997 <u>US/Canada Border to Cape Falcon</u> 5/1 - 6/15	Chin. only	Chin 28" barbless hooks. All salmon caught in the area must be landed and delivered within 48 hours of any closure.
<u>Cape Falcon to Cape Arago</u> 4/15-6/27	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. Closed at the mouth of Tillamook Bay June 1 to September 15.
8/1-31; 9/4 - 10/31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. Closed at the mouth of Tillamook Bay June 1 to September 15.
<u>Twin Rocks to Pyramid Rock</u> 11/1 - 15	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. State waters only (0-3 miles).
<u>Cape Arago to the OR/CA border</u> 4/15-5/28	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. Season to follow a 4 day open/3 days closed cycle.
<u>Cape Arago to Humbug Mtn.</u> 8/1-31 and 9/1-10/31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. August quota of 8,500 chinook, and Sept.-Oct. quota of 10,000 chinook.
<u>Cape Blanco to Humbug Mtn.</u> 11/1-30	Chin. only	Chin. 26", barbless hooks. No more than 4 spreads per wire. State waters only (0-3 miles). Landings restricted to Port Orford.
<u>Sisters Rock to Mack Arch</u> 8/1-2, 5-6, 9-10, 13-31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire. Open from 0-4 miles. All salmon caught in the area must be delivered in Gold Beach, Port Orford or Brookings within 24 hours of each closure. Closed within 1 mile of the Rogue River Mouth.
<u>Goat Island to 42° 01" 20' N</u> 10/13-25, 29-30	Chin. only	Chin. 26"; barbless hooks. No more than 4 spreads per wire. State waters only (0-3 miles). Salmon must be delivered into Brookings. Single day landing limit of 20 chinook.

Appendix Table 4. Oregon ocean troll effort (number of days fished) by statistical month of landing, area of landing, and by year, 1979-97.

Columbia Area (2)

	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	TOTALS
1979	0	<50	<50	700	1,200	<50	0	<50	2,000
1980	0	200	<50	600	700	100	<50	0	1,600
1981	0	500	0	1,100	800	0	<50	0	2,400
1982	0	400	100	400	0	0	0	0	900
1983	0	500	100	<50	200	200	0	0	1,000
1984	0	100	0	0	400	0	0	0	500
1985	0	400	0	0	300	0	<50	0	700
1986	0	300	<50	100	700	0	0	0	1,200
1987	0	100	0	200	0	0	0	0	300
1988	0	100	100	0	0	0	0	0	200
1989	0	100	<50	0	600	200	0	0	900
1990	0	100	<50	0	300	300	<50	0	700
1991	0	100	<50	0	400	200	0	0	700
1992	0	100	100	<50	<50	0	0	0	300
1993	0	<50	<50	100	100	100	0	0	200
1994	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0
1997	0	<50	<50	0	0	0	0	0	<50

Tillamook Area (3)

	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	TOTALS
1979	0	<50	<50	3,000	3,100	<50	<50	<50	6,200
1980	0	100	100	2,000	3,100	400	<50	0	5,700
1981	0	200	<50	5,600	2,700	100	100	0	8,700
1982	0	200	100	2,800	300	200	100	0	3,600
1983	0	100	100	1,000	1,300	300	200	<50	2,900
1984	0	<50	<50	100	300	<50	<50	<50	500
1985	0	<50	100	600	500	100	100	0	1,400
1986	0	<50	<50	2,700	300	500	200	<50	3,700
1987	0	100	300	2,600	2,100	1,200	900	0	7,300
1988	0	200	1,100	4,000	2,900	1,500	900	<50	10,500
1989	0	500	700	3,200	1,500	1,300	600	<50	7,800
1990	0	100	100	1,600	2,300	600	500	<50	5,100
1991	0	100	100	1,700	400	500	700	0	3,500
1992	0	100	0	200	800	700	700	0	2,600
1993	0	100	100	200	200	800	500	0	1,800
1994	0	<50	100	0	0	100	400	<50	500
1995	0	100	100	0	500	300	200	<50	1,300
1996	0	100	300	<50	200	500	300	0	1,400
1997	<50	100	100	<50	100	200	200	<50	700

Appendix Table 4 (continued). Oregon ocean troll effort (number of days fished) by statistical month, area, and by year, 1979-97.

Newport Area (4)

	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	TOTALS
1979	0	300	<50	5,900	6,200	200	200	<50	12,800
1980	0	600	1,100	3,500	3,900	900	600	0	10,600
1981	0	1,200	<50	5,100	4,700	100	100	0	11,200
1982	0	500	700	3,500	300	300	400	0	5,800
1983	0	200	600	3,500	1,800	500	300	<50	7,000
1984	0	100	200	900	800	<50	0	0	1,900
1985	0	900	400	1,600	900	100	200	0	4,100
1986	0	900	800	5,500	400	300	700	0	8,600
1987	0	1,000	900	3,100	1,600	1,200	800	<50	8,700
1988	0	900	1,700	4,200	4,000	900	700	100	12,400
1989	0	900	1,800	4,100	1,400	500	400	100	9,300
1990	0	500	1,400	1,600	600	200	100	<50	4,300
1991	0	600	2,000	900	600	500	400	0	5,100
1992	0	1,400	<50	1,100	1,700	700	900	0	5,800
1993	0	1,400	1,100	1,500	800	700	400	<50	5,900
1994	0	800	800	0	0	200	300	<50	2,100
1995	0	600	1,000	0	1,600	800	600	100	4,700
1996	0	1,000	1,100	100	1,300	800	500	0	4,800
1997	200	1,400	1,300	100	1,200	700	200	0	5,200

Charleston Area (5)

	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	TOTALS
1979	0	700	200	8,300	6,800	400	500	<50	16,800
1980	0	400	2,000	4,700	3,600	1,200	700	<50	12,500
1981	0	600	<50	7,400	5,100	200	200	0	13,400
1982	0	800	900	8,400	2,000	1,200	200	<50	13,500
1983	0	500	1,700	4,300	200	100	100	<50	6,900
1984	0	100	200	700	1,200	100	0	0	2,300
1985	0	1,700	1,500	3,900	4,600	1,500	400	0	13,700
1986	0	2,100	2,400	5,600	4,200	1,200	300	0	15,800
1987	0	1,700	1,700	10,300	3,500	3,100	700	0	21,000
1988	0	3,200	6,000	6,000	7,100	1,900	2,000	100	26,300
1989	0	4,500	4,200	6,400	4,900	1,100	1,200	700	22,900
1990	0	2,200	2,200	5,200	4,800	700	400	<50	15,600
1991	0	<50	1,800	1,500	1,000	800	500	0	5,600
1992	0	<50	<50	100	200	<50	100	0	400
1993	0	600	200	<50	<50	300	300	100	1,600
1994	0	100	300	0	0	100	300	100	800
1995	0	200	500	0	500	200	200	100	1,600
1996	0	300	500	<50	300	400	300	100	1,800
1997	100	500	400	<50	200	100	200	100	1,600

Appendix Table 4 (continued). Oregon ocean troll effort (number of days fished) by statistical month, area, and by year, 1979-97.

Brookings Area (6)

	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	TOTALS
1979	0	<50	100	3,100	3,800	700	1,300	800	9,900
1980	0	800	200	1,300	2,300	1,900	1,100	500	8,000
1981	0	600	<50	1,800	3,500	1,100	1,600	500	9,100
1982	0	300	200	2,900	2,900	1,000	900	600	8,800
1983	0	200	900	1,500	300	100	600	100	3,700
1984	0	200	<50	400	1,600	<50	200	200	2,600
1985	0	<50	<50	100	200	100	200	200	900
1986	0	500	700	600	1,100	0	200	100	3,200
1987	0	500	900	0	0	0	300	300	2,000
1988	0	300	600	0	0	100	100	300	1,400
1989	0	200	300	0	400	300	<50	<50	1,300
1990	0	<50	0	0	400	<50	0	0	400
1991	0	0	0	0	<50	<50	0	0	<50
1992	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0
1994	0	<50	<50	0	<50	<50	200	<50	300
1995	0	<50	<50	<50	0	0	200	0	300
1996	0	100	<50	0	200	0	200	0	500
1997	<50	100	0	<50	<50	<50	200	0	400

Totals For Oregon

	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	TOTALS
1979	0	1,100	300	21,000	21,100	1,300	2,000	800	47,600
1980	0	2,000	3,400	12,100	13,600	4,400	2,300	500	38,400
1981	0	3,200	100	21,100	16,800	1,400	1,800	500	44,800
1982	0	2,200	2,000	18,000	5,600	2,700	1,500	600	32,600
1983	0	1,400	3,500	10,400	3,800	1,100	1,100	100	21,500
1984	0	400	400	2,100	4,300	200	300	200	7,800
1985	0	3,000	2,000	6,100	6,500	1,900	900	200	20,700
1986	0	3,900	4,000	14,400	6,700	2,000	1,300	100	32,500
1987	0	3,500	3,900	16,200	7,300	5,500	2,700	300	39,300
1988	0	4,600	9,500	14,100	14,000	4,300	3,800	400	50,800
1989	0	6,200	7,100	13,600	8,800	3,400	2,100	800	42,100
1990	0	2,800	3,700	8,400	8,300	1,800	1,000	100	26,200
1991	0	800	4,000	4,100	2,400	2,000	1,600	0	14,900
1992	0	1,600	200	1,500	2,700	1,500	1,700	0	9,200
1993	0	2,100	1,300	1,800	1,000	2,000	1,200	200	9,500
1994	0	1,000	1,200	0	100	300	1,100	100	3,800
1995	0	1,000	1,600	<50	2,600	1,300	1,200	200	7,900
1996	0	1,500	1,900	100	2,000	1,600	1,200	100	8,400
1997	400	2,100	1,900	100	1,500	1,000	700	100	7,800

Appendix Table 4 (continued). Oregon ocean troll effort (number of days fished) by statistical month, area, and by year, 1979-97.

Alaska Area (8)

	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	TOTALS
1979	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	100	0	0	100
1981	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0
1983	0	0	<50	0	0	0	0	0	<50
1984	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0
1988	0	0	0	<50	0	0	0	0	<50
1989	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0

Washington Area (1)

	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	TOTALS
1979	0	200	0	200	1,000	0	0	0	1,400
1980	0	100	<50	100	900	100	0	0	1,200
1981	0	<50	0	200	<50	0	0	0	200
1982	0	100	<50	600	0	0	0	0	700
1983	0	100	<50	<50	<50	0	0	0	200
1984	0	100	0	0	<50	0	0	0	100
1985	0	100	0	200	<50	0	0	0	300
1986	0	<50	0	<50	0	0	0	0	<50
1987	0	100	0	<50	0	0	0	0	100
1988	0	100	<50	0	0	0	0	0	100
1989	0	<50	<50	0	0	0	0	0	<50
1990	0	<50	0	0	<50	0	0	0	100
1991	0	<50	<50	0	<50	<50	0	0	<50
1992	0	<50	100	0	<50	0	0	0	100
1993	0	0	0	<50	0	0	0	0	<50
1994	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0

Appendix Table 4 (continued). Oregon ocean troll effort (number of days fished) by statistical month, area, and by year, 1979-97.

California Area (7)

	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	TOTALS
1979	0	<50	<50	<50	<50	0	0	0	100
1980	0	<50	0	<50	<50	0	<50	0	<50
1981	0	100	<50	<50	<50	100	<50	0	300
1982	0	<50	100	200	100	100	0	0	400
1983	0	<50	<50	<50	200	<50	0	0	300
1984	0	<50	<50	<50	<50	0	0	0	<50
1985	0	<50	<50	<50	<50	<50	0	0	<50
1986	0	0	0	<50	<50	<50	0	0	<50
1987	0	0	<50	<50	0	<50	0	0	<50
1988	0	0	<50	<50	100	<50	0	0	100
1989	0	<50	<50	<50	<50	<50	0	0	<50
1990	0	<50	0	<50	0	0	0	0	<50
1991	0	0	<50	0	<50	<50	0	0	<50
1992	0	0	0	0	0	0	0	0	0
1993	0	0	<50	0	0	<50	0	0	<50
1994	0	0	0	<50	<50	0	0	0	0
1995	0	0	<50	<50	0	0	0	0	0
1996	0	0	0	0	<50	100	0	0	100
1997	0	0	0	<50	<50	0	0	0	<50

Coastwide Totals

	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	TOTALS
1979	0	1,300	300	21,200	22,100	1,300	2,000	800	49,000
1980	0	2,100	3,400	12,300	14,600	4,600	2,300	500	39,700
1981	0	3,200	100	21,300	16,900	1,500	1,800	500	45,300
1982	0	2,300	2,100	18,800	5,600	2,800	1,500	600	33,700
1983	0	1,500	3,600	10,400	4,100	1,200	1,100	100	22,100
1984	0	500	400	2,100	4,300	200	300	200	7,900
1985	0	3,100	2,000	6,300	6,600	1,900	900	200	21,000
1986	0	3,900	4,000	14,400	6,700	2,000	1,300	100	32,500
1987	0	3,600	3,900	16,300	7,300	5,500	2,700	300	39,500
1988	0	4,700	9,500	14,200	14,100	4,300	3,800	400	51,000
1989	0	6,300	7,100	13,600	8,800	3,400	2,100	800	42,100
1990	0	2,900	3,700	8,400	8,300	1,800	1,000	100	26,200
1991	0	800	4,000	4,100	2,400	2,000	1,600	0	14,900
1992	0	1,600	200	1,500	2,700	1,500	1,700	0	9,200
1993	0	2,100	1,300	1,800	1,000	2,000	1,200	200	9,500
1994	0	1,000	1,200	<50	100	300	1,100	100	3,800
1995	0	1,000	1,600	100	2,600	1,300	1,200	200	7,900
1996	0	1,500	1,900	100	2,000	1,700	1,200	100	8,500
1997	400	2,100	1,900	100	1,500	1,000	700	100	7,800

Appendix Table 5. Oregon commercial troll landings of chinook and coho salmon (numbers of fish) by area of catch, by month, and by year, 1979-97.

Columbia River Catch Area (2)

CHINOOK									
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Totals
1979	0	800	<50	1,800	2,800	400	<50	0	5,800
1980	0	3,000	<50	800	900	100	<50	0	4,900
1981	0	6,600	0	1,000	600	0	<50	0	8,200
1982	0	6,500	600	1,200	0	0	0	0	8,400
1983	0	3,700	700	200	200	100	0	0	4,900
1984	0	1,000	0	<50	300	0	0	0	1,300
1985	0	4,400	100	0	500	0	<50	0	5,000
1986	0	4,500	100	<50	1,600	0	0	0	6,100
1987	0	2,300	0	2,200	0	0	0	0	4,600
1988	0	1,000	600	0	0	0	0	0	1,600
1989	0	700	400	0	1,000	800	0	0	2,900
1990	0	500	100	0	500	1,100	100	0	2,300
1991	0	300	<50	0	400	100	0	0	900
1992	0	400	900	100	100	0	0	0	1,500
1993	0	300	<50	<50	<50	100	0	0	400
1994	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0
1997	0	<50	<50	0	0	0	0	0	<50

COHO							
Year	May	June	July	Aug.	Sept.	Oct.	Totals
1979	0	<50	31,300	11,100	2,200	0	44,600
1980	0	0	13,900	11,100	600	0	25,600
1981	0	0	31,400	14,400	0	0	45,800
1982	0	0	23,800	0	0	0	23,800
1983	0	0	100	2,600	2,300	0	5,000
1984	0	0	0	13,600	0	0	13,600
1985	0	0	0	18,200	0	0	18,200
1986	0	0	<50	46,100	0	0	46,100
1987	0	0	7,400	0	0	0	7,400
1988	0	0	0	0	0	0	0
1989	0	0	0	11,200	9,900	0	21,100
1990	0	0	0	4,400	6,200	300	10,900
1991	0	0	0	16,600	10,100	0	26,800
1992	0	0	600	800	0	0	1,400
1993	0	0	200	600	900	0	1,700
1994	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0

Tillamook Catch Area (3)

CHINOOK									
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Totals
1979	0	100	200	1,200	2,200	<50	200	0	3,900
1980	0	900	500	900	4,300	500	100	0	7,300
1981	0	4,100	200	5,000	2,700	200	200	0	12,300
1982	0	2,900	700	3,000	800	400	200	0	7,900
1983	0	400	300	1,500	1,200	300	500	0	4,100
1984	0	300	100	200	1,100	100	100	0	1,900
1985	0	<50	200	1,700	800	400	100	<50	3,300
1986	0	200	100	2,700	3,100	6,500	1,500	<50	14,100
1987	0	1,800	1,800	15,100	12,800	7,400	2,600	0	41,400
1988	0	900	6,100	9,100	9,100	4,400	3,100	0	32,800
1989	0	5,800	7,700	6,900	3,700	4,900	1,600	0	30,400
1990	0	400	600	5,700	2,700	1,800	1,200	0	12,500
1991	0	200	200	3,100	2,000	2,200	1,800	0	9,500
1992	0	400	0	300	2,500	1,900	2,200	0	7,300
1993	0	500	200	800	700	2,200	2,000	0	6,300
1994	0	100	300	0	0	0	1,300	<50	1,700
1995	0	400	800	<50	6,300	1,400	800	0	9,700
1996	0	400	7,900	1,000	1,000	2,200	700	0	13,100
1997	<50	200	600	0	300	700	400	<50	2,300

COHO							
Year	May	June	July	Aug.	Sept.	Oct.	Totals
1979	0	300	52,800	23,000	100	0	76,100
1980	0	0	30,900	46,500	1,400	0	78,800
1981	0	0	112,500	46,600	0	0	159,100
1982	0	0	113,600	0	0	0	113,600
1983	0	0	43,200	18,800	1,200	0	63,100
1984	0	0	0	0	0	0	0
1985	0	0	1,500	<50	0	0	1,500
1986	0	0	96,700	0	0	0	96,700
1987	0	0	46,400	23,100	5,300	0	74,700
1988	0	0	124,200	48,100	0	0	172,300
1989	0	0	118,500	17,800	0	0	136,300
1990	0	0	25,700	27,500	<50	0	53,300
1991	0	0	89,900	0	0	0	89,900
1992	0	0	500	7,400	<50	<50	7,900
1993	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0

Appendix Table 5 (cont.). Oregon commercial troll landings of chinook and coho salmon (numbers of fish) by area of catch, by month, and by year, 1979-97.

Brookings Catch Area (6)

CHINOOK									
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Totals
1979	0	200	0	38,200	58,100	7,500	15,400	2,100	121,500
1980	0	6,900	2,200	8,300	30,400	14,800	3,000	1,100	66,700
1981	0	4,300	<50	6,700	47,200	13,000	10,600	1,400	83,300
1982	0	2,300	500	26,500	31,800	3,200	2,900	1,400	68,600
1983	0	1,600	8,200	8,900	1,300	200	1,800	700	22,600
1984	0	900	<50	4,100	17,700	<50	1,100	700	24,600
1985	0	300	100	1,800	6,900	3,300	700	1,000	14,000
1986	0	3,500	16,900	9,400	22,100	0	900	800	53,700
1987	0	8,800	28,000	0	0	0	1,100	1,900	39,800
1988	0	8,200	20,700	0	0	100	900	1,700	31,600
1989	0	4,600	1,900	0	3,900	6,400	<50	200	17,000
1990	0	100	0	0	2,100	100	0	0	2,200
1991	0	0	0	0	0	200	0	0	200
1992	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0
1994	0	200	0	0	200	<50	1,000	0	1,500
1995	0	300	<50	1,700	0	0	1,300	0	3,300
1996	0	1,500	3,700	0	2,700	0	800	<50	8,600
1997	100	2,300	0	0	300	<50	900	0	3,600

COHO							
Year	May	June	July	Aug.	Sept.	Oct.	Totals
1979	0	0	86,600	12,000	100	0	98,400
1980	0	0	11,900	17,500	3,400	0	32,800
1981	0	0	12,800	40,700	0	0	53,500
1982	0	0	20,400	0	0	0	20,400
1983	0	0	24,000	0	0	0	24,000
1984	0	0	0	0	0	0	0
1985	0	0	1,000	0	0	0	1,000
1986	0	12,100	7,100	0	0	0	19,100
1987	0	4,100	0	0	0	0	4,100
1988	0	1,300	0	0	0	0	1,300
1989	0	1,000	0	0	0	0	1,000
1990	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0

Washington Catch Area (1)

CHINOOK									
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Totals
1979	0	1,800	100	400	1,000	600	0	0	4,000
1980	0	3,100	300	200	1,200	<50	0	0	4,900
1981	0	100	0	700	100	0	0	0	900
1982	0	2,200	400	3,800	<50	0	<50	0	6,300
1983	0	1,700	200	<50	200	0	0	0	2,100
1984	0	2,000	0	0	<50	0	0	0	2,000
1985	0	1,600	<50	2,000	<50	0	0	0	3,600
1986	0	400	0	0	<50	0	0	0	400
1987	0	2,100	0	1,600	0	0	0	0	3,700
1988	0	900	500	0	0	0	0	0	1,400
1989	0	200	0	0	0	0	0	0	200
1990	0	300	0	0	<50	0	0	0	300
1991	0	<50	<50	0	<50	<50	0	0	<50
1992	0	100	700	0	<50	0	0	0	800
1993	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0

COHO							
Year	May	June	July	Aug.	Sept.	Oct.	Totals
1979	0	0	6,300	8,900	2,500	0	17,800
1980	0	0	4,400	6,300	500	0	11,300
1981	0	0	11,000	600	0	0	11,600
1982	0	0	13,900	100	0	0	14,000
1983	0	0	<50	<50	0	0	<50
1984	0	0	0	100	0	0	100
1985	0	0	22,100	0	0	0	22,100
1986	0	0	0	0	0	0	0
1987	0	0	7,500	0	0	0	7,500
1988	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0
1990	0	0	0	900	0	0	900
1991	0	0	0	<50	300	0	300
1992	0	0	0	100	0	0	100
1993	0	0	<50	0	0	0	<50
1994	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0

Appendix Table 5 (cont.). Oregon commercial troll landings of chinook and coho salmon (numbers of fish) by area of catch, by month, and by year, 1979-97.

California Catch Area (7)

CHINOOK									
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Totals
1979	0	100	100	100	400	0	0	0	700
1980	0	800	0	100	<50	<50	0	0	800
1981	0	800	200	500	700	2,000	0	0	4,200
1982	0	600	700	1,100	900	400	0	0	3,700
1983	0	<50	200	200	1,600	<50	0	0	2,000
1984	0	<50	<50	200	100	0	0	0	300
1985	0	<50	<50	100	500	<50	0	0	600
1986	0	0	0	<50	400	<50	0	0	400
1987	0	0	1,300	500	0	<50	0	0	1,800
1988	0	100	1,900	1,500	1,100	<50	0	0	4,600
1989	0	<50	<50	<50	<50	<50	0	0	100
1990	0	<50	0	<50	0	0	0	0	<50
1991	0	0	<50	0	<50	100	0	0	100
1992	0	0	0	0	0	0	0	0	0
1993	0	0	<50	0	0	<50	0	0	<50
1994	0	0	0	100	<50	0	0	0	100
1995	0	0	700	100	0	0	0	0	800
1996	0	0	0	0	600	1,400	0	0	2,000
1997	0	0	0	100	<50	0	0	0	100

COHO							
Year	May	June	July	Aug.	Sept.	Oct.	Totals
1979	0	100	100	100	0	0	400
1980	0	0	<50	<50	0	0	100
1981	0	0	300	200	0	0	500
1982	0	<50	1,400	0	0	0	1,400
1983	0	<50	100	1,100	0	0	1,200
1984	0	0	0	0	0	0	0
1985	0	0	<50	0	0	0	<50
1986	0	0	0	0	0	0	0
1987	0	300	100	0	<50	0	300
1988	0	300	300	200	0	0	800
1989	0	<50	<50	0	0	0	<50
1990	0	0	<50	0	0	0	<50
1991	0	0	0	0	100	0	100
1992	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0

Alaska Catch Area (8)

CHINOOK									
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Totals
1979	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	200	0	0	200
1981	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0
1983	0	0	400	0	0	0	0	0	400
1984	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0
1988	0	0	0	500	0	0	0	0	500
1989	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0

COHO							
Year	May	June	July	Aug.	Sept.	Oct.	Totals
1979	0	0	0	0	0	0	0
1980	0	0	0	0	1,700	0	1,700
1981	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0
1988	0	0	<50	0	0	0	<50
1989	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0

Appendix Table 6. Oregon commercial ocean troll salmon chinook catch, in number of fish, by statistical week^a and area of catch, 1997.

Stat. Week	Area of Catch									Total
	Col. R. 2	Tillamook 3	Newport 4	Coos Bay 5	Brookings 6	OR Subtotal 7	Alaska 8	Wash. 1	Calif. 7	
16	0	12	866	399	55	1,332	0	0	0	1,332
17	0	29	1,503	1,583	46	3,161	0	0	0	3,161
18	0	4	2,366	662	51	3,083	0	0	0	3,083
19	0	77	6,719	907	21	7,724	0	0	0	7,724
20	3	20	5,257	1,042	964	7,286	0	0	0	7,286
21	1	71	3,268	1,112	1,147	5,599	0	0	0	5,599
22	21	72	6,410	3,003	165	9,671	0	0	0	9,671
23	0	150	8,191	2,844	-	11,185	0	0	0	11,185
24	3	291	6,872	2,439	-	9,605	0	0	0	9,605
25	-	59	7,399	1,677	-	9,135	0	0	0	9,135
26	-	67	4,463	927	-	5,457	0	0	0	5,457
27	-	-	-	-	-	0	0	0	0	0
28	-	-	-	-	-	0	0	0	0	0
29	-	-	-	-	-	0	0	0	0	0
30	-	-	-	-	-	0	0	0	146	146
31	-	67	1,401	198	144	1,810	0	0	0	1,810
32	-	41	7,919	1,070	13	9,043	0	0	0	9,043
33	-	59	8,730	1,848	22	10,659	0	0	0	10,659
34	-	81	14,756	1,762	65	16,664	0	0	2	16,666
35	-	44	5,850	598	8	6,500	0	0	0	6,500
36	-	105	9,668	66	3	9,842	0	0	0	9,842
37	-	287	10,132	718	-	11,137	0	0	0	11,137
38	-	190	586	2	-	778	0	0	0	778
39	-	128	3,592	311	-	4,031	0	0	0	4,031
40	-	36	1,051	54	-	1,141	0	0	0	1,141
41	-	93	7	155	-	255	0	0	0	255
42	-	163	1,032	419	530	2,144	0	0	0	2,144
43	-	98	599	357	353	1,407	0	0	0	1,407
44	-	50	138	233	-	421	0	0	0	421
45	-	30	-	290	-	320	0	0	0	320
46	-	7	-	85	-	92	0	0	0	92
47	-	-	-	38	-	38	0	0	0	38
48	-	-	-	42	-	42	0	0	0	42
Total	28	2,331	118,775	24,841	3,587	149,562	0	0	148	149,710

^a Refer to Appendix Table 20 for 1997 statistical week calendar.

Appendix Table 7. Estimates of nominal ex-vessel value^a for Oregon ocean commercial troll salmon landings and average price per pound, 1971-97.

Year	Chinook		Coho		Total Value
	\$ Value	\$/lb	\$ Value	\$/lb	
1971	587,000	0.59	3,155,000	0.36	3,742,000
1972	982,000	0.75	2,475,000	0.51	3,457,000
1973	3,520,000	1.02	4,004,000	0.78	7,524,000
1974	2,412,000	1.05	5,525,000	0.76	7,937,000
1975	2,680,000	1.04	3,128,000	0.77	5,808,000
1976	3,410,000	1.77	11,458,000	1.26	14,868,000
1977	7,938,000	2.29	3,546,000	1.34	11,484,000
1978	3,584,000	1.89	3,756,000	1.35	7,340,000
1979	6,645,000	2.57	10,353,000	2.25	16,998,000
1980	5,262,000	2.42	2,928,000	1.33	8,189,000
1981	4,035,000	2.56	5,541,000	1.66	9,576,000
1982	6,092,000	2.59	3,805,000	1.40	9,897,000
1983	1,246,000	1.90	1,052,000	0.95	2,298,000
1984	1,514,000	2.75	121,000	1.73	1,635,000
1985	5,047,000	2.48	729,000	1.50	5,777,000
1986	5,978,000	1.77	1,979,000	1.03	7,958,000
1987	13,438,000	2.59	3,307,000	1.72	16,745,000
1988	14,008,000	3.19	7,616,000	2.28	21,624,000
1989	7,853,000	2.22	2,131,000	1.06	9,984,000
1990	5,525,000	2.53	1,014,000	1.60	6,540,000
1991	1,716,000	2.46	1,395,000	0.98	3,111,000
1992	2,489,000	2.45	223,000	1.07	2,712,000
1993	1,661,000	2.18	10,000	1.13	1,671,000
1994	690,000	2.40	0	NA	690,000
1995	3,294,000	1.69	0	NA	3,294,000
1996	3,007,000	1.56	0	NA	3,007,000
1997	2,469,000	1.60	0	NA	2,469,000

^a Dressed weight value

Appendix Table 8. Recreational ocean salmon sampling rates at Oregon ports, 1988-97 (NF=No Fishery, NS=No Sampling).

Port	Percent of Catch Sampled ^a									
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Astoria	49	44	42	50	44	42	NF	32	37	46
Garibaldi	32	37	46	34	37	52	24	42	32	41
Pacific City	79	70	72	69	70	84	c	100	c	75
Depoe Bay	50	56	45	48	46	74	40	75	72	65
Newport	39	35	35	28	36	36	c	50	46	53
Florence	46	51	46	33	34	40	33	40	64	45
Winchester Bay	36	44	42	26	25	45	40	NS	42	54
Coos Bay	46	46	41	30	39	38	c	28	43	36
Brookings	51	65	47	34	34	58	28	36	33	29
Coastwide percentage	43	43	42	35	37	43	26	34	36	40
Number of samplers	20	20	22	21	21	24 ^b	12	13	15	15
Sampler months	79	70	80	62	64	69 ^b	47	56	58	61

^a Percentage of total catch observed by samplers = number of salmon observed/estimated catch of salmon.

^b Includes 4 samplers (8 sampler months) participating in the Columbia River Control Zone test fishery.

^c No salmon observed in the sampling.

Appendix Table 9. Summary of Oregon's recreational ocean salmon regulations, 1946-97.

Year	Open Area	Open Season	Open Days	Catch Limits			Size Limits (inches)			Gear Restrictions	Misc Regulations
				Daily	7 Day	Annual	Chin.	Coho	Pink		
1946	Statewide	All year	All	3	NA	NA	none	none	none	None	Possession limit of 9 salmon.
1947	Statewide	All year	All	2	NA	NA	none	none	none	None	Possession limit of 6 salmon.
1948-54	Statewide	All year	All	2	NA	20	none	none	none	None	Possession limit of 4 salmon.
1955-57	Statewide	All year	All	2	NA	20	20	20	20	None	Possession limit of 4 salmon.
1958-64	North of Tillamook Head	1/1-8/30; 11/1-12/31	All	2	NA	20	20	20	20	None	Possession limit of 4 salmon.
	North of Tillamook Head	7/1-10/31	All	2	NA	20	22	22	22	None	Possession limit of 4 salmon.
	South of Tillamook Head	All year	All	2	NA	20	20	20	20	None	Possession limit of 4 salmon.
1965-69	Statewide	All year	All	3	NA	20	20	20	20	None	Possession limit of 6 salmon.
1970-75	North of Tillamook Head	All year	All	3	NA	40	20	20	20	None	
	South of Tillamook Head	All year	All	3	NA	40	none	none	none	None	
1976	North of Tillamook Head	4/10-12/31	All	3	NA	40	24	16	none	None	
	South of Tillamook Head	4/10-12/31	All	3	NA	40	none	none	none	None	
1977	North of Tillamook Head	4/30-10/31	All	3	NA	40	24	16	none	None	
	South of Tillamook Head	4/30-10/31	All	3	NA	40	none	none	none	None	
	State waters off Elk and Chetco Rivers	11/1-30	All	3	NA	40	none	NA	NA	None	Chinook only fishery.
1978	North of Cape Falcon	4/29-10/31	All	3	NA	40	24	16	none	None	
	South of Cape Falcon	4/30-10/31	All	3	NA	40	22	16	none	None	
	State waters off Elk and Chetco Rivers	11/1-30	All	3	NA	40	22	NA	NA	None	Chinook only fishery.
1979	North of Cape Falcon	5/12-8/16	All	3	NA	40	24	16	none	None	Only 2 can be chinook or coho.
	South of Cape Falcon	5/12-9/2	All	2	NA	40	22	16	none	None	
	South of Cape Falcon	9/3-16	All	2	NA	40	22	NA	none	None	Closed to coho.
	State waters off Elk River	11/1-30	All	2	NA	40	22	NA	NA	None	Chinook only fishery.
	State waters off Chetco River	9/17-11/30	All	2	NA	40	22	NA	NA	None	Chinook only fishery.
1980	North of Cape Falcon	5/10-7/15	All	3	NA	40	24	16	none	None	
	North of Cape Falcon	7/16-8/31	All	2	NA	40	24	16	none	None	
	North of Cape Falcon (0-3 miles)	9/1-14	All	2	NA	40	24	16	none	None	
	South of Cape Falcon	5/10-7/15	All	3	NA	40	22	16	none	None	
	South of Cape Falcon	7/16-8/31	All	2	NA	40	22	16	none	None	
	South of Cape Falcon (0-3 miles)	9/1-14	All	2	NA	40	22	16	none	None	
	South of Cape Falcon (0-3 miles)	9/15-10/31	All	2	NA	40	22	NA	NA	None	Chinook only fishery.
	State waters off Elk and Chetco Rivers	11/1-30	All	2	NA	40	22	NA	NA	None	Chinook only fishery.
1981	North of Cape Falcon	5/23-8/25	All	2	NA	40	24	16	none	None	
	North of Cape Falcon (0-3 miles)	8/26-9/7	All	2	NA	40	24	16	none	None	
	South of Cape Falcon	5/15-8/13	All	2	NA	40	22	16	none	None	
	South of Cape Falcon	8/14-25	All	3	NA	40	22	16	none	None	
	South of Cape Falcon (0-3 miles)	8/26-9/20	All	3	NA	40	22	16	none	None	
	South of Cape Blanco	9/21-10/31	All	2	NA	40	22	NA	NA	None	Chinook only fishery.
State waters off Elk and Chetco Rivers	11/1-30	All	2	NA	40	22	NA	NA	None	Chinook only fishery.	

Appendix Table 9. Summary of Oregon's recreational ocean salmon regulations, 1946-97.

Year	Open Area	Open Season	Open Days	Catch Limits			Size Limits (Inches)			Gear Restrictions	Misc Regulations
				Daily	7 Day	Annual	Chin.	Coho	Pink		
1982	North of Cape Falcon	6/12-7/21	All	2	NA	40	24	16	none	None	
	North of Cape Falcon (0-3 miles)	7/22-7/25	All	2	NA	40	24	16	none	None	
1982 (cont.)	North of Cape Falcon (0-3 miles)	7/26-8/1	All	2	NA	40	24	16	none	Barbless hooks	Only 1 coho.
	Cape Falcon to Cape Blanco	5/29-6/11	All	2	NA	40	none	NA	NA	Barbless hooks	First 2 chinook only.
	Cape Falcon to Cape Blanco	6/12-7/25	All	2	NA	40	none	none	none	None	First 2 salmon only.
	Cape Falcon to Cape Blanco (0-3 miles)	7/26-8/1	All	2	NA	40	none	none	none	None	First 2 salmon only.
	South of Cape Blanco	5/29-8/1	All	2	NA	40	none	none	none	None	First 2 salmon only.
	South of Cape Blanco	8/2-10/31	All	2	NA	40	none	NA	NA	None	First 2 chinook only.
	State waters off Elk and Chetoo Rivers	11/1-30	All	2	NA	40	22	NA	NA	None	Chinook only fishery.
1983	Columbia R. S. Jetty to 46°06'00" (0-3 miles)	6/18-7/29	All	2	NA	40	24	16	none	None	
	46°06'00" to Cape Falcon (0-6 miles)	6/18-7/29	All	2	NA	40	24	16	none	None	
	North of Cape Falcon	7/30-8/15	All	2	NA	40	24	16	none	None	
	Columbia R. S. Jetty to Cape Falcon (0-10 miles)	6/16-8/11	All	2	NA	40	24	16	none	None	
	Cape Falcon to Cape Blanco	6/16-8/16	All	2	NA	40	none	none	none	None	First 2 salmon only.
	Twin Rocks to Pyramid Rock (inside of whistle buoy)	9/19-10/31	All	2	NA	40	none	NA	NA	None	First 2 chinook only.
	South of Cape Blanco	5/28-8/16	All	2	NA	40	none	none	none	None	First 2 salmon only.
	South of Cape Blanco	9/19-10/31	All	2	NA	40	none	NA	NA	None	First 2 salmon, except closed to coho.
	State waters off Elk River	11/1-30	All	2	NA	40	none	NA	NA	None	First 2 chinook only.
1984	Columbia R. S. Jetty to Cape Falcon (0-10 miles)	7/26-8/6	All	2	NA	40	NA	16	none	Barbless hooks	Closed to chinook.
	South of Cape Falcon	7/9-8/7	All	2	NA	40	20	20	none	Barbless hooks	
	Cape Falcon to Cape Blanco (0-3 miles)	8/25-9/3	All	1	NA	40	20	20	none	Barbless hooks	
	Manhattan Beach to Pyramid Rock (0-3 miles)	9/15-21	All	2	NA	40	20	NA	none	Barbless hooks	Closed to coho.
	South of Cape Blanco	8/6-24	All	2	NA	40	20	NA	none	Barbless hooks	Closed to coho.
	South of Cape Blanco (0-3 miles)	8/25-9/3	All	2	NA	40	20	20	none	Barbless hooks	Only 1 coho.
	South of Cape Blanco	9/4-10/31	All	2	NA	40	20	NA	none	Barbless hooks	Closed to coho.
	Cape Blanco to Humbug Mtn. (0-3 miles)	11/1-30	All	2	NA	40	20	NA	NA	Barbless hooks	Chinook only.
1985	North of Cape Falcon	6/30-8/22	Sun-Thurs	2	NA	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	Cape Falcon to Cape Blanco	7/1-8/2	All	2	6	40	none	none	none	None	First 2 salmon.
	Twin Rocks to Pyramid Rock (0-3 miles)	9/15-10/31	All	2	6	40	none	NA	none	None	First 2 salmon, closed to coho.
	South of Cape Blanco	5/25-8/2	All	2	6	40	none	none	none	None	First 2 salmon.
	South of Cape Blanco	9/3-10/31	All	2	6	40	none	NA	none	None	First 2 salmon, closed to coho.
	Tower Rock to Humbug Mtn. (0-3 miles)	10/1-11/30	All	2	6	40	none	NA	none	None	First 2 salmon, closed to coho.
1986	North of Cape Falcon	8/29-8/19	Sun-Thurs	2	NA	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	Cape Falcon to Cape Blanco	5/24-26; 8/28-7/26	All	2	6	40	none	none	none	None	First 2 salmon.
	Cape Falcon to Cape Blanco	7/27-28	Tues-Sat	2	6	40	none	none	none	None	First 2 salmon.
	Cape Falcon to Cape Blanco	7/29-8/13	Tues-Sat	2	2	40	none	none	none	None	First 2 salmon.
	Twin Rocks to Pyramid Rock (0-3 miles)	9/15-11/15	All	2	6	40	none	NA	none	None	First 2 salmon, closed to coho.
	South of Cape Blanco	5/24-8/22	All	2	6	40	20	20	none	Barbless hooks	Limit of 1 coho and 1 chinook.
	South of Cape Blanco	8/23-9/7	All	2	6	40	20	20	none	Barbless hooks	
	Cape Blanco to Humbug Mtn. (0-3 miles)	10/1-11/26	All	2	6	40	20	NA	none	Barbless hooks	Closed to the take of coho.
	Goat Island to OR/CA Border (east of 124°20'00")	10/1-31	All	2	6	40	20	NA	none	Barbless hooks	Closed to the take of coho.
1987	North of Cape Falcon	6/28-7/16	Sun-Thurs	2	NA	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	North of Cape Falcon (3-200 miles)	7/19-8/6	Sun-Thurs	2	NA	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	North of Cape Falcon	6/9-19	Sun-Thurs	2	NA	40	24	16	none	Barbless hooks	CRCZ a/ closed.

Appendix Table 9. Summary of Oregon's recreational ocean salmon regulations, 1946-97.

Year	Open Area	Open Season	Open Days	Catch Limits			Size Limits (inches)			Gear Restrictions	Misc Regulations
				Daily	7 Day	Annual	Chin.	Coho	Pink		
	Cape Falcon to Cape Blanco	6/13-9/13	All	2	6	40	none	none	none	None	
	Twin Rocks to Pyramid Rock (0-3 miles)	9/14-10/31	All	2	6	40	none	NA	none	None	First 2 salmon, closed to coho.
	South of Cape Blanco	5/23-9/13	All	2	6	40	20	20	none	Barbless hooks	
	Cape Blanco to Humbug Mtn. (0-3 miles)	10/1-11/30	All	2	6	40	20	NA	none	Barbless hooks	Closed to the take of coho.
	Goat Island to OR/CA Border (east of 124°20'00")	10/1-31	All	2	6	40	20	NA	none	Barbless hooks	Closed to the take of coho.
1988	North of Cape Falcon (0-3 miles)	7/11-24	Sun-Thurs	2	NA	40	24	16	none	Barbless hooks	Only 1 chinook daily. CRCZ a/ closed.
	Cape Falcon to Orford Reef Buoy (0-27 fathoms)	5/1-27	All	2	6	40	20	16	none	Barbless hooks	First 2 salmon.
	Cape Falcon to Orford Reef Buoy	5/26-8/11	All	2	6	40	20	16	none	Barbless hooks	First 2 salmon.
	Twin Rocks to Pyramid Rock (0-3 miles)	9/12-10/31	All	2	6	40	none	NA	none	None	Closed to the take of coho.
	South of the Orford Reef Buoy	5/26-7/9	All	2	6	40	20	20	none	Barbless hooks	
	South of the Orford Reef Buoy	7/10-9/11	All	1	6	40	20	20	none	Barbless hooks	
	Orford Reef Red Buoy to Humbug Mtn. (0-3 miles)	10/1-31	All	2	6	40	none	NA	none	Barbless hooks	Closed to the take of coho.
	Cape Blanco to Humbug Mtn. (0-3 miles)	11/1-30	All	2	6	40	none	NA	none	Barbless hooks	Closed to the take of coho.
1989	North of Cape Falcon (0-6 miles)	5/26-6/12	Sun-Mon	2	NA	40	24	NA	none	Barbless hooks	Closed to coho. CRCZ a/ closed.
	North of Cape Falcon	6/26-6/17	Sun-Thurs	2	NA	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	Cape Falcon to Orford Reef Buoy (0-27 fathoms)	5/1-26	All	2	6	40	20	16	none	Barbless hooks	
	Cape Falcon to Orford Reef Buoy	5/27-7/27	All	2	6	40	20	16	none	Barbless hooks	
	Cape Falcon to Orford Reef Buoy	7/28-8/20	Sun-Thurs	2	6	40	20	16	none	Barbless hooks	
	Cape Falcon to Orford Reef Buoy	9/2-4	All	2	6	40	20	16	none	Barbless hooks	
	Twin Rocks to Pyramid Rock (0-3 miles)	9/16-10/31	All	2	6	40	none	NA	none	None	Closed to the take of coho.
	South of the Orford Reef Buoy	5/1-9/30	All	2	6	40	20	20	none	Barbless hooks	
	Cape Blanco to Humbug Mtn. (0-3 miles)	10/1-11/30	All	2	6	40	none	NA	none	Barbless hooks	Closed to the take of coho.
1990	North of Cape Falcon	8/24-8/30; 9/6-9	Sun-Thurs	2	NA	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	Cape Falcon to Humbug Mtn. (0-27 fathoms)	5/1-27	All	2	6	40	20	16	none	Barbless hooks	
	Cape Falcon to Humbug Mtn.	5/28-6/22	All	2	6	40	20	16	none	Barbless hooks	
	Cape Falcon to Humbug Mtn.	6/30-7/31	All	2	6	40	20	16	none	Barbless hooks	
	Cape Falcon to Humbug Mtn.	8/8-9/16	All	2	6	40	20	16	none	Barbless hooks	
	Twin Rocks to Pyramid Rock (0-3 miles)	9/17-10/31	All	2	6	40	none	NA	none	None	Closed to the take of coho.
	South of Humbug Mtn.	5/1-8/29	All	2	6	40	20	20	none	Barbless hooks	
	South of Humbug Mtn.	6/30-6/15	All	2	6	40	20	20	none	Barbless hooks	Not more than 1 chinook daily.
	South of Humbug Mtn.	8/16-9/9	All	2	6	40	20	20	none	Barbless hooks	
1991	North of Cape Falcon	8/24-8/12	Sun-Thurs	2	NA	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	North of Cape Falcon	9/15-16; 9/26	All	2	NA	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	Cape Falcon to Humbug Mtn. (0-27 fathoms)	5/1-26	All	2	6	40	20	16	none	Barbless hooks	
	Cape Falcon to Humbug Mtn.	5/27-7/26	All	2	6	40	20	16	none	Barbless hooks	
	Twin Rocks to Pyramid Rock (0-3 miles)	9/16-10/31	All	2	6	40	none	NA	none	None	Closed to the take of coho.
	South of Humbug Mtn.	5/25-7/26	Thurs-Mon	2	6	40	20	20	none	Barbless hooks	Not more than 1 chinook daily.
	South of Humbug Mtn.	7/23-26	Fri-Sun	2	6	40	20	20	none	Barbless hooks	Not more than 1 chinook daily.
	South of Humbug Mtn.	8/31-9/2	All	2	6	40	20	20	none	Barbless hooks	Not more than 1 chinook daily.
	South of Humbug Mtn.	9/6-29	Fri-Sun	2	6	40	20	20	none	Barbless hooks	Not more than 1 chinook daily.
1992	North of Cape Falcon (0-3 miles)	6/29-7/30	Sun-Thurs	2	4	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	North of Cape Falcon	8/2-6; 9/16-17; 9/27	Sun-Thurs	2	4	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	Cape Falcon to Humbug Mtn. (0-27 fathoms)	5/3-9/11	Sun-Thurs	2	4	20	20	16	none	Barbless hooks	
	Cape Falcon to Florence S. Jetty	6/14-9/10	Sun-Thurs	2	4	20	20	16	none	Barbless hooks	
	Twin Rocks to Pyramid Rock (0-3 miles)	9/16-10/31	All	2	6	40	none	NA	none	None	Closed to the take of coho.

Appendix Table 9. Summary of Oregon's recreational ocean salmon regulations, 1946-97.

Year	Open Area	Open Season	Open Days	Catch Limits			Size Limits (inches)			Gear Restrictions	Misc Regulations
				Daily	7 Day	Annual	Chin.	Coho	Pink		
	Florence S. Jetty to Humbug Mtn.	6/14-7/2	Sun-Thurs	2	4	20	20	16	none	Barbless hooks	
	Florence S. Jetty to Humbug Mtn.	7/5-8/31	Sun-Thurs	2	4	20	NA	16	none	Barbless hooks	Closed to the take of chinook.
	Florence S. Jetty to Humbug Mtn.	9/1-10	Sun-Thurs	2	4	20	20	16	none	Barbless hooks	
	Cape Blanco to Humbug Mtn. (0-3 miles)	10/24-26	All	1	6	40	20	NA	none	Barbless hooks	Closed to the take of coho.
	South of Humbug Mtn.	7/8-20	Mon-Wed	1	6	40	20	20	none	Barbless hooks	
	South of Humbug Mtn.	9/1-7	All	1	6	40	20	20	none	Barbless hooks	
	Goat Island to Red Point (0-3 miles)	10/15-26	All	1	6	40	20	NA	none	Barbless hooks	Closed to the take of coho
1993	North of Cape Falcon	7/5-9/9	Sun-Thurs	2	4	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	North of Cape Falcon	9/12-23	All	2	4	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	Cape Falcon to Humbug Mtn. (0-27 fathoms)	5/1-6/6	All	2	2	10	20	16	none	Barbless hooks	
	Cape Falcon to Humbug Mtn.	7/13-8/10	Sun-Tues	2	2	10	20	16	none	Barbless hooks	
	Twin Rocks to Pyramid Rock (0-3 miles)	9/16-10/31	All	2	6	40	none	NA	none	None	Closed to the take of coho.
	Cape Blanco to Humbug Mtn. (0-3 miles)	10/1-11/30	All	2	6	40	20	NA	none	Barbless hooks	Closed to the take of coho.
	South of Humbug Mtn.	5/5-6/19	Wed-Sat	1	6	40	20	20	none	Barbless hooks	
	South of Humbug Mtn.	7/14-8/26	Wed-Sat	1	6	40	20	20	none	Barbless hooks	
	South of Humbug Mtn.	9/1-6	All	1	6	40	20	20	none	Barbless hooks	
1994	Cape Falcon to Humbug Mtn. (0-27 fathom)	5/1-6/5	All	2	2	10	20	NA	none	Barbless hooks	Closed to the take of coho
	Twin Rocks to Pyramid Rock (0-27 fathom)	6/6-19	All	2	2	10	20	NA	none	Barbless hooks	Closed to the take of coho
	Twin Rocks to Pyramid Rock (0-3 miles)	10/1-11/15	All	2	6	40	none	NA	none	Barbless hooks	Closed to the take of coho
	Cape Blanco to Humbug Mtn. (0-3 miles)	10/1-11/7	All	1	4	40	20	NA	none	Barbless hooks	Closed to the take of coho
	South of Humbug Mtn.	5/1-6/7	All	2	6	40	none	NA	none	Barbless hooks	Closed to the take of coho
	South of Humbug Mtn.	8/27-9/5	All	2	6	40	none	NA	none	Barbless hooks	Closed to the take of coho
	Goat Island to Red Point (0-3 miles)	10/10-25	All	1	4	40	20	NA	none	Barbless hooks	Closed to the take of coho
1995	North of Cape Falcon	7/24-9/5; 9/10-17	Sun-Thurs	2	4	40	NA	16	none	Barbless hooks	Open to all salmon except chinook
	Cape Falcon to Humbug Mtn.	5/1-8/30	All	2	6	10	20	NA	none	Artificial plugs or bait > 6"; no painted weights or attractors such as flashers or colored divers (by regulation uncolored divers are not considered attractors); no more than 2 single point, single shank barbless hooks.	Open to all salmon except coho
	Twin Rocks to Pyramid Rock (0-3 miles)	9/16-11/15	All	2	6	40	20	NA	none	Artificial plugs, whole or plug-cut bait > 6"; no painted weights or attractors such as flashers or colored divers (by regulation uncolored divers are not considered attractors); no more than 2 single point, single shank barbless hooks.	Open to all salmon except coho
	Yaquina Head to Seal Rock (0-3 miles)	9/16-10/31	All	2	6	40	20	NA	none	Artificial plugs or bait > 6"; no painted weights or attractors such as flashers or colored divers (by regulation uncolored divers are not considered attractors); no more than 2 single point, single shank barbless hooks.	Open to all salmon except coho
	3 M. north of North Jetty to Cape Arago (0-3 m.)	9/16-10/31	All	2	6	40	20	NA	none	Artificial plugs or bait > 6"; no painted weights or attractors such as flashers or colored divers (by regulation uncolored divers are not considered attractors); no more than 2 single point, single shank barbless hooks.	Open to all salmon except coho
	Cape Blanco to Humbug Mtn.	10/1-11/7	All	2	6	40	20	NA	none	Artificial plugs or bait > 6"; no painted weights or attractors such as flashers or colored divers (by regulation uncolored divers are not considered attractors); no more than 2 single point, single shank barbless hooks.	Open to all salmon except coho
	Humbug Mtn. to Horse Mtn.	5/17-7/1	Wed-Sat.	1	4	40	20	NA	none	Barbless hooks	Open to all salmon except coho
	Humbug Mtn. to Horse Mtn.	8/16-18	Wed-Sat.	1	4	40	20	NA	none	Barbless hooks	Open to all salmon except coho
	Humbug Mtn. to Horse Mtn.	9/1-9	All	1	6	40	20	NA	none	Barbless hooks	Open to all salmon except coho
	Goat Island to 42° 01' 20"N	10/10-15; 10/21-22	All	1	4	40	20	NA	none	Barbless hooks	Open to all salmon except coho
1996	North of Cape Falcon	7/22-9/26	Sun-Thurs	2	4	40	NA	16	none	Barbless hooks	Open to all salmon except chinook
	Cape Falcon to Humbug Mtn.	5/1-7/7; 8/16-8/30	All	2	6	10	20	NA	none	Artificial plugs or bait > 6"; no painted weights or attractors such as flashers or colored divers (by regulation uncolored divers are not considered attractors);	Open to all salmon except coho

Appendix Table 9. Summary of Oregon's recreational ocean salmon regulations, 1946-97.

Year	Open Area	Open Season	Open Days	Catch Limits			Size Limits (inches)			Gear Restrictions	Misc Regulations
				Daily	7 Day	Annual	Chin.	Coho	Pink		
	Twin Rocks to Pyramid Rock (0-3 miles)	10/1-31	All	2	4	40	20	NA	none	no more than 2 single point, single shank barbless hooks. Artificial plugs, whole or plug-cut bait > 6"; no painted weights or attractors such as flashers or colored divers (by regulation uncolored divers are not considered attractors); no more than 2 single point, single shank barbless hooks.	Chinook only (0-3 miles)
	Cape Blanco to Humbug Mtn.	10/1-11/30	All	1	4	40	20	NA	none	Barbless hooks	Chinook only (0-3 miles)
	Humbug Mtn. to Horse Mtn.	5/12-7/7; 8/18-9/21	All	1	4	40	20	NA	none	Barbless hooks	Open to all salmon except coho
	Goat Island to 42° 01' 20"N	10/5-13	All	1	4	40	20	NA	none	Barbless hooks	Chinook only (0-3 miles)
1997	North of Cape Falcon	7/21 - 8/7	Sun-Thurs	2	4	20	NA	16	none		
	Cape Falcon to Humbug Mtn.	4/15 - 7/6; 8/1 - 10/31	All	2	6	20	20	NA	none	Artificial plugs, whole or plug-cut bait > 6"; attractors such as flashers and divers were prohibited except that flashers could be used with a downrigger. No more than 2 single point, single shank barbless hooks.	Open to all salmon except coho
	Twin Rocks to Pyramid Rock (0-3 miles)	11/1 - 11/15	All	2	4	20	20	NA	none	Artificial plugs, whole or plug-cut bait > 6"; attractors such as flashers and divers were prohibited except that flashers could be used with a downrigger. No more than 2 single point, single shank barbless hooks.	Chinook only (0-3 miles)
1997 (cont.)	Cape Blanco to Humbug Mtn.	11/1 - 11/30	All	1	4	20	20	NA	none	Barbless hooks	Chinook only (0-3 miles)
	Humbug Mtn. to Horse Mtn.	5/24 - 5/30; 6/17 - 7/6; 8/12 - 9/14	All	1	4	20	20	NA	none	Barbless hooks	Open to all salmon except coho
	Goat Island to 42° 01' 20"N	10/4 - 10/12	All	1	4	20	20	NA	none	Barbless hooks	Chinook only (0-3 miles)

a/ CRCZ = Columbia River Conservation Zone. This fishery management area has changed in size during a number of years, but in general has been the area off the Columbia River between North Head, Washington and the red buoy line on the Oregon side. The name was changed to Columbia River Control Zone in 1992.

b/ Gear Restrictions: Artificial plugs or whole bait, both 6" or larger. No more than 2 single shank, single point barbless hooks; no painted weights or attractors such as flashers or colored divers (uncolored divers are not considered attractors).

Appendix Table 10. Oregon ocean recreational salmon angler effort, by port and statistical week^a for 1997. (NS = open for salmon, but no sampling)

Stat. Week	Astoria	Garibaldi	Pacific City	Depoe Bay	Newport	Florence	Winchester Bay	Coos Bay	Brookings	Total
16	-	NS	NS	NS	14	NS	NS	0	-	14
17	-	NS	NS	NS	11	NS	NS	4	-	15
18	-	0	NS	0	33	0	14	13	-	60
19	-	12	2	0	8	24	34	0	-	80
20	-	14	0	0	12	0	39	4	-	69
21	-	0	0	13	0	18	56	36	865	988
22	-	8	0	12	52	23	21	14	1,612	1,742
23	-	21	0	0	16	0	52	0	-	89
24	-	9	0	8	36	28	48	14	-	143
25	-	24	0	34	21	14	49	35	1,739	1,916
26	-	15	0	0	54	50	108	78	1,587	1,892
27	-	40	8	0	112	106	489	158	2,892	3,805
28	-	-	-	-	-	-	-	-	-	0
29	-	-	-	-	-	-	-	-	-	0
30	1,196	129	-	-	-	-	-	-	-	1,325
31	1,334	190	32	92	119	122	254	124	-	2,267
32	773	94	15	99	284	41	195	73	-	1,574
33	-	40	2	70	391	26	275	26	2,527	3,357
34	-	40	8	40	325	98	223	78	1,917	2,729
35	-	51	20	95	171	108	307	42	1,017	1,811
36	-	84	12	70	95	54	115	19	434	883
37	-	84	NS	34	65	NS	107	22	585	897
38	-	923	NS	12	37	NS	50	10	-	1,032
39	-	261	NS	0	0	NS	34	0	-	295
40	-	138	NS	NS	NS	NS	NS	NS	50	188
41	-	154	NS	NS	NS	NS	NS	NS	1,219	1,373
42	-	1,519	NS	NS	NS	NS	NS	NS	-	1,519
43	-	NS	NS	NS	NS	NS	NS	NS	-	0
44	-	NS	NS	NS	NS	NS	NS	NS	-	0
45	-	NS	-	-	-	-	-	-	-	0
46	-	NS	-	-	-	-	-	-	-	0
	3,303	3,850	99	579	1,856	712	2,470	750	16,444	30,063

^a Refer to Appendix Table 20 for 1997 statistical week calendar.

Appendix Table 11. Oregon ocean recreational effort in salmon angler trips by area and month, 1979-97.^a

Area	April	May	June	July	August	Sept.	Oct.	Nov.	Season ^b
<u>Columbia R.</u>									
1979	-	800	5,000	14,800	19,700	2,900	-	-	43,300
1980	-	1,300	7,800	13,700	19,700	3,800	-	-	46,300
1981	-	1,000	4,900	14,100	20,100	4,600	-	-	44,700
1982	-	-	4,900	22,300	-	-	-	-	27,200
1983	-	-	2,700	12,900	11,500	3,800	-	-	30,900
1984	-	-	-	2,000	5,100	-	-	-	7,100
1985	-	-	600	7,800	11,600	-	-	-	20,000
1986	-	-	700	12,100	7,700	-	-	-	20,600
1987	-	-	600	8,500	8,000	-	-	-	17,100
1988	-	-	-	5,700	-	-	-	-	5,700
1989	-	100	1,200	9,200	9,200	-	-	-	19,800
1990	-	-	1,900	8,900	13,200	1,400	-	-	25,500
1991	-	-	1,500	9,000	9,400	1,800	-	-	21,700
1992	-	-	-	9,800	1,800	1,300	-	-	12,900
1993	-	-	-	6,000	8,200	4,300	-	-	18,500
1994	-	-	-	-	-	-	-	-	0
1995	-	-	-	2,300	7,700	1,000	-	-	10,900
1996	-	-	-	1,000	3,800	900	-	-	5,600
1997	-	-	-	2,800	800	-	-	-	3,600
<u>Tillamook</u>									
1979	-	900	3,200	11,800	14,500	600	-	-	31,000
1980	-	400	8,500	17,300	18,100	3,600	-	-	47,800
1981	-	1,300	2,200	11,500	16,500	6,600	-	-	38,000
1982	-	100	2,700	21,800	-	-	-	-	24,600
1983	-	-	1,200	12,600	7,800	3,700	-	-	25,300
1984	-	-	-	11,800	10,800	1,200	-	-	23,800
1985	-	-	-	13,000	21,700	2,200	1,600 ^c	-	38,600
1986	-	<50	1,900	13,000	3,100	-	-	-	17,900
1987	-	-	1,800	12,400	10,900	3,800	-	-	29,100
1988	-	300	2,100	9,600	13,800	7,400	-	-	33,300
1989	-	300	3,000	15,400	12,300	300	-	-	31,300
1990	-	100	1,200	9,900	16,300	6,000	-	-	33,500
1991	-	400	4,000	16,600	-	-	-	-	21,000
1992	-	1,200	3,400	11,700	7,100	2,800	-	-	26,100
1993	-	800	200	3,100	1,500	-	-	-	5,600
1994	-	600	900	-	-	-	8,700	<50	10,300
1995	-	600	100	-	-	1,300	1,000	800	3,800
1996	-	800	100	<50	500	3,700	3,300	-	8,300
1997	-	<50	100	200	200	1,400	1,800	-	3,700
<u>Newport</u>									
1979	-	2,000	8,200	33,200	28,700	200	-	-	72,400
1980	-	1,800	16,700	39,000	22,600	3,800	-	-	83,900
1981	-	2,300	8,200	27,600	31,700	7,500	-	-	77,300
1982	-	200	7,300	46,000	-	-	-	-	53,500
1983	-	-	3,600	22,800	10,900	5,200	-	-	42,600
1984	-	-	-	24,000	19,200	800	-	-	44,000
1985	-	-	-	24,300	44,400	1,800	-	-	70,600
1986	-	1,400	3,900	38,900	8,000	-	-	-	52,200
1987	-	-	5,200	40,000	23,200	8,600	-	-	76,900
1988	-	1,000	7,100	37,900	34,200	9,400	-	-	89,600
1989	-	900	17,200	37,500	26,300	800	-	-	82,800
1990	-	700	5,500	32,800	28,300	4,100	-	-	71,400
1991	-	800	11,800	40,600	-	-	-	-	53,300
1992	-	1,100	7,100	27,900	14,600	2,400	-	-	53,000
1993	-	300	100	11,600	5,100	-	-	-	17,100
1994	-	100	<50	-	-	-	-	-	100
1995	-	100	200	-	-	400	100	-	900
1996	-	300	200	<50	1,800	500	-	-	2,800
1997	<50	100	200	300	1,400	300	0	-	2,400

Appendix Table 11 continued. Oregon ocean recreational effort in salmon angler trips, 1979-97.^a

Area	April	May	June	July	August	Sept.	Oct.	Nov.	Season ^b
Coos Bay									
1979	-	4,800	21,500	42,900	25,200	300	-	-	94,700
1980	-	2,200	32,100	46,200	14,300	2,600	-	-	97,400
1981	-	6,600	13,900	35,200	22,700	5,500	-	-	83,900
1982	-	100	12,000	77,300	-	-	-	-	59,400
1983	-	-	14,200	36,900	13,600	6,900	-	-	71,600
1984	-	-	-	22,000	17,900	300	-	-	40,200
1985	-	-	-	33,100	29,200	1,200	-	-	63,500
1986	-	800	4,900	33,600	4,300	-	-	-	43,600
1987	-	-	3,900	40,600	12,800	5,200	-	-	62,500
1988	-	1,300	9,900	33,100	21,000	3,700	-	-	69,000
1989	-	800	16,200	33,900	15,600	100	-	-	66,600
1990	-	600	8,800	24,300	24,900	6,400	-	-	65,000
1991	-	1,000	17,300	39,400	-	-	-	-	57,700
1992	-	1,400	9,400	28,600	12,800	3,300	-	-	55,600
1993	-	900	300	10,100	4,000	-	-	-	15,300
1994	-	200	200	-	-	-	-	-	400
1995	-	100	500	-	-	100	<50	-	700
1996	-	200	600	600	1,900	700	-	-	3,900
1997	<50	300	500	1,300	1,500	400	0	-	3,900
Brookings									
1979	-	300	4,900	27,100	18,500	3,300	5,000	900	59,900
1980	-	200	13,300	23,900	10,000	5,300	2,900	400	56,000
1981	-	2,700	16,500	23,700	19,300	2,300	2,300	300	67,100
1982	-	400	5,200	39,700	10,200	3,000	2,600	300	61,400
1983	-	800	9,800	22,700	11,200	6,100	5,000	100	55,700
1984	-	-	-	15,100	16,800	2,900	3,100	-	38,000
1985	-	4,600	-	28,500	19,300	2,600	4,000	-	59,000
1986	-	3,600	10,400	20,100	13,000	600	5,000	-	52,700
1987	-	2,300	10,000	29,000	15,200	7,100	5,900	-	69,400
1988	-	800	14,200	25,200	11,300	1,600	-	-	53,100
1989	-	3,100	15,700	26,600	16,300	4,100	-	-	65,800
1990	-	1,400	14,500	22,800	11,500	800	-	-	51,100
1991	-	1,100	11,600	17,800	1,900	4,000	-	-	36,400
1992	-	-	-	8,900	-	4,900	3,900	-	17,600
1993	-	3,700	2,700	6,500	8,100	2,800	-	-	23,800
1994	-	6,300	1,300	-	1,400	2,900	4,200	-	16,100
1995	-	2,300	6,200	0	4,400	3,000	3,400	-	19,400
1996	-	1,700	5,900	2,200	6,000	3,200	4,300	-	23,300
1997	-	2,500	3,300	2,900	5,500	1,000	1,300	-	16,700
All Areas									
1979	-	8,900	42,800	129,800	106,700	7,300	5,000	900	301,300
1980	-	5,900	78,400	140,000	84,700	19,100	2,900	400	331,400
1981	-	13,800	45,700	112,200	110,300	26,400	2,300	300	311,000
1982	-	700	32,100	177,100	10,200	3,000	2,600	300	226,000
1983	-	800	31,500	108,000	55,100	25,500	5,000	100	226,000
1984	-	-	-	74,900	69,800	5,300	3,100	-	153,100
1985	-	4,600	600	106,800	126,200	7,800	5,600	-	251,600
1986	-	5,700	21,900	117,700	36,000	600	5,000	-	187,000
1987	-	2,300	21,500	130,500	70,200	24,700	5,900	-	255,100
1988	-	3,500	33,200	111,500	80,400	22,100	-	-	250,700
1989	-	5,300	53,400	122,600	79,700	5,300	-	-	266,300
1990	-	2,800	32,000	98,700	94,300	18,800	-	-	246,600
1991	-	3,400	46,200	123,400	11,300	5,800	-	-	190,100
1992	-	3,700	19,900	86,900	36,300	14,700	3,900	-	165,300
1993	-	5,800	3,300	37,300	26,900	7,100	-	-	80,300
1994	-	7,200	2,400	-	1,400	2,900	13,300	-	27,300
1995	-	3,200	7,100	2,300	12,100	5,900	4,600	800	35,900
1996	-	3,000	6,800	3,800	13,900	8,900	7,500	-	44,000
1997	<50	2,900	4,000	7,400	9,500	3,100	3,100	0	30,100

^a Columbia River area includes Astoria, Warrenton, and Hammond; Tillamook area includes Garibaldi and Pacific City; Newport area includes Depoe Bay and Newport; Coos Bay area includes Florence, Winchester Bay, and Coos Bay; Brookings area includes Gold Beach and Brookings.

^b By area and calendar month. Season totals may vary from summarized months due to rounding.

^c Only 600 were ocean only trips. Most were combination bay-ocean trips.

Appendix Table 13. Oregon ocean recreational chinook catch (number of fish) by catch area and month, 1979-97.

Area ^a	Chinook								Season ^b
	April	May	June	July	August	Sept.	Oct.	Nov.	
<u>Columbia River</u>									
1979	-	600	1,600	2,100	3,100	100	-	-	7,500
1980	-	100	1,200	1,400	2,500	400	-	-	5,500
1981	-	<50	400	3,200	6,700	1,200	-	-	11,500
1982	-	-	2,200	6,000	-	-	-	-	8,200
1983	-	-	1,000	1,600	500	200	-	-	3,400
1984	-	-	-	-	-	-	-	-	-
1985	-	-	100	1,300	2,200	-	-	-	3,600
1986	-	-	100	1,200	700	-	-	-	1,900
1987	-	-	200	2,000	1,900	-	-	-	4,100
1988	-	-	-	500	-	-	-	-	500
1989	-	<50	200	200	1,100	-	-	-	1,500
1990	-	-	100	900	2,200	100	-	-	3,300
1991	-	-	100	300	500	<50	-	-	1,000
1992	-	-	-	300	200	<50	-	-	500
1993	-	-	-	300	400	200	-	-	900
1994	-	-	-	-	-	-	-	-	0
1995	-	-	-	<50	100	<50	-	-	100
1996	-	-	-	<50	<50	<50	-	-	<50
1997	-	-	-	100	100	-	-	-	200
<u>Tillamook^e</u>									
1979	-	<50	<50	600	300	<50	-	-	1,000 ^c
1980	-	<50	200	300	800	200	-	-	1,600 ^c
1981	-	<50	<50	600	900	400	-	-	1,900 ^c
1982	-	-	100	1,300	-	-	-	-	1,400
1983	-	-	100	400	200	100	-	-	700
1984	-	-	-	600	500	100	-	-	1,100
1985	-	-	-	1,100	1,400	100	100	-	2,600
1986	-	0	<50	200	200	-	-	-	500
1987	-	-	100	800	2,000	600	-	-	3,500
1988	-	<50	100	300	1,300	1,000	-	-	2,700
1989	-	<50	100	300	400	<50	-	-	900
1990	-	0	100	500	400	300	100	-	1,200
1991	-	<50	300	400	-	-	-	-	700
1992	-	100	300	600	300	200	-	-	1,500
1993	-	100	<50	200	<50	-	-	-	300
1994	-	100	100	-	-	-	2,200	0	2,400
1995	-	100	<50	-	-	100	300	100	500
1996	-	100	<50	<50	100	700	700	-	1,600
1997	-	0	<50	<50	<50	200	300	-	500
<u>Newport</u>									
1979	-	200	300	500	400	<50	-	-	1,400 ^d
1980	-	100	600	600	400	200	-	-	1,800 ^d
1981	-	<50	100	1,100	1,000	200	-	-	2,400 ^d
1982	-	-	600	2,900	-	-	-	-	3,500
1983	-	-	400	800	300	200	-	-	1,600
1984	-	-	-	1,100	900	100	-	-	2,000
1985	-	-	-	1,400	2,600	100	-	-	4,100
1986	-	100	100	1,900	100	-	-	-	2,300
1987	-	-	200	2,400	2,100	1,700	-	-	6,400
1988	-	100	800	2,200	1,700	500	-	-	5,300
1989	-	100	700	500	400	<50	-	-	1,800
1990	-	<50	300	1,400	800	200	-	-	2,700
1991	-	100	400	400	-	-	-	-	900
1992	-	100	300	2,800	900	100	-	-	4,100
1993	-	<50	0	300	100	-	-	-	400
1994	-	<50	0	-	-	-	-	-	<50
1995	-	<50	<50	<50	-	<50	<50	-	100
1996	-	<50	<50	<50	400	100	-	-	600
1997	0	<50	100	200	900	100	0	-	1,300

Appendix Table 14. Oregon ocean recreational chinook catch, by port and statistical week^a, 1997. (NS = open for salmon, but no sampling)

Stat. Week	Astoria	Garibaldi	Pacific City	Depoe Bay	Newport	Florence	Winchester Bay	Coos Bay	Brookings	Total
16	-	NS	NS	NS	0	NS	NS	0	-	0
17	-	NS	NS	NS	0	NS	NS	2	-	2
18	-	0	NS	0	6	0	0	0	-	6
19	-	0	0	0	14	8	3	0	-	25
20	-	0	0	0	12	0	3	0	-	15
21	-	0	0	4	4	11	11	0	374	404
22	-	0	0	0	5	5	2	0	470	482
23	-	0	0	0	13	0	4	0	-	17
24	-	3	0	1	23	14	8	0	-	49
25	-	0	0	4	13	5	0	8	347	377
26	-	1	1	5	33	5	6	16	422	489
27	-	0	1	5	61	4	64	30	1,025	1,190
28	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	9 ^b	9
30	17	14	-	-	-	-	-	-	-	31
31	92	8	4	7	77	5	113	20	-	326
32	55	2	3	36	256	2	74	15	-	443
33	-	1	0	26	356	4	83	5	795	1,270
34	-	1	0	6	166	13	15	10	652	863
35	-	1	0	10	59	2	19	8	169	268
36	-	19	2	2	79	2	24	0	61	189
37	-	14	NS	1	12	NS	26	3	88	144
38	-	97	NS	0	4	NS	2	0	-	103
39	-	22	NS	0	0	NS	0	0	-	22
40	-	8	NS	NS	NS	NS	NS	NS	19	27
41	-	22	NS	NS	NS	NS	NS	NS	656	678
42	-	257	NS	NS	NS	NS	NS	NS	-	257
43	-	NS	NS	NS	NS	NS	NS	NS	-	0
44	-	NS	NS	NS	NS	NS	NS	NS	-	0
45	-	NS	-	-	-	-	-	-	-	0
46	-	NS	-	-	-	-	-	-	-	0
Total	164	470	11	107	1,193	80	457	117	5,087	7,686

^a Refer to Appendix Table 20 for 1997 statistical week calendar.

^b Illegal landings.

Appendix Table 15. Oregon ocean recreational coho catch (number of fish) by catch area and month, 1979-97.

Area ^a	Coho						Season ^b
	May	June	July	August	Sept.	Oct.	
<u>Columbia R.</u>							
1979	400	6,500	13,300	16,300	1,500	-	38,000
1980	1,800	17,300	19,800	15,600	1,200	-	55,600
1981	1,700	8,300	18,100	20,200	6,000	-	54,300
1982	-	5,300	30,200	-	-	-	35,500
1983	-	3,600	18,900	9,700	5,100	-	37,200
1984	-	-	3,600	7,300	-	-	10,900
1985	-	700	11,600	18,800	-	-	31,000
1986	-	1,700	23,300	14,100	-	-	39,100
1987	-	900	12,500	12,300	-	-	25,600
1988	-	-	9,800	-	-	-	9,800
1989	-	1,600	17,500	15,200	-	-	34,300
1990	-	3,500	14,700	16,600	1,300	-	36,100
1991	-	2,400	16,400	17,200	3,400	-	39,400
1992	-	-	17,900	3,000	1,400	-	22,300
1993	-	-	7,600	10,900	3,800	-	22,300
1994	-	-	-	-	-	-	0
1995	-	-	2,000	9,000	800	-	11,800
1996	-	-	1,400	4,700	900	-	7,000
1997	-	-	4,500	1,400	-	-	5,800
<u>Tillamook^e</u>							
1979	100	1,100	2,600	5,600	<50	-	9,400 ^c
1980	100	7,100	10,800	10,300	600	-	28,900 ^c
1981	300	1,000	5,600	9,600	1,300	-	17,700
1982	-	1,300	21,800	-	-	-	23,100
1983	-	200	6,100	1,600	900	-	8,800
1984	-	-	9,300	10,600	500	-	20,300
1985	-	-	8,900	21,700	400	-	31,000
1986	0	3,400	15,800	5,100	-	-	24,300
1987	-	600	10,200	4,900	700	-	16,400
1988	100	1,800	8,200	14,200	5,700	-	29,900
1989	<50	3,400	19,700	7,000	100	-	30,100
1990	0	900	8,800	12,400	800	-	22,900
1991	<50	2,500	23,100	-	-	-	25,600
1992	100	1,800	11,300	6,100	1,400	-	20,800
1993	<50	<50	900	1,400	-	-	2,300
1994	0	0	-	-	-	<50 ^e	<50 ^e
1995	0	0	-	-	<50 ^e	0	<50 ^e
1996	0	0	0	<50 ^e	<50 ^e	<50 ^e	<50 ^e
1997	0	0	<50 ^e	0	<50 ^e	0	<50 ^e
<u>Newport</u>							
1979	200	3,700	18,700	13,600	<50	-	36,300 ^d
1980	200	18,500	41,500	10,800	1,400	-	72,400 ^d
1981	400	6,300	20,700	30,500	4,000	-	61,900
1982	-	3,600	40,500	-	-	-	44,000
1983	-	600	13,500	4,300	3,500	-	21,800
1984	-	-	24,700	16,400	100	-	41,200
1985	-	-	14,900	45,600	1,400	-	61,800
1986	1,500	7,600	57,400	13,900	-	-	80,400
1987	-	1,300	43,100	14,500	6,300	-	65,300
1988	200	6,400	45,800	42,800	5,600	-	100,800
1989	800	24,200	47,400	29,600	600	-	102,500
1990	200	5,800	37,900	19,000	1,200	-	64,100
1991	100	15,200	65,800	-	-	-	81,100
1992	<50	9,700	34,700	16,900	2,200	-	63,500
1993	<50	<50	9,400	7,000	-	-	16,400
1994	0	0	-	-	-	-	0
1995	0	0	-	-	<50 ^e	0	<50 ^e
1996	0	0	0	<50 ^e	<50 ^e	-	<50 ^e
1997	0	0	0	<50 ^e	0	0	<50 ^e

Appendix Table 15 (cont.) Oregon ocean recreational coho catch (number of fish) by catch area and month, 1979-97.

Area ^a	Coho						Season ^b
	May	June	July	August	Sept.	Oct.	
<u>Coos Bay</u>							
1979	4,900	22,700	16,700	14,600	<50	-	79,000
1980	3,800	53,600	70,600	7,100	800	-	135,900
1981	6,300	8,100	25,100	16,500	1,700	-	57,600
1982	-	12,200	43,400	-	-	-	55,600
1983	-	20,700	28,300	9,200	4,500	-	62,700
1984	-	-	19,600	19,700	100	-	39,400
1985	-	-	30,900	19,700	500	-	51,200
1986	1,100	8,000	48,000	6,100	-	-	63,200
1987	-	1,000	44,600	6,400	2,100	-	54,100
1988	100	10,700	42,200	17,200	1,000	-	71,200
1989	700	22,300	38,500	11,600	<50	-	73,100
1990	<50	12,400	23,500	23,200	3,100	-	62,200
1991	800	23,400	66,500	-	-	-	90,800
1992	500	13,100	43,800	15,800	2,700	-	76,000
1993	100	100	7,600	4,400	-	-	12,200
1994	0	0	-	-	-	-	0
1995	0	0	-	-	0	0	0
1996	0	0	0	<50 ^e	<50 ^e	-	<50 ^e
1997	0	0	<50 ^e	<50 ^e	0	0	<50 ^e
<u>Brookings</u>							
1979	<50	1,600	14,500	2,100	-	-	18,200
1980	100	17,700	13,400	1,400	500	-	33,000
1981	500	2,600	1,400	3,800	100	-	8,300
1982	<50	1,700	15,200	-	-	-	16,900
1983	500	4,900	8,900	1,600	500	-	16,300
1984	-	-	7,400	4,000	200	-	11,500
1985	<50	-	4,900	2,500	<50	-	7,400
1986	1,500	2,600	5,700	2,100	0	<50	12,000
1987	<50	500	14,000	3,100	1,400	<50	19,000
1988	<50	1,000	12,100	1,800	100	-	15,000
1989	200	4,200	20,300	7,500	800	-	33,000
1990	100	8,400	5,000	1,800	<50	-	15,300
1991	0	10,200	10,600	500	900	-	22,200
1992	-	-	2,800	-	400	-	3,300
1993	100	100	1,900	3,400	500	-	6,000
1994	0	0	-	<50 ^e	<50 ^e	-	<50 ^e
1995	0	<50 ^e	0	100 ^e	<50 ^e	<50 ^e	100 ^e
1996	0	<50 ^e	<50 ^e	<50 ^e	<50 ^e	<50 ^e	100 ^e
1997	<50 ^e	<50 ^e	<50 ^e	<50 ^e	<50 ^e	-	100 ^e
<u>All Areas</u>							
1979	5,700	35,600	85,800	52,200	1,600	-	180,900
1980	6,000	114,200	156,100	45,100	4,400	-	325,800
1981	9,200	26,300	70,800	80,600	12,900	-	199,800
1982	<50	24,100	151,000	-	-	-	175,100
1983	500	30,000	75,600	26,400	14,400	-	146,900
1984	-	-	64,600	57,900	900	-	123,300
1985	<50	700	71,100	108,200	2,300	-	182,400
1986	4,100	23,300	150,100	41,300	-	<50	218,900
1987	<50	4,300	124,400	41,200	10,500	<50	180,500
1988	300	20,000	118,200	76,100	12,300	-	226,900
1989	1,600	55,900	143,400	70,900	1,500	-	273,300
1990	300	31,000	89,800	73,000	6,500	-	200,600
1991	900	53,800	182,400	17,700	4,300	-	259,100
1992	600	24,700	110,600	41,700	8,200	-	185,800
1993	200	200	27,500	27,100	4,300	-	59,300
1994	0	0	-	<50 ^e	<50 ^e	<50 ^e	<50 ^e
1995	0	<50 ^e	2,000	9,100	800	<50 ^e	11,900
1996	0	<50 ^e	1,500	4,700	1,000	<50 ^e	7,200
1997	<50	<50 ^e	4,500	1,500	<50 ^e	0	6,000

^a Columbia River area includes Astoria, Warrenton, and Hammond; Tillamook area includes Garibaldi and Pacific City; Newport area includes Depoe Bay and Newport; Coos Bay area includes Florence, Winchester Bay, and Coos Bay; Brookings area includes Gold Beach and Brookings.
^b Individual monthly catches may not equal season total due to rounding. Season totals for individual catch areas for 1974-1975 data may not equal the sum of combined months due to some effort/landings not identified by port of landing. "All Areas" summary includes unidentified data.
^c Includes Nehalem Bay.
^d Includes Salmon and Siletz Rivers, and Alsea Bay.
^e Illegal coho landings during closed season.

Appendix Table 16. Oregon ocean recreational coho catch, by port and statistical week^a, 1997. (NS = open for salmon, but no sampling)

Stat. Week	Astoria	Garibaldi	Pacific City	Depoe Bay	Newport	Florence	Winchester Bay	Coos Bay	Brookings	Total
19	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	3 b	3
22	-	-	-	-	-	-	-	-	14 b	14
23	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	7 b	7
26	-	-	-	-	-	-	-	-	19 b	19
27	-	-	1 b	-	-	-	4 b	-	41 b	46
28	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-
30	1,955	107	-	-	-	-	-	-	-	2,062
31	2,223	170	-	-	-	-	3 b	-	-	2,396
32	1,303	49	-	-	-	-	-	-	-	1,352
33	-	-	-	-	-	2 b	4 b	2 b	20 b	28
34	-	-	-	-	14 b	-	-	2 b	16 b	32
35	-	-	-	-	-	-	-	-	3 b	3
36	-	2 b	-	-	-	-	-	-	4 b	6
37	-	2 b	NS	-	-	NS	-	-	-	2
38	-	2 b	NS	-	-	NS	-	-	-	2
39	-	-	NS	-	-	NS	-	-	-	-
40	-	-	NS	NS	NS	NS	NS	NS	-	-
41	-	-	NS	NS	NS	NS	NS	NS	-	-
42	-	-	NS	NS	NS	NS	NS	NS	-	-
43	-	NS	NS	NS	NS	NS	NS	NS	-	-
44	-	NS	NS	NS	NS	NS	NS	NS	-	-
Total	5,481	332	1	0	14	2	11	4	127	5,972

^a Refer to Appendix Table 20 for 1997 statistical week calendar.

^b Coho were prohibited in most areas in 1997, these were illegal landings.

Appendix Table 17. The number of Oregon charter boats active by port^a and year, 1987 - 1997^b.

Port	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Astoria	50	48	42	41	34	30	24	NA	30	25	16
Garibaldi	20	24	20	18	17	17	13	15	15	14	13
Pacific City	2	3	3	0	0	0	0	0	0	0	1
Depoe Bay	24	24	24	24	23	23	21	20	20	20	22
Newport	32	32	31	33	30	33	30	33	20	28	20
Florence	1	1	1	1	2	1	1	1	0	0	0
Winchester Bay	10	10	8	9	8	8	6	2	0	0	0
Coos Bay	5	5	5	5	4	4	4	4	2	5	4
Gold Beach	2	2	1	1	1	1	1	3	3	0	2
Brookings	5	9	7	9	10	6	4	4	3	4	5
Total	151	158	139	141	129	123	103	81	93	96	83

^a Some vessels operated in more than one port and are, therefore, included more than once on the table.

^b Not all vessels fished for salmon.

Appendix Table 18. Oregon ocean recreational salmon effort and catch by boat type, 1979-97^a and 1979-96 average.

Year	Angler Trips		Chinook Catch		Coho Catch	
	Charter	Private	Charter	Private	Charter	Private
1979	73,700	187,700	5,400	13,300	59,800	101,800
1980	79,000	218,900	5,100	11,900	98,300	207,500
1981	65,400	245,800	6,600	22,500	64,500	135,300
1982	43,300	182,700	8,200	30,600	48,500	126,700
1983	41,900	184,100	4,700	20,000	39,700	107,200
1984	24,300	128,700	2,200	14,800	27,300	96,100
1985	53,400	198,200	9,200	46,600	60,200	122,800
1986	43,700	143,300	4,200	18,700	75,000	143,900
1987	60,900	194,200	14,300	45,100	61,900	118,700
1988	62,500	188,200	7,300	31,000	73,500	153,300
1989	60,200	206,100	4,200	27,900	85,800	187,500
1990	55,300	191,200	5,100	21,500	61,600	139,100
1991	40,300	149,700	1,900	12,500	68,900	190,200
1992	30,000	135,400	2,700	9,900	46,200	139,600
1993	12,700	66,900	900	5,600	15,000	43,100
1994	1,400	25,500	500	5,600	0	0
1995	4,600	31,200	300	6,400	4,000	7,900
1996	5,600	38,300	1,200	10,100	3,000	4,200
1979-1996	42,100	150,900	4,700	19,700	49,700	112,500
1997	3,900	26,200	1,500	6,200	2,400	3,600

^a Salmon data from surveyed ports only. These include Astoria, Garibaldi, Depoe Bay, Newport, Winchester Bay, Coos Bay and Brookings. Since 1981 Pacific City and Florence have also been included. Gold Beach data are included from 1981-1987.

Appendix Table 19. Oregon ocean recreational salmon effort and catch, by boat type and port, 1979-97.

	SALMON ANGLER TRIPS		CATCH			
	Charter	Private	Chinook		Coho	
			Charter	Private	Charter	Private
<u>Columbia River</u>						
1979	18,511	24,267	3,415	3,657	20,124	17,770
1980	26,250	20,065	3,122	2,381	37,666	17,981
1981	15,967	28,728	4,298	7,218	23,679	30,615
1982	11,794	15,442	3,950	4,285	17,184	18,292
1983	12,901	17,950	1,694	1,746	17,661	19,584
1984	2,704	4,406	5	21	4,409	6,465
1985	8,328	11,693	1,469	2,098	14,466	16,543
1986	7,717	12,826	660	1,396	16,429	22,634
1987	8,044	9,086	1,935	2,128	13,423	12,224
1988	2,425	3,243	231	250	4,306	5,539
1989	9,126	10,711	524	940	16,863	17,441
1990	8,497	17,024	1,107	2,212	14,140	21,970
1991	8,102	13,552	334	649	15,501	23,862
1992	4,589	8,336	172	336	8,766	13,514
1993	5,840	12,709	336	575	8,590	13,759
1994	NA	NA	-	-	-	-
1995	2,460	7,189	2	107	3,836	7,503
1996	1,723	3,555	3	25	2,872	3,943
1979-96 avg.	9,116	12,987	1,368	1,766	14,113	15,861
1997	1,201	2,102	34	130	2,237	3,244
<u>Garibaldi</u>						
1979	2,786	16,288	47	664	1,246	4,722
1980	3,688	29,347	75	722	3,302	16,105
1981	2,862	30,907	177	1,601	1,936	12,992
1982	1,859	16,588	729	671	16,513	14,159
1983	1,743	21,516	54	543	1,203	6,708
1984	2,356	16,816	147	731	2,855	12,432
1985	4,855	26,824	465	1,710	6,536	17,101
1986	2,856	11,824	110	279	5,245	13,781
1987	5,217	18,986	872	2,205	4,782	7,886
1988	7,065	21,548	604	1,738	9,003	16,181
1989	4,945	21,355	114	564	7,229	16,127
1990	5,470	24,085	209	794	5,979	13,120
1991	2,535	15,269	44	558	4,446	16,316
1992	2,721	17,887	117	1,045	4,089	10,331
1993	476	3,802	18	238	295	925
1994	1,228	9,052	427	1,971	-	29
1995	1,248	3,825	53	486	210	227
1996	1,008	7,633	213	1,377	119	108
1979-96 avg.	3,051	17,420	249	994	4,166	9,958
1997	376	3,278	51	419	113	219
<u>Pacific City</u>						
1979	NA	NA	-	-	-	-
1980	NA	NA	-	-	-	-
1981	230	4,012	9	108	110	2,655
1982	210	5,947	5	626	267	6,280
1983	90	1,958	3	92	35	862
1984	142	4,465	2	225	219	4,779
1985	477	6,400	36	399	650	6,696
1986	117	3,134	2	85	205	5,048
1987	238	4,610	27	440	328	3,432
1988	196	4,449	11	366	148	4,563
1989	254	4,743	5	187	383	6,584
1990	0	3,941	0	228	0	3,813
1991	0	3,220	0	84	0	4,888
1992	0	5,527	0	341	0	6,338
1993	0	1,293	0	41	0	1,103
1994	0	1	0	0	0	0
1995	0	46	0	3	0	0
1996	0	13	0	0	0	0
1981-96 avg.	122	3,360	6	202	147	3,565
1997	0	99	0	11	0	1

Appendix Table 19 continued. Oregon ocean recreational salmon effort and catch, by boat type and port, 1979-97.

	SALMON ANGLER TRIPS		CATCH			
	Charter	Private	Chinook		Coho	
			Charter	Private	Charter	Private
<u>Depoe Bay</u>						
1979	14,535	7,511	197	130	8,435	3,867
1980	14,489	10,251	260	160	15,477	8,783
1981	12,423	9,584	382	399	11,376	7,406
1982	7,883	9,762	421	857	8,608	9,803
1983	5,699	7,464	138	244	3,150	3,900
1984	5,335	8,657	305	475	5,572	8,987
1985	11,918	13,069	691	808	13,155	13,580
1986	10,427	7,156	293	170	18,049	10,839
1987	14,669	11,638	1,394	1,115	14,976	10,697
1988	18,732	13,313	793	582	20,801	14,921
1989	15,592	11,342	310	237	21,255	14,413
1990	14,027	9,228	411	300	14,407	8,630
1991	9,018	6,592	147	82	14,937	10,650
1992	7,448	8,448	573	546	10,937	10,934
1993	2,304	2,297	41	65	2,397	2,781
1994	0	21	2	3	-	-
1995	44	3	4	0	0	0
1996	517	23	104	2	0	0
1979-96 avg.	9,170	7,576	359	343	10,196	7,788
1997	550	29	105	2	0	0
<u>Newport</u>						
1979	12,144	37,848	249	832	5,770	18,055
1980	12,210	46,324	288	1,058	9,261	38,443
1981	13,104	42,231	480	1,151	12,000	31,071
1982	6,754	29,081	517	1,689	5,957	19,679
1983	5,836	23,560	308	918	3,561	11,237
1984	5,793	24,175	436	746	6,904	19,774
1985	11,216	34,351	669	1,924	12,052	23,100
1986	9,529	25,038	486	1,319	17,020	34,462
1987	13,725	36,917	1,600	2,332	13,250	26,343
1988	15,440	42,152	1,097	2,863	20,367	44,761
1989	12,731	43,098	361	925	18,899	47,914
1990	12,583	35,559	706	1,241	14,201	26,872
1991	10,214	27,431	219	432	17,358	38,122
1992	7,345	29,808	1,119	1,899	10,234	31,441
1993	2,431	10,080	80	250	2,903	8,303
1994	0	65	0	0	-	-
1995	522	374	72	32	0	7
1996	1,620	611	413	35	0	11
1979-96 avg.	8,511	27,150	506	1,091	9,430	23,311
1997	1,254	602	1,100	93	0	14
<u>Florence</u>						
1979	-	-	-	-	-	-
1980	-	-	-	-	-	-
1981	13	13,179	0	764	1	7,050
1982	0	8,687	0	1,749	0	6,825
1983	98	7,732	13	564	33	3,003
1984	0	8,673	0	1,370	0	8,118
1985	396	13,350	57	1,460	365	8,968
1986	625	8,270	89	1,175	1,245	11,470
1987	625	12,927	196	3,166	450	9,794
1988	716	14,357	23	1,431	707	15,485
1989	0	12,176	0	1,755	0	10,744
1990	429	15,358	11	980	314	13,852
1991	468	12,048	24	1,008	615	19,195
1992	595	15,177	6	545	836	21,355
1993	173	3,726	5	173	141	2,173
1994	0	137	0	3	-	-
1995	0	226	0	78	0	0
1996	0	328	0	104	0	0
1981-96 avg.	259	9,147	27	1,020	294	8,627
1997	0	712	0	80	0	2

Appendix Table 19 continued. Oregon ocean recreational salmon effort and catch, by boat type and port, 1979-97.

	SALMON ANGLER TRIPS		CATCH			
	Charter	Private	Chinook		Coho	
			Charter	Private	Charter	Private
<u>Winchester Bay</u>						
1979	14,795	34,133	668	2,089	15,385	28,473
1980	11,405	43,969	731	2,769	17,882	66,514
1981	11,096	33,393	523	2,036	7,767	22,776
1982	7,186	24,923	1,052	3,540	8,008	24,156
1983	8,273	32,654	905	3,212	8,124	27,682
1984	4,253	17,444	508	2,067	4,651	16,790
1985	8,691	25,708	2,249	3,802	8,960	20,571
1986	6,888	16,192	839	1,564	11,926	22,463
1987	10,169	22,087	4,777	6,906	9,518	18,817
1988	11,399	26,882	1,807	3,397	12,781	27,287
1989	9,582	26,219	712	2,659	12,696	29,734
1990	9,113	26,374	1,234	2,634	9,012	27,048
1991	5,553	23,400	380	2,054	9,964	36,714
1992	5,027	21,282	403	1,653	8,295	28,889
1993	1,145	5,483	134	357	1,022	4,277
1994	6	171	1	14	-	-
1995	-	-	-	-	-	-
1996	0	2,165	0	448	0	11
1979-96 avg.	7,328	22,499	995	2,424	9,124	25,138
1997	0	2,470	0	457	0	11
<u>Coos Bay</u>						
1979	7,925	18,788	480	543	8,173	11,502
1980	8,241	21,254	349	861	13,275	28,199
1981	6,481	19,738	319	813	6,803	13,251
1982	4,231	14,328	1,012	2,732	5,203	11,392
1983	3,687	19,184	357	1,532	4,958	18,854
1984	1,647	8,219	152	757	1,934	7,945
1985	3,376	11,980	569	1,319	3,424	8,874
1986	2,129	9,501	469	1,921	3,729	12,408
1987	3,607	13,112	969	2,954	3,521	12,049
1988	3,446	12,213	488	934	4,130	10,860
1989	3,553	15,082	212	1,343	4,691	15,249
1990	2,689	11,066	269	1,479	2,294	9,675
1991	2,374	13,839	102	1,488	4,139	20,153
1992	1,768	11,709	161	995	2,897	13,693
1993	454	4,341	108	307	568	4,010
1994	0	53	0	0	-	-
1995	14	477	6	159	0	0
1996	132	1,292	40	249	0	6
1979-96 avg.	3,097	11,454	337	1,133	3,874	11,007
1997	0	750	2	115	0	4
<u>Gold Beach</u>						
1979	1,515	5,840	154	974	201	625
1980	1,182	2,891	134	285	306	888
1981	1,482	3,131	246	658	247	644
1982	1,993	4,792	469	888	271	839
1983	2,174	6,685	511	1,557	366	1,192
1984	966	4,072	251	661	256	1,330
1985	1,755	4,786	723	1,857	168	539
1986	1,365	3,016	363	812	255	590
1987	1,399	2,709	394	992	446	1,176
1988	377	466	38	69	110	92
1989	NA	NA	-	-	-	-
1990	NA	NA	-	-	-	-
1991	NA	NA	-	-	-	-
1992	NA	NA	-	-	-	-
1993	NA	NA	-	-	-	-
1994	NA	NA	-	-	-	-
1995	NA	NA	-	-	-	-
1996	NA	NA	-	-	-	-
1997	NA	NA	-	-	-	-

Appendix Table 19 continued. Oregon ocean recreational salmon effort and catch, by boat type and port, 1979-97.

	SALMON ANGLER TRIPS		CATCH			
	Charter	Private	Chinook		Coho	
			Charter	Private	Charter	Private
<u>Brookings</u>						
1979	1,507	42,995	160	4,446	497	16,811
1980	1,590	44,783	134	3,686	1,176	30,589
1981	1,753	60,891	216	7,775	595	6,838
1982	1,398	53,171	669	13,502	565	15,234
1983	1,415	45,403	697	9,589	610	14,181
1984	1,132	31,803	424	7,709	468	9,437
1985	2,417	49,993	2,296	31,266	318	6,847
1986	2,004	46,304	847	9,938	864	10,221
1987	3,210	62,099	2,180	22,838	1,171	16,251
1988	2,660	49,572	2,252	19,353	1,178	13,653
1989	4,415	61,336	1,918	19,277	3,796	29,253
1990	2,500	48,612	1,126	11,607	1,236	14,083
1991	2,080	34,367	663	6,148	1,897	20,329
1992	468	17,182	151	2,511	184	3,112
1993	626	23,165	211	3,556	300	5,734
1994	193	15,965	63	3,553	-	17
1995	321	19,101	187	5,544	0	130
1996	631	22,711	378	7,819	0	106
1979-96 avg.	1,684	40,525	810	10,562	825	11,824
1997	471	15,973	218	4,869	0	127
<u>S. of Falcon</u>						
1979	55,207	163,403	1,955	9,678	39,707	84,055
1980	52,805	198,822	1,971	9,541	60,679	189,521
1981	49,444	217,066	2,352	15,305	40,835	104,683
1982	31,514	167,279	4,215	26,266	31,267	108,385
1983	29,015	166,156	2,986	18,251	22,040	87,619
1984	21,627	124,324	2,225	14,741	22,859	89,592
1985	45,101	186,461	7,755	44,545	45,701	106,276
1986	35,940	130,488	3,509	17,264	58,544	121,300
1987	52,859	185,085	12,409	42,948	48,442	106,445
1988	60,031	184,952	7,113	30,733	69,225	147,803
1989	51,072	195,351	3,632	26,947	68,949	170,018
1990	46,811	174,223	3,966	19,263	47,443	117,093
1991	32,242	136,166	1,579	11,854	53,356	166,367
1992	25,372	127,020	2,530	9,535	37,472	126,093
1993	7,609	54,187	597	4,987	7,626	29,306
1994	1,427	25,470	493	5,544	0	46
1995	2,149	24,052	322	6,302	210	364
1996	3,683	34,645	1,148	10,034	0	141
1979-96 avg.	33,550	138,619	3,376	17,985	36,353	97,506
1997	2,548	23,913	1,466	6,037	0	165
<u>Grand Total</u>						
1979	73,718	187,670	5,370	13,335	59,831	101,825
1980	79,055	218,887	5,093	11,922	98,345	207,502
1981	65,411	245,794	6,650	22,523	64,514	135,298
1982	43,308	182,721	8,165	30,551	48,451	126,677
1983	41,916	184,106	4,680	19,997	39,701	107,203
1984	24,331	128,730	2,230	14,762	27,268	96,057
1985	53,429	198,154	9,224	46,643	60,167	122,819
1986	43,657	143,314	4,169	18,660	74,973	143,934
1987	60,903	194,171	14,344	45,076	61,865	118,669
1988	62,456	188,195	7,344	30,983	73,531	153,342
1989	60,198	206,062	4,156	27,887	85,812	187,459
1990	55,308	191,247	5,073	21,475	61,583	139,063
1991	40,344	149,718	1,913	12,503	68,857	190,229
1992	29,961	135,356	2,702	9,871	46,238	139,607
1993	13,449	66,896	933	5,562	16,216	43,065
1994	1,427	25,470	493	5,544	0	46
1995	4,609	31,241	324	6,409	4,046	7,867
1996	5,631	38,331	1,151	10,059	3,015	4,185
1979-96 avg.	42,173	150,892	4,668	19,653	49,688	112,492
1997	3,852	26,211	1,510	6,176	2,350	3,622

Appendix Table 20. Statistical week calendar for 1997.

Stat. Week	Beginning Monday	Ending Sunday	Calendar Month
18	28 April	04 May	May
19	05 May	11 May	
20	12 May	18 May	
21	19 May	25 May	
22	26 May	01 June	
23	02 June	08 June	June
24	09 June	15 June	
25	16 June	22 June	
26	23 June	29 June	
27	30 June	06 July	July
28	07 July	13 July	
29	14 July	20 July	
30	21 July	27 July	
31	28 July	03 August	
32	04 August	10 August	August
33	11 August	17 August	
34	18 August	24 August	
35	25 August	31 August	
36	01 September	07 September	September
37	08 September	14 September	
38	15 September	21 September	
39	22 September	28 September	
40	29 September	05 October	October
41	06 October	12 October	
42	13 October	19 October	
43	20 October	26 October	
44	27 October	02 November	
45	03 November	09 November	November
46	10 November	16 November	
47	17 November	23 November	
48	24 November	30 November	
49	01 December	07 December	December
50	08 December	14 December	
51	15 December	21 December	
52	22 December	28 December	
53	29 December		

Appendix Table 21. 1997 Oregon coastal freshwater and estuary exceptions to the coho salmon closure in coastal basins for the periods listed below.

Areas Open for Coho Angling	Open Period
North Fork of the Nehalem River from it's confluence with the mainstem Nehalem River upstream to fourth bridge on Hamlet Road near milepost 6.	Aug. 16 - Oct. 31
The Trask River open for finclipped coho from the Hwy. 101 bridge upstream to the confluence of the North and South forks.	Sept. 16 - Oct. 31
Yaquina River mainstem (including tidewater) open for fin-clipped coho upstream to Big Elk Creek.	Aug. 16 - Nov. 30
The mainstem Umpqua River (including tidewater) downstream from the North Umpqua.	Aug. 16 - Dec. 31
The North Umpqua River open for fin-clipped coho from the mouth upstream to the fly area boundary above Rock Creek.	Aug. 16 - Dec. 31
The North Umpqua River open for fin-clipped coho from the fly area boundary above Rock Creek upstream to the Soda Springs Dam.	Sept. 1 - Dec. 31
Isthmus Slough (Coos Bay) from the mouth upstream to the tidegate excluding Coal Bank and Davis Sloughs.	Entire year
The Rogue River from tidewater upstream to the deadline markers located downstream from Cole Rivers Hatchery diversion dam open for fin-clipped coho.	Sept. 1 - Dec. 31

Appendix Table 22. Chinook and coho salmon released by Oregon ocean recreational anglers from 1987-97, by port and year, as estimated from angler interviews.

Astoria:	Year	Number Retained		Number Released		Percent Released	
		Chinook	Coho	Chinook	Coho	Chinook	Coho
1987	4,063	25,647	2,500	2,162	38%	8%	
1988	481	9,845	289	481	38%	5%	
1989	1,464	34,304	524	1,778	26%	5%	
1990	3,319	36,110	3,099	2,110	48%	6%	
1991	983	39,363	1,115	2,412	53%	6%	
1992	508	22,280	445	2,952	47%	12%	
1993	836	21,176	209	786	20%	4%	
1995	109	11,339	3,572	4,717	97%	29%	
1996	28	6,815	966	766	97%	10%	
1997	164	5,481	267	1,182	62%	18%	

Garibaldi:	Year	Number Retained		Number Released		Percent Released	
		Chinook	Coho	Chinook	Coho	Chinook	Coho
1987	3,077	12,668	0	5	0%	0%	
1988	2,342	25,184	123	333	5%	1%	
1989	678	23,356	0	87	0%	0%	
1990	1,003	19,099	18	85	2%	0%	
1991	602	20,762	14	49	2%	0%	
1992	1,162	14,420	4	185	0%	1%	
1993	256	1,220	6	56	2%	4%	
1994	2,398	29	25	382	1%	93%	
1995	539	437	331	148	38%	25%	
1996	1,590	227	43	169	3%	43%	
1997	470	332	72	171	13%	34%	

Pacific City:	Year	Number Retained		Number Released		Percent Released	
		Chinook	Coho	Chinook	Coho	Chinook	Coho
1987	467	3,760	0	0	0%	0%	
1988	377	4,711	3	35	1%	1%	
1989	192	6,967	5	231	3%	3%	
1990	228	3,813	6	18	3%	0%	
1991	84	4,888	2	7	2%	0%	
1992	341	6,338	3	17	1%	0%	
1993	41	1,103	12	32	23%	3%	
1994	0	0	1	79	100%	100%	
1995	3	0	4	4	57%	100%	
1996	0	0	0	0	0%	0%	
1997	11	1 ^a	0	1	0%	50%	

Depoe Bay:	Year	Number Retained		Number Released		Percent Released	
		Chinook	Coho	Chinook	Coho	Chinook	Coho
1987	2,509	25,673	0	0	0%	0%	
1988	1,375	35,722	45	747	3%	2%	
1989	547	35,668	20	363	4%	1%	
1990	711	23,037	93	581	12%	2%	
1991	229	25,587	0	44	0%	0%	
1992	1,119	21,871	18	427	2%	2%	
1993	106	5,178	14	177	12%	3%	
1994	5	0	16	160	76%	100%	
1995	4	0	0	0	0%	0%	
1996	106	0	31	107	23%	100%	
1997	107	0	41	196	28%	100%	

Appendix Table 22. (Cont.) Estimated number of chinook and coho salmon released by recreational anglers.

Newport: Year	Number Retained		Number Released		Percent Released	
	Chinook	Coho	Chinook	Coho	Chinook	Coho
1987	3,932	39,593	0	0	0%	0%
1988	3,960	65,128	152	1,886	4%	3%
1989	1,286	66,813	57	684	4%	1%
1990	1,947	41,073	177	911	8%	2%
1991	651	55,480	46	803	7%	1%
1992	3,018	41,675	164	1,581	5%	4%
1993	330	11,206	126	971	28%	8%
1994	0	0	34	112	100%	100%
1995	104	7 ^a	110	48	51%	87%
1996	448	11 ^a	63	943	12%	99%
1997	1,193	14 ^a	388	442	25%	97%

Florence: Year	Number Retained		Number Released		Percent Released	
	Chinook	Coho	Chinook	Coho	Chinook	Coho
1987	3,362	10,244	0	0	0%	0%
1988	1,454	16,192	61	784	4%	5%
1989	1,755	10,744	18	290	1%	3%
1990	991	14,166	119	706	11%	5%
1991	1,032	19,810	38	607	4%	3%
1992	551	22,191	731	2,386	57%	10%
1993	178	2,314	12	85	6%	4%
1994	3	0	0	0	0%	0%
1995	78	0	0	12	0%	100%
1996	104	0	4	108	4%	100%
1997	80	2 ^a	13	37	14%	95%

Winchester Bay: Year	Number Retained		Number Released		Percent Released	
	Chinook	Coho	Chinook	Coho	Chinook	Coho
1987	11,683	28,335	2	27	0%	0%
1988	5,204	40,068	1,100	1,232	17%	3%
1989	3,371	42,430	625	1,485	16%	3%
1990	3,868	36,060	1,665	3,753	30%	9%
1991	2,434	46,678	326	1,907	12%	4%
1992	2,056	37,184	1,515	2,266	42%	6%
1993	491	5,299	39	83	7%	2%
1994	15	0	2	3	12%	100%
1996	448	11 ^a	55	251	11%	96%
1997	457	11 ^a	469	592	51%	98%

Coos Bay: Year	Number Retained		Number Released		Percent Released	
	Chinook	Coho	Chinook	Coho	Chinook	Coho
1987	3,923	15,570	0	0	0%	0%
1988	1,422	14,990	181	182	11%	1%
1989	1,555	19,940	98	491	6%	2%
1990	1,748	11,969	125	322	7%	3%
1991	1,590	24,292	145	668	8%	3%
1992	1,156	16,590	906	2,491	44%	13%
1993	415	4,578	26	113	6%	2%
1994	0	0	16	71	100%	100%
1995	165	0	84	54	34%	100%
1996	289	6 ^a	59	144	17%	96%
1997	117	4 ^a	80	126	41%	97%

Appendix Table 22. (Cont.) Estimated number of chinook and coho salmon released by recreational anglers.

Gold Beach:	Number Retained		Number Released		Percent Released		
	Year	Chinook	Coho	Chinook	Coho	Chinook	Coho
	1987	1,386	1,622	109	126	7%	7%
	1988	107	202	1	4	1%	2%

Brookings:	Number Retained		Number Released		Percent Released		
	Year	Chinook	Coho	Chinook	Coho	Chinook	Coho
	1987	25,018	17,422	7,552	2,759	23%	14%
	1988	21,605	14,831	917	420	4%	3%
	1989	21,195	33,049	229	2,612	1%	7%
	1990	12,733	15,319	1,128	1,508	8%	9%
	1991	6,811	22,226	698	1,740	9%	7%
	1992	2,662	3,296	908	1,531	25%	32%
	1993	3,767	6,034	295	408	7%	6%
	1994	3,616	17	157	442	4%	96%
	1995	5,731	130 ^a	363	942	6%	88%
	1996	8,197	106 ^a	1,893	2,303	19%	96%
	1997	5,087	127 ^a	4,690	3,236	48%	96%

Statewide totals:	Number Retained		Number Released		Percent Released		
	Year	Chinook	Coho	Chinook	Coho	Chinook	Coho
	1987	59,420	180,534	10,163	5,079	15%	3%
	1988	38,327	226,873	2,872	6,104	7%	3%
	1989	32,043	273,271	1,576	8,021	5%	3%
	1990	26,548	200,646	6,430	9,994	19%	5%
	1991	14,416	259,086	2,384	8,237	14%	3%
	1992	12,573	185,845	4,694	13,836	27%	7%
	1993	6,420	58,108	739	2,711	10%	4%
	1994	6,037	46	251	1,249	4%	96%
	1995	6,733	11,913	4,464	5,925	40%	33%
	1996	11,210	7,176	3,114	4,791	22%	40%
	1997	7,686	5,972	6,020	5,983	44%	50%

^a Illegal landings

Appendix Table 23. Estimated chinook stock composition rates and standard deviations (SD) from the commercial salmon troll fishery off the Oregon Coast^a for May, July/August, and September/October, 1992^b. Estimates based on genetic stock identification (GSI) tissue sample analysis.^{cde} Data should be viewed as preliminary.

Stock Grouping	May 1992 Stock Contribution		July/Aug. 1992 Stock Contribution		Sept./Oct. 1992 Stock Contribution	
	Rate	SD	Rate	SD	Rate	SD
Sacramento Basin (ChS + ChF + ChW)	0.500	0.086	0.658	0.062	0.704	0.057
California Coastal / Eel River (ChF)	0.014	0.056	0.002	0.005	0.005	0.013
Klamath River (ChS + ChF)	0.032	0.040	0.039	0.043	0.023	0.026
Smith River (ChF)	0.000	0.000	0.000	0.000	0.000	0.000
Southern Oregon Coastal (ChS + ChF) ^b	0.098	0.086	0.085	0.084	0.098	0.049
Northern Oregon Coastal (ChS + ChF)	0.000	0.000	0.017	0.018	0.042	0.049
Lower Columbia (ChS)	0.000	0.000	0.001	0.021	0.000	0.000
Lower Columbia (ChF)	0.297	0.051	0.162	0.039	0.011	0.016
Upper Columbia (ChS)	0.028	0.022	0.007	0.013	0.000	0.000
Snake River (ChS + ChSu)	0.011	0.011	0.001	0.006	0.006	0.012
Upper Columbia (ChSu)	0.000	0.000	0.003	0.014	0.000	0.000
Upper Columbia & Snake (ChF)	0.000	0.000	0.017	0.026	0.049	0.024
North Washington Coast (ChS + ChSu)	0.000	0.000	0.000	0.000	0.000	0.000
Washington Coastal (ChF)	0.020	0.019	0.009	0.009	0.062	0.056
	N=128		N=384		N=328	

^a The 1992 samples were taken from the troll fishery south of Cape Falcon, primarily from Newport.

^b Sampling dates were May 10 through May 31; July 22 through August 31; September 1 through October 11.

^c Southern Oregon Coastal includes: Rogue River, Chetco River, Pistol River, and the Winchuck River. Rogue River stock releases in the lower Columbia River also fall into this stock grouping.

^d Northern Oregon Coastal includes all Oregon Coastal stocks from the Elk River north.

^e ChS = Spring chinook
 ChSu = Summer chinook
 ChF = Fall chinook
 ChW = Winter chinook