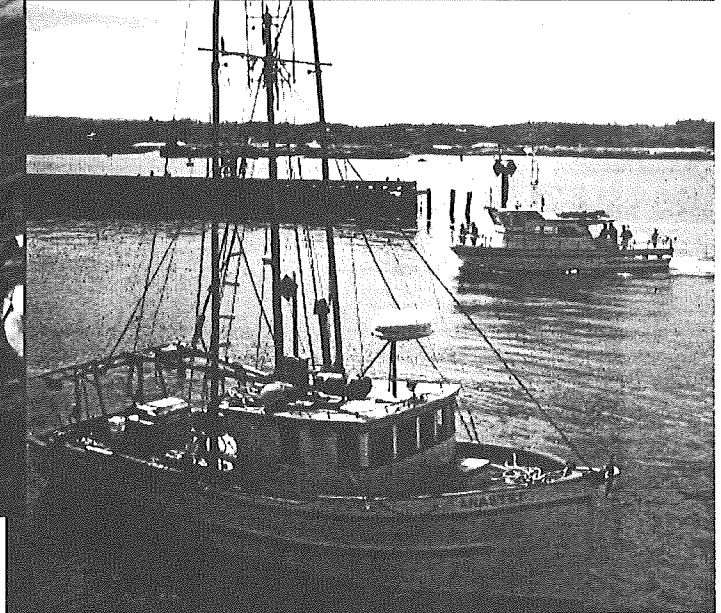
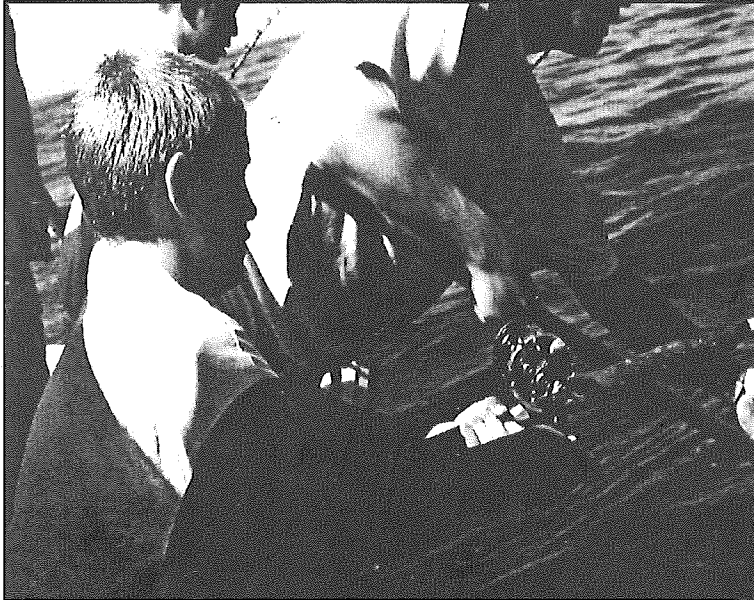
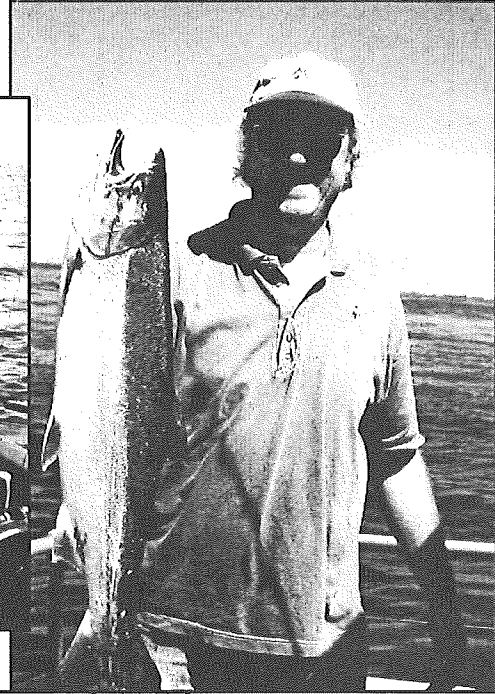


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# Oregon Ocean Salmon Fisheries: Annual Status Report, 1999



## Oregon Department of Fish and Wildlife Ocean Salmon Management

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#### Cover Photos:

Upper Left: Landing a salmon on a commercial salmon troller.

Upper Right: Sport angler showing a fin-clipped coho caught off Oregon.

Lower Right: Commercial salmon troller and sport charter boat coming into dock in Newport.

Lower Left: Sport anglers fishing off a charter boat.

# THE 1999 OREGON OCEAN SALMON FISHERIES

Annual Report  
1999

by  
Eric Schindler  
Justine Kenyon-Benson  
Rodney J. Kaiser

Oregon Department of Fish and Wildlife  
Fish Division  
Marine Resources Program  
Ocean Salmon Management Project:  
(Commercial Troll Salmon Project  
and the Ocean Recreational Boat Survey)

This Project was funded in part by:

Anadromous Fisheries Act  
(administered by the National Marine Fisheries Service)  
Contract Award No: NA77FAO443

Bonneville Power Administration  
(administered by Pacific States Marine Fisheries Commission)  
Project No: 8201300

Pacific Salmon Treaty  
(administered by the National Marine Fisheries Service)  
Contract Award No: NA97FPO059

Federal Aid in Sport Fish Restoration Act  
(administered by the U.S. Fish and Wildlife Service, U.S. Dept. of Interior)  
Project No: F-115-R-18, and F-167-R-01

State of Oregon General Fund and Licensing Revenues.

January, 2002

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## INTRODUCTION

The Ocean Salmon Management Project (OSMP) of the Oregon Department of Fish and Wildlife (ODFW) monitors the ocean commercial troll salmon and the ocean recreational boat fisheries. The data collected and estimates generated by OSMP are used to assist in the development of management strategies to effectively manage Oregon's fisheries resources, and to evaluate proposed ocean salmon fishery regulations.

This report summarizes the activities during the 1999 salmon fishery (April through November) of both sections of OSMP: The Commercial Troll Salmon Project (CTSP) and the Ocean Recreational Boat Survey (ORBS). Primary activities within CTSP include: Recovery of coded wire tags (CWT), estimation of average weight of salmon by species and grade, monitoring of quota fishery landings, and estimating catch and effort by area and time. The key functions of ORBS include: Recovery of CWTs; estimating catch by species, port, area, boat type, and time; estimating numbers of fish released for key species; at sea observations of the recreational selective coho fishery; and collection of biological data from several species.

The OSMP is permanently staffed by a project leader and an assistant project leader at Newport, and two sampling coordinators; one each at Tillamook and Charleston (currently a seasonal position). The sampling coordinators serve as liaison between seasonal field samplers, fishery participants, and program staff at Newport; deliver data and CWTs 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 1999, we sampled the commercial troll fishery at six of the primary Oregon coastal ports, and we sampled the recreational ocean boat fishery at all twelve primary ports. To sample the 1999 fisheries, we utilized twenty-five seasonal samplers: three were commercial troll samplers, thirteen were recreational samplers, and nine were "combination" commercial-recreational samplers. We also had one employee who worked approximately 30% of the time sampling the recreational fishery and 70% of the time processing data (Appendix Table 1).

## 1999 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*) can 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 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 (ORS 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.

Landings of chinook in the Oregon troll fishery have also seen dramatic fluctuations. The troll chinook fishery had record harvests in 1987 and 1988. Beginning in the late 1980s and continuing through 1999, the troll fishery has seen 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 with exceptionally good landings).

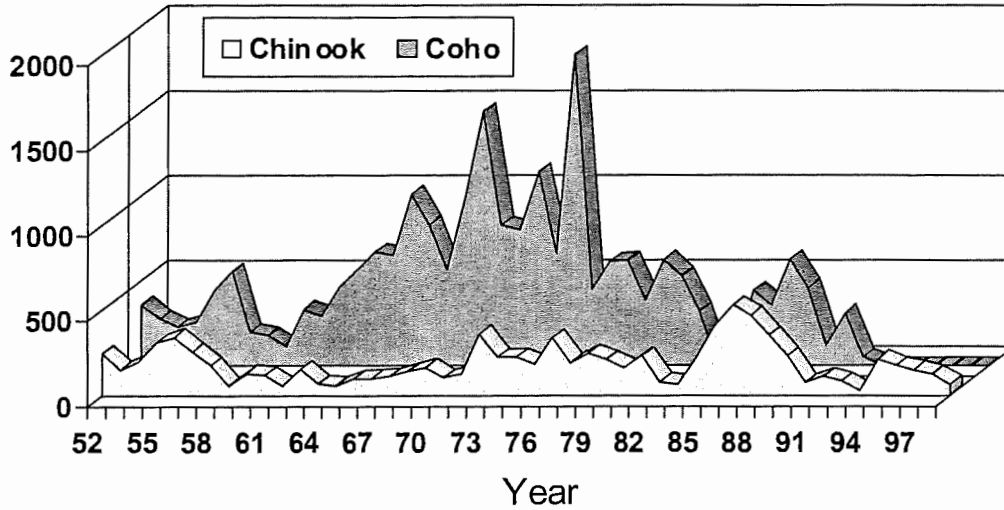
Table 1. Oregon commercial troll salmon effort (deliveries and boat days) and landings (number of fish and pounds dressed), 1952-99. Includes effort and catches made off California, Washington, and Alaska and landed in Oregon.

Year	Effort		Chinook		Coho		Pink	
	Del.	Bt. Days	No.	Lbs. Dr.	No.	Lbs. Dr.	No. <sup>a</sup>	Lbs. Dr. <sup>b</sup>
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
1998	3,749	7,188	124,869	1,397,721	0	0	1	5
1999	3,109	5,116	63,705	722,670	172	850	55	211

<sup>a</sup> Numbers of pink salmon from 1952-78 are 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).

<sup>b</sup> Pounds dressed for pink salmon for the period of 1952-78 is 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)

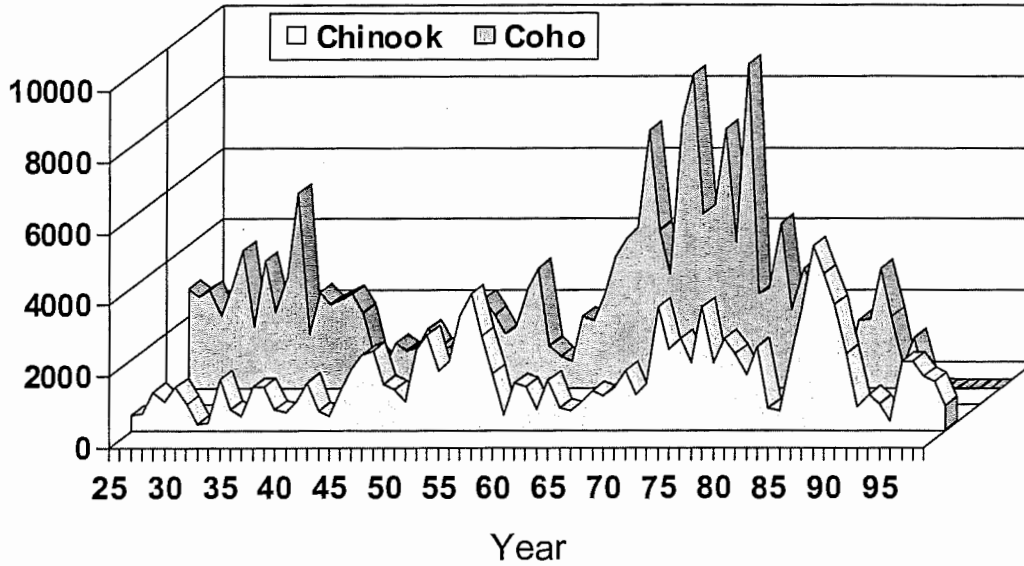


Figure 1. Historical Oregon troll salmon landings in numbers of fish (1952-99), and in pounds dressed, head on viscera removed (1925-99).

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 substantial commercial 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 limited entry troll permit status, the 1995 legislature lowered the permit cap further to 1,200. In 1999, the number of renewed troll permits declined to 1,111 from the 1,194 renewed in 1998. Of the permitted vessels, only 328 recorded landings of salmon in 1999.

Ocean troll coho salmon fishing was prohibited in Oregon waters for the sixth straight year in 1999. The second half of July was closed to all salmon trolling in the area from Cape Falcon to Humbug Mountain to reduce incidental hooking mortality impacts on wild coho salmon. The areas north of Cape Falcon and south of Humbug Mountain saw very limited troll chinook salmon opportunities again in 1999 (Figure 2).

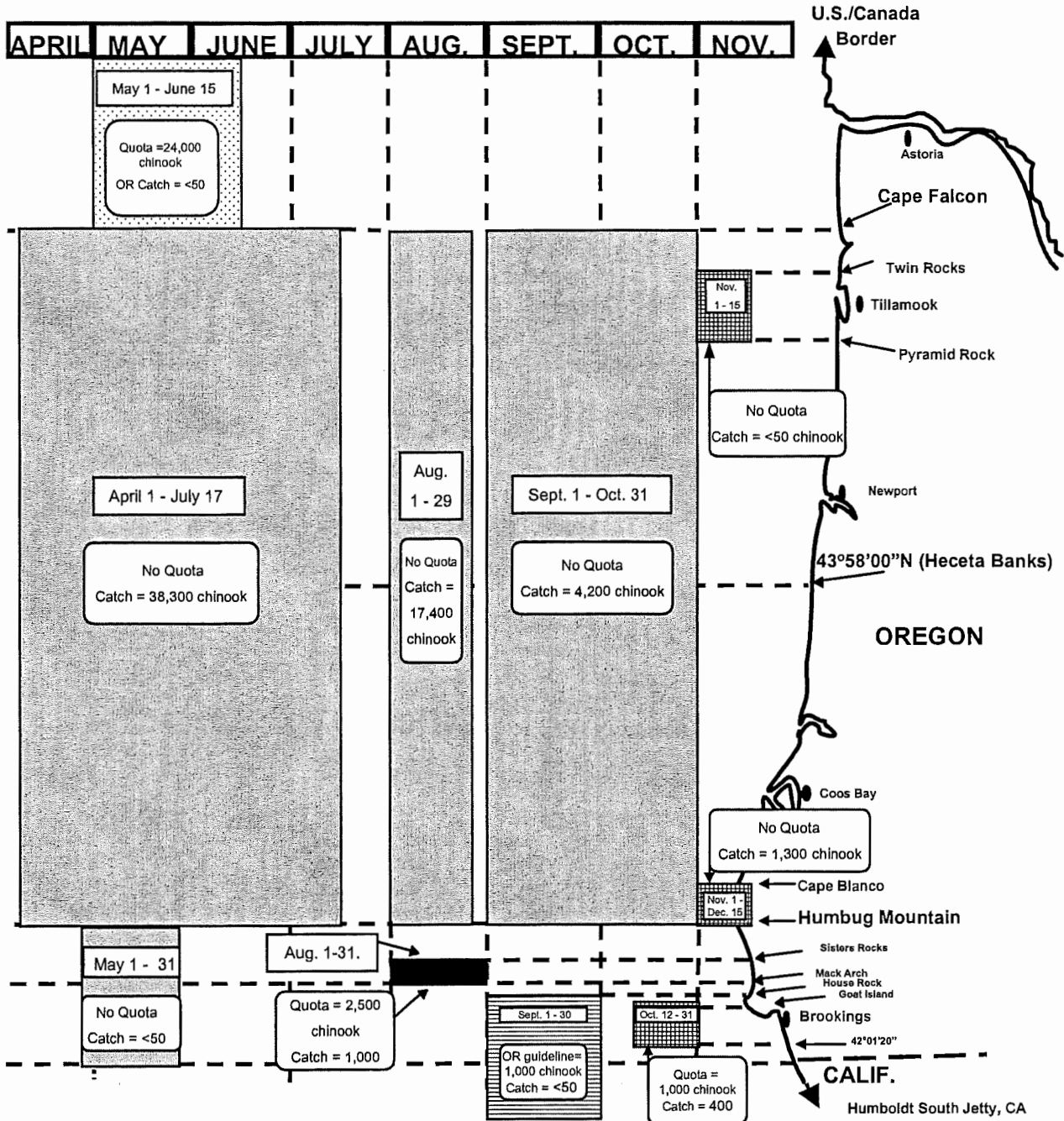
## **SAMPLING METHODOLOGY**

### **Sampling Areas and Staffing**

For 1999, a seasonal staff of three troll salmon samplers and nine 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, and Brookings. Troll sampling was also supplemented at times by sampling coordinators and 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 data is then transferred weekly to the Newport office and downloaded to a computer for summarization and analysis. All individual landings are kept confidential.



- All salmon except coho. Chinook minimum size: 28" North of Cape Falcon.
- No more than 4 spreads per wire. All salmon except coho. Chinook minimum size: 26".
- Open 0 - 4 nautical miles. All salmon must be landed in Gold Beach, Port Orford, or Brookings within 24 hours of each closure. Chinook minimum size: 26". No more than 4 spreads per wire.
- All salmon except coho. 7,000 chinook quota with 1,000 chinook harvest guideline for Brookings landings. Chinook minimum size: 26". Daily landing and possession limit of 30 fish.
- 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. Commercial ocean troll seasons off Oregon, 1999.

## **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 approximately 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, individual fish sellers, 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 1999, Oregon ocean troll salmon fisheries were restricted to gear containing single point, single shank barbless hooks, and south of Cape Falcon fishers were limited to no 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 structured to be open for all species except coho from May 1 through earlier of June 15 or quota of 24,000 chinook. The fishery was opened as scheduled, and continued through June 15 without the quota being met (46 fishing days). The Columbia River Control Zone was closed to all salmon fishing. A total of 15 chinook from this season were landed in Oregon.

### **Cape Falcon to Humbug Mountain**

The all-salmon-except-coho fishery from Cape Falcon to Humbug Mountain was open from April 1 through July 17, August 1 through 29, and September 1 through October 31 (198 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 June 1 through September 15 to limit catch on locally depressed stocks of spring chinook through June, and to reduce incidental hooking mortality on coho from July through September (Appendix Figure 1). Chinook landings for the three seasonal breaks in this area were 38,300 for April through July, 17,400 chinook for August, and 4,200 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 estimated at 12 chinook.

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 has typically run for the month of November, but was extended to

mid-December in 1999. The fishery ran from November 1 through December 15 (45 fishing days) with no chinook quota limitation. All chinook were required to be landed in Port Orford. An estimated 1,255 chinook were caught in this season.

### **Humbug Mountain to Oregon - California Border**

An all species except coho season from Humbug Mountain to the Oregon - California border was open May 1-31. This season was open without quota, and ran through the month of May (31 fishing days) with a catch of 4 chinook.

An all-salmon-except-coho season was scheduled to be open August 1 through the earlier of August 31 or 2,500 chinook quota for waters from Sisters Rocks to Mack Arch within 4 miles of shore. The fishery did not reach their quota, catching 875 chinook and continued for the entire month of August (31 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.

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 12 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 quota was not met, and the season continued through its scheduled close of October 31 (20 fishing days). All chinook were required to be landed into Brookings, and landings totaled 364 chinook.

## **EFFORT AND CATCH STATISTICS**

Landed poundage, dollar value, area of catch, and days fished were obtained directly from Oregon's commercial fish receiving tickets. Pounds landed were 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 1999 totaled 5,116 boat days. This is 29% below the

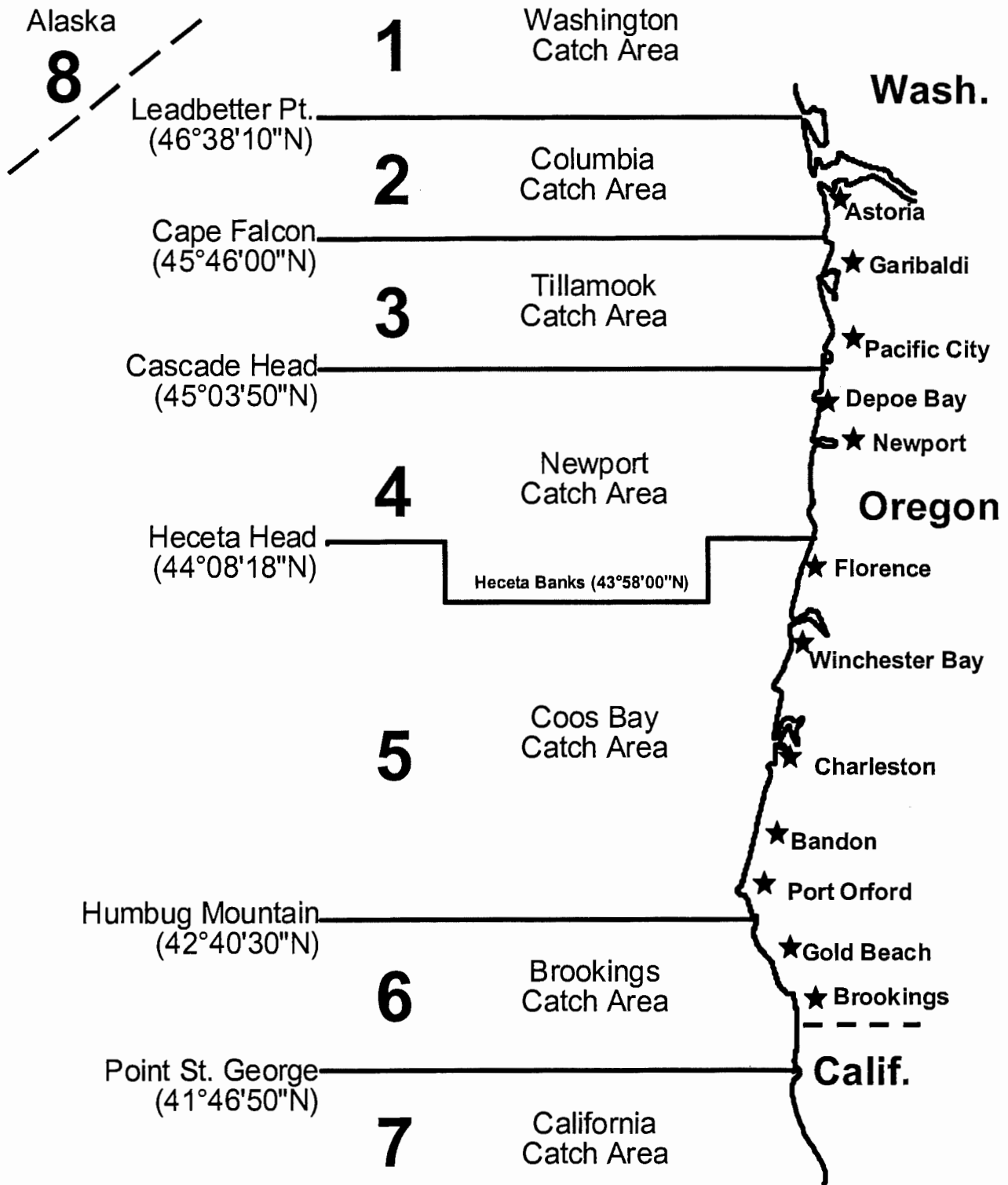


Figure 3. Oregon salmon catch areas and major ports.

1998 effort of 7,200 boat days, and only 21% of the 1979-98 average of 23,900 boat days. 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.

For the first time since 1991, the effort within the Coos Bay catch area exceeded that in the Newport catch area. The 1999 Coos Bay area effort was 2,597 boat days was almost double the effort of 1,423 boat days observed in 1998 (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 closure to all commercial coho fishing off Oregon, the 1999 season followed the more recent trend where troll effort is spread more uniformly over the season. In 1999, June accounted for 27%, August 22%, July 16%, and May 12% of the fishing effort (Figure 4).

## Landings

**Chinook:** The 1999 Oregon ocean troll chinook catch totaled only 63,700 fish. This was only 51% of the observed catch of 125,000 chinook in 1998, and was only 31% of the 1979-98 average of 207,700 chinook (Table 1; and Appendix Tables 5 and 6). Total landings in pounds of dressed chinook (head on, gills and viscera removed) was 722,670 lbs. (Table 2), and was a 48% decrease in poundage landed from the 1998 deliveries.

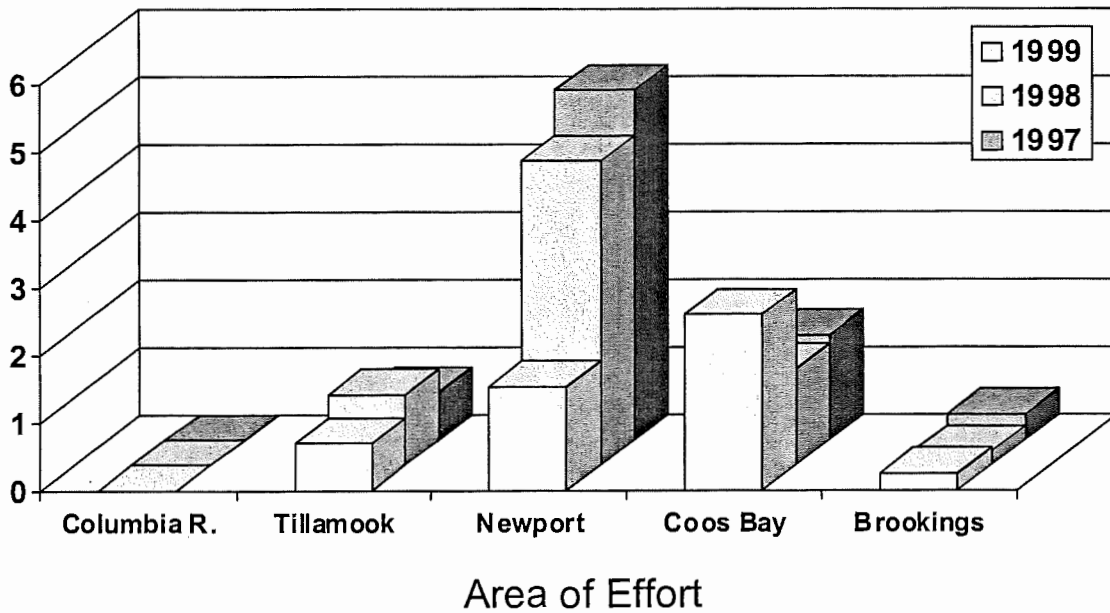
Table 2. Oregon commercial troll chinook salmon landings in pounds dressed, by calendar month, and port of landing, 1999.

Month	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Astoria	0	889	3,049	3,166	5,181	0	0	0	0	12,285
Gearhart/Seaside	0	0	0	0	293	0	0	0	0	293
Garibaldi	14	2,884	5,479	567	10,022	7,193	5,193	262	0	31,614
Pacific City	0	10	46	95	453	265	125	0	0	994
Depoe Bay	24	0	8	8	31	0	0	0	0	71
Newport	4,788	45,077	98,179	25,856	11,172	1,038	7,846	0	0	193,956
Florence	552	6,399	17,191	3,253	4,860	38	0	0	0	32,293
Winchester Bay	1,836	6,132	26,079	11,573	4,362	311	263	0	0	50,556
Charleston	103	5,004	157,377	10,138	120,480	5,250	2,551	0	0	300,903
Bandon	56	103	5,241	585	12,943	617	113	225	0	19,883
Port Orford	16	0	37	123	14,957	675	23,491	19,619	655	59,573
Gold Beach	0	14	1,759	294	592	20	0	0	0	2,679
Brookings	0	175	1,276	439	8,048	1,561	5,319	752	0	17,570
<b>Total</b>	<b>7,389</b>	<b>66,687</b>	<b>315,721</b>	<b>56,097</b>	<b>193,394</b>	<b>16,968</b>	<b>44,901</b>	<b>20,858</b>	<b>655</b>	<b>722,670</b>

Most chinook were caught in the Coos Bay catch area with landings of 42,487 fish (67%), and were more than double the 1998 catch of 22,112 chinook. Catches were also almost double in the Brookings catch area from 743 in 1998 to 1,362 in 1999.

# Effort

BOAT DAYS (thousands)



BOAT DAYS (thousands)

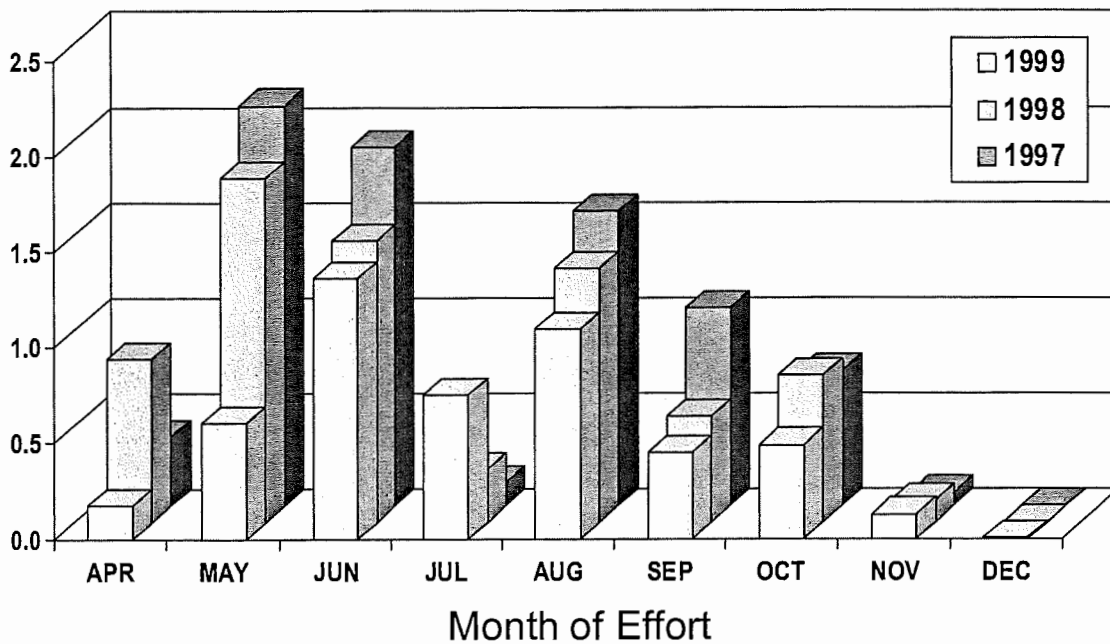


Figure 4. Oregon commercial ocean troll salmon effort in boat days by area of catch and by month, 1997-99.

However, both the Newport and Tillamook catch areas showed drastic declines from the 1998 landings (Figure 5).

Historically, July has been the month of greatest chinook landings. However, in recent years a general statewide closure has been instituted during part or all of July in order to reduce hook and release mortality on coho. In 1999, 42% of the chinook were landed in June and 30% in August (Table 3).

### **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 1999 seasonal average dressed weight (head on, viscera removed) was 11.3 pounds (Table 3). This was similar to the 11.2 pound average weight observed in 1998, but was 13% above the 1989-98 ten year average of 10.0 pounds, and was the highest annual average weight observed for chinook during the period of 1979-98.

### **THE DOLLAR VALUE OF OCEAN SALMON LANDINGS**

The 1999 Oregon troll chinook landings had an ex-vessel value of \$1,404,600. This was a 39% decline from the \$2,297,000 ex-vessel value in 1998. The 1999 average price of \$1.94 per pound was up 18% from the 1998 average price of \$1.64 per pound (dollar values are not corrected for inflation) (Appendix Table 7).

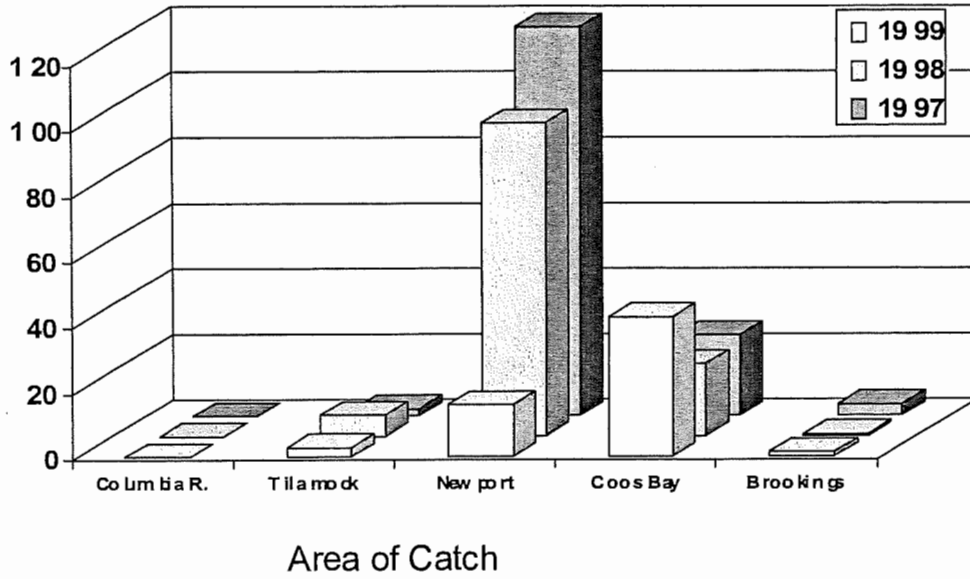
### **CODED WIRE TAG SAMPLING**

In 1999, OSM samplers examined 15,890 chinook (25%) from the troll fishery for CWTs (Table 4), of which 8.4% or 1,331 chinook were marked (adipose fin clipped). Technicians recovered readable tags from 1,155 snouts (87%). Most of the recovered CWTs were released by ODFW (38%), California Department of Fish and Game (24%), US Fish and Wildlife Service (16%), and Washington Department of Fish and Wildlife (12%). Most of the recovered CWTs were from release in California's Sacramento/ San Joaquin Basin (40%), Oregon Coastal streams (33%), and the Columbia Basin (18%) (Figure 6).

It should be noted that 361 of the CWTs (31%) were recovered from the terminal area fishery off the Elk River in October and November (see next section). These recoveries account for 82% of the total ODFW tags and 95% of the Oregon Coastal CWT recoveries, although they account for only 7% of the chinook sampled and less than 2% of the Oregon troll chinook landed.

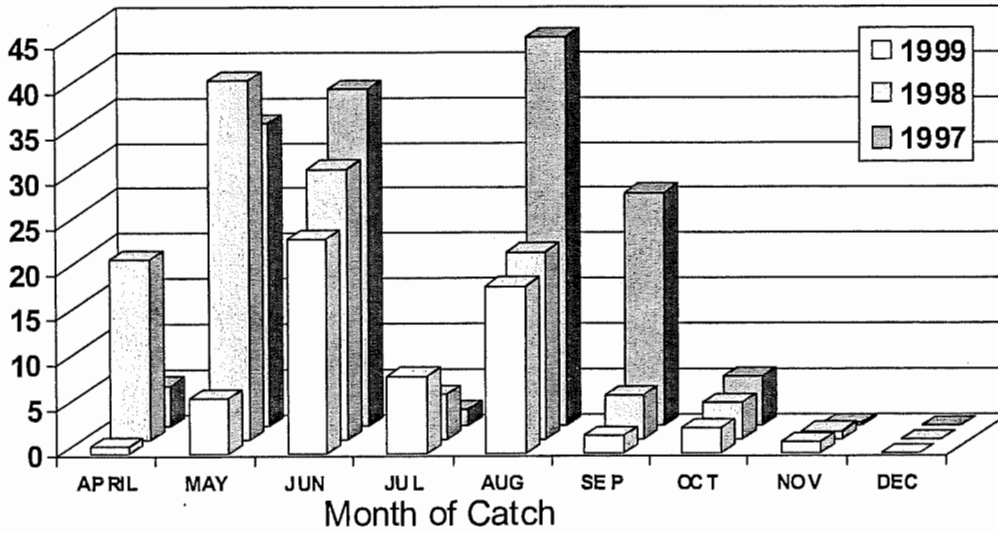
# Chinook

FISH (thousands)



Area of Catch

FISH (thousands)



Month of Catch

Figure 5. Oregon commercial ocean troll chinook landings by area of catch and by month, 1997-99.

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, 1999.

Area of Landing	Month									Total
	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
<u>Columbia R. (2)</u>										
Numbers	-	15	-	-	-	-	-	-	-	15
Pounds	-	162	-	-	-	-	-	-	-	162
Ave. wt.	-	10.8	-	-	-	-	-	-	-	10.8
<u>Tillamook (3)</u>										
Numbers	1	276	605	91	978	538	305	12	-	2,806
Pounds	7	2,960	6,591	916	10,475	7,458	5,333	262	-	34,002
Ave. wt.	7.0	10.7	10.9	10.1	10.7	13.9	17.5	21.8	-	12.1
<u>Newport (4)</u>										
Numbers	595	4,535	6,536	2,321	1,038	98	741	-	-	15,864
Pounds	5,398	47,999	76,995	25,912	11,571	1,038	7,675	-	-	176,588
Ave. wt.	9.1	10.6	11.8	11.2	11.2	10.6	10.4	-	-	11.1
<u>Coos Bay (5)</u>										
Numbers	213	1,292	19,594	2,225	15,709	679	1,507	1,225	43	42,487
Pounds	1,984	14,673	229,805	25,385	157,524	7,086	26,661	19,844	655	483,617
Ave. wt.	9.3	11.4	11.7	11.4	10.0	10.4	17.7	16.2	15.2	11.4
<u>Brookings (6)</u>										
Numbers	-	4	-	-	875	119	315	49	-	1,362
Pounds	-	46	-	-	8,643	1,275	5,232	752	-	15,948
Ave. wt.	-	11.5	-	-	9.9	10.7	16.6	15.4	-	11.7
<u>Oregon Subtotal</u>										
Numbers	809	6,107	26,750	4,637	18,600	1,434	2,868	1,286	43	62,534
Pounds	7,389	65,678	313,553	52,213	188,213	16,857	44,901	20,858	655	710,317
Ave. wt.	9.1	10.8	11.7	11.3	10.1	11.8	15.7	16.2	15.2	11.4
<u>Alaska (8)</u>										
Numbers	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-
Ave. wt.	-	-	-	-	-	-	-	-	-	-
<u>Washington (1)</u>										
Numbers	-	63	206	373	439	-	-	-	-	1,081
Pounds	-	866	2,168	3,166	5,181	-	-	-	-	11,381
Ave. wt.	-	13.8	10.5	8.5	11.8	-	-	-	-	10.5
<u>California (7)</u>										
Numbers	-	14	-	64	-	12	-	-	-	90
Pounds	-	143	-	718	-	111	-	-	-	972
Ave. wt.	-	10.2	-	11.2	-	9.3	-	-	-	10.8
<u>Total</u>										
Numbers	809	6,184	26,956	5,074	19,039	1,446	2,868	1,286	43	63,705
Pounds	7,389	66,687	315,721	56,097	193,394	16,968	44,901	20,858	655	722,670
Ave. wt.	9.1	10.8	11.7	11.1	10.2	11.7	15.7	16.2	15.2	11.3



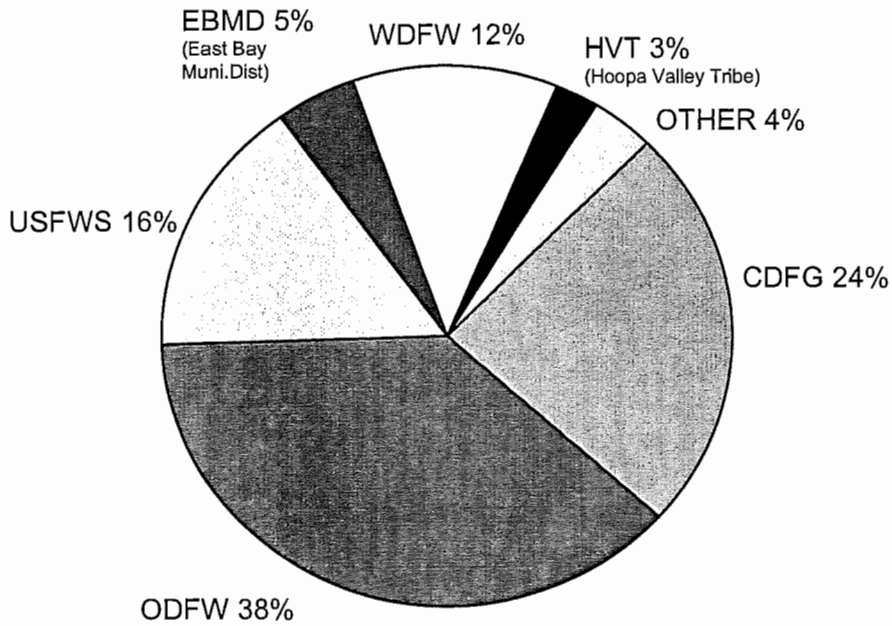
Table 4. Oregon commercial troll chinook mark sampling by statistical month and port of landing, 1999.

Port of Landing	Month									Total
	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
<u>Astoria</u>										
No. Examined	0	0	0	0	0	0	0	0	0	0
No. Landed	0	65	259	396	439	0	0	0	0	1,159
% Examined	0	0	0	0	0	0	0	0	0	0
No. Marks	0	0	0	0	0	0	0	0	0	0
<u>Gearhart/Seaside</u>										
No. Examined	0	0	0	0	0	0	0	0	0	0
No. Landed	0	0	0	0	18	0	0	0	0	18
% Examined	0	0	0	0	0	0	0	0	0	0
No. Marks	0	0	0	0	0	0	0	0	0	0
<u>Garibaldi</u>										
No. Examined	0	201	358	46	344	100	9	0	0	1,058
No. Landed	2	268	455	125	937	608	212	12	0	2,619
% Examined	0	75	79	37	37	16	4	0	0	40
No. Marks	0	16	20	0	30	8	0	0	0	74
<u>Pacific City</u>										
No. Examined	0	0	0	0	0	0	0	0	0	0
No. Landed	0	1	2	21	26	16	5	0	0	71
% Examined	0	0	0	0	0	0	0	0	0	0
No. Marks	0	0	0	0	0	0	0	0	0	0
<u>Depoe Bay</u>										
No. Examined	0	0	0	0	0	0	0	0	0	0
No. Landed	4	0	1	1	3	0	0	0	0	9
% Examined	0	0	0	0	0	0	0	0	0	0
No. Marks	0	0	0	0	0	0	0	0	0	0
<u>Newport</u>										
No. Examined	39	777	2,561	927	205	3	0	0	0	4,512
No. Landed	550	4,228	7,339	3,445	980	98	759	0	0	17,399
% Examined	7	18	35	27	21	3	0	0	0	26
No. Marks	1	63	147	43	11	0	0	0	0	265
<u>Florence</u>										
No. Examined	0	119	260	31	0	0	0	0	0	410
No. Landed	55	536	1,406	344	466	3	0	0	0	2,810
% Examined	0	22	18	9	0	0	0	0	0	15
No. Marks	0	5	16	2	0	0	0	0	0	23

Table 4 continued. Oregon commercial troll chinook mark sampling, 1999.

Port of Landing	Month									
	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<u>Winchester Bay</u>										
No. Examined	0	304	668	366	77	12	0	0	0	1,427
No. Landed	198	568	2,100	1,348	404	28	24	0	0	4,670
% Examined	0	54	32	27	19	43	0	0	0	31
No. Marks	0	17	48	16	6	0	0	0	0	87
<u>Charleston</u>										
No. Examined	0	74	3,103	625	2787	100	0	0	0	6,689
No. Landed	11	443	11,423	2,676	11,607	852	150	0	0	27,162
% Examined	0	17	27	23	24	12	0	0	0	25
No. Marks	0	6	230	32	194	10	0	0	0	472
<u>Bandon</u>										
No. Examined	0	0	0	0	0	0	0	0	0	0
No. Landed	5	7	424	64	1,298	78	0	0	0	1,876
% Examined	0	0	0	0	0	0	0	0	0	0
No. Marks	0	0	0	0	0	0	0	0	0	0
<u>Port Orford</u>										
No. Examined	0	0	0	0	0	12	728	426	0	1,166
No. Landed	1	0	4	48	1,487	105	1,286	1,212	43	4,186
% Examined	0	0	0	0	0	11	57	35	0	28
No. Marks	0	0	0	0	0	2	218	158	0	378
<u>Gold Beach</u>										
No. Examined	0	0	0	0	0	0	0	0	0	0
No. Landed	0	1	154	35	35	16	0	0	0	241
% Examined	0	0	0	0	0	0	0	0	0	0
No. Marks	0	0	0	0	0	0	0	0	0	0
<u>Brookings</u>										
No. Examined	0	14	0	13	289	38	226	48	0	628
No. Landed	3	14	101	54	776	167	321	49	0	1,485
% Examined	0	100	0	24	37	23	70	98	0	42
No. Marks	0	1	0	2	18	0	10	1	0	32
<u>Total</u>										
No. Examined	39	1,489	6,950	2,008	3,702	265	963	474	0	15,890
No. Landed	829	6,131	23,668	8,557	18,476	1,971	2,757	1,273	43	63,705
% Examined	5	24	29	23	20	13	35	37	0	25
No. Marks	1	108	461	95	259	20	228	159	0	1,331

## Release Agency



## Basin of Release

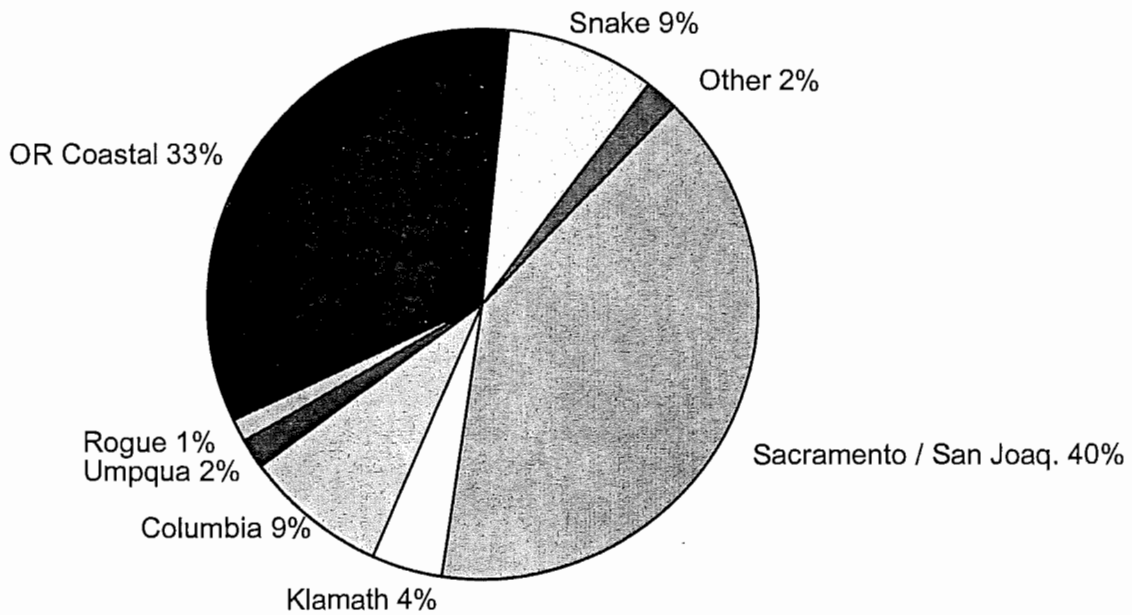


Figure 6. Observed recoveries of chinook coded wire tags from Oregon commercial ocean troll salmon landings by release agency and by basin of release, 1999. N=1,155  
 Note: Does not represent stock contribution rates since tagging is not representative of all stocks.

## **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 through December 15 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 during November and December were required to be made into Port Orford.

A total of 1,212 chinook were landed in Port Orford during the month of November averaging 16.2 pounds, with an additional 43 chinook landed in December at an average of 15.2 pounds. In the October portion of the general season just prior to the state waters fishery, an additional 1,301 chinook were landed. During the October through November fishery, there were 376 snouts collected from the 1,154 chinook that were examined for fin clips (33% mark rate). There were a total of 361 readable tags recovered. All except two of the readable CWTs were from Elk River chinook releases. The two non-Elk CWTs were from releases of chinook in the Sacramento Basin in California. Of the Elk River CWTs recovered, 27 (7%) were three year olds (1996 brood), 265 (73%) were four year olds (1995 brood), 66 (18%) were five year olds (1994 brood), and there were 3 (1%) six year olds (1993 brood).

### **Chetco River State Waters Chinook Fishery**

A late season terminal ocean troll fishery designed to target on returning Chetco River fall chinook was open October 12 through 31. 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 364 chinook were landed averaging 16.4 pounds (Table 5). Samplers examined 274 chinook (75%) and recovered 11 snouts from adipose fin-clipped chinook (4% mark rate) 9 of which contained readable CWTs. Chetco River releases accounted for 6 of the CWTs and the remaining 3 were from the Sacramento Basin in California. Of the Chetco River CWTs, there were 5 four year olds (1995 brood), and 1 five year old (1994 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, 1999.

**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	
								Chetco R.	Feather R., CA
42	40	133	2,227	102	6	76.7	2	4	0
43	44	119	1,998	81	1	68.1	0	0	1
44	20	63	1,007	43	3	68.3	0	1	2
45	8	49	752	48	1	98.0	0	1	0
<b>Totals</b>	<b>112</b>	<b>364</b>	<b>5,984</b>	<b>274</b>	<b>11</b>	<b>75.3</b>	<b>2</b>	<b>6</b>	<b>3</b>

**Elk River Terminal Ocean Commercial Troll Chinook Fishery**

Statistical Week	Number of Tickets	Number Landed	Pounds Landed	Number Sampled	Number Marked	Percent Sampled	No tag	Tag Lost	Coded Wire Tags by Basin		
									Elk River	Feather R., CA	Central Valley, CA
41	21	165	3,080	118	32	71.5	0	0	32	0	0
42	41	321	5,728	151	42	47.0	0	1	40	0	1
43	42	337	6,298	193	56	57.3	1	1	54	0	0
44	30	463	8,100	266	88	57.5	3	1	84	0	0
45	56	727	12,163	344	132	47.3	5	0	126	0	0
46	19	120	1,955	26	13	21.7	0	1	12	0	0
47	26	282	4,169	56	13	19.9	0	0	11	1	0
48	12	83	1,332	0	0	0.0	0	0	0	0	0
49	7	41	631	0	0	0.0	0	0	0	0	0
50	1	2	24	0	0	0.0	0	0	0	0	0
<b>Totals</b>	<b>255</b>	<b>2,541</b>	<b>43,480</b>	<b>1,154</b>	<b>376</b>	<b>45.4</b>	<b>9</b>	<b>4</b>	<b>359</b>	<b>1</b>	<b>1</b>

## THE 1999 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 have traditionally been coho salmon (*Oncorhynchus kisutch*) with chinook salmon (*Oncorhynchus tshawytscha*) a distant second. Pink salmon (*Oncorhynchus gorbuscha*) can make up a small portion (~1%) of the catch in odd numbered years. Chum salmon (*Oncorhynchus keta*) and steelhead trout (*Oncorhynchus mykiss*) are also occasionally caught, 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 was continued through 1998 for all areas south of Cape Falcon. In 1999, season structure included the first selective (hatchery only) coho fishery from Cape Falcon to Humbug Mt. and extensive chinook fishing opportunities within the same area. The 1999 seasons resulted in an ocean catch of 7,722 chinook, 13,644 coho, and 15 pink salmon from 49,420 salmon angler trips (Table 6). Staff made numerous at sea observation trips on recreational vessels to observe marked to unmarked rates of coho intercepted, and changes to the Ocean Recreational Boat Survey (ORBS) were made in order to better estimate fishing activity and stock status for other marine fish species targeted by the recreational fishery.

Table 6. Oregon ocean recreational salmon catch and effort for 1966-99<sup>a</sup>

Year	Effort (Angler Trips)		Salmon Catch			Salmon/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	0.64
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	0.92
1985	251,583	270,860	182,486	55,867	7,711	0.98
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
1997	30,063	105,164	5,972	7,686	2	0.45
1998	25,728	105,336 <sup>c</sup>	2,272	4,019	0	0.24
1979-98 average	180,176	227,968	148,249	22,680	631 <sup>b</sup>	0.95
1999	49,420	134,718 <sup>c</sup>	13,644	7,722	15	0.43

<sup>a</sup> Prior to 1981, sample data were supplemented with salmon tag data for ports and time periods not sampled.

<sup>b</sup> Odd year average.

<sup>c</sup> Includes non-salmon effort from over-winter sampling in Depoe Bay, Newport, and Brookings.

## **SAMPLING METHODOLOGY**

### **Sampling areas and staffing**

Twenty-six seasonal employees were hired to fill twenty-three separate positions to sample the ocean recreational fishery at twelve coastal ports in 1999 (Appendix Table 1). This included nine seasonal employees who were combination commercial troll/recreational samplers and one seasonal employee who worked part time sampling the recreational fishery and part time processing sampler data. The remaining three commercial troll samplers assisted in recreational effort counts during the commercial troll closure in July. The two sampling coordinators also provided sampling backup. An additional three seasonal employees were hired to fill two at-sea observer positions to monitor the selective coho fishery.

In the major ports of Garibaldi, Depoe Bay, Newport, Charleston, and Brookings we started sampling by early April. In all other ports except Astoria, sampling staff were in place by mid-May. Some of the sampling was supported by other funds such as ocean sport halibut license fees to assist monitoring of the concurrent halibut season. In most ports we continued sampling the recreational fishery through mid to late September or October, except at Newport, Depoe Bay, and Brookings where sampling has been continued year round under special funding to estimate marine fish harvest. 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 1999, 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 continuing 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 going out 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 or 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**

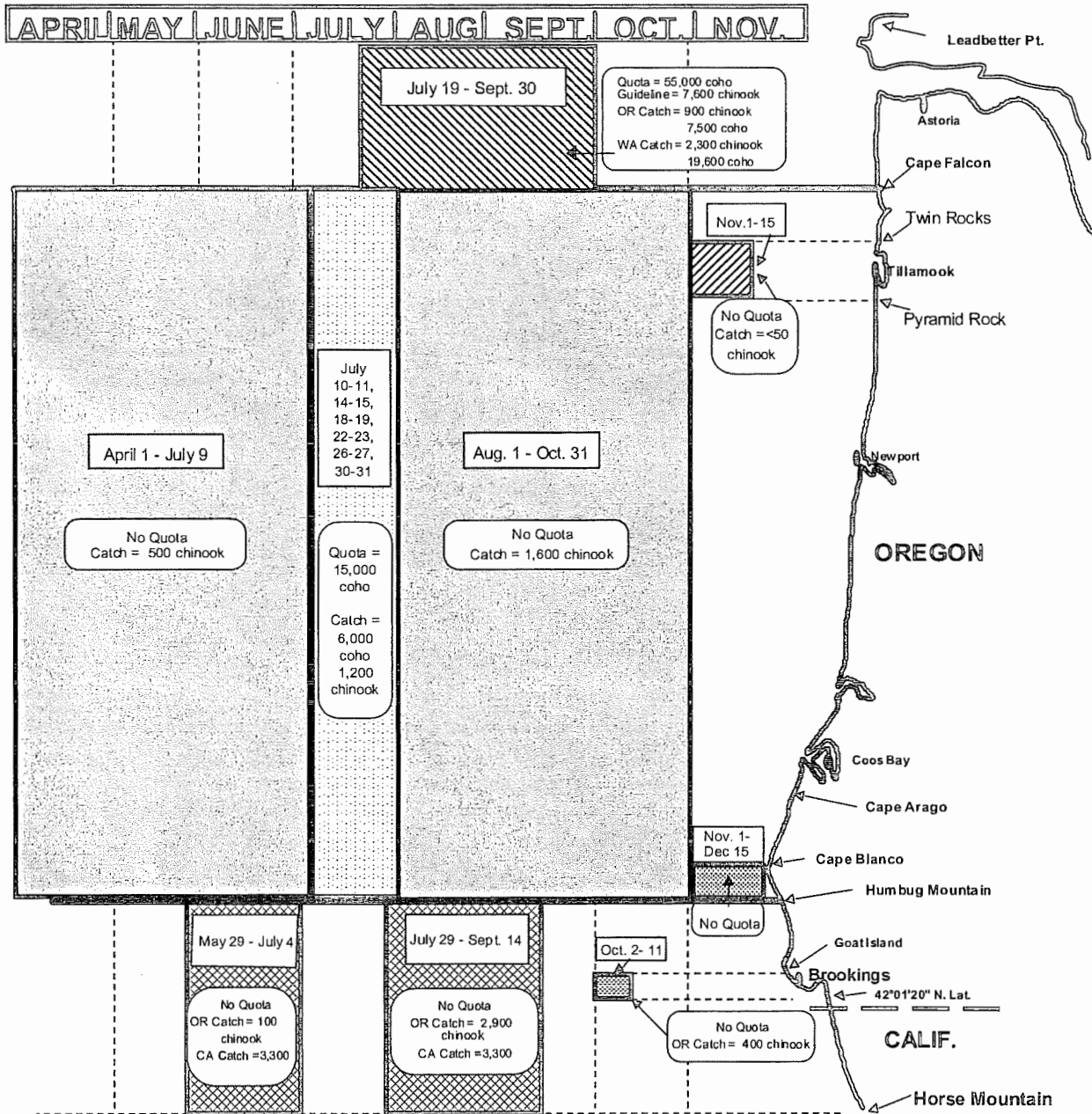
Catch and effort data are error-checked and then processed on the Department's Unisys computer (Portland) by Newport OSMP data staff. Angler interviews are stratified by charter and private boat angler to provide average catch rates by species for each boat type (i.e. charter and private). These catch 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 after the week ended. A preliminary catch estimate is usually available within two days of the end of the week. These catch estimates are necessary for timely monitoring of fishery catch quotas. In quota structured seasons, as the catch approaches the quota, daily calls from samplers with effort and sampling summaries are used to make mid-week catch estimates.

Department samplers checked 9,480 salmon in 1999 compared to 2,824 in 1998. Catch sampling rates in 1999 ranged from a high of 79% at Florence, to a low of 25% at Port Orford. Samplers checked 44% of the total salmon catch from all ports in 1999 compared to 45% in 1998 (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 1999 regulations (Figure 8) were adopted 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.



- ⊘ All salmon, 2 per day not more than 1 chinook. All coho must have a healed adipose fin clip. No more than 4 fish in a calendar week (Sun.-Sat.). Open Sunday-Thursday only July 19 - August 29. Open 7 days per week August 30 - September 30. Columbia River Control Zone closed.
- All salmon except coho, 2 per day, not more than 6 in 7 days. Special gear restrictions: Bait must be no less than 6 inches long (no minimum length for artificial lures), no more than 2 single point hooks, divers are prohibited, and flashers are prohibited except when used in conjunction with a downrigger.
- All salmon, 2 per day. All coho must have a healed adipose fin clip. Season follows a cycle of two days open and two days closed.
- ⊘ 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 7. Ocean recreational salmon seasons off Oregon, 1999.

## **North of Cape Falcon**

An all species salmon season was adopted for the area from Leadbetter Point, Washington to Cape Falcon, Oregon to open July 19 and continue through the earlier of September 30 or the quota of 55,000 adipose fin-clipped coho. The season was open Sunday through Thursday only from July 19 through August 29, and then open seven days per week from August 30 through September 30. The bag limit was two salmon per day with not more than one chinook, not more than four salmon in a calendar week (Sunday through Saturday), and all coho must have a healed adipose fin clip. 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 7,600 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 barbless hooks were required, and the Columbia River control zone was closed to salmon angling.

## **Cape Falcon to Humbug Mountain**

The all salmon except coho season was open April 1 through July 9, and August 1 through October 31. The daily bag limit was two salmon, not more than six fish allowed in seven consecutive days, and coho were prohibited in the catch. The following special gear restrictions were in effect: Bait must be 6" or larger (excluding hooks and swivels); no more than two single point, single shank barbless hooks; divers were prohibited; and flashers were allowed only with a downrigger (note variance in the Tillamook area in next paragraph). There were no chinook quotas in this area. Minimum size limits were 20" for chinook and steelhead, and there were no size restrictions for other species of salmon.

The coho selective fishery was open under a two days open two days closed structure beginning July 10 and scheduled to run through the earlier of the quota of 15,000 adipose fin clipped coho or July 31. The bag limit was two salmon per day, and all coho must have a healed adipose fin clip. The quota was not met, and the fishery was open July 10-11, 14-15, 18-19, 22-23, 26-27, and 30-31. On the closed days, the ocean was closed to all salmon fishing. During selective fishery, gear restrictions were lifted except for the no more than two single point, single shank barbless hooks limitation.

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. In 1999, the control zone was closed April 1 through 30, June 1 through July 9 and August 1 through September 15 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. These

special regulations included the following gear limitations: Bait must be 6" or larger (excluding hooks and swivels); no more than two single point, single shank barbless hooks; divers were prohibited; and flashers were prohibited at all times. Special bag limits were also in effect in this area and included: Daily catch limit of 2 adult chinook (>24 inches) and 5 jack chinook (15-24 inches), 4 adult chinook in 7 consecutive days, and a seasonal catch of not more than 10 adult chinook in each the spring season (April 1 through July 31) and the fall season (August 1 through December 31). These bag limits 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 29 through July 4, and July 29 through September 14. This area is referred to as the Klamath Management Zone (KMZ). This fishery was open 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 1999.

### **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 Mt. 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 December 15. A bag limit of two chinook per day 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. OSM 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 of Brookings:** The Oregon Fish and Wildlife Commission set a chinook only state waters (0-3 miles) season off Brookings between Goat Island and the latitude of 42° 01' 20" N. The season was open October 2 through 11 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 for the season 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 have tended to predominate throughout the season in most areas (Figure 8).

The sharp drop in effort caused by limited salmon seasons in recent years has been only slightly buffered by a comparable increase in bottomfishing effort. A total of 82,459 fishing trips for species other than salmon were taken by anglers in 1999, on track with the 82,857 trips in the 1998 season. The total combined 1999 salmon and bottomfishing effort of 134,718 angler trips was up 28% from the 105,336 trips in 1998, but was still 41% below the 1971-98 average of 227,968 angler trips (Tables 6 & 7).

In 1999, only 49,422 angler trips (37%) targeted salmon coastwide. Salmon angler trips in 1999 jumped up 92% from the 1998 season totals, but were only 27% of the 1979-98 average.

Due to the season structure, July was the peak month for salmon effort in 1999 with 20,172 salmon angler trips or 41% of the total (Figure 10). July and August were the top months for bottomfishing effort with 19,289 and 19,394 angler trips respectively 23% for each month (Table 7, Figures 9 and 11, and Appendix Table 10).

Brookings had the most total angler trips (31,471 salmon and bottomfishing trips combined) and also the most salmon fishing effort in 1999 with 15,472 angler trips or 31% of the state's total. Garibaldi and Astoria followed with 9,696 and 7,406 salmon angler trips respectively (Figure 9).

Newport had the most bottomfishing activity with 20,959 trips in 1999. Depoe Bay, Brookings, and Garibaldi followed with 19,321, 15,999, and 12,016 bottomfishing trips each, respectively (Table 7). Appendix Table 11 shows past ocean recreational salmon effort and catch by catch areas. Please note that "port" and "catch areas" are not synonymous.

**ANGLER TRIPS**

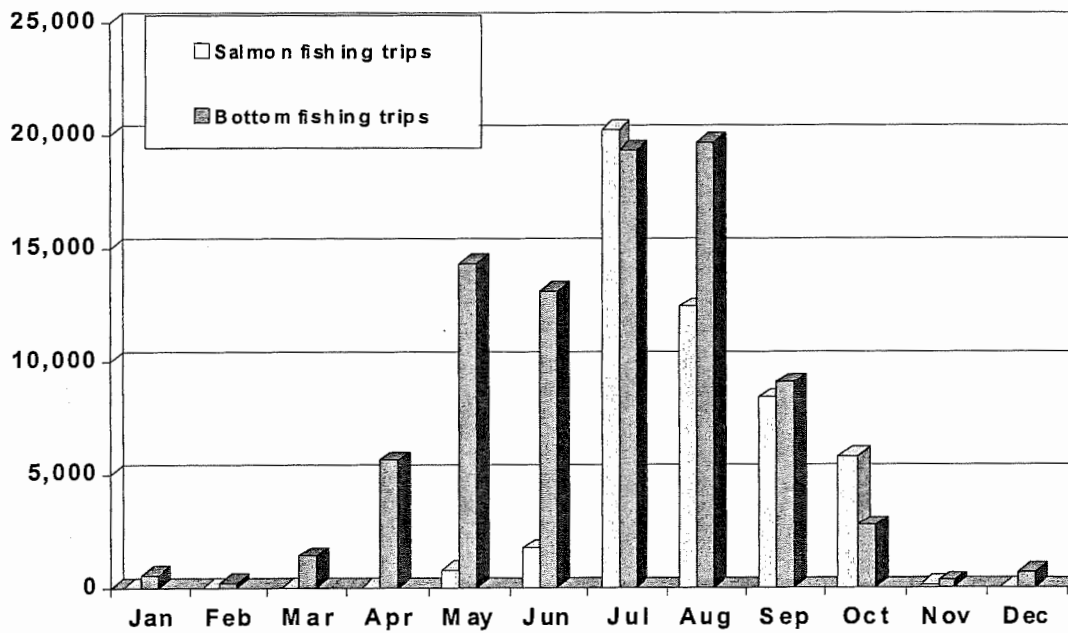


Figure 8. Oregon ocean angler trips by target species during the 1999 sampling season.

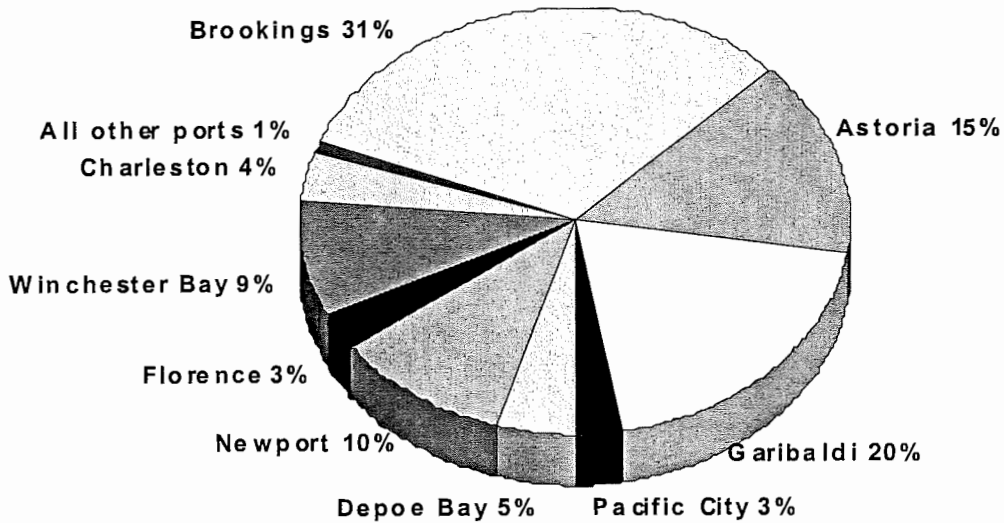


Figure 9. Recreational ocean salmon angler trips by port, 1999.

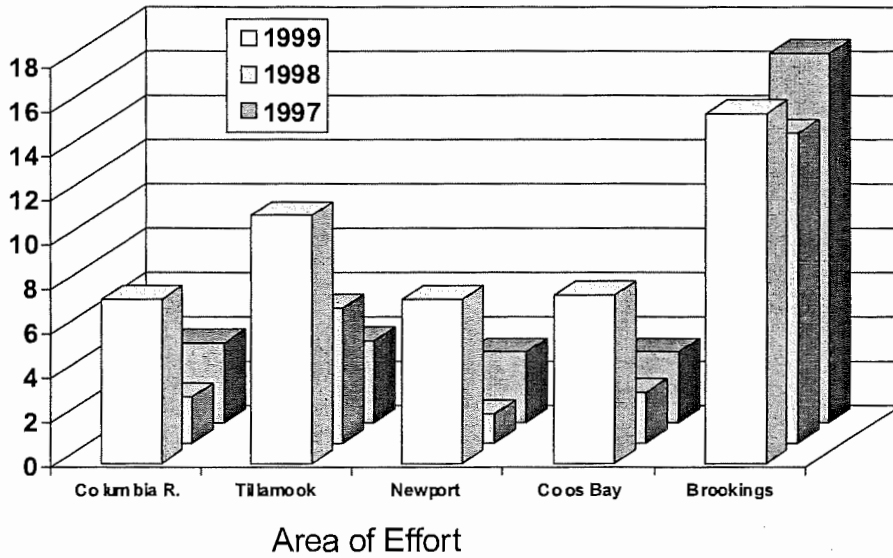
Table 7. Oregon ocean recreational effort in angler trips by port, by statistical month and by trip type<sup>a</sup>, 1999.

Port/Trip Type	Month								Total
	April	May	June	July	Aug.	Sept.	Oct.	Nov.	
Astoria	0	0	0	2,087	3,665	1,687	0	0	7,439
Salmon	0	0	0	2,087	3,653	1,666	0	0	7,406
Non-salmon	0	0	0	0	12	21	0	0	33
Garibaldi	608	3,349	1,886	4,799	3,097	4,325	3,544	104	21,712
Salmon	6	643	129	2,058	171	3,116	3,469	104	9,696
Non-salmon	602	2,706	1,757	2,741	2,926	1,209	75	0	12,016
Pacific City	0	0	491	2,216	787	120	0	0	3,614
Salmon	0	0	0	1,370	82	12	0	0	1,464
Non-salmon	0	0	491	846	705	108	0	0	2,150
Depoe Bay	1,707	2,200	3,144	5,896	4,893	2,666	1,013	73	21,592
Salmon	0	0	7	2,210	24	12	18	0	2,271
Non-salmon	1,707	2,200	3,137	3,686	4,869	2,654	995	73	19,321
Newport	1,961	5,341	2,631	8,245	4,702	2,274	812	154	26,120
Salmon	6	16	60	4,922	115	34	8	0	5,161
Non-salmon	1,955	5,325	2,571	3,323	4,587	2,240	804	154	20,959
Florence	0	9	112	830	314	63	0	0	1,328
Salmon	0	2	94	820	300	63	0	0	1,279
Non-salmon	0	7	18	10	14	0	0	0	49
Winchester Bay	0	65	350	2,935	1,348	158	0	0	4,856
Salmon	0	0	291	2,804	1,215	124	0	0	4,434
Non-salmon	0	65	59	131	133	34	0	0	422
Charleston	0	921	1,539	3,378	2,239	788	145	0	9,010
Salmon	0	2	227	1,383	172	21	0	0	1,805
Non-salmon	0	919	1,312	1,995	2,067	767	145	0	7,205
Bandon	0	67	264	561	940	172	0	0	2,004
Salmon	0	0	0	29	53	0	0	0	82
Non-salmon	0	67	264	532	887	172	0	0	1,922
Port Orford	0	293	204	369	257	37	0	0	1,160
Salmon	0	0	0	4	35	0	0	0	39
Non-salmon	0	293	204	365	222	37	0	0	1,121
Gold Beach	0	56	179	506	717	117	0	0	1,575
Salmon	0	0	0	28	251	34	0	0	313
Non-salmon	0	56	179	478	466	83	0	0	1,262
Brookings	1,172	2,026	3,704	7,639	8,850	5,025	3,009	46	31,471
Salmon	0	151	911	2,457	6,344	3,291	2,318	0	15,472
Non-salmon	1,172	1,875	2,793	5,182	2,506	1,734	691	46	15,999
<b>Total</b>	<b>5,448</b>	<b>14,327</b>	<b>14,504</b>	<b>39,461</b>	<b>31,809</b>	<b>17,432</b>	<b>8,523</b>	<b>377</b>	<b>131,881</b>
Salmon	12	814	1,719	20,172	12,415	8,373	5,813	104	49,422
Non-salmon	5,436	13,513	12,785	19,289	19,394	9,059	2,710	273	82,459

<sup>a</sup> Non-salmon effort is estimated only for those time periods when port sampling occurred, and is a total of bottomfish, combination, dive, and halibut anglers.

# Effort

ANGLER TRIPS (thousands)



ANGLER TRIPS (thousands)

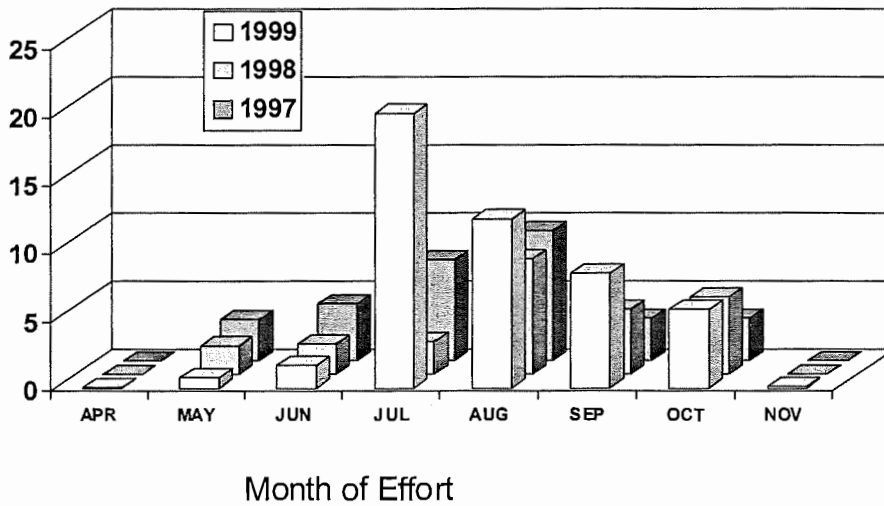


Figure 10. Oregon ocean recreational salmon angler trips by catch area and by month, 1997-99.



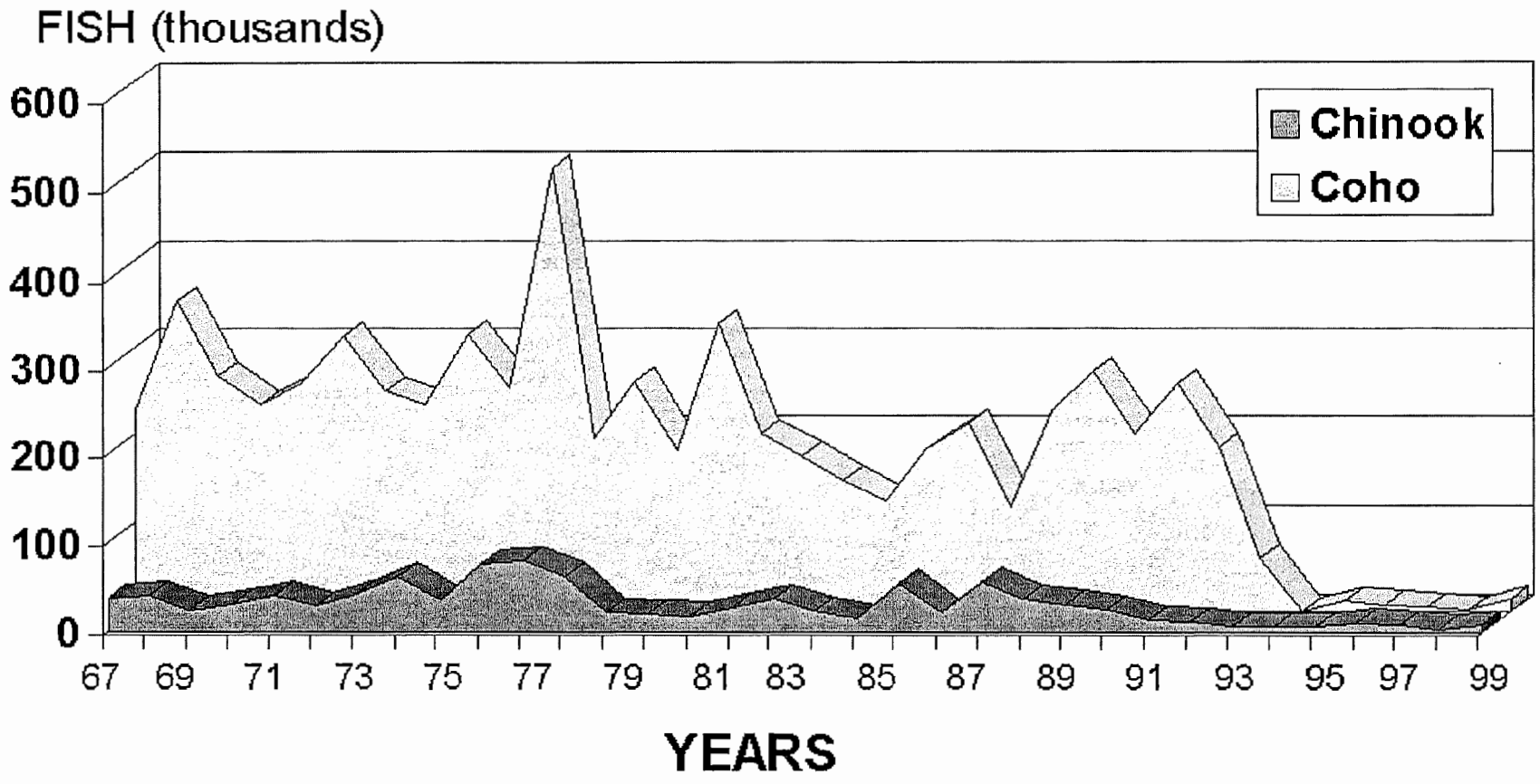


Figure 11. Trends in Oregon's recreational ocean salmon catch, 1966-99.

## Catch

As with effort, catches were strongly influenced by reduced quotas and restrictive time and area seasons. The sport sampling survey estimated Oregon's 1999 ocean salmon catch by species, except for landings from some minor unsurveyed ports and time periods when activity was forecast 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 1999 Oregon ocean recreational chinook salmon catch was estimated at 7,722 fish, almost double the 1998 chinook landings of 4,019, but only 34% of the 1979-98 average (Tables 6 and 8, and Figure 13). Historical catch patterns are shown in Appendix Tables 12, 13, and 14. Brookings anglers caught 3,396 of the chinook (44%), and anglers fishing out of Garibaldi caught 1,456 chinook (19%) (Table 8). With 2,715 chinook, August was the month with the highest catch, and made up 35% of the chinook landings.

**Coho:** The recreational harvest of 13,644 coho in 1999 was the largest season total since 1993. However, it was still only 9% of the 1979-98 average of 148,249 coho. Most of the coho were landed in Astoria with 7,542 (55%), and Newport with 3,221 (24%). July was the month of greatest landings with 62% of the catch coming in that month (Figure 14), this was due primarily to the season structure with the area from Cape Falcon to Humbug Mt. only open during July (Figures 12 and 15, Table 9, and Appendix Tables 12, 15, and 16).

## CHARTER/PRIVATE BOAT FISHERIES

### Background

Approximately 88 charter boats actively participated in Oregon ocean fisheries in 1999, compared to 85 vessels in 1998. Exact estimation of active vessels is difficult due to a lack of 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 charters and has become their primary target in recent years.

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.

Table 8. Oregon ocean recreational chinook catch by port and month<sup>a</sup>, 1999.

Port	Month								Total
	April	May	June	July	Aug.	Sept.	Oct.	Nov.	
Astoria	0	0	0	220	621	93	0	0	934
Garibaldi	0	119	13	95	23	682	516	8	1,456
Pacific City	0	0	0	89	11	1	0	0	101
Depoe Bay	0	2	5	86	25	5	8	0	131
Newport	0	5	4	190	4	4	3	0	210
Florence	0	0	8	121	7	0	0	0	136
Winchester Bay	0	0	94	619	270	4	0	0	987
Coos Bay	0	3	106	116	22	6	0	0	253
Bandon	0	0	3	10	48	2	0	0	63
Port Orford	0	0	0	0	4	0	0	0	4
Gold Beach	0	0	0	3	46	2	0	0	51
Brookings	0	7	44	890	1,634	473	348	0	3,396
Statewide Total	0	136	277	2,439	2,715	1,272	875	8	7,722

<sup>a</sup> Monthly totals are the sum of statistical weeks estimates with closest fit to calendar month

Table 9. Oregon ocean recreational coho catch by port and month<sup>a</sup>, 1999.

Port	Month								Total
	April	May	June	July	Aug.	Sept.	Oct.	Nov.	
Astoria	0	0	0	2,463	3,359	1,720	0	0	7,542
Garibaldi	0	0	0	354	2	11	2 <sup>b</sup>	0	369
Pacific City	0	0	0	657	0	0	0	0	657
Depoe Bay	0	0	0	743	0	0	0	0	743
Newport	0	0	0	3,221	0	0	0	0	3,221
Florence	0	0	0	250	0	0	0	0	250
Winchester Bay	0	0	0	418	0	0	0	0	418
Coos Bay	0	0	0	373	0	0	0	0	373
Bandon	0	0	0	17	0	0	0	0	17
Port Orford	0	0	0	8	0	0	0	0	8
Gold Beach	0	0	0	0	0	0	0	0	0
Brookings	0	0	2 <sup>b</sup>	8 <sup>b</sup>	32 <sup>b</sup>	4 <sup>b</sup>	0	0	46
Statewide Total	0	0	2	8,512	3,393	1,735	2	0	13,644

<sup>a</sup> Monthly totals are the sum of statistical weeks estimates with closest fit to calendar month.

<sup>b</sup> Illegal landings.

# Coho

# Chinook

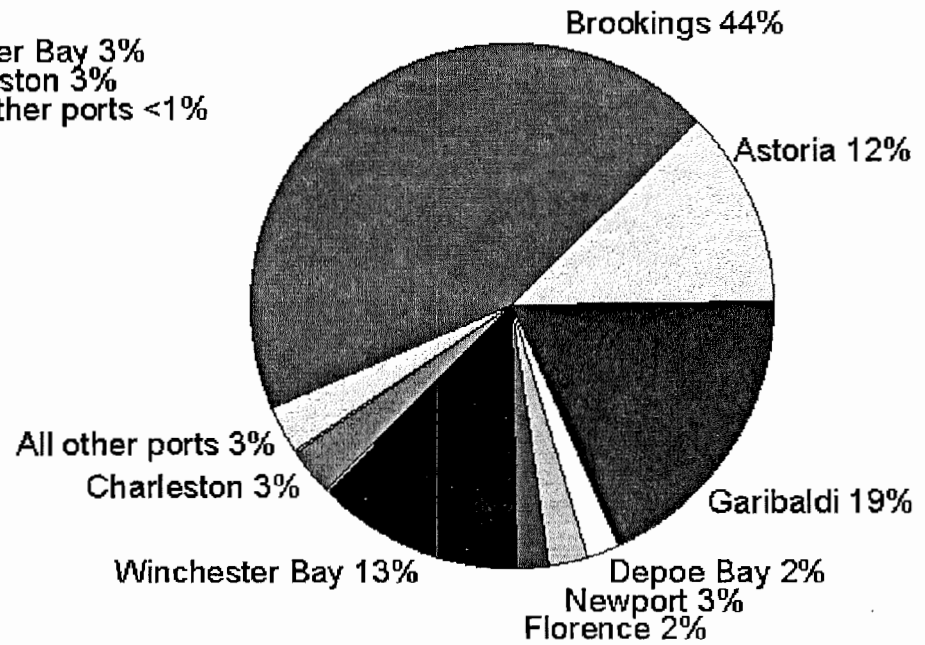
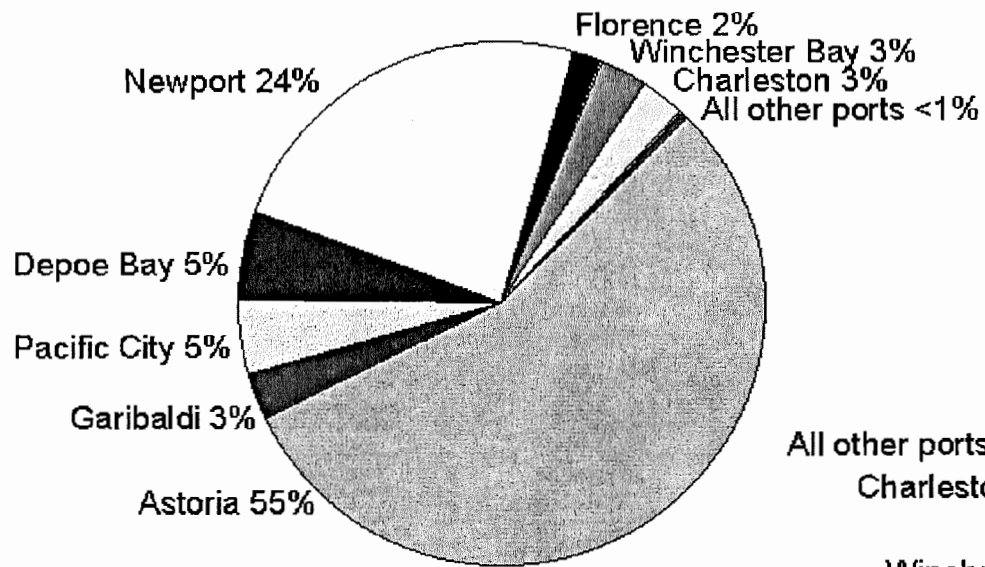
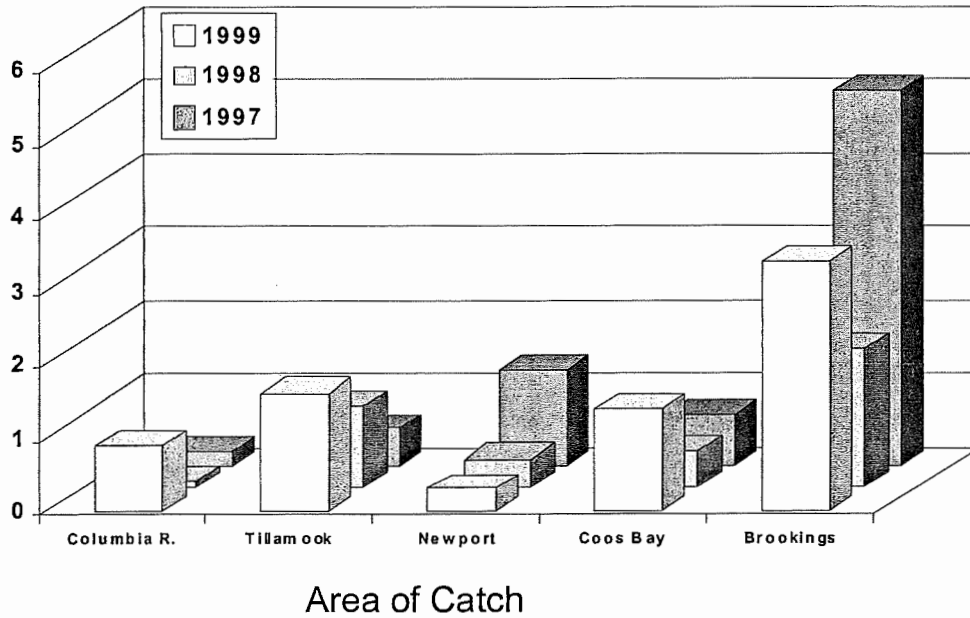


Figure 12. Oregon ocean recreational chinook and coho catch by port, 1999.

# Chinook

FISH (thousands)



FISH (thousands)

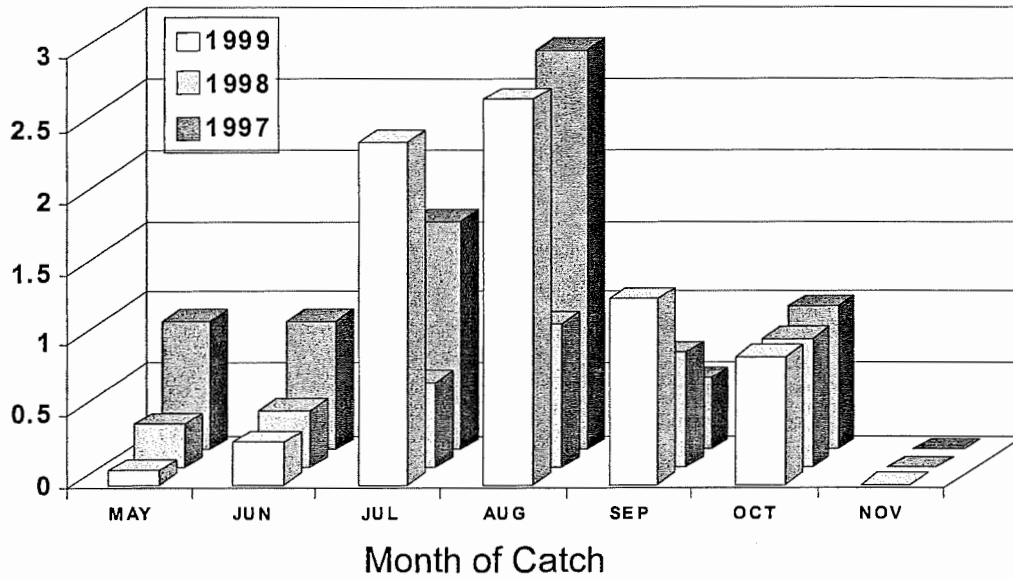
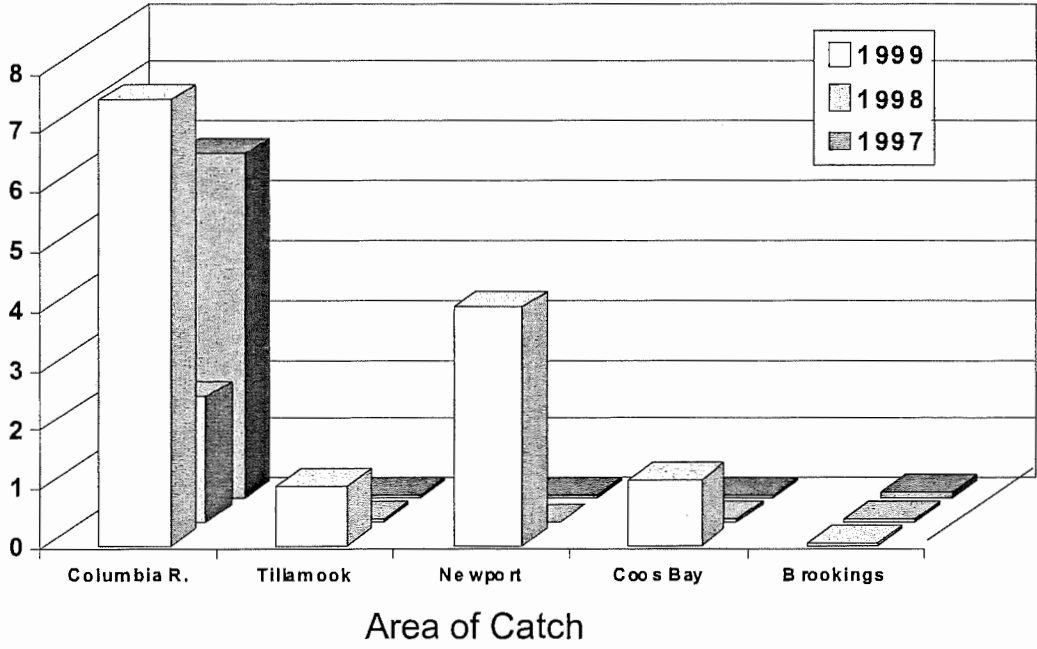


Figure 13. Oregon ocean recreational chinook catch by catch area and by month, 1997-99.

# Coho

FISH (thousands)



FISH (thousands)

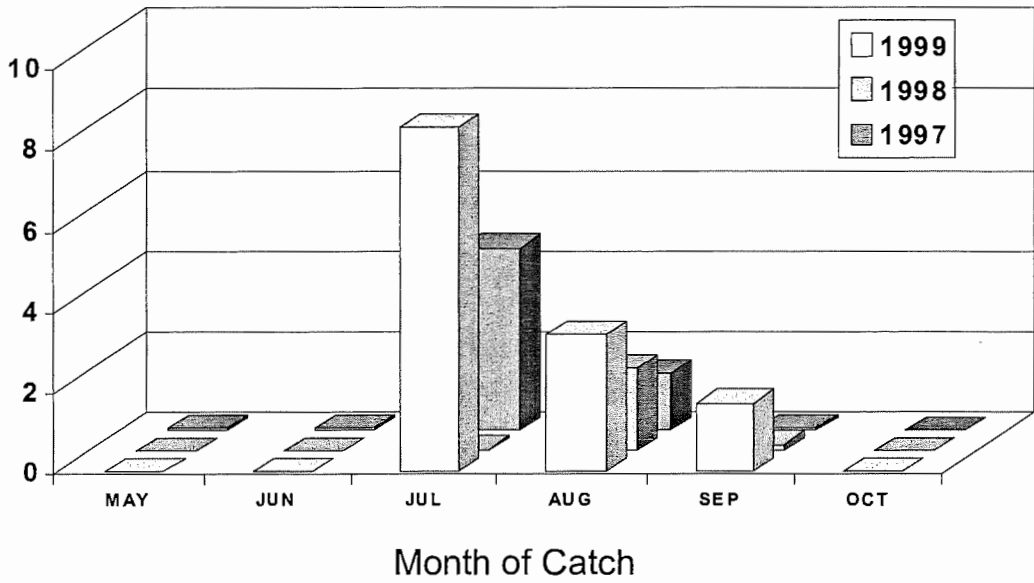


Figure 14. Oregon ocean recreational coho catch by catch area and by month, 1997-99.

**Charter angler effort:** The 1999 charter boat effort was estimated at 5,470 salmon and combination angler trips, three times higher than the 1998 effort of 1,784 angler trips. Charter anglers made up only 11% of the total ocean salmon trips in 1999. When bottomfishing trips were added in; charters in 1999 accounted for 44% of the total angler trips compared to 50% in 1998 (Tables 10 and 11, and Figure 16).

Astoria with 14 boats fished almost exclusively for salmon, and led the coast with 1,730 salmon angler trips. Newport with 19 boats had 1,178 salmon angler trips. Depoe Bay, with the largest charter fleet on the coast (22 boats) accounted for 1,113 salmon angler trips, and had the highest bottomfishing effort of any port with 18,684 bottomfishing angler trips. Newport (19 boats) had the second highest bottomfishing charter boat effort with 15,752 angler trips.

Severe restrictions on salmon fishing again in 1999 resulted in a high percentage (91%) of charter anglers that went bottomfishing. A total of 52,944 charter anglers targeted only bottomfish during our sampling period. An additional 601 angler trips were taken on combination trips that fished for both salmon and bottomfish. The high interest in 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 4,206 salmon by charter anglers was more than four times the 1998 catch of 1,004 salmon. The charter fleet landed 20% of the total recreational salmon catch in 1999, up slightly from the 16% share seen in 1998 (Tables 10 and 11, and Figure 15).

The Astoria charter fleet caught 2,606 salmon or 62% of the charter salmon landings, while the Newport charters took 678 salmon (16%). Salmon per angler averages ranged from 1.51 in Astoria to 0.21 salmon per angler in Pacific City. In 1999, the state-wide charter average was 0.77 salmon/angler.

**Private boat angler effort:** The 1999 salmon effort from private boats was estimated at 43,950 salmon and combination angler trips or 89% of the salmon effort for all boat types. Effort was almost double the 1998 total of 23,950 salmon angler trips (Tables 10, 11, Figure 15, and Appendix Table 18).

Brookings and Garibaldi recorded the most private boat effort for salmon in 1999. Brookings had 14,807 salmon and combination angler trips or 34% of the private boat total, followed by Garibaldi with 9,453 trips (22%).

Some private boat anglers 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, bottomfish trips have typically constituted less than 10% of the effort. In the 1999 season; 31,499 angler trips or 42%

Table 10. Oregon ocean recreational salmon effort and catch by boat type, 1999.

Port	Salmon Charter Boats <sup>a</sup>					Salmon Private Boats <sup>a</sup>				
	Boat Trips	Angler Trips	Salmon Catch			Boat Trips	Angler Trips	Salmon Catch		
			Chinook	Coho	Pink			Chinook	Coho	Pink
Astoria	260	1,730	288	2,318	0	1,922	5,676	646	5,224	6
Garibaldi	29	243	24	39	0	3,919	9,453	1,432	330	0
Pacific City	8	34	2	5	0	497	1,430	99	652	3
Depoe Bay	128	1,113	57	324	0	444	1,158	74	419	0
Newport	133	1,178	53	625	0	1,537	3,983	157	2,596	0
Florence	0	0	0	0	0	571	1,279	136	250	0
Winchester Bay	89	472	119	22	0	1,702	3,962	868	396	4
Coos Bay	3	36	16	12	1	790	1,768	237	361	1
Bandon	0	0	57 <sup>c</sup>	6	0	45	82	6	11	0
Port Orford	0	0	0	0	0	11	39	4	8	0
Gold Beach	0	0	0	0	0	128	313	51	0	0
Brookings	134	664	236	2 <sup>b</sup>	0	6,743	14,807	3,160	44 <sup>b</sup>	0
Total	784	5,470	852	3,353	1	18,309	43,950	6,870	10,291	14
Combined totals for all Oregon craft	19,093	49,420	7,722	13,644	15					

<sup>a</sup> Includes combination salmon & bottomfish trips.

<sup>b</sup> Illegal coho landings.

<sup>c</sup> Incidental chinook catch.



Table 11. Oregon ocean recreational salmon and bottomfish effort and catch by boat and trip type<sup>a</sup>, 1999.

Port	Charter									Private								
	Boat Trips			Angler Trips			Total Catch			Boat Trips			Angler Trips			Total Catch		
	Salmon	Combination	Bottom <sup>b</sup>	Salmon	Combination	Bottom <sup>b</sup>	Salmon <sup>c</sup>	Bottom <sup>bd</sup>		Salmon	Combination	Bottom <sup>b</sup>	Salmon	Combination	Bottom <sup>b</sup>	Salmon <sup>c</sup>	Bottom <sup>bd</sup>	
Astoria	260	0	1	1,730	0	12	2,606	16		1,874	48	0	5,535	141	0	5,876	272	
Garibaldi	19	10	711	126	117	8,179	63	60,032		3,831	88	1,325	9,248	205	3,811	1,762	11,371	
Pacific City	3	5	48	14	20	201	7	1,562		423	74	675	1,234	196	1,871	754	7,250	
Depoe Bay	122	6	2,034	1,057	56	18,684	381	104,866		442	2	615	1,149	9	1,556	493	4,787	
Newport	109	24	1,513	975	203	15,752	678	105,622		1,471	66	2,149	3,831	152	6,141	2,753	14,787	
Florence	0	0	0	0	0	0	0	0		569	2	27	1,275	4	49	386	160	
Winchester Bay	87	2	37	460	12	263	141	1,990		1,687	15	66	3,929	33	159	1,268	1,016	
Coos Bay	1	2	327	14	22	3,909	29	35,367		660	130	1,329	1,452	316	3,238	599	14,973	
Bandon	0	0	161	0	0	1,246	63	12,467		34	11	256	59	23	677	17	3,368	
Port Orford	0	0	8	0	0	86	0	54		0	11	310	0	39	1,035	12	6,514	
Gold Beach	0	0	73	0	0	427	0	3,820		89	39	321	219	94	835	51	4,429	
Brookings	109	25	612	493	171	4,185	238	41,494		5,970	773	5,142	12,957	1,850	12,127	3,204	56,151	
<b>Total</b>	<b>710</b>	<b>74</b>	<b>5,525</b>	<b>4,869</b>	<b>601</b>	<b>52,944</b>	<b>4,206</b>	<b>367,290</b>		<b>17,050</b>	<b>1,259</b>	<b>12,215</b>	<b>40,888</b>	<b>3,062</b>	<b>31,499</b>	<b>17,175</b>	<b>125,078</b>	

<sup>a</sup> Trip types are separated by trips that target salmon, bottomfish (includes effort from dive spearfishing trips not included in table prior to 1999), or combination trips. 1999 was the first year that the combination trip type was used with private boats.

<sup>b</sup> Includes non-salmon effort and catch from over-winter sampling in Depoe Bay, Newport and Brookings

<sup>c</sup> Includes: coho, chinook and pink salmon.

<sup>d</sup> Bottomfish includes: rockfish, lingcod, flatfish, and miscellaneous species.

of the private trips targeted on bottomfish, compared to 31,142 angler trips or 56% in 1998. Brookings had the most private bottomfish anglers with 12,127, followed by Newport with 6,141.

**Private boat angler catch:** Anglers from private boats landed 6,870 chinook and 10,291 coho in 1999. The total catch of 17,175 salmon was up substantially from the 5,289 landed in 1998, but is only 14% of the 1979-98 average of 119,700 fish. Private boat anglers caught 80% of the total recreational salmon landed in 1999 down slightly when compared to the 84% share in 1997, but still above the 1979-98 average of 72% (Appendix Table 18 and Figure 15).

Private boat anglers fishing out of Astoria averaged 1.04 salmon per angler trip and landed the most salmon with 5,876 for the 1999 season. Brookings private boat anglers only averaged 0.22 salmon per angler trip, but had the second highest overall landings with 3,204 salmon for the season. These two ports accounted for 53% of the total 1999 private boat salmon angler catch. The coastwide angler success rate was 0.39 salmon per angler, up from the 0.22 salmon per angler observed in 1998, but still less than half the 1979-98 average of 0.84 salmon per private boat angler.

## ESTIMATES OF RELEASED SALMON

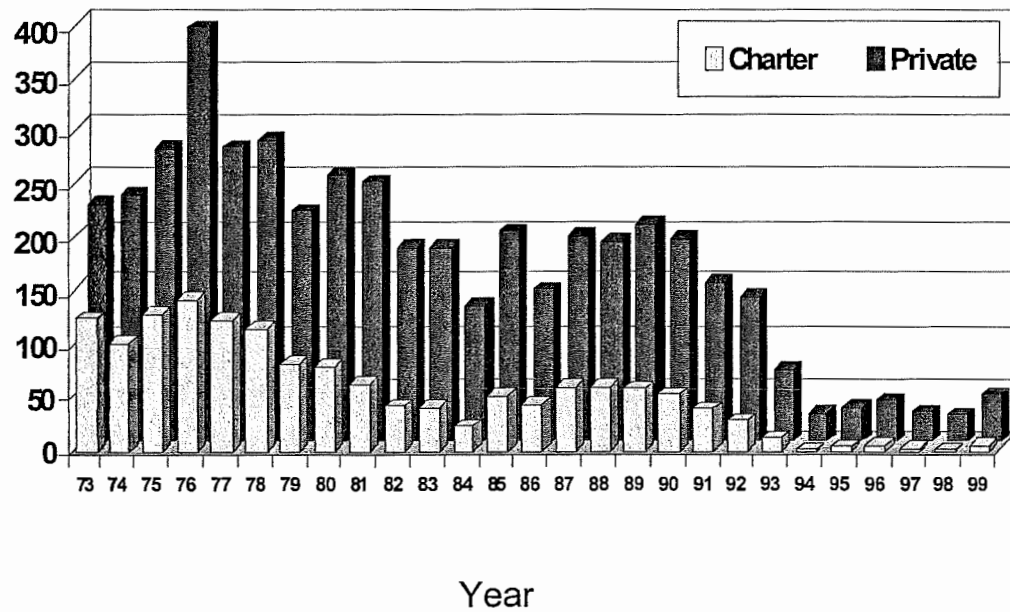
### Background

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 and varies with 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. Although this data is not used in active management, it can be used as a rough estimate to evaluate shaker mortality or other regulation impacts (Tables 12, 13, and Appendix Table 22).

### Chinook

In 1999, a total of 9,100 chinook were caught by anglers and 1,378 of these were released (15%). In most years, the ratio of released per retained chinook peaks in September and coincides with the annual recruitment of age two chinook to the fishery (Table 12); however, in 1999 we saw the release rate peak in August (20%). Astoria with more restrictive chinook retention regulations (24 inch minimum length and no more than one chinook per day) saw the most released chinook with 570, and also had the highest release rate with 38% of the chinook handled being released.

### Angler Trips (Thousands)



### Salmon (Thousands)

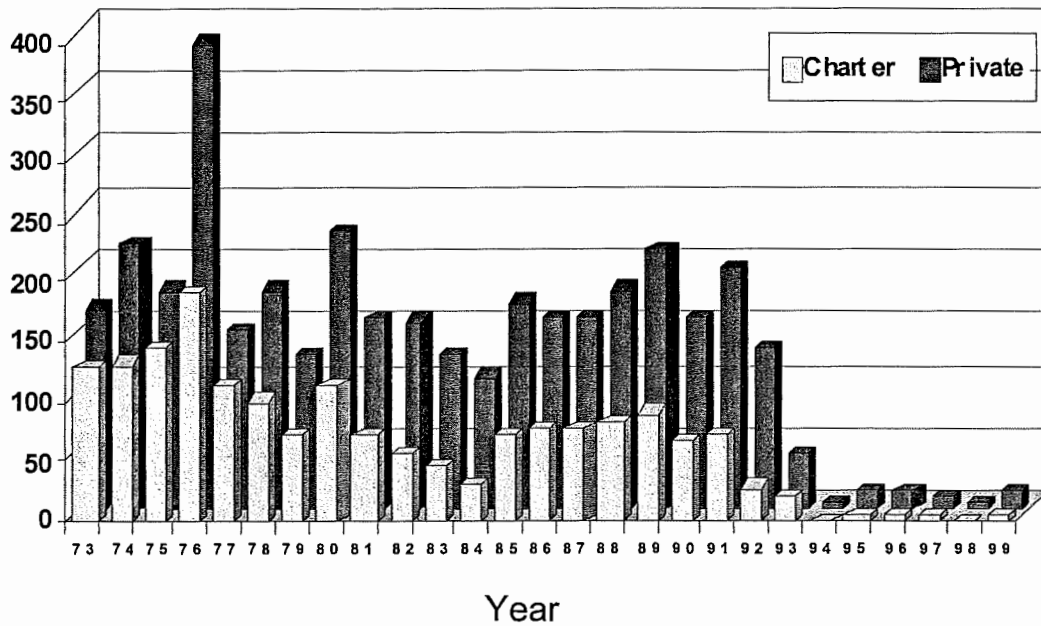


Figure 15. A comparison of effort and catch by Oregon ocean salmon charter and private anglers, 1973-99.

## Coho

New regulations in selective coho fisheries required all coho without an adipose fin clip to be released. This combined with very limited open seasons, makes meaningful comparison of release rates with prior years very difficult. Release rates by port for coho in selective coho seasons ranged from 34% to 46% (Table 13). A total of 24,730 coho were caught in 1999 with 11,086 coho being released (45%).

## RECREATIONAL OCEAN SALMON CODED WIRE TAG SAMPLING

Recreational samplers from the OSMP working at twelve Oregon coastal ports in 1999 examined 41% of the chinook and 46% of the coho landed for fin clips indicating the presence of a coded wire tag during the ocean recreational season. Due to new selective coho salmon seasons, where all hatchery coho are being fin clipped, special electronic CWT detection wands are waved over the snouts of all coho that are part of our sampling.

## Chinook

Samplers examined 3,174 of the 7,722 chinook landed in 1999 (41%), and found 187 (6%) that had adipose fin clips (Table 14). Department staff found readable tags in 155 of the chinook heads for an 83% recovery rate. Most of the observed CWTs were released by ODFW (41%), and California Dept. of Fish and Game (21%). By basin, most of the tagged fish were released in California's Sacramento/San Joaquin Basin (32%) and Oregon's Coastal streams (31%) (Figure 16).

## Coho

Samplers examined 6,306 of the 13,644 coho landed in 1999 (46%), and found 501 (8%) that had adipose fin clips and/or registered a positive response to a tag detector. Staff found readable tags in 413 of the coho heads for an 82% recovery rate. Most of the observed CWTs were released by Washington Dept. of Fish and Wildlife (58%) and ODFW (27%) (Table 15 and Figure 16). Most of the tagged fish were released in the Columbia Basin (66%) and Washington Coastal streams (20%)(Figure 16).

**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.**

Table 12. Chinook salmon released by Oregon ocean recreational anglers by port and by statistical month, 1999.

Port of Landing		Month								Total
		April	May	June	July	Aug.	Sept.	Oct.	Nov.	
Astoria	No. Released	-	-	-	189	241	140	-	-	570
	No. Retained	-	-	-	220	621	93	-	-	934
	% Released	-	-	-	46	28	60	-	-	38
Garibaldi (NOF) <sup>a</sup>	No. Released	-	-	-	0	2	0	-	-	2
	No. Retained	-	-	-	0	2	0	-	-	2
	% Released	-	-	-	0	50	0	-	-	50
Garibaldi (SOF) <sup>a</sup>	No. Released	0	0	0	21	3	11	5	0	40
	No. Retained	0	119	13	95	21	682	516	8	1,454
	% Released	0	0	0	18	13	2	1	0	3
Pacific City	No. Released	-	-	0	28	2	0	-	-	30
	No. Retained	-	-	0	89	11	1	-	-	101
	% Released	-	-	0	24	15	0	-	-	23
Depoe Bay	No. Released	0	0	0	28	2	0	0	0	30
	No. Retained	0	2	5	86	25	5	8	0	131
	% Released	0	0	0	25	7	0	0	0	19
Newport	No. Released	0	0	4	59	7	0	0	1	71
	No. Retained	0	5	4	190	4	4	3	0	210
	% Released	0	0	50	24	64	0	0	100	25
Florence	No. Released	-	0	1	3	0	0	-	-	4
	No. Retained	-	0	8	121	7	0	-	-	136
	% Released	-	0	11	2	0	0	-	-	3
Winchester Bay	No. Released	-	0	0	10	31	1	-	-	42
	No. Retained	-	0	94	619	270	4	-	-	987
	% Released	-	0	0	2	10	20	-	-	4
Charleston	No. Released	-	0	2	11	2	0	0	-	15
	No. Retained	-	3	106	116	22	6	0	-	253
	% Released	-	0	2	9	8	0	0	-	6
Bandon	No. Released	-	0	0	0	0	0	-	-	0
	No. Retained	-	0	3	10	48	2	-	-	63
	% Released	-	0	0	0	0	0	-	-	0
Port Orford	No. Released	-	0	0	0	0	0	-	-	0
	No. Retained	-	0	0	0	4	0	-	-	4
	% Released	-	0	0	0	0	0	-	-	0
Gold Beach	No. Released	-	0	0	0	6	0	-	-	6
	No. Retained	-	0	0	3	46	2	-	-	51
	% Released	-	0	0	0	12	0	-	-	11
Brookings	No. Released	0	0	5	78	375	94	15	1	568
	No. Retained	0	7	44	890	1,634	473	348	0	3,396
	% Released	0	0	10	8	19	17	4	100	14
Total	No. Released	0	0	12	427	671	246	20	2	1,378
	No. Retained	0	136	277	2,439	2,715	1,272	875	8	7,722
	% Released	0	0	4	15	20	16	2	20	15

<sup>a</sup> (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 13. Coho salmon released by Oregon ocean recreational anglers by port and by statistical month, 1999.

Port of Landing		Month								Total
		April	May	June	July	Aug.	Sept.	Oct.	Nov.	
Astoria	No. Released	-	-	-	1,274	2,064	964	-	-	4,302
	No. Retained	-	-	-	2,463	3,359	1,720	-	-	7,542
	% Released	-	-	-	34	38	36	-	-	36
Garibaldi (NOF) <sup>a</sup>	No. Released	-	-	-	15	15	0	-	-	30
	No. Retained	-	-	-	8	0	0	-	-	8
	% Released	-	-	-	65	100	0	-	-	79
Garibaldi (SOF) <sup>a</sup>	No. Released	0	0	1	215	64	179	51	0	510
	No. Retained	0	0	0	346	2	11	2	0	361
	% Released	0	0	100	38	97	94	96	0	59
Pacific City	No. Released	-	-	1	426	20	0	-	-	447
	No. Retained	-	-	0	657	0	0	-	-	657
	% Released	-	-	100	39	100	0	-	-	40
Depoe Bay	No. Released	0	0	2	420	17	0	0	0	439
	No. Retained	0	0	0	743	0	0	0	0	743
	% Released	0	0	100	36	100	0	0	0	37
Newport	No. Released	0	0	4	1,646	51	5	0	0	1,706
	No. Retained	0	0	0	3,221	0	0	0	0	3,221
	% Released	0	0	100	34	100	100	0	0	35
Florence	No. Released	-	0	1	216	41	0	-	-	258
	No. Retained	-	0	0	250	0	0	-	-	250
	% Released	-	0	100	46	100	0	-	-	51
Winchester Bay	No. Released	-	0	17	355	243	5	-	-	620
	No. Retained	-	0	0	418	0	0	-	-	418
	% Released	-	0	100	46	100	100	-	-	60
Charleston	No. Released	-	0	36	287	27	0	0	-	350
	No. Retained	-	0	0	373	0	0	0	-	373
	% Released	-	0	100	43	100	0	0	-	48
Bandon	No. Released	-	0	0	4	3	0	-	-	7
	No. Retained	-	0	0	17	0	0	-	-	17
	% Released	-	0	0	19	100	0	-	-	29
Port Orford	No. Released	-	0	0	0	0	0	-	-	0
	No. Retained	-	0	0	8	0	0	-	-	8
	% Released	-	0	0	0	0	0	-	-	0
Gold Beach	No. Released	-	0	0	0	3	0	-	-	3
	No. Retained	-	0	0	0	0	0	-	-	0
	% Released	-	0	0	0	100	0	-	-	100
Brookings	No. Released	0	0	11	1,129	928	336	10	0	2,414
	No. Retained	0	0	2	8	32	4	0	0	46
	% Released	0	0	85	99	97	99	100	0	98
Total	No. Released	0	0	52	5,987	3,476	1,489	61	0	11,086
	No. Retained	0	136	2	8,512	3,393	1,735	2	0	13,644
	% Released	0	0	96	41	51	46	97	0	45

<sup>a</sup> (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. Chinook coded-wire tag sampling from the ocean recreational fishery, by port and month, 1999.

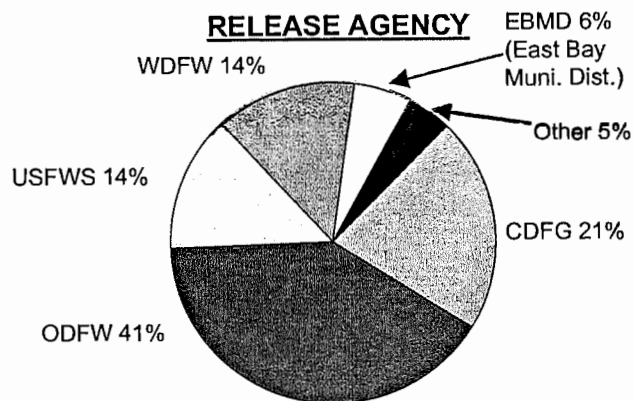
Port of Landing		Month								Total
		April	May	June	July	Aug.	Sept.	Oct.	Nov.	
Astoria	No. Landed	-	-	-	220	621	93	-	-	934
	No. Examined	-	-	-	102	204	30	-	-	336
	% Examined	-	-	-	46	33	32	-	-	36
	No. Marks	-	-	-	15	12	1	-	-	28
Garibaldi	No. Landed	0	119	13	95	23	682	516	8	1,456
	No. Examined	0	54	7	61	11	409	247	2	791
	% Examined	0	45	54	64	48	60	48	25	54
	No. Marks	0	11	2	4	0	13	9	0	39
Pacific City	No. Landed	-	-	0	89	11	1	-	-	101
	No. Examined	-	-	0	73	8	1	-	-	82
	% Examined	-	-	0	82	73	100	-	-	81
	No. Marks	-	-	0	4	0	0	-	-	4
Depoe Bay	No. Landed	0	2	5	86	25	5	8	0	131
	No. Examined	0	1	4	64	13	3	1	0	86
	% Examined	0	50	80	74	52	60	13	0	66
	No. Marks	0	0	2	8	0	0	0	0	10
Newport	No. Landed	0	5	4	190	4	4	3	0	210
	No. Examined	0	2	2	92	3	2	1	0	102
	% Examined	0	40	50	48	75	50	33	0	49
	No. Marks	0	0	0	3	0	0	0	0	3
Florence	No. Landed	-	0	8	121	7	0	-	-	136
	No. Examined	-	0	6	91	4	0	-	-	101
	% Examined	-	0	75	75	57	0	-	-	74
	No. Marks	-	0	0	4	0	0	-	-	4
Winchester Bay	No. Landed	-	0	94	619	270	4	-	-	987
	No. Examined	-	0	49	274	114	2	-	-	439
	% Examined	-	0	52	44	42	50	-	-	44
	No. Marks	-	0	1	12	8	1	-	-	22
Charleston	No. Landed	-	3	106	116	22	6	-	-	253
	No. Examined	-	3	49	78	11	3	-	-	144
	% Examined	-	100	46	67	50	50	-	-	57
	No. Marks	-	0	7	5	0	0	-	-	12
Bandon	No. Landed	-	0	3	10	48	2	-	-	63
	No. Examined	-	0	1	5	12	1	-	-	19
	% Examined	-	0	33	50	25	50	-	-	30
	No. Marks	-	0	0	0	1	0	-	-	1
Port Orford	No. Landed	-	0	0	0	4	0	-	-	4
	No. Examined	-	0	0	0	1	0	-	-	1
	% Examined	-	0	0	0	25	0	-	-	25
	No. Marks	-	0	0	0	0	0	-	-	0
Gold Beach	No. Landed	-	0	0	3	46	2	-	-	51
	No. Examined	-	0	0	1	18	1	-	-	20
	% Examined	-	0	0	33	39	50	-	-	39
	No. Marks	-	0	0	0	0	0	-	-	0
Brookings	No. Landed	0	7	44	890	1,634	473	348	0	3,396
	No. Examined	0	3	18	244	483	161	144	0	1,053
	% Examined	0	43	41	27	30	34	41	0	31
	No. Marks	0	1	1	16	28	8	10	0	64
Total	No. Landed	0	136	277	2,439	2,715	1,272	875	8	7,722
	No. Examined	0	63	136	1,085	882	613	393	2	3,174
	% Examined	0	46	49	44	32	48	45	25	41
	No. Marks	0	12	13	71	49	23	19	0	187

Table 15. Coho coded-wire tag sampling from the ocean recreational fishery, by port and month, 1999.

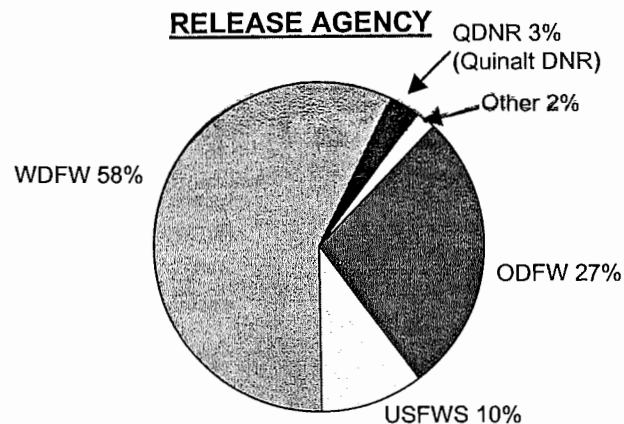
Port of Landing		Month								Total
		April	May	June	July	Aug.	Sept.	Oct.	Nov.	
Astoria	No. Landed	-	-	-	2,463	3,359	1,720	-	-	7,542
	No. Examined	-	-	-	1,144	1,132	502	-	-	2,778
	% Examined	-	-	-	46	34	29	-	-	37
	No. Marks	-	-	-	79	66	34	-	-	179
Garibaldi	No. Landed	0	0	0	354	2	11	2	0	369
	No. Examined	0	0	0	223	1	7	1	0	232
	% Examined	0	0	0	63	50	64	50	0	63
	No. Marks	0	0	0	17	0	0	0	0	17
Pacific City	No. Landed	-	-	0	657	0	0	-	-	657
	No. Examined	-	-	0	512	0	0	-	-	512
	% Examined	-	-	0	78	0	0	-	-	78
	No. Marks	-	-	0	39	0	0	-	-	39
Depoe Bay	No. Landed	0	0	0	743	0	0	0	0	743
	No. Examined	0	0	0	549	0	0	0	0	549
	% Examined	0	0	0	74	0	0	0	0	74
	No. Marks	0	0	0	45	0	0	0	0	45
Newport	No. Landed	0	0	0	3,221	0	0	0	0	3,221
	No. Examined	0	0	0	1,623	0	0	0	0	1,623
	% Examined	0	0	0	50	0	0	0	0	50
	No. Marks	0	0	0	149	0	0	0	0	149
Florence	No. Landed	-	0	0	250	0	0	-	-	250
	No. Examined	-	0	0	204	0	0	-	-	204
	% Examined	-	0	0	82	0	0	-	-	82
	No. Marks	-	0	0	19	0	0	-	-	19
Winchester Bay	No. Landed	-	0	0	418	0	0	-	-	418
	No. Examined	-	0	0	168	0	0	-	-	168
	% Examined	-	0	0	40	0	0	-	-	40
	No. Marks	-	0	0	13	0	0	-	-	13
Charleston	No. Landed	-	0	0	373	0	0	-	-	373
	No. Examined	-	0	0	219	0	0	-	-	219
	% Examined	-	0	0	59	0	0	-	-	59
	No. Marks	-	0	0	33	0	0	-	-	33
Bandon	No. Landed	-	0	0	17	0	0	-	-	17
	No. Examined	-	0	0	7	0	0	-	-	7
	% Examined	-	0	0	41	0	0	-	-	41
	No. Marks	-	0	0	1	0	0	-	-	1
Port Orford	No. Landed	-	0	0	8	0	0	-	-	8
	No. Examined	-	0	0	2	0	0	-	-	2
	% Examined	-	0	0	0	0	0	-	-	25
	No. Marks	-	0	0	1	0	0	-	-	1
Gold Beach	No. Landed	-	0	0	0	0	0	-	-	0
	No. Examined	-	0	0	0	0	0	-	-	0
	% Examined	-	0	0	0	0	0	-	-	0
	No. Marks	-	0	0	0	0	0	-	-	0
Brookings	No. Landed	0	0	2	8	32	4	0	0	46
	No. Examined	0	0	1	2	7	2	0	0	12
	% Examined	0	0	50	25	22	50	0	0	26
	No. Marks	0	0	1	2	2	0	0	0	5
Total	No. Landed	0	0	2	8,512	3,393	1,735	2	0	13,644
	No. Examined	0	0	1	4,653	1,140	511	1	0	6,306
	% Examined	0	0	50	55	34	29	50	0	46
	No. Marks	0	0	1	398	68	34	0	0	501



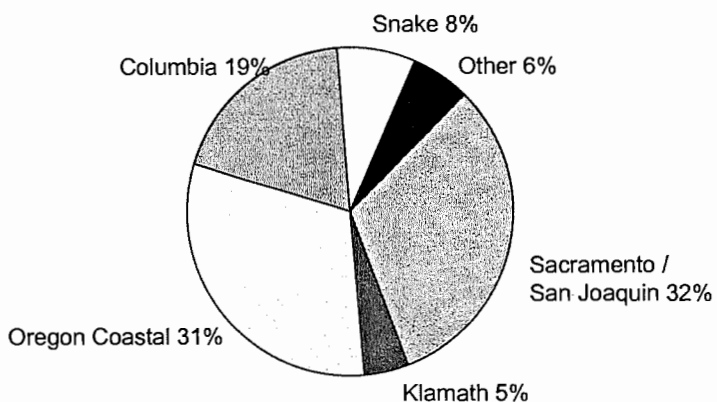
## Chinook



## Coho



### BASIN OF RELEASE



### BASIN OF RELEASE

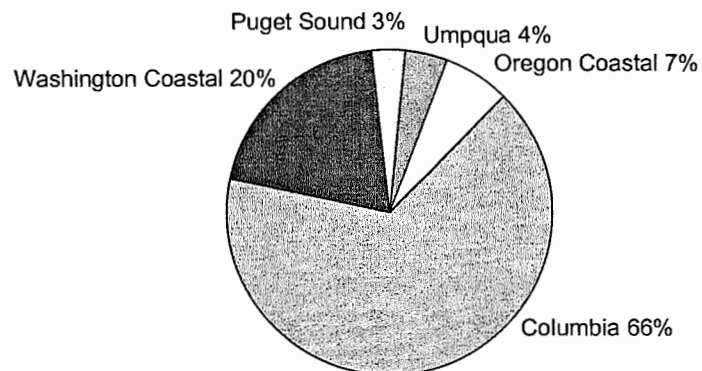


Figure 16. Recoveries of chinook (N=155 ) and coho (N=413 ) coded wire tags, by release agency and by basin of release from Oregon's ocean recreational catch, 1999. Note: Does not represent stock contribution rates since tagging is not representative of all stocks.

## SPECIAL FISHERIES AND STUDIES

### Columbia River Buoy 10 Estuary Fishery

The Columbia River estuary was open from Buoy 10 upstream to the Astoria/Megler Bridge beginning August 1. Only coho with an adipose fin clip were allowed to be retained. The Oregon/Washington combined effort totaled 49,600 angler trip as compared to the 1998 effort of only 30,000 angler trips (Table 16). Salmon landings totaled 9,850 chinook and 8,960 coho. The majority of the effort and catch occurred out of Washington (Table 16).

Table 16. Buoy 10 Columbia River estuary season. Total salmon angler trips and catch, 1999; and totals for 1982-98, 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	55,725	13,153	20,357	0.60	0.24	0.37
1998	29,998	5,784	3,175	0.30	0.19	0.11
1999 Total	49,568	9,850	8,960	0.38	0.20	0.18
OR Boat	19,484	3,959	3,474	0.38	0.20	0.18
OR Bank	1,364	9	146	0.11	0.01	0.11
WA Boat	28,720	5,882	5,340	0.39	0.20	0.19
WA Bank	0	0	0	NA	NA	NA

### 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 November extension off Tillamook in 1999 resulted in an estimated effort of 104 ocean angler trips with a catch of 8 chinook. As is often the case, weather conditions are highly variable at this time of year, and the ocean was inaccessible during much of the extension.

### November-December Fishery off Port Orford

We did not sample the recreational portion of this fishery in 1999. The ocean sport catch in this fishery has been nonexistent or minimal (<50 fish) in all years based on post season analysis of salmon catch records.

### 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. The open area in 1999 was from Goat Island south to the latitude of 42° 01' 20" N. The season was open from Oct. 2 through 11. Effort for this fishery totaled 3,209 angler trips (Table 17). Private boats made up 96% of the total effort for this fishery. The chinook catch totaled 447 fish. Angler success averaged 0.14 chinook per angler and mimicked the chinook per angler observed during the 1998 Chetco state waters fishery. A total of 15 coho were estimated to have been released by anglers, and 2 coho were retained illegally.

A total of nine readable coded wire tags were recovered from chinook in this fishery. Eight of the tagged chinook were released in the Chetco River and one was released in the Sacramento River, California. The chinook from the Chetco included two age 5 chinook, and six age 4 chinook.

Table 17. Summary of Chetco River Area recreational terminal ocean fishery by boat type, 1999.

Stat. Week	CHARTER BOATS					PRIVATE BOATS					TOTAL OF ALL BOAT TYPES				
	Angler Trips	Landed		Released		Angler Trips	Landed		Released		Angler Trips	Landed		Released	
		Chin	Coho	Chin	Coho		Chin	Coho	Chin	Coho		Chin	Coho		
40	24	1	-	-	-	867	98	2	2	2	891	99	2	2	2
41	80	24	-	-	-	1,901	266	-	11	5	1,981	290	-	11	5
42	9	1	-	-	1	328	57	-	2	4	337	58	-	2	5
Total	113	26	0	0	1	3,096	421	2	15	11	3,209	447	2	15	12

### 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. Since 1997, the OSMP has continued to collect Tillamook Bay fishery effort and catch data during the fall chinook fishery, but only to the extent allowed by utilizing existing ocean sampling staff. The fall creel data collection began September 16 and continued through November 14 when all sampling ceased. For better catch estimates, the bay fishery is 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 17). Due to staffing limitations, all sampling occurred at Garibaldi and the upper bay zone was not representatively sampled in 1999.

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 for 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 1999 effort during the fall fishery is estimated at 20,269 angler trips, and the effort was split fairly evenly between the two major estuary areas (Table 18).

Catches in the bay totaled 1,274 chinook and 15 coho (illegal). An additional 12 chinook and 191 coho were released by anglers. The lower bay accounted for 54% of the chinook catch and had an average catch rate of 0.07 chinook per angler trip. The mid/upper bay area accounted for 46% of the chinook catch with a catch rate of 0.14 chinook per angler trip.

## **Gear Profile**

Beginning in 1999, OSM selectively collected profiles of fishing methods and gear types being used by charter and private boat anglers. The information collected gives very general information on trends by port and season type i.e. open or closed for coho. Profiles were collected during dockside interviews, as well as by direct observation by at sea observers. It should be noted that since special gear regulations were in place for much of the coast during the all except coho season, caution must be exercised in assumptions made about what gear types would have been preferred in the absence of the gear restrictions.

Trolling was far and away the preferred fishing method during the all species seasons. More than 98% of anglers in all boat types and ports trolled during the all species seasons, and trolling was the preferred method during the chinook target seasons as well, although 34% of the private boat anglers at Charleston chose to mooch during the chinook season (Table 19).

During the coho seasons, in most ports, the majority of anglers preferred to use a diving plane (81% of charter anglers and 64% of private boat anglers) as their method of getting their lure or bait down to fishing depth. However in Winchester Bay and Charleston, usage was split more evenly between diving planes, lead sinkers, and downriggers (Table 20). Divers were prohibited between Cape Falcon and Humbug Mt. during the all salmon except coho season, and 57% of private boat anglers chose to use lead sinkers, although at Brookings 71% of the private boat anglers used downriggers.

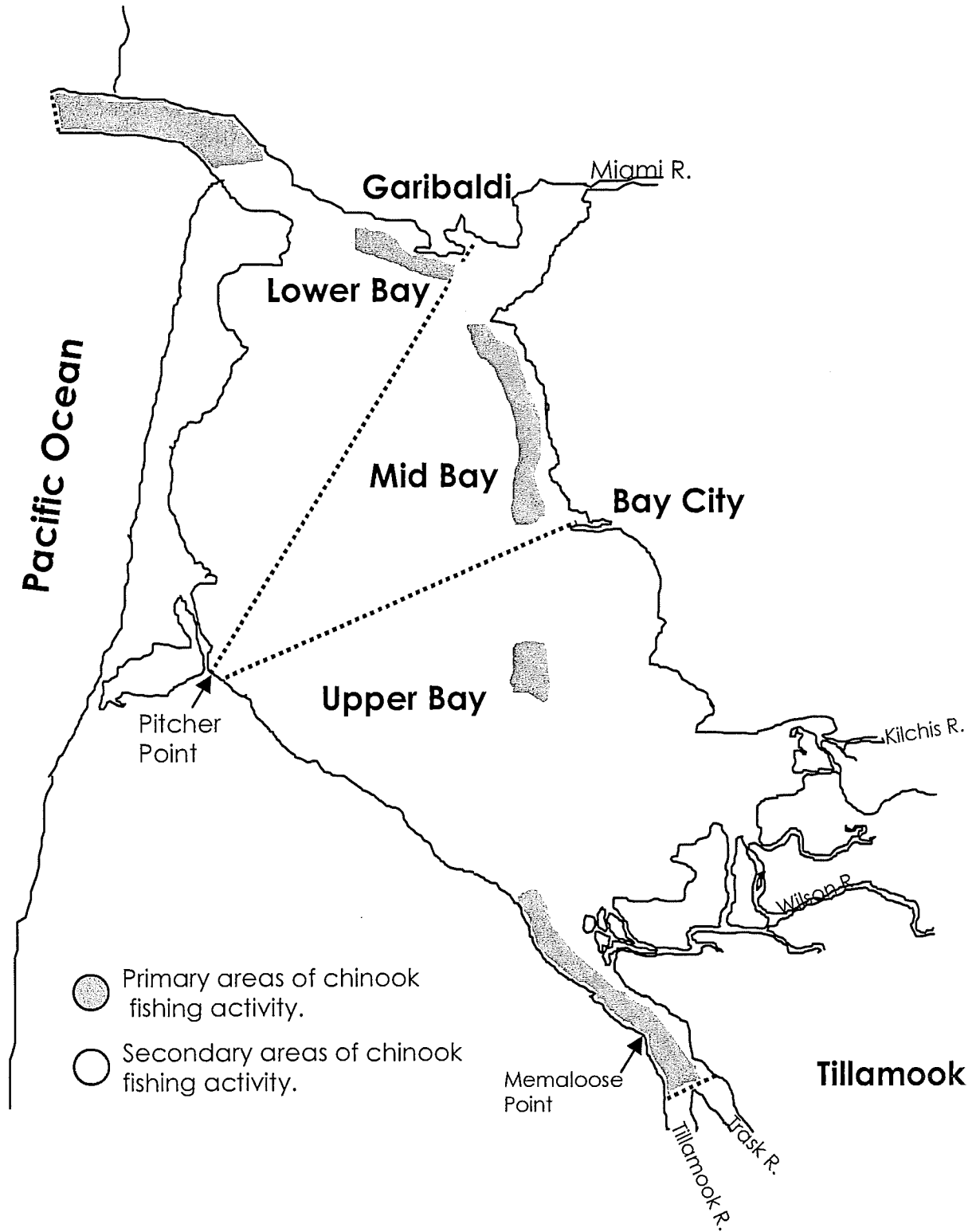


Figure 17. Map of Tillamook Bay, Oregon showing the boundaries for the bay zones used in the 1999 creel survey, and areas of primary and secondary fishing activity.

Table 18. Tillamook Bay recreational fishery creel 1999 (sampling occurred only in Garibaldi); effort and catch estimates by statistical week and by zone.<sup>a</sup>

**Lower Bay (Garibaldi Boat Basin to mouth)**

Statistical Week	Angler Trips	Landed Chinook	Landed Coho	Released Chinook	Released Coho	Chinook/Angler	Coho/Chinook
38 Sept. 13-19	962	80	2	2	30	0.09	0.39
39 Sept. 20-26	1,844	113	1	3	15	0.06	0.14
40 Sept. 27-Oct. 3	1,320	135	4	0	31	0.10	0.26
41 Oct. 4-10	2,026	76	0	0	32	0.04	0.42
42 Oct. 11-17	1,808	144	0	0	10	0.08	0.07
43 Oct. 18-24	1,199	104	0	3	0	0.09	0.00
44 Oct. 25-31	396	24	0	0	0	0.06	0.00
45 Nov. 1-7	306	8	0	0	0	0.03	0.00
46 Nov. 8-14	137	6	0	0	0	0.04	0.00
<b>Totals</b>	<b>9,998</b>	<b>690</b>	<b>7</b>	<b>8</b>	<b>118</b>	<b>0.07</b>	<b>0.18</b>

**Mid and Upper Bay (Memaloose to Garibaldi Boat Basin)<sup>b</sup>**

Statistical Week	Angler Trips	Landed Chinook	Landed Coho	Released Chinook	Released Coho	Chinook/Angler	Coho/Chinook
38 Sept. 13-19	209	7	0	0	4	0.03	0.57
39 Sept. 20-26	1,009	35	0	0	2		
40 Sept. 27-Oct. 3	694	49	0	0	8	0.07	0.16
41 Oct. 4-10	1,879	129	8	0	17	0.07	0.19
42 Oct. 11-17	2,294	72	0	4	35	0.03	0.46
43 Oct. 18-24	1,506	112	0	0	3	0.07	0.03
44 Oct. 25-31	1,244	45	0	0	0	0.04	0.00
45 Nov. 1-7	1,166	106	0	0	4	0.09	0.04
46 Nov. 8-14	270	29	0	0	0	0.11	0.00
<b>Totals</b>	<b>10,271</b>	<b>584</b>	<b>8</b>	<b>4</b>	<b>73</b>	<b>0.06</b>	<b>0.14</b>

**All Areas Combined**

Statistical Week	Angler Trips	Landed Chinook	Landed Coho	Released Chinook	Released Coho	Chinook/Angler	Coho/Chinook
38 Sept. 13-19	1,171	87	2	2	34	0.08	0.40
39 Sept. 20-26	2,853	148	1	3	17	0.05	0.12
40 Sept. 27-Oct. 3	2,538	162	1	3	23	0.07	0.15
41 Oct. 4-10	3,199	264	12	0	48	0.08	0.23
42 Oct. 11-17	4,320	148	0	4	67	0.04	0.44
43 Oct. 18-24	3,314	256	0	0	13	0.08	0.05
44 Oct. 25-31	2,443	149	0	3	0	0.06	0.00
45 Nov. 1-7	1,562	130	0	0	4	0.08	0.03
46 Nov. 8-14	407	35	0	0	0	0.09	0.00
<b>Totals</b>	<b>20,269</b>	<b>1,274</b>	<b>15</b>	<b>12</b>	<b>191</b>	<b>0.06</b>	<b>0.16</b>

<sup>a</sup> Refer to Figure 18 for fishery zone designations.

<sup>b</sup> Upper Bay was not systematically sampled but effort and catch estimates are included with Mid Bay.

Table 19. Gear profile of angling methods used for ocean salmon fishing off Oregon, 1999 (ISD = insufficient data defined as <20 angler trips profiled). Profiles are stratified for the selective coho season and for the all species except coho seasons. Note that regulations defined legal gear during the all species except coho fishery, and limited options.

Selective Coho	Charter Boat Anglers			Private Boat Anglers		
	Trolling <sup>a</sup>	Mooching <sup>b</sup>	Other <sup>c</sup>	Trolling <sup>a</sup>	Mooching <sup>b</sup>	Other <sup>c</sup>
Astoria	100%	0%	0%	98%	1%	0%
Garibaldi	100%	0%	0%	98%	2%	0%
Pacific City	ISD	ISD	ISD	99%	1%	0%
Depoe Bay	100%	0%	0%	100%	0%	0%
Newport	100%	0%	0%	99%	1%	0%
Florence	ISD	ISD	ISD	99%	1%	0%
Winchester Bay	100%	0%	0%	96%	4%	0%
Charleston	ISD	ISD	ISD	95%	5%	0%
Brookings	NA	NA	NA	NA	NA	NA
<b>Coastwide Total<sup>d</sup></b>	100%	0%	0%	98%	2%	0%

All Except Coho	Charter Boat Anglers			Private Boat Anglers		
	Trolling <sup>a</sup>	Mooching <sup>b</sup>	Other <sup>c</sup>	Trolling <sup>a</sup>	Mooching <sup>b</sup>	Other <sup>c</sup>
Astoria	NA	NA	NA	NA	NA	NA
Garibaldi	ISD	ISD	ISD	100%	0%	0%
Pacific City	ISD	ISD	ISD	100%	0%	0%
Depoe Bay	ISD	ISD	ISD	ISD	ISD	ISD
Newport	ISD	ISD	ISD	ISD	ISD	ISD
Florence	ISD	ISD	ISD	95%	5%	0%
Winchester Bay	88%	12%	0%	84%	16%	0%
Charleston	ISD	ISD	ISD	66%	34%	0%
Brookings	95%	5%	0%	99%	1%	0%
<b>Coastwide Total<sup>d</sup></b>	93%	7%	0%	97%	3%	0%

<sup>a</sup> Trolling defined as the boat moving through the water under power, and towing lure or bait, generally no additional action is imparted to the terminal tackle by the angler.

<sup>b</sup> Mooching defined as boat is generally drifting or under power only enough to create a steady drift, and angler actively moves lure or bait (usually a bait) up and down through the water column.

<sup>c</sup> Other methods included casting, jigging, fly angling, etc.

<sup>d</sup> Coastwide totals were calculated to account for angling effort levels at all ports where sufficient gear profile sampling occurred.

Table 20. Gear profile of weighting methods used for ocean salmon fishing off Oregon, 1999 (ISD = insufficient data defined as <20 angler trips profiled). Profiles are stratified for the selective coho season and for the all species except coho seasons. Note that regulations defined legal gear during the all species except coho fishery, and limited options. Shaded areas denote gear used that was illegal under adopted regulations.

Selective Coho	Charter Boat Anglers				Private Boat Anglers			
	Diver <sup>a</sup>	Lead <sup>b</sup>	Downrigger <sup>c</sup>	Other <sup>d</sup>	Diver <sup>a</sup>	Lead <sup>b</sup>	Downrigger <sup>c</sup>	Other <sup>d</sup>
Astoria	98%	1%	0%	0%	81%	8%	11%	0%
Garibaldi	71%	12%	16%	0%	61%	25%	14%	0%
Pacific City	ISD	ISD	ISD	ISD	71%	18%	10%	1%
Depoe Bay	72%	0%	28%	0%	90%	4%	7%	0%
Newport	74%	4%	22%	0%	65%	9%	26%	0%
Florence	ISD	ISD	ISD	ISD	51%	33%	16%	0%
Winchester Bay	21%	1%	78%	0%	26%	40%	34%	1%
Charleston	ISD	ISD	ISD	ISD	36%	27%	37%	1%
Brookings	NA	NA	NA	NA	NA	NA	NA	NA
Coastwide Total <sup>e</sup>	81%	2%	17%	0%	64%	16%	19%	0%

All Except Coho	Charter Boat Anglers				Private Boat Anglers			
	Diver <sup>a</sup>	Lead <sup>b</sup>	Downrigger <sup>c</sup>	Other <sup>d</sup>	Diver <sup>a</sup>	Lead <sup>b</sup>	Downrigger <sup>c</sup>	Other <sup>d</sup>
Astoria	NA	NA	NA	NA	NA	NA	NA	NA
Garibaldi	ISD	ISD	ISD	ISD	0%	96%	4%	0%
Pacific City	ISD	ISD	ISD	ISD	10%	57%	33%	0%
Depoe Bay	ISD	ISD	ISD	ISD	ISD	ISD	ISD	ISD
Newport	ISD	ISD	ISD	ISD	ISD	ISD	ISD	ISD
Florence	ISD	ISD	ISD	ISD	2%	71%	27%	0%
Winchester Bay	0%	22%	78%	0%	0%	49%	50%	1%
Charleston	ISD	ISD	ISD	ISD	0%	56%	44%	0%
Brookings	30%	5%	65%	0%	26%	3%	71%	0%
Coastwide Total <sup>e</sup>	5%	19%	76%	0%	5%	57%	38%	0%

<sup>a</sup> Diver is defined as a planing device designed to use water pressure on the face while being pulled through the water to force it to depth. Common commercial names include: "Pink Lady", "Deep Six", and "Dipsy Diver".

<sup>b</sup> Lead is defined as any weight attached to the line to take the line to depth. Generally this includes lead sinkers in any of several forms that are tied, clipped, or otherwise directly affixed.

<sup>c</sup> Downrigger is defined as a secondary line with a large weight that is attached to the angler's fishing line by means of a quick release mechanism. The quick release is designed to free the anglers line from the weight once a fish has struck the lure or bait.

<sup>d</sup> Other is defined as any technique already described. In most cases, it was limited to instances where anglers used no additional weight on the line i.e. casting a lure, jigging, or fly casting.

<sup>e</sup> Coastwide totals were calculated to account for angling effort levels at all ports where sufficient gear profile sampling occurred.



In many cases, salmon anglers use an attractor device (commonly referred to as a dodger or flasher) just ahead of the lure or bait. During the 1999 all salmon except coho season between Cape Falcon and Humbug Mt., attractors were prohibited except when used in conjunction with a downrigger. Attractors were used by the majority of anglers (52% of charter anglers and 62% of private boat anglers) during the selective coho season in all ports except for Astoria and Garibaldi (Table 21). During the all except coho season in Brookings (where there were no special gear regulations, over 90% of the private boat anglers used an attractor.

In Table 22, angler preference for use of lures or bait is profiled. "Bait" included terminal tackle that primarily consisted of baitfish or a "plug-cut" baitfish (head removed at an angle). Types of baitfish most commonly used include: Pacific herring (*Clupea pallasii*), northern anchovy (*Engraulis mordax*), and Pacific sardine (*Sardinops sagax*). "Lures" are defined as artificial items that are designed to induce a strike because of resemblance to natural prey items or motion of the lure. Typical lures include hootchies, spoons, plugs, flies, and spinners. The single most frequently used lure was the "hootchie", which is a soft plastic skirt that resembles a squid and comes in a variety of colors.

Port and boat type gear selection differences were the most obvious in choosing between lures and bait. Charters in most ports during the coho season selected lures in preference to bait (except in Astoria where 83% of the charter anglers used bait). For private boats, lures were preferred during the coho season from Pacific City to Newport, but bait was selected more often in all ports both North and South of this zone. During the chinook season, bait was always the top choice.

Over 90% of the lures used were hootchies. Spoons were the second most commonly used lure type accounting for 5.6% of the lures used. It is important to note that many anglers attach a small chunk or fillet of a baitfish on the hook of their hootchie, but these were still considered lures unless the bait was the dominant feature of the terminal tackle.

### **At Sea Observations of the Selective Coho Fishery**

During the selective coho salmon seasons, OSM provided at sea observer coverage on board charter vessels. The primary purpose of the observations was to collect data to verify release rates on coho salmon, and to be able to compare dockside reported release rates to those observed at sea. In the season north of Cape Falcon to Leadbetter Pt., Washington we observed a total of 62 vessel trips with 984 observations of coho, of which 652 were retained and 206 were released because they did not have an adipose fin clip (76% retained) (Table 23).

In the Cape Falcon to Humbug Mt. selective coho season, we observed a total of 74 vessel trips. However, coho catch rates were poor during the 1999 season and we only observed a total of 413 coho of which 265 were retained by anglers and 125 were released because they did not have an adipose fin clip (68% retained) (Table 23).

Table 21. Gear profile detailing use of attractors<sup>a</sup> in ocean salmon fishing off Oregon, 1999 (ISD = insufficient data defined as <20 angler trips profiled). Profiles are stratified for the selective coho season and for the all species except coho seasons. Note that regulations defined legal gear during the all species except coho fishery, and limited options.

<b>Selective Coho</b>	<b>Charter Boat Anglers</b>		<b>Private Boat Anglers</b>	
	<b>Attractor Used</b>	<b>No Attractor</b>	<b>Attractor Used</b>	<b>No Attractor</b>
Astoria	2%	98%	28%	72%
Garibaldi	69%	31%	45%	55%
Pacific City	ISD	ISD	86%	14%
Depoe Bay	99%	1%	93%	8%
Newport	73%	27%	87%	13%
Florence	ISD	ISD	60%	40%
Winchester Bay	96%	4%	81%	19%
Charleston	ISD	ISD	81%	19%
Brookings	NA	NA	NA	NA
<b>Coastwide Total<sup>b</sup></b>	<b>52%</b>	<b>48%</b>	<b>62%</b>	<b>38%</b>

<b>All Except Coho</b>	<b>Charter Boat Anglers</b>		<b>Private Boat Anglers</b>	
	<b>Attractor Used</b>	<b>No Attractor</b>	<b>Attractor Used</b>	<b>No Attractor</b>
Astoria	NA	NA	NA	NA
Garibaldi	ISD	ISD	1%	99%
Pacific City	ISD	ISD	37%	63%
Depoe Bay	ISD	ISD	ISD	ISD
Newport	ISD	ISD	ISD	ISD
Florence	ISD	ISD	23%	77%
Winchester Bay	70%	30%	48%	52%
Charleston	ISD	ISD	45%	55%
Brookings	77%	23%	92%	8%
<b>Coastwide Total<sup>b</sup></b>	<b>71%</b>	<b>29%</b>	<b>39%</b>	<b>61%</b>

<sup>a</sup> Attractors are defined as a piece of equipment attached to the line ahead of the terminal lure or bait, and designed to add motion or create flash to attract fish to the lure or bait. Attractors include traditional doggers or flashers as well as atypical items such as plug bodies or spinner blades.

<sup>b</sup> Coastwide totals were calculated to account for angling effort levels at all ports where sufficient gear profile sampling occurred.

Table 22. Gear profile detailing use of bait and lures<sup>a</sup> in ocean salmon fishing off Oregon, 1999 (ISD = insufficient data defined as <20 angler trips profiled). Profiles are stratified for the selective coho season and for the all species except coho seasons. Note that regulations defined legal gear during the all species except coho fishery, and limited options.

<b>Selective Coho</b>	<b>Charter Boat Anglers</b>		<b>Private Boat Anglers</b>	
	<b>Lure</b>	<b>Bait</b>	<b>Lure</b>	<b>Bait</b>
<b>Astoria</b>	17%	83%	10%	90%
<b>Garibaldi</b>	86%	14%	24%	76%
<b>Pacific City</b>	ISD	ISD	76%	24%
<b>Depoe Bay</b>	97%	3%	59%	41%
<b>Newport</b>	93%	7%	58%	42%
<b>Florence</b>	ISD	ISD	24%	76%
<b>Winchester Bay</b>	87%	13%	31%	69%
<b>Charleston</b>	ISD	ISD	35%	65%
<b>Brookings</b>	NA	NA	NA	NA
<b>Coastwide Total<sup>b</sup></b>	62%	38%	34%	66%

<b>All Except Coho</b>	<b>Charter Boat Anglers</b>		<b>Private Boat Anglers</b>	
	<b>Lure</b>	<b>Bait</b>	<b>Lure</b>	<b>Bait</b>
<b>Astoria</b>	NA	NA	NA	NA
<b>Garibaldi</b>	ISD	ISD	0%	100%
<b>Pacific City</b>	ISD	ISD	37%	63%
<b>Depoe Bay</b>	ISD	ISD	ISD	ISD
<b>Newport</b>	ISD	ISD	ISD	ISD
<b>Florence</b>	ISD	ISD	7%	93%
<b>Winchester Bay</b>	41%	59%	12%	88%
<b>Charleston</b>	ISD	ISD	9%	91%
<b>Brookings</b>	0%	100%	3%	97%
<b>Coastwide Total<sup>b</sup></b>	12%	88%	3%	97%

<sup>a</sup> Lures are defined as an artificial item that is attached where the fish is desired to strike. Those artificial lures that were tipped with a chunk or fillet of bait were still classed as lures. When a whole bait or plug cut bait had a small lure attached ahead of it, it was classed as a bait.

<sup>b</sup> Coastwide totals were calculated to account for angling effort levels at all ports where sufficient gear profile sampling occurred.

Table 23. Summary of at sea observations of the Oregon recreational selective coho salmon fishery, 1999.

Catch Area	Stat. Week	Coho Salmon				Chinook Salmon		Fish Lost <sup>d</sup>	Other Fish Handled <sup>e</sup>
		Legal and Retained	Released - Not Marked <sup>a</sup>	Mark Rate <sup>b</sup>	Released Small <sup>c</sup>	Legal and Retained	Released		
<b>Astoria</b>									
	30	75	18	81%	5	6	20	58	6
	31	99	38	72%	20	12	19	78	21
	32	164	43	79%	36	42	14	69	0
	33	80	41	66%	20	20	10	45	0
	34	69	18	79%	15	11	12	40	0
	35	55	16	77%	15	8	0	26	0
	36	61	17	78%	9	0	2	20	0
	37	49	15	77%	6	1	2	13	0
	<b>Total</b>	<b>652</b>	<b>206</b>	<b>76%</b>	<b>126</b>	<b>100</b>	<b>79</b>	<b>349</b>	<b>27</b>
<b>Tillamook</b>									
	28	17	10	63%	0	2	2	20	14
	29	2	4	33%	4	0	1	3	1
	30	6	2	75%	0	0	2	13	1
	31	11	7	61%	3	1	3	9	0
	<b>Total</b>	<b>36</b>	<b>23</b>	<b>61%</b>	<b>7</b>	<b>3</b>	<b>8</b>	<b>45</b>	<b>16</b>
<b>Newport</b>									
	28	46	14	77%	0	3	3	45	1
	29	22	4	85%	4	0	1	17	0
	30	81	35	70%	5	0	0	45	0
	31	65	27	71%	4	5	1	49	0
	<b>Total</b>	<b>214</b>	<b>80</b>	<b>73%</b>	<b>13</b>	<b>8</b>	<b>5</b>	<b>156</b>	<b>1</b>
<b>Coos Bay</b>									
	28	4	2	67%	0	4	0	10	1
	29	6	10	38%	0	8	0	2	0
	30	2	0	100%	0	8	0	5	0
	31	3	10	23%	3	9	0	8	0
	<b>Total</b>	<b>15</b>	<b>22</b>	<b>41%</b>	<b>3</b>	<b>29</b>	<b>0</b>	<b>25</b>	<b>1</b>
<b>Sum of Falcon to Humbug Mt.</b>									
	28	67	26	72%	0	9	5	75	16
	29	30	18	63%	8	8	2	22	1
	30	89	37	71%	5	8	2	63	1
	31	79	44	64%	10	15	4	66	0
	<b>Total</b>	<b>265</b>	<b>125</b>	<b>68%</b>	<b>23</b>	<b>40</b>	<b>13</b>	<b>226</b>	<b>18</b>

<sup>a</sup> Fish that were of legal size, and released because they had an adipose fin that had not been clipped.

<sup>b</sup> Mark rate is calculated as the number of legal sized fin clipped coho divided by the sum of the number of legal size fin clipped and non-clipped coho salmon.

<sup>c</sup> This field includes all coho salmon that were released for reasons other than the lack of an adipose fin clip. The primary reason for release was because the fish was below the minimum legal length or close to it.

<sup>d</sup> Fish lost included any obvious hook-ups of more than a few seconds. In many cases, fish were identified to species or at least as "salmon", and the majority of lost fish were undoubtedly salmon based on the observed interceptions that could be identified. All fish lost were summed for this table.

<sup>e</sup> Other fish handled included all other fish that were either kept or released by anglers. This included 36 Pacific mackerel, 2 steelhead, 2 pink salmon, 1 black rockfish, 1 lingcod, 1 sockeye salmon, 1 blue shark, and 1 flatfish spp.

<sup>f</sup> Sum of Falcon to Humbug Mt. includes observer trips in the Tillamook, Newport, and Coos Bay catch areas.

## ACKNOWLEDGMENTS

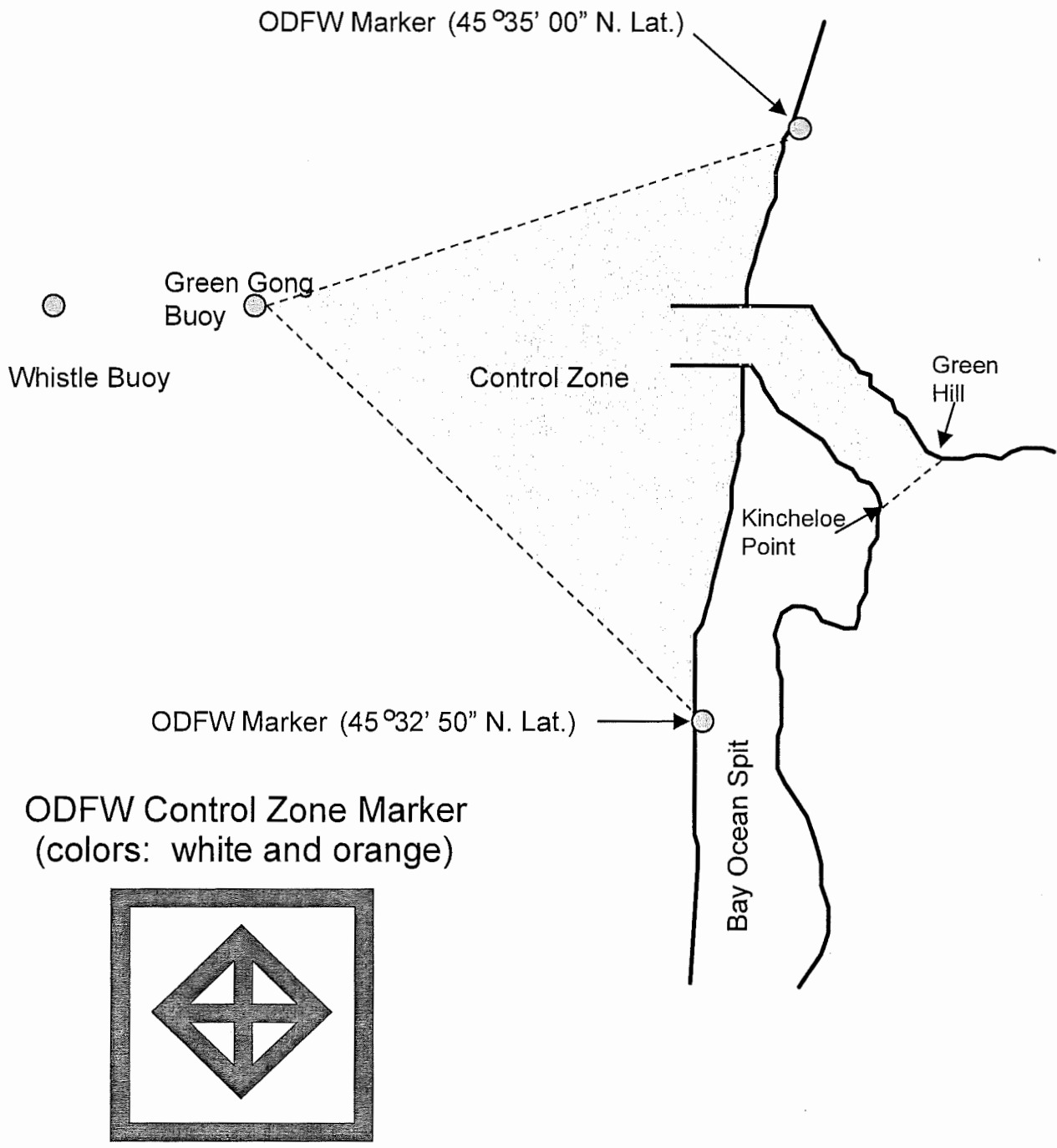
Almost everyone in the Ocean Salmon Management Program at one time or another provided assistance to the ocean sampling program. However, we especially appreciate the help of sampling coordinators Robert Bradley and Chris Stephens and all seasonal samplers (Appendix table 1). Special recognition is due the Data Management Project Leader Phil Flanders, Administrative Specialist Donna Lamb, and Carolyn White for their help in processing the data, training, and general assistance throughout the year.

During the 1999 season many of our at sea observations of the coho selective fishery were conducted by ODFW staff who volunteered to “look over the rail”, and their “contributions” are duly noted. In addition, we want to thank the charter offices, skippers, and charter crew who allowed us to place the observers on their boats to “look over the rail” including: Tiki Charters, Astoria – C/V Dollfin and C/V Escapade; Charleton Deep Sea Charters, Warrenton – C/V Ruby Sea; Warrenton Deep Sea Fishing, Warrenton – C/V Thunderbird; Free Willy Bait and Tackle, Hammond – C/V Surf Scooter; Troller Charters, Garibaldi – C/V Big G and C/V Mis-Chief; Linda Sue III Charters, Garibaldi – C/V Oakland Pilot; Tradewinds Charters, Depoe Bay – C/V Prime Time, C/V Tacklebuster, and C/V Zoea; Dockside Charters, Depoe Bay – C/V Sampson; Joan E Charters, Depoe Bay – C/V Joan E and C/V Mary Beth; Sea Gull Charters, Newport – C/V Firecracker, C/V Hustler, and C/V Miss Raven; Bayfront Charters, Newport – C/V Lady Jane and C/V Lady Val; Tradewinds Charters, Newport – C/V Smokee, C/V Sea Pirate, C/V Sea Venture, and C/V Misty; Strike Zone Charters, Winchester Bay – C/V Strike Zone; and Betty Kay Charters, Charleston – C/V Betty Kay.

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## 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, 1999.

Port	Sampler	Dates	Primary Duties
Astoria	Laura Dittman	July 19 - Sept. 30	Recreational
	Gary Drennan	July 10 - Sept. 15	Combination troll/recreational
	Dominika Lepak	July 19 - Sept. 9	Recreational
	Lyndsie Gross	Sept. 14 - Sept 30	Recreational
	Dan Calvert	July 10 - Sept. 9	Selective fishery observer
	Todd Dielman	July 10 - Aug 30	Selective fishery observer
	Jacob Neal	Sept. 8 - Sept. 30	Selective fishery observer
Garibaldi	Craig Heimbucher	Apr. 4 - May 2	Recreational
	Luke Cummings	May 7 - Aug. 31	Combination troll/recreational
	Greg Jackle	May 15 - Oct. 15	Combination troll/recreational
	Ian Silvernail	June 5 - Oct. 17	Combination troll/recreational
	Suzanne Piluso	June 5 - Oct. 28	Combination troll/recreational
	Carrie White	Nov. 3 - Nov. 15	Recreational
Pacific City	Craig Heimbucher	May 13- Aug. 16	Recreational
Depoe Bay	Debra Henry	Jan. 1 - Mar. 27	Recreational
	Sarah Perlman	Apr.5 - June 15	Recreational
	Casey Kramer	June 17 - Sept. 17	Recreational
	Jason Kirchner	Sept. 18 - Sept. 30	Recreational
	Jason Flory	Sept. 22 - Dec. 31	Recreational
	Lyndsie Gross	Oct. 9 - Dec 31.	Recreational
Newport	Jason Flory	April 2 - Sept. 15	Commercial troll
	James Williams	May 18 - Oct. 11	Commercial troll
	Debra Henry	Jan. 1 - Mar. 16	Recreational
	Jason Kirchner	April 13 - Sept. 30	Recreational
	Rachel Ostermann	June 17 - Sept. 13	Recreational
	Jason Flory	Sept. 21 - Dec. 31	Recreational
	Lyndsie Gross	Oct. 9 - Dec 31.	Recreational
	Carrie White	Jan. 1 - Oct. 30	Recreational/Data processing
Florence	Ken Koblas	May 13 - Sept. 26	Recreational
Winchester Bay	Dan Jenkins	May 8 - Sept. 24	Combination troll/recreational
	James Wallace	June 7 - Sept. 26	Combination troll/recreational
Coos Bay	Boyd Schrank	April 5 - Oct. 30	Commercial troll
	John Cairns	May 6 - Oct. 31	Recreational
	Jes Erling	June 5 - Oct. 3	Recreational
Bandon	Alan Sarich	May 13 - Sept. 30	Recreational
Port Orford	Alan Sarich	May 13 - Oct 31	Combination troll/recreational
Gold Beach	Laurie Cessna-Fisher	May 13 - Sept. 17	Recreational
Brookings	Rod Black	Jan 1 - Dec. 31	Combination troll/recreational
	Carla Sowell	May 7 - Oct. 31	Recreational
	Damon Zeller	June 6 - Aug. 22	Recreational

North Coast Sampling Coordinator

Robert Bradley

South Coast Sampling Coordinator

Chris Stephens



Appendix Table 2. Ocean troll fishery mark sampling rates by port, year, and species, 1989-1999.

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>CHINOOK</b>											
Astoria	36	28	11	52	2	0	0	0	0	0	0
Gearhart	27	15	8	0	0	-	-	-	-	-	-
Cannon Beach	17	0	0	0	0	-	-	-	-	-	-
Nehalem	-	-	-	-	-	-	-	0	0	-	-
Garibaldi	10	23	7	40	13	31	30	21	48	42	40
Netarts	0	0	0	0	-	0	-	0	0	-	-
Pacific City	19	28	19	2	0	0	0	0	0	0	0
Salmon River	0	0	-	-	-	0	-	-	-	-	-
Depoe Bay	0	0	0	0	0	0	0	0	0	0	0
Newport	21	34	29	32	30	18	31	43	45	26	26
Waldport	-	-	-	-	-	-	-	-	-	-	-
Florence	15	29	52	37	9	12	7	9	25	0	23
Winchester Bay	18	36	15	0	0	0	0	29	36	0	31
Coos Bay	14	26	21	0	21	26	23	28	34	47	25
Bandon	0	0	0	0	0	0	0	0	2	0	0
Port Orford	61	24	0	94	50	61	47	49	32	14	28
Gold Beach	10	0	0	-	-	95	52	99	52	13	0
Brookings	63	65	58	0	0	52	46	27	43	46	42
Total	21	27	24	29	24	23	27	36	41	27	25
<b>COHO</b>											
Astoria	34	37	24	14	14	-	-	-	-	-	-
Gearhart	22	9	40	0	0	-	-	-	-	-	-
Cannon Beach	6	0	2	0	0	-	-	-	-	-	-
Nehalem	-	-	-	-	-	-	-	-	-	-	-
Garibaldi	28	26	21	45	0	-	-	-	-	-	-
Netarts	0	0	0	0	-	-	-	-	-	-	-
Pacific City	32	32	31	19	-	-	-	-	-	-	-
Salmon River	0	0	-	-	-	-	-	-	-	-	-
Depoe Bay	0	0	2	0	-	-	-	-	-	-	-
Newport	22	41	29	32	0	-	-	-	-	-	-
Waldport	-	-	-	-	-	-	-	-	-	-	-
Florence	13	34	48	49	-	-	-	-	-	-	-
Winchester Bay	17	39	28	0	-	-	-	-	-	-	-
Coos Bay	16	28	28	0	0	-	-	-	-	-	-
Bandon	0	0	0	0	-	-	-	-	-	-	-
Port Orford	70	10	0	-	-	-	-	-	-	-	-
Gold Beach	-	0	0	-	-	-	-	-	-	-	-
Brookings	41	44	1	-	-	-	-	-	-	-	-
Total	22	30	27	30	9	NA	NA	NA	NA	NA	NA
# Samplers	14	9 <sup>b</sup>	8 <sup>b</sup>	10 <sup>a</sup>	6 <sup>a</sup>	4 <sup>a</sup>	2 <sup>b</sup>	2 <sup>c</sup>	4 <sup>d</sup>	3 <sup>e</sup>	3 <sup>d</sup>

- <sup>a</sup> Two additional employees sampled the troll fishery on a part-time basis.
- <sup>b</sup> Three additional employees sampled the troll fishery on a part-time basis.
- <sup>c</sup> Six additional employees sampled the troll fishery during limited periods or on a part-time basis.
- <sup>d</sup> Eight additional employees sampled the troll fishery during limited periods or on a part-time basis.
- <sup>e</sup> Seven 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, 1948-99.

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 &amp; 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 &amp; 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 &amp; 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 &amp; 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 Oregon ocean commercial troll fishery regulations, 1948-99.

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 &amp; 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 &amp; 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 Mt.</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 Oregon ocean commercial troll fishery regulations, 1948-99.

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 Mt.</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 Mt.</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 Mt.</u> 10/1 - 11/26	All except coho	Chin. 26"; barbless hooks. State waters only.

Appendix Table 3 (continued). History of Oregon ocean commercial troll fishery regulations, 1948-99.

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 Mt.</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	All salmon	As above but no ratio requirement.
8/20 - 10/31	All except coho	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 Oregon ocean commercial troll fishery regulations, 1948-99.

AREA AND SEASON	SPECIES	SIZE, GEAR, AND OTHER RESTRICTIONS
(1988 continued)		
<u>Humbug Mt. 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 Mt.</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	All except coho	Chin. 26"; barbless hooks. The subarea from Cape Arago to Port Orford Reef Red Buoy was closed 8/18 - 31.
7/1 - 14	All salmon	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 Oregon ocean commercial troll fishery regulations, 1948-99.

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 Mt.</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 Mt.</u> 7/4 - 31 (Cape Arago to Humbug Mt. 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 Mt. 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 Mt.</u> 9/1 - 10/31	All except coho	Chin. 26"; barbless hooks.

Appendix Table 3 (continued). History of Oregon ocean commercial troll fishery regulations, 1948-99.

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 I	Chin. 26"; coho 16"; barbless hooks. At least 1 chinook must be landed for each 2 coho. 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 1 chinook must be landed for each 2 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 Mt.</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 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 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 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 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 Mt.</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 Mt.</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 Oregon ocean commercial troll fishery regulations, 1948-99.

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 Mt.</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 Mt.</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 Oregon ocean commercial troll fishery regulations, 1948-99.

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 Mt.</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 Mt.</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 Rogue R. 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 Mt.</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 Mt.</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 Rogue R. 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.
1998 <u>US/Canada Border to Cape Falcon</u> 5/1 - 5/12	All except coho	Chin 28" barbless hooks. All salmon caught in the area must be landed and delivered within 48 hours of any closure.
5/20 - 5/23	All except coho	Chin 28" barbless hooks. Cumulative landing limit for the four day period of 75 chinook per vessel.
6/2 - 6/4	All except coho	Chin 28" barbless hooks. Cumulative landing limit for the three day period of 50 chinook per vessel.

Appendix Table 3 (continued). History of Oregon ocean commercial troll fishery regulations, 1948-99.

AREA AND SEASON	SPECIES	SIZE, GEAR, AND OTHER RESTRICTIONS
(1998 continued)		
<u>Cape Falcon to Heceta Banks</u> (43° 58' 00' N) 4/15-6/30	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.
8/1-28; 9/1 - 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>Heceta Banks (43° 58' 00' N)</u> to Humbug Mt. 4/15-6/30, 8/1-26 and 9/1-10/31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire.
<u>Cape Blanco to Humbug Mt.</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>Humbug Mt. to the OR/CA border</u> 4/15-5/31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire.
<u>Sisters Rock to Mack Arch</u> 8/1-2, 5-6, 9-10, and 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 closure. Closed within 1 mile of the Rogue R. Mouth.
<u>Goat Island to 42° 01' 20' N</u> 10/13-31	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.
1999 <u>US/Canada Border to Cape Falcon</u> 5/1 - 5/15	All except coho	Chin 28" barbless hooks. Columbia Commercial Control Zone closed.
<u>Cape Falcon to Humbug Mountain</u> 4/1-7/17, 8/1-29, and 9/1-10/31	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 Blanco to Humbug Mt.</u> 11/1-12/15	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>Humbug Mt. to the OR/CA border</u> 5/1-31	All except coho	Chin. 26"; barbless hooks. No more than 4 spreads per wire.
<u>Sisters Rock to Mack Arch</u> 8/1-31	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.
<u>Goat Island to 42° 01' 20' N</u> 10/12-31	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.

Appendix Table 4. Oregon ocean troll effort (number of days fished) by statistical month of landing, area of landing, and by year, 1979-99.

Columbia Area (2)

	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
1979	0	<50	<50	700	1,200	<50	0	<50	0	2,000
1980	0	200	<50	600	700	100	<50	0	0	1,600
1981	0	500	0	1,100	800	0	<50	0	0	2,400
1982	0	400	100	400	0	0	0	0	0	900
1983	0	500	100	<50	200	200	0	0	0	1,000
1984	0	100	0	0	400	0	0	0	0	500
1985	0	400	0	0	300	0	<50	0	0	700
1986	0	300	<50	100	700	0	0	0	0	1,200
1987	0	100	0	200	0	0	0	0	0	300
1988	0	100	100	0	0	0	0	0	0	200
1989	0	100	<50	0	600	200	0	0	0	900
1990	0	100	<50	0	300	300	<50	0	0	700
1991	0	100	<50	0	400	200	0	0	0	700
1992	0	100	100	<50	<50	0	0	0	0	300
1993	0	<50	<50	100	100	100	0	0	0	200
1994	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0
1997	0	<50	<50	0	0	0	0	0	0	<50
1998	0	0	0	0	0	0	0	0	0	0
1999	0	0	<50	0	0	0	0	0	0	<50

Tillamook Area (3)

	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
1979	0	<50	<50	3,000	3,100	<50	<50	<50	0	6,200
1980	0	100	100	2,000	3,100	400	<50	0	0	5,700
1981	0	200	<50	5,600	2,700	100	100	0	0	8,700
1982	0	200	100	2,800	300	200	100	0	0	3,600
1983	0	100	100	1,000	1,300	300	200	<50	0	2,900
1984	0	<50	<50	100	300	<50	<50	<50	0	500
1985	0	<50	100	600	500	100	100	0	0	1,400
1986	0	<50	<50	2,700	300	500	200	<50	0	3,700
1987	0	100	300	2,600	2,100	1,200	900	0	0	7,300
1988	0	200	1,100	4,000	2,900	1,500	900	<50	0	10,500
1989	0	500	700	3,200	1,500	1,300	600	<50	0	7,800
1990	0	100	100	1,600	2,300	600	500	<50	0	5,100
1991	0	100	100	1,700	400	500	700	0	0	3,500
1992	0	100	0	200	800	700	700	0	0	2,600
1993	0	100	100	200	200	800	500	0	0	1,800
1994	0	<50	100	0	0	100	400	<50	0	500
1995	0	100	100	0	500	300	200	<50	0	1,300
1996	0	100	300	<50	200	500	300	0	0	1,400
1997	<50	100	100	<50	100	200	200	<50	0	700
1998	<50	100	100	<50	200	300	300	<50	0	1,000
1999	<50	<50	100	100	200	200	100	<50	0	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)

	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
1979	0	300	<50	5,900	6,200	200	200	<50	0	12,800
1980	0	600	1,100	3,500	3,900	900	600	0	0	10,600
1981	0	1,200	<50	5,100	4,700	100	100	0	0	11,200
1982	0	500	700	3,500	300	300	400	0	0	5,800
1983	0	200	600	3,500	1,800	500	300	<50	0	7,000
1984	0	100	200	900	800	<50	0	0	0	1,900
1985	0	900	400	1,600	900	100	200	0	0	4,100
1986	0	900	800	5,500	400	300	700	0	0	8,600
1987	0	1,000	900	3,100	1,600	1,200	800	<50	0	8,700
1988	0	900	1,700	4,200	4,000	900	700	100	0	12,400
1989	0	900	1,800	4,100	1,400	500	400	100	0	9,300
1990	0	500	1,400	1,600	600	200	100	<50	0	4,300
1991	0	600	2,000	900	600	500	400	0	0	5,100
1992	0	1,400	<50	1,100	1,700	700	900	0	0	5,800
1993	0	1,400	1,100	1,500	800	700	400	<50	0	5,900
1994	0	800	800	0	0	200	300	<50	0	2,100
1995	0	600	1,000	0	1,600	800	600	100	0	4,700
1996	0	1,000	1,100	100	1,300	800	500	0	0	4,800
1997	200	1,400	1,300	100	1,200	700	200	0	0	5,200
1998	700	1,300	1,000	200	900	200	100	0	0	4,500
1999	100	400	500	300	100	<50	100	0	0	1,500

Charleston Area (5)

	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
1979	0	700	200	8,300	6,800	400	500	<50	0	16,800
1980	0	400	2,000	4,700	3,600	1,200	700	<50	0	12,500
1981	0	600	<50	7,400	5,100	200	200	0	0	13,400
1982	0	800	900	8,400	2,000	1,200	200	<50	0	13,500
1983	0	500	1,700	4,300	200	100	100	<50	0	6,900
1984	0	100	200	700	1,200	100	0	0	0	2,300
1985	0	1,700	1,500	3,900	4,600	1,500	400	0	0	13,700
1986	0	2,100	2,400	5,600	4,200	1,200	300	0	0	15,800
1987	0	1,700	1,700	10,300	3,500	3,100	700	0	0	21,000
1988	0	3,200	6,000	6,000	7,100	1,900	2,000	100	0	26,300
1989	0	4,500	4,200	6,400	4,900	1,100	1,200	700	0	22,900
1990	0	2,200	2,200	5,200	4,800	700	400	<50	0	15,600
1991	0	<50	1,800	1,500	1,000	800	500	0	0	5,600
1992	0	<50	<50	100	200	<50	100	0	0	400
1993	0	600	200	<50	<50	300	300	100	0	1,600
1994	0	100	300	0	0	100	300	100	0	800
1995	0	200	500	0	500	200	200	100	0	1,600
1996	0	300	500	<50	300	400	300	100	0	1,800
1997	100	500	400	<50	200	100	200	100	0	1,600
1998	200	400	300	100	200	100	200	100	0	1,400
1999	<50	200	800	400	700	200	200	100	<50	2,600

Appendix Table 4 (continued). Oregon ocean troll effort (number of days fished) by statistical month, area, and by year, 1979-98.

Brookings Area (6)

	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
1979	0	<50	100	3,100	3,800	700	1,300	800	0	9,900
1980	0	800	200	1,300	2,300	1,900	1,100	500	0	8,000
1981	0	600	<50	1,800	3,500	1,100	1,600	500	0	9,100
1982	0	300	200	2,900	2,900	1,000	900	600	0	8,800
1983	0	200	900	1,500	300	100	600	100	0	3,700
1984	0	200	<50	400	1,600	<50	200	200	0	2,600
1985	0	<50	<50	100	200	100	200	200	0	900
1986	0	500	700	600	1,100	0	200	100	0	3,200
1987	0	500	900	0	0	0	300	300	0	2,000
1988	0	300	600	0	0	100	100	300	0	1,400
1989	0	200	300	0	400	300	<50	<50	0	1,300
1990	0	<50	0	0	400	<50	0	0	0	400
1991	0	0	0	0	<50	<50	0	0	0	<50
1992	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0
1994	0	<50	<50	0	<50	<50	200	<50	0	300
1995	0	<50	<50	<50	0	0	200	0	0	300
1996	0	100	<50	0	200	0	200	0	0	500
1997	<50	100	0	<50	<50	<50	200	0	0	400
1998	0	<50	<50	<50	<50	0	200	0	0	200
1999	<50	<50	0	<50	100	<50	100	<50	0	200

Totals For Oregon

	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
1979	0	1,100	300	21,000	21,100	1,300	2,000	800	0	47,600
1980	0	2,900	3,400	12,100	13,600	4,400	2,300	500	0	38,400
1981	0	3,200	100	21,100	16,800	1,400	1,800	500	0	44,800
1982	0	2,200	2,000	18,000	5,600	2,700	1,500	600	0	32,600
1983	0	1,400	3,500	10,400	3,800	1,100	1,100	100	0	21,500
1984	0	400	400	2,100	4,300	200	300	200	0	7,800
1985	0	3,000	2,000	6,100	6,500	1,900	900	200	0	20,700
1986	0	3,900	4,000	14,400	6,700	2,000	1,300	100	0	32,500
1987	0	3,500	3,900	16,200	7,300	5,500	2,700	300	0	39,300
1988	0	4,600	9,500	14,100	14,000	4,300	3,800	400	0	50,800
1989	0	6,200	7,100	13,600	8,800	3,400	2,100	800	0	42,100
1990	0	2,800	3,700	8,400	8,300	1,800	1,000	100	0	26,200
1991	0	800	4,000	4,100	2,400	2,000	1,600	0	0	14,900
1992	0	1,600	200	1,500	2,700	1,500	1,700	0	0	9,200
1993	0	2,100	1,300	1,800	1,000	2,000	1,200	200	0	9,500
1994	0	1,000	1,200	0	100	300	1,100	100	0	3,800
1995	0	1,000	1,600	<50	2,600	1,300	1,200	200	0	7,900
1996	0	1,500	1,900	100	2,000	1,600	1,200	100	0	8,400
1997	400	2,100	1,900	100	1,500	1,000	700	100	0	7,800
1998	900	1,800	1,500	300	1,300	600	800	100	0	7,200
1999	200	600	1,400	800	1,100	500	500	100	<50	5,100

Appendix Table 4 (continued). Oregon ocean troll effort (number of days fished) by statistical month, area, and by year, 1979-98.

Alaska Area (8)

	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	100	0	0	0	100
1981	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0
1983	0	0	<50	0	0	0	0	0	0	<50
1984	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	<50	0	0	0	0	0	<50
1989	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0

Washington Area (1)

	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
1979	0	200	0	200	1,000	0	0	0	0	1,400
1980	0	100	<50	100	900	100	0	0	0	1,200
1981	0	<50	0	200	<50	0	0	0	0	200
1982	0	100	<50	600	0	0	0	0	0	700
1983	0	100	<50	<50	<50	0	0	0	0	200
1984	0	100	0	0	<50	0	0	0	0	100
1985	0	100	0	200	<50	0	0	0	0	300
1986	0	<50	0	<50	0	0	0	0	0	<50
1987	0	100	0	<50	0	0	0	0	0	100
1988	0	100	<50	0	0	0	0	0	0	100
1989	0	<50	<50	0	0	0	0	0	0	<50
1990	0	<50	0	0	<50	0	0	0	0	100
1991	0	<50	<50	0	<50	<50	0	0	0	<50
1992	0	<50	100	0	<50	0	0	0	0	100
1993	0	0	0	<50	0	0	0	0	0	<50
1994	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0
1999	0	<50	<50	<50	<50	0	0	0	0	<50

Appendix Table 4 (continued). Oregon ocean troll effort (number of days fished) by statistical month, area, and by year, 1979-98.

California Area (7)

	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
1979	0	<50	<50	<50	<50	0	0	0	0	100
1980	0	<50	0	<50	<50	0	<50	0	0	<50
1981	0	100	<50	<50	<50	100	<50	0	0	300
1982	0	<50	100	200	100	100	0	0	0	400
1983	0	<50	<50	<50	200	<50	0	0	0	300
1984	0	<50	<50	<50	<50	0	0	0	0	<50
1985	0	<50	<50	<50	<50	<50	0	0	0	<50
1986	0	0	0	<50	<50	<50	0	0	0	<50
1987	0	0	<50	<50	0	<50	0	0	0	<50
1988	0	0	<50	<50	100	<50	0	0	0	100
1989	0	<50	<50	<50	<50	<50	0	0	0	<50
1990	0	<50	0	<50	0	0	0	0	0	<50
1991	0	0	<50	0	<50	<50	0	0	0	<50
1992	0	0	0	0	0	0	0	0	0	0
1993	0	0	<50	0	0	<50	0	0	0	<50
1994	0	0	0	<50	<50	0	0	0	0	0
1995	0	0	<50	<50	0	0	0	0	0	0
1996	0	0	0	0	<50	100	0	0	0	100
1997	0	0	0	<50	<50	0	0	0	0	<50
1998	0	<50	0	<50	0	<50	0	0	0	<50
1998	0	0	0	<50	0	0	0	0	0	<50

Coastwide Totals

	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTALS
1979	0	1,300	300	21,200	22,100	1,300	2,000	800	0	49,000
1980	0	2,100	3,400	12,300	14,600	4,600	2,300	500	0	39,700
1981	0	3,200	100	21,300	16,900	1,500	1,800	500	0	45,300
1982	0	2,300	2,100	18,800	5,600	2,800	1,500	600	0	33,700
1983	0	1,500	3,600	10,400	4,100	1,200	1,100	100	0	22,100
1984	0	500	400	2,100	4,300	200	300	200	0	7,900
1985	0	3,100	2,000	6,300	6,600	1,900	900	200	0	21,000
1986	0	3,900	4,000	14,400	6,700	2,000	1,300	100	0	32,500
1987	0	3,600	3,900	16,300	7,300	5,500	2,700	300	0	39,500
1988	0	4,700	9,500	14,200	14,100	4,300	3,800	400	0	51,000
1989	0	6,300	7,100	13,600	8,800	3,400	2,100	800	0	42,100
1990	0	2,900	3,700	8,400	8,300	1,800	1,000	100	0	26,200
1991	0	800	4,000	4,100	2,400	2,000	1,600	0	0	14,900
1992	0	1,600	200	1,500	2,700	1,500	1,700	0	0	9,200
1993	0	2,100	1,300	1,800	1,000	2,000	1,200	200	0	9,500
1994	0	1,000	1,200	<50	100	300	1,100	100	0	3,800
1995	0	1,000	1,600	100	2,600	1,300	1,200	200	0	7,900
1996	0	1,500	1,900	100	2,000	1,700	1,200	100	0	8,500
1997	400	2,100	1,900	100	1,500	1,000	700	100	0	7,800
1998	900	1,800	1,500	300	1,300	600	800	100	0	7,200
1999	200	600	1,400	800	1,100	500	500	100	<50	5,100



Appendix Table 5. Oregon commercial troll landings of chinook and coho salmon (numbers of fish) by area of catch, by month, and by year, 1979-99.

**Columbia River Catch Area (2)**

CHINOOK											COHO										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals	Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	800	<50	1,800	2,800	400	<50	0	0	5,800	1979	0	0	<50	31,300	11,100	2,200	0	0	0	44,600
1980	0	3,000	<50	800	900	100	<50	0	0	4,900	1980	0	0	0	13,900	11,100	600	0	0	0	25,600
1981	0	6,600	0	1,000	600	0	<50	0	0	8,200	1981	0	0	0	31,400	14,400	0	0	0	0	45,800
1982	0	6,500	600	1,200	0	0	0	0	0	8,400	1982	0	0	0	23,800	0	0	0	0	0	23,800
1983	0	3,700	700	200	200	100	0	0	0	4,900	1983	0	0	0	100	2,600	2,300	0	0	0	5,000
1984	0	1,000	0	<50	300	0	0	0	0	1,300	1984	0	0	0	0	13,600	0	0	0	0	13,600
1985	0	4,400	100	0	500	0	<50	0	0	5,000	1985	0	0	0	0	18,200	0	0	0	0	18,200
1986	0	4,500	100	<50	1,600	0	0	0	0	6,100	1986	0	0	0	<50	46,100	0	0	0	0	46,100
1987	0	2,300	0	2,200	0	0	0	0	0	4,600	1987	0	0	0	7,400	0	0	0	0	0	7,400
1988	0	1,000	600	0	0	0	0	0	0	1,600	1988	0	0	0	0	0	0	0	0	0	0
1989	0	700	400	0	1,000	800	0	0	0	2,900	1989	0	0	0	0	11,200	9,900	0	0	0	21,100
1990	0	500	100	0	500	1,100	100	0	0	2,300	1990	0	0	0	0	4,400	6,200	300	0	0	10,900
1991	0	300	<50	0	400	100	0	0	0	900	1991	0	0	0	0	16,600	10,100	0	0	0	26,800
1992	0	400	900	100	100	0	0	0	0	1,500	1992	0	0	0	600	800	0	0	0	0	1,400
1993	0	300	<50	<50	<50	100	0	0	0	400	1993	0	0	0	200	600	900	0	0	0	1,700
1994	0	0	0	0	0	0	0	0	0	0	1994	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	1995	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	1996	0	0	0	0	0	0	0	0	0	0
1997	0	<50	<50	0	0	0	0	0	0	<50	1997	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	1998	0	0	0	0	0	0	0	0	0	0
1999	0	0	<50	0	0	0	0	0	0	<50	1999	0	0	0	0	0	0	0	0	0	0

**Tillamook Catch Area (3)**

CHINOOK											COHO										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals	Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	100	200	1,200	2,200	<50	200	0	0	3,900	1979	0	0	300	52,800	23,000	100	0	0	0	76,100
1980	0	900	500	900	4,300	500	100	0	0	7,300	1980	0	0	0	30,900	46,500	1,400	0	0	0	78,800
1981	0	4,100	200	5,000	2,700	200	200	0	0	12,300	1981	0	0	0	112,500	46,600	0	0	0	0	159,100
1982	0	2,900	700	3,000	800	400	200	0	0	7,900	1982	0	0	0	113,600	0	0	0	0	0	113,600
1983	0	400	300	1,500	1,200	300	500	0	0	4,100	1983	0	0	0	43,200	18,800	1,200	0	0	0	63,100
1984	0	300	100	200	1,100	100	100	0	0	1,900	1984	0	0	0	0	0	0	0	0	0	0
1985	0	<50	200	1,700	800	400	100	<50	0	3,300	1985	0	0	0	1,500	<50	0	0	0	0	1,500
1986	0	200	100	2,700	3,100	6,500	1,500	<50	0	14,100	1986	0	0	0	96,700	0	0	0	0	0	96,700
1987	0	1,800	1,800	15,100	12,800	7,400	2,600	0	0	41,400	1987	0	0	0	46,400	23,100	5,300	0	0	0	74,700
1988	0	900	6,100	9,100	9,100	4,400	3,100	0	0	32,800	1988	0	0	0	124,200	48,100	0	0	0	0	172,300
1989	0	5,800	7,700	6,900	3,700	4,900	1,600	0	0	30,400	1989	0	0	0	118,500	17,800	0	0	0	0	136,300
1990	0	400	600	5,700	2,700	1,800	1,200	0	0	12,500	1990	0	0	0	25,700	27,500	<50	0	0	0	53,300
1991	0	200	200	3,100	2,000	2,200	1,800	0	0	9,500	1991	0	0	0	89,900	0	0	0	0	0	89,900
1992	0	400	0	300	2,500	1,900	2,200	0	0	7,300	1992	0	0	0	500	7,400	<50	<50	0	0	7,900
1993	0	500	200	800	700	2,200	2,000	0	0	6,300	1993	0	0	0	0	0	0	0	0	0	0
1994	0	100	300	0	0	0	1,300	<50	0	1,700	1994	0	0	0	0	0	0	0	0	0	0
1995	0	400	800	<50	6,300	1,400	800	0	0	9,700	1995	0	0	0	0	0	0	0	0	0	0
1996	0	400	7,900	1,000	1,000	2,200	700	0	0	13,100	1996	0	0	0	0	0	0	0	0	0	0
1997	<50	200	600	0	300	700	400	<50	0	2,300	1997	0	0	0	0	0	0	0	0	0	0
1998	200	400	700	300	2,000	2,200	800	<50	0	6,600	1998	0	0	0	0	0	0	0	0	0	0
1999	<50	300	600	200	1,000	600	200	<50	0	2,800	1999	0	0	0	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, 1979-99.

**Newport Catch Area (4)**

CHINOOK										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	4,500	<50	13,500	12,400	4,900	3,000	0	0	38,400
1980	0	8,800	9,500	5,200	14,800	3,200	5,900	0	0	47,400
1981	0	9,300	300	7,700	9,400	300	400	0	0	27,400
1982	0	5,800	4,500	10,800	1,800	2,300	3,300	0	0	28,200
1983	0	2,000	900	10,700	6,300	1,100	2,300	100	0	23,300
1984	0	100	1,500	11,300	5,900	100	0	0	0	18,800
1985	0	13,700	4,900	15,700	5,500	1,000	1,000	0	0	41,800
1986	0	10,200	13,000	29,800	5,500	7,000	22,400	0	0	88,000
1987	0	10,500	7,700	23,900	24,200	14,300	7,000	<50	0	87,700
1988	0	8,500	18,800	42,900	34,300	8,400	16,200	0	0	129,100
1989	0	18,700	12,800	20,900	9,200	3,600	5,100	300	0	70,700
1990	0	2,500	16,600	15,100	3,700	700	800	0	0	39,300
1991	0	2,900	7,400	2,900	6,200	7,700	6,300	0	0	33,400
1992	0	19,000	600	23,700	26,700	10,100	14,600	0	0	94,800
1993	0	17,400	14,400	10,600	9,800	8,000	3,700	300	0	64,200
1994	0	7,200	6,900	100	0	900	2,900	<50	0	18,100
1995	0	10,700	20,900	5,000	72,100	40,500	24,400	600	0	174,200
1996	0	18,200	23,800	1,300	51,400	22,400	9,500	1,300	0	127,800
1997	4,200	21,700	27,400	0	38,700	25,000	1,800	0	0	118,800
1998	16,500	34,100	22,700	2,500	15,800	2,300	900	0	0	94,800
1999	600	4,500	5,700	3,200	1,000	100	700	0	0	15,900

COHO										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	0	<50	136,400	56,600	1,300	0	0	0	194,300
1980	0	0	0	66,200	65,900	5,300	0	0	0	137,400
1981	0	0	0	64,700	128,700	0	0	0	0	193,400
1982	0	0	0	116,100	0	0	0	0	0	116,100
1983	0	0	0	98,100	15,500	2,900	0	0	0	117,400
1984	0	0	0	0	0	0	0	0	0	0
1985	0	<50	0	11,900	0	0	0	0	0	11,900
1986	0	0	<50	192,300	0	0	0	0	0	192,300
1987	0	0	0	59,200	19,000	4,800	0	0	0	83,000
1988	0	0	0	146,200	106,300	0	0	0	0	252,500
1989	0	0	0	130,000	7,700	0	0	0	0	137,800
1990	0	0	100	13,700	<50	0	0	0	0	13,800
1991	0	0	58,200	30,400	0	0	0	0	0	88,600
1992	0	0	0	14,000	21,000	0	0	0	0	35,000
1993	0	0	0	0	<50	0	0	0	0	<50
1994	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0

**Coos Bay Catch Area (5)**

CHINOOK										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	3,300	<50	24,100	34,000	3,800	6,800	0	0	71,900
1980	0	2,100	17,100	24,200	20,300	7,100	6,000	<50	0	76,800
1981	0	2,400	100	8,100	11,400	1,300	1,200	<50	0	24,400
1982	0	4,700	5,800	75,000	16,800	5,700	1,000	<50	0	109,000
1983	0	1,700	3,800	12,700	1,400	300	200	0	0	20,100
1984	0	100	900	4,400	9,400	600	0	0	0	15,400
1985	0	14,500	15,100	40,100	56,800	19,700	2,500	<50	0	148,700
1986	0	17,700	22,600	92,100	85,400	21,000	1,300	<50	0	240,000
1987	0	17,800	17,700	220,900	50,500	39,000	4,500	0	0	350,400
1988	0	43,000	51,600	46,400	89,600	13,700	24,300	<50	0	268,500
1989	0	70,300	39,800	43,400	57,400	9,400	9,300	2,700	0	232,300
1990	0	11,800	15,800	85,000	55,700	5,400	2,100	<50	0	175,800
1991	0	100	5,100	5,200	7,400	9,200	3,400	0	0	30,400
1992	0	600	100	2,300	2,400	300	600	0	0	6,200
1993	0	2,800	900	100	500	4,300	1,300	700	0	10,500
1994	0	400	1,500	<50	0	200	1,500	400	0	4,000
1995	0	1,700	6,400	500	11,300	4,600	1,800	100	0	26,600
1996	0	1,400	10,000	900	6,000	4,600	1,800	900	0	25,600
1997	2,500	6,100	8,000	0	5,500	1,100	1,000	600	0	24,800
1998	3,300	5,200	6,400	1,500	2,700	500	1,700	900	0	22,100
1999	200	1,300	17,200	4,800	15,200	1,100	1,500	1,200	<50	42,500

COHO										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	0	<50	223,500	42,200	300	0	0	0	266,000
1980	0	0	0	67,800	32,900	4,600	0	0	0	105,300
1981	0	0	0	85,600	73,100	0	0	0	0	158,600
1982	0	0	0	229,000	0	0	0	0	0	229,000
1983	0	0	0	108,700	<50	<50	0	0	0	108,800
1984	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	29,400	0	0	0	0	0	29,400
1986	0	0	<50	86,200	0	0	0	0	0	86,200
1987	0	0	<50	145,700	21,700	9,700	0	0	0	177,100
1988	0	0	<50	117,100	79,300	0	0	0	0	196,400
1989	0	0	0	126,300	33,300	0	0	0	0	159,500
1990	0	0	<50	43,100	300	0	0	0	0	43,400
1991	0	0	33,000	68,500	<50	0	0	0	0	101,500
1992	0	0	0	3,000	2,400	0	0	0	0	5,300
1993	0	0	0	0	0	0	<50	0	0	<50
1994	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	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, 1979-99.

**Brookings Catch Area (6)**

CHINOOK										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	200	0	38,200	58,100	7,500	15,400	2,100	0	121,500
1980	0	6,900	2,200	8,300	30,400	14,800	3,000	1,100	0	66,700
1981	0	4,300	<50	6,700	47,200	13,000	10,600	1,400	0	83,300
1982	0	2,300	500	26,500	31,800	3,200	2,900	1,400	0	68,600
1983	0	1,600	8,200	8,900	1,300	200	1,800	700	0	22,600
1984	0	900	<50	4,100	17,700	<50	1,100	700	0	24,600
1985	0	300	100	1,800	6,900	3,300	700	1,000	0	14,000
1986	0	3,500	16,900	9,400	22,100	0	900	800	0	53,700
1987	0	8,800	28,000	0	0	0	1,100	1,900	0	39,800
1988	0	8,200	20,700	0	0	100	900	1,700	0	31,600
1989	0	4,600	1,900	0	3,900	6,400	<50	200	0	17,000
1990	0	100	0	0	2,100	100	0	0	0	2,200
1991	0	0	0	0	0	200	0	0	0	200
1992	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0
1994	0	200	0	0	200	<50	1,000	0	0	1,500
1995	0	300	<50	1,700	0	0	1,300	0	0	3,300
1996	0	1,500	3,700	0	2,700	0	800	<50	0	8,600
1997	100	2,300	0	0	300	<50	900	0	0	3,600
1998	0	100	<50	<50	100	0	600	0	0	700
1999	<50	<50	0	<50	800	200	300	<50	0	1,400

COHO										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	0	0	86,600	12,000	100	0	0	0	98,400
1980	0	0	0	11,900	17,500	3,400	0	0	0	32,800
1981	0	0	0	12,800	40,700	0	0	0	0	53,500
1982	0	0	0	20,400	0	0	0	0	0	20,400
1983	0	0	0	24,000	0	0	0	0	0	24,000
1984	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	1,000	0	0	0	0	0	1,000
1986	0	0	12,100	7,100	0	0	0	0	0	19,100
1987	0	0	4,100	0	0	0	0	0	0	4,100
1988	0	0	1,300	0	0	0	0	0	0	1,300
1989	0	0	1,000	0	0	0	0	0	0	1,000
1990	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0
1994	0	1,000	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0

**Washington Catch Area (1)**

CHINOOK										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	1,800	100	400	1,000	600	0	0	0	4,000
1980	0	3,100	300	200	1,200	<50	0	0	0	4,900
1981	0	100	0	700	100	0	0	0	0	900
1982	0	2,200	400	3,800	<50	0	<50	0	0	6,300
1983	0	1,700	200	<50	200	0	0	0	0	2,100
1984	0	2,000	0	0	<50	0	0	0	0	2,000
1985	0	1,600	<50	2,000	<50	0	0	0	0	3,600
1986	0	400	0	0	<50	0	0	0	0	400
1987	0	2,100	0	1,600	0	0	0	0	0	3,700
1988	0	900	500	0	0	0	0	0	0	1,400
1989	0	200	0	0	0	0	0	0	0	200
1990	0	300	0	0	<50	0	0	0	0	300
1991	0	<50	<50	0	<50	<50	0	0	0	<50
1992	0	100	700	0	<50	0	0	0	0	800
1993	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0
1999	0	100	200	400	400	0	0	0	0	1,100

COHO										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	0	0	6,300	8,900	2,500	0	0	0	17,800
1980	0	0	0	4,400	6,300	500	0	0	0	11,300
1981	0	0	0	11,000	600	0	0	0	0	11,600
1982	0	0	0	13,900	100	0	0	0	0	14,000
1983	0	0	0	<50	<50	0	0	0	0	<50
1984	0	0	0	0	100	0	0	0	0	100
1985	0	0	0	22,100	0	0	0	0	0	22,100
1986	0	0	0	0	400	0	0	0	0	400
1987	0	0	0	7,500	0	0	0	0	0	7,500
1988	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	900	0	0	0	0	900
1991	0	0	0	0	<50	300	0	0	0	300
1992	0	0	0	0	100	0	0	0	0	100
1993	0	0	0	<50	0	0	0	0	0	<50
1994	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	<50	200	0	0	0	0	200

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, 1979-99.

**California Catch Area (7)**

CHINOOK										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	100	100	100	400	0	0	0	0	700
1980	0	800	0	100	<50	<50	0	0	0	800
1981	0	800	200	500	700	2,000	0	0	0	4,200
1982	0	600	700	1,100	900	400	0	0	0	3,700
1983	0	<50	200	200	1,600	<50	0	0	0	2,000
1984	0	<50	<50	200	100	0	0	0	0	300
1985	0	<50	<50	100	500	<50	0	0	0	600
1986	0	0	0	<50	400	<50	0	0	0	400
1987	0	0	1,300	500	0	<50	0	0	0	1,800
1988	0	100	1,900	1,500	1,100	<50	0	0	0	4,600
1989	0	<50	<50	<50	<50	<50	0	0	0	100
1990	0	<50	0	<50	0	0	0	0	0	<50
1991	0	0	<50	0	<50	100	0	0	0	100
1992	0	0	0	0	0	0	0	0	0	0
1993	0	0	<50	0	0	<50	0	0	0	<50
1994	0	0	0	100	<50	0	0	0	0	100
1995	0	0	700	100	0	0	0	0	0	800
1996	0	0	0	0	600	1,400	0	0	0	2,000
1997	0	0	0	100	<50	0	0	0	0	100
1998	0	0	0	700	0	0	0	0	0	700
1999	0	<50	0	100	0	<50	0	0	0	100

COHO										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	0	100	100	100	0	0	0	0	400
1980	0	0	0	<50	<50	0	0	0	0	100
1981	0	0	0	300	200	0	0	0	0	500
1982	0	0	<50	1,400	0	0	0	0	0	1,400
1983	0	0	<50	100	1,100	0	0	0	0	1,200
1984	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	<50	0	0	0	0	0	<50
1986	0	0	0	0	0	0	0	0	0	0
1987	0	0	300	100	0	<50	0	0	0	300
1988	0	0	300	300	200	0	0	0	0	800
1989	0	0	<50	<50	0	0	0	0	0	<50
1990	0	0	0	<50	0	0	0	0	0	<50
1991	0	0	0	0	0	100	0	0	0	100
1992	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0

**Alaska Catch Area (8)**

CHINOOK										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	200	0	0	0	200
1981	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0
1983	0	0	400	0	0	0	0	0	0	400
1984	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	500	0	0	0	0	0	500
1989	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0

COHO										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	1,700	0	0	0	1,700
1981	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	<50	0	0	0	0	0	<50
1989	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	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, 1979-99.

**Totals for Oregon Catch Areas**

CHINOOK										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	9,000	200	78,700	109,400	16,600	25,500	2,100	0	241,500
1980	0	22,100	29,400	39,400	70,700	25,700	15,100	1,100	0	203,100
1981	0	26,800	600	28,500	71,200	14,800	12,300	1,400	0	155,600
1982	0	21,900	12,100	116,600	51,000	11,700	7,400	1,400	0	222,100
1983	0	9,400	13,800	33,900	10,300	1,900	4,900	800	0	75,000
1984	0	2,500	2,500	20,000	34,400	800	1,200	700	0	61,900
1985	0	32,900	20,400	59,300	70,400	24,500	4,300	1,000	0	212,900
1986	0	36,200	52,600	134,000	117,700	34,400	26,100	800	0	401,900
1987	0	41,200	55,200	262,100	87,600	60,600	15,100	1,900	0	523,800
1988	0	61,600	97,700	98,400	133,000	26,600	44,600	1,700	0	463,600
1989	0	100,100	62,500	71,200	75,200	25,000	16,000	3,100	0	353,200
1990	0	15,200	33,000	105,900	64,700	9,000	4,200	<50	0	232,100
1991	0	3,500	12,700	11,200	16,000	19,500	11,600	0	0	74,400
1992	0	20,400	1,600	26,400	31,700	12,300	17,400	0	0	109,700
1993	0	21,000	15,500	11,500	11,000	14,500	7,000	1,000	0	81,500
1994	0	8,000	8,800	100	200	1,100	6,700	400	0	25,200
1995	0	13,100	28,100	7,200	89,700	46,500	28,300	800	0	213,800
1996	0	21,400	45,400	3,200	61,100	29,200	12,700	2,300	0	175,200
1997	6,900	30,400	36,000	0	44,700	26,900	4,100	700	0	149,600
1998	20,000	39,700	29,800	4,300	20,600	5,000	4,000	900	0	124,200
1999	800	6,100	23,500	8,100	18,000	1,900	2,800	1,300	<50	62,500

COHO										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	0	300	530,700	144,500	3,900	0	0	0	679,700
1980	0	0	0	190,745	173,900	15,300	0	0	0	379,900
1981	0	0	0	306,900	303,400	0	0	0	0	610,400
1982	0	0	0	502,900	0	0	0	0	0	502,900
1983	0	0	0	275,200	36,800	6,400	0	0	0	318,400
1984	0	0	0	0	13,600	0	0	0	0	13,600
1985	0	<50	0	43,900	18,300	0	0	0	0	62,100
1986	0	0	12,100	382,200	46,100	0	0	0	0	440,400
1987	0	0	4,100	258,700	63,700	19,800	0	0	0	346,200
1988	0	0	1,300	387,500	233,700	0	0	0	0	622,400
1989	0	0	1,000	374,800	70,100	9,900	0	0	0	455,700
1990	0	0	100	82,400	32,300	6,200	300	0	0	121,400
1991	0	0	91,200	188,800	16,700	10,100	0	0	0	306,800
1992	0	0	0	18,100	31,600	<50	<50	0	0	49,600
1993	0	0	0	200	600	900	<50	0	0	1,700
1994	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0

**Totals For All Oregon Landings**

CHINOOK										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	11,000	400	79,200	110,800	17,200	25,500	2,100	0	246,200
1980	0	26,000	29,700	39,700	72,000	26,000	15,100	1,100	0	209,000
1981	0	27,700	700	29,600	72,000	16,800	12,300	1,400	0	160,700
1982	0	24,700	13,200	121,500	52,000	12,100	7,400	1,400	0	232,100
1983	0	11,100	14,700	34,100	12,100	1,900	4,900	800	0	79,500
1984	0	4,500	2,500	20,200	34,500	800	1,200	700	0	64,300
1985	0	34,500	20,400	61,400	70,900	24,600	4,300	1,000	0	217,100
1986	0	36,500	52,600	134,100	118,100	34,400	26,100	800	0	402,700
1987	0	43,400	56,500	264,100	87,600	60,700	15,100	1,900	0	529,300
1988	0	62,600	100,100	100,400	134,000	26,600	44,600	1,700	0	470,100
1989	0	100,300	62,600	71,300	75,200	25,100	16,000	3,100	0	353,500
1990	0	15,500	33,000	105,900	64,800	9,000	4,200	<50	0	232,400
1991	0	3,500	12,700	11,200	16,100	19,600	11,600	0	0	74,600
1992	0	20,500	2,300	26,400	31,700	12,300	17,400	0	0	110,500
1993	0	21,000	15,500	11,500	11,000	14,600	7,000	1,000	0	81,500
1994	0	8,000	8,800	200	200	1,100	6,700	400	0	25,300
1995	0	13,100	28,800	1,300	89,700	46,500	28,300	800	0	214,600
1996	0	21,400	45,400	3,200	61,600	30,600	12,700	2,300	0	177,100
1997	6,900	30,400	36,000	100	44,700	26,900	4,100	700	0	149,700
1998	20,000	39,700	29,800	5,000	20,600	5,000	4,000	900	0	124,900
1999	800	6,100	23,700	8,600	18,500	1,900	2,800	1,300	<50	63,700

COHO										
Year	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1979	0	0	400	537,100	153,500	6,400	0	0	0	697,100
1980	0	0	0	195,200	180,200	17,500	0	0	0	392,900
1981	0	0	0	318,300	304,200	0	0	0	0	622,500
1982	0	0	0	518,300	100	0	0	0	0	518,400
1983	0	0	<50	275,300	38,000	6,400	0	0	0	319,600
1984	0	0	0	0	13,800	0	0	0	0	13,800
1985	0	<50	0	66,000	18,300	0	0	0	0	84,200
1986	0	0	12,100	382,200	46,100	0	0	0	0	440,400
1987	0	0	4,400	266,200	63,700	19,800	0	0	0	354,000
1988	0	0	1,600	387,800	233,900	0	0	0	0	623,200
1989	0	0	1,000	374,800	70,100	9,900	0	0	0	455,700
1990	0	0	100	82,500	33,200	6,200	300	0	0	122,300
1991	0	0	91,200	188,800	16,700	10,500	0	0	0	307,100
1992	0	0	0	18,100	31,700	<50	<50	0	0	49,800
1993	0	0	0	200	600	900	<50	0	0	1,700
1994	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	<50	200	0	0	0	0	200

Appendix Table 6. Oregon commercial ocean troll salmon chinook catch, in number of fish, by statistical week<sup>a</sup> and area of catch, 1999.

Stat. Week	Area of catch					OR Subtotal	AK 8	WA 1	CA 7	Total
	Col. R. 2	Tillamook 3	Newport 4	Coos Bay 5	Brookings 6					
14	-	0	50	0	-	50	0	0	0	50
15	-	0	44	0	-	44	0	0	0	44
16	-	0	304	48	-	352	0	0	0	352
17	-	0	169	9	-	178	0	0	0	178
18	0	1	45	156	3	205	0	0	0	205
19	0	4	79	29	0	112	0	0	0	112
20	0	65	2,304	229	1	2,599	0	0	0	2,599
21	0	149	1,829	914	0	2,892	0	0	0	2,892
22	0	42	289	120	0	451	63	14	0	528
23	0	58	2,716	930	0	3,704	0	0	0	3,704
24	0	75	898	5,912	-	6,885	91	0	0	6,976
25	0	215	1,604	8,121	-	9,940	115	0	0	10,055
26	15	207	503	2,208	-	2,933	0	0	0	2,933
27	-	113	1,400	3,293	-	4,806	0	0	0	4,806
28	-	34	1,339	837	-	2,210	0	0	0	2,210
29	-	10	397	518	-	925	0	0	0	925
30	-	0	17	0	-	17	0	34	0	51
31	-	15	10	113	24	162	373	30	0	565
32	-	146	481	5,374	376	6,377	407	0	0	6,784
33	-	69	289	4,752	293	5,403	0	0	0	5,403
34	-	601	156	4,589	82	5,428	32	0	0	5,460
35	-	147	102	511	69	829	0	0	0	829
36	-	130	11	405	116	662	0	0	0	662
37	-	84	33	189	6	312	0	0	0	312
38	-	133	28	327	18	506	0	12	0	518
39	-	72	18	111	10	211	0	0	0	211
40	-	205	8	32	0	245	0	0	0	245
41	-	71	141	172	-	384	0	0	0	384
42	-	85	302	438	133	958	0	0	0	958
43	-	44	239	417	119	819	0	0	0	819
44	-	19	59	465	63	606	0	0	0	606
45	-	12	0	740	49	801	0	0	0	801
46	-	-	-	120	-	120	0	0	0	120
47	-	-	-	282	-	282	0	0	0	282
48	-	-	-	83	-	83	0	0	0	83
49	-	-	-	41	-	41	0	0	0	41
50	-	-	-	2	-	2	0	0	0	2
Total	15	2,806	15,864	42,487	1,362	62,534	1,081	90	0	63,705

<sup>a</sup> Refer to Appendix Table 20 for 1999 statistical week calendar.

Appendix Table 7. Estimates of nominal ex-vessel value<sup>a</sup> for Oregon ocean commercial troll salmon landings and average price per pound, 1971-99.

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	2,468,800	1.60	0	NA	2,468,800
1998	2,297,300	1.64	0	NA	2,297,300
1999	1,404,600	1.94	0	NA	1,404,600

<sup>a</sup> Dressed weight value

Appendix Table 8. Recreational ocean salmon sampling rates at Oregon ports, 1990-99 (NF=No Fishery, NS=No Sampling).

Port	Percent of Catch Sampled <sup>a</sup>									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Astoria	42	50	44	42	NF	32	37	46	45	37
Garibaldi	46	34	37	52	24	42	32	41	53	56
Pacific City	72	69	70	84	c	100	c	75	55	78
Depoe Bay	45	48	46	74	40	75	72	65	76	73
Newport	35	28	36	36	c	50	46	53	54	50
Florence	46	33	34	40	33	40	64	45	59	79
Winchester Bay	42	26	25	45	40	NS	42	54	25	43
Coos Bay	41	30	39	38	c	28	43	36	36	58
Bandon	NS	NS	NS	NS	NS	NS	NS	NS	NS	33
Port Orford	NS	NS	NS	NS	NS	NS	NS	NS	NS	25
Gold Beach	NS	NS	NS	NS	NS	NS	NS	NS	38	39
Brookings	47	34	34	58	28	36	33	29	42	31
Coastwide percentage	42	35	37	43	26	34	36	40	45	44
Number of samplers	22	21	21	24 <sup>b</sup>	12	13	15	15	15	22
Sampler months	80	62	64	69 <sup>b</sup>	47	56	58	61	61	91

<sup>a</sup> Percentage of total catch observed by samplers = number of salmon observed/estimated catch of salmon.

<sup>b</sup> Includes 4 samplers (8 sampler months) participating in the Columbia River Control Zone test fishery.

<sup>c</sup> No salmon observed in the sampling.



Appendix Table 9. Summary of Oregon's recreational ocean salmon regulations, 1946-99.

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	1/1-6/30; 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	5/12-9/16	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, 1946-99.

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	
	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 Chetco 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)	8/16-9/11	All	2	NA	40	24	16	none	None	
	Cape Falcon to Cape Blanco	6/18-9/18	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	5/28-9/18	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)	7/28-8/8	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	8/8-24	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 Mt. (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
Cape Falcon to Cape Blanco		7/1-9/2	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		5/25-9/2	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 Mt. (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	6/29-8/19	Sun-Thurs	2	NA	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	Cape Falcon to Cape Blanco	5/24-26; 6/28-7/26	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	5/24-6/22	All	2	6	40	20	20	none	Barbless hooks	Limit of 1 coho and 1 chinook.
	South of Cape Blanco	6/23-9/7	All	2	6	40	20	20	none	Barbless hooks	
	Cape Blanco to Humbug Mt. (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.

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Year	Open Area	Open Season	Open Days	Catch Limits			Size Limits (inches)			Gear Restrictions	Misc Regulations
				Daily	7 Day	Annual	Chin.	Coho	Pink		
1987	North of Cape Falcon	6/28-7/18	Sun-Thurs	2	NA	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	North of Cape Falcon (3-200 miles)	7/19-8/8	Sun-Thurs	2	NA	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	North of Cape Falcon	8/9-19	Sun-Thurs	2	NA	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	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 Mt. (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	5/28-9/11	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	5/28-7/9	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 Rad Buoy to Humbug Mt. (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 Mt. (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)	5/28-6/12	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	
1990	Cape Blanco to Humbug Mt. (0-3 miles)	10/1-11/30	All	2	6	40	none	NA	none	Barbless hooks	Closed to the take of coho.
	North of Cape Falcon	6/24-8/30; 9/8-9	Sun-Thurs	2	NA	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	Cape Falcon to Humbug Mt. (0-27 fathoms)	5/1-27	All	2	6	40	20	16	none	Barbless hooks	
	Cape Falcon to Humbug Mt.	5/28-6/22	All	2	6	40	20	16	none	Barbless hooks	
	Cape Falcon to Humbug Mt.	6/30-7/31	All	2	6	40	20	16	none	Barbless hooks	
	Cape Falcon to Humbug Mt.	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 Mt.	5/1-6/29	All	2	6	40	20	20	none	Barbless hooks	
1991	South of Humbug Mt.	6/30-8/15	All	2	6	40	20	20	none	Barbless hooks	Not more than 1 chinook daily.
	South of Humbug Mt.	8/16-9/9	All	2	6	40	20	20	none	Barbless hooks	
	North of Cape Falcon	6/24-8/12	Sun-Thurs	2	NA	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	North of Cape Falcon	9/15-18; 9/26	All	2	NA	40	24	16	none	Barbless hooks	CRCZ a/ closed.
	Cape Falcon to Humbug Mt. (0-27 fathoms)	5/1-26	All	2	6	40	20	16	none	Barbless hooks	
	Cape Falcon to Humbug Mt.	5/27-7/28	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 Mt.	5/25-7/28	Thurs-Mon	2	6	40	20	20	none	Barbless hooks	Not more than 1 chinook daily.
South of Humbug Mt.	7/23-28	Fri-Sun	2	6	40	20	20	none	Barbless hooks	Not more than 1 chinook daily.	
South of Humbug Mt.	8/31-9/2	All	2	6	40	20	20	none	Barbless hooks	Not more than 1 chinook daily.	
South of Humbug Mt.	9/6-29	Fri-Sun	2	6	40	20	20	none	Barbless hooks	Not more than 1 chinook daily.	

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Year	Open Area	Open Season	Open Days	Catch Limits			Size Limits (Inches)			Gear Restrictions	Misc Regulations
				Daily	7 Day	Annual	Chin.	Coho	Pink		
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 Mt. (0-27 fathoms)	5/3-6/11	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.
	Florence S. Jetty to Humbug Mt.	6/14-7/2	Sun-Thurs	2	4	20	20	16	none	Barbless hooks	
	Florence S. Jetty to Humbug Mt.	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 Mt.	9/1-10	Sun-Thurs	2	4	20	20	16	none	Barbless hooks	
	Cape Blanco to Humbug Mt. (0-3 miles)	10/24-26	All	1	6	40	20	NA	none	Barbless hooks	Closed to the take of coho.
	South of Humbug Mt.	7/6-20	Mon-Wed	1	6	40	20	20	none	Barbless hooks	
	South of Humbug Mt.	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 Mt. (0-27 fathoms)	5/1-6/6	All	2	2	10	20	16	none	Barbless hooks	
	Cape Falcon to Humbug Mt.	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 Mt. (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 Mt.	5/5-6/19	Wed-Sat	1	6	40	20	20	none	Barbless hooks	
	South of Humbug Mt.	7/14-8/28	Wed-Sat	1	6	40	20	20	none	Barbless hooks	
South of Humbug Mt.	9/1-6	All	1	6	40	20	20	none	Barbless hooks		
1994	Cape Falcon to Humbug Mt. (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 Mt. (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 Mt.	5/1-6/7	All	2	6	40	none	NA	none	Barbless hooks	Closed to the take of coho
	South of Humbug Mt.	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 Mt.	5/1-6/30	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 Mt.	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 Mt. to Horse Mt.	5/17-7/1	Wed-Sat.	1	4	40	20	NA	none	Barbless hooks	Open to all salmon except coho
	Humbug Mt. to Horse Mt.	8/16-18	Wed-Sat.	1	4	40	20	NA	none	Barbless hooks	Open to all salmon except coho
	Humbug Mt. to Horse Mt.	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

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Year	Open Area	Open Season	Open Days	Catch Limits			Size Limits (inches)			Gear Restrictions	Misc Regulations
				Daily	7 Day	Annual	Chin.	Coho	Pink		
1996	North of Cape Falcon	7/22-9/26	Sun-Thurs	2	4	40	NA	16	none	Barbless hooks 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 chinook Open to all salmon except coho
	Cape Falcon to Humbug Mt.	5/1-7/7; 8/16-9/30	All	2	6	10	20	NA	none		
	Twin Rocks to Pyramid Rock (0-3 miles)	10/1-31	All	2	4	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.	Chinook only (0-3 miles)
	Cape Blanco to Humbug Mt.	10/1-11/30	All	1	4	40	20	NA	none	Barbless hooks	Chinook only (0-3 miles)
	Humbug Mt. to Horse Mt.	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	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
	Cape Falcon to Humbug Mt.	4/15 - 7/6; 8/1 - 10/31	All	2	6	20	20	NA	none		
	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)
	Cape Blanco to Humbug Mt.	11/1 - 11/30	All	1	4	20	20	NA	none	Barbless hooks	Chinook only (0-3 miles)
	Humbug Mt. to Horse Mt.	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)
1998	North of Cape Falcon	8/3 - 8/9; 9/3	Sun-Thurs	2	4	20	24	16	none	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.	All coho must have a healed adipose fin clip. Not more than one chinook per day. Not more than 4 fish per calendar week (Sun-Sat). CRCZ a/ closed. Open to all salmon except coho
	Cape Falcon to Humbug Mt.	4/15 - 7/6; 8/1 - 10/31	All	2	6	20	20	NA	none		
	Twin Rocks to Pyramid Rock (0-3 miles)	11/1 - 11/15	All	2	4	10	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)
	Cape Blanco to Humbug Mt.	11/1 - 11/30	All	1	4	20	20	NA	none	Barbless hooks	Chinook only (0-3 miles)
	Humbug Mt. to Horse Mt.	5/23 - 6/10; 6/21 - 7/5; 8/11 - 9/13	All	1	4	20	20	NA	none	Barbless hooks	Open to all salmon except coho
	Goat Island to 42 01' 20"N	10/5 - 10/14	All	1	4	20	20	NA	none	Barbless hooks	Chinook only (0-3 miles)
1999	Leadbetter Point, WA to Cape Falcon	7/19-9/30	Sun-Thurs	2	4	20	24	16	none	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.	All coho must have a healed adipose fin clip. Not more than one chinook per day. Not more than 4 fish per calendar week (Sun-Sat). CRCZ a/ closed. Open to all salmon except coho
	Cape Falcon to Humbug Mountain	4/1-7/9; 8/1-10/31	All	2	6	20	20	NA	none		
	Twin Rocks to Pyramid Rock (0-3 miles)	11/1 - 11/15	All	2	4	10	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)
	Cape Blanco to Humbug Mt.	11/1 - 12/15	All	2	NA	20	20	NA	none	Barbless hooks	Chinook only (0-3 miles)
	Humbug Mt. to Horse Mt.	5/29 - 7/4; 7/29 - 9/14	All	1	4	20	20	NA	none	Barbless hooks	Open to all salmon except coho
	Goat Island to 42 01' 20"N	10/2 - 10/11	All	1	4	4	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.

Appendix Table 10. Oregon ocean recreational salmon angler effort, by port and statistical week<sup>a</sup> for 1999. (NS = open for salmon, but no sampling)

Stat. Week	Astoria	Garibaldi	Pacific City	Depoe Bay	Newport	Florence	Winchester Bay	Coos Bay	Bandon	Port Orford	Gold Beach	Brookings	Total
14	-	NS	NS	0	0	NS	NS	NS	NS	NS	-	0	0
15	-	0	NS	0	0	NS	NS	NS	NS	NS	-	0	0
16	-	6	NS	0	0	NS	NS	NS	NS	NS	-	0	6
17	-	0	NS	0	6	NS	NS	NS	NS	NS	-	0	6
18	-	0	NS	0	0	NS	NS	NS	NS	NS	-	0	0
19	-	0	NS	0	6	NS	0	0	NS	NS	-	0	6
20	-	122	NS	0	0	0	0	0	0	0	0	0	122
21	-	160	NS	0	10	0	0	2	0	0	0	0	172
22	-	361	NS	0	0	2	0	0	0	0	0	151	514
23	-	65	0	0	0	10	5	0	0	0	0	194	274
24	-	38	0	6	4	20	36	18	0	0	0	112	234
25	-	10	0	0	14	30	46	41	0	0	0	188	329
26	-	16	0	1	42	34	204	168	0	0	0	417	882
27	-	0	0	4	13	38	217	144	0	0	12	448	876
28	-	1,130	484	895	1,548	216	1,106	531	22	0	0	0	5,932
29	-	341	330	552	1,186	145	455	177	1	0	0	0	3,187
30	970	223	171	328	737	123	308	131	2	0	0	0	2,993
31	1,117	364	385	431	1,438	298	718	399	4	4	16	2,009	7,183
32	1,769	10	34	4	21	60	263	51	3	0	94	1,446	3,755
33	926	45	28	4	24	106	332	43	0	15	112	1,528	3,163
34	645	75	16	14	37	84	409	52	50	0	33	1,994	3,409
35	313	41	4	2	33	50	211	26	0	20	12	1,375	2,087
36	744	95	12	6	14	16	54	7	0	0	26	1,375	2,349
37	425	58	0	0	17	10	42	14	0	0	0	563	1,129
38	373	770	NS	6	0	32	23	0	0	NS	8	462	1,674
39	117	403	NS	0	0	5	5	0	0	NS	-	0	530
40	7	1,790	NS	0	3	NS	NS	0	NS	NS	-	891	2,691
41	-	858	NS	0	0	NS	NS	0	NS	NS	-	1,981	2,839
42	-	1,195	NS	18	8	NS	NS	0	NS	NS	-	337	1,558
43	-	1,408	NS	0	0	NS	NS	0	NS	NS	-	0	1,408
44	-	8	NS	0	0	NS	NS	NS	NS	NS	-	0	8
45	-	40	-	0	0	-	-	-	-	NS	-	0	40
46	-	64	-	0	0	-	-	-	-	NS	-	0	64
Total	7,406	9,696	1,464	2,271	5,161	1,279	4,434	1,804	82	39	313	15,471	49,420

<sup>a</sup> Refer to Appendix Table 20 for 1999 statistical week calendar.

Appendix Table 11. Oregon ocean recreational effort in salmon angler trips by area and month for 1979-99.<sup>a</sup>

Area	April	May	June	July	August	Sept.	Oct.	Nov.	Season <sup>b</sup>
<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
1998	-	-	-	-	1,800	300	-	-	2,100
1999	-	-	-	2,100	3,700	1,700	-	-	7,400
<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 <sup>c</sup>	-	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
1998	-	600	100	100	200	2,300	2,900	-	6,100
1999	<50	600	100	3,400	300	3,100	3,500	100	11,200

Appendix Table 11 continued. Oregon ocean recreational effort in salmon angler trips for 1979-99.<sup>a</sup>

Area	April	May	June	July	August	Sept.	Oct.	Nov.	Season <sup>b</sup>
<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
1998	-	<50	100	300	700	200	<50	-	1,300
1999	<50	<50	100	7,100	100	<50	<50	-	7,400
<u>Coos Bay</u>									
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
1998	-	<50	<50	500	1,600	100	0	-	2,300
1999	-	<50	600	5,000	1,800	200	0	-	7,600



Appendix Table 11 continued. Oregon ocean recreational effort in salmon angler trips for 1979-99.<sup>a</sup>

Area	April	May	June	July	August	Sept.	Oct.	Nov.	Season <sup>b</sup>
<b>Brookings</b>									
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
1998	-	1,400	2,000	1,500	4,200	2,000	2,800	-	14,000
1999	-	200	900	2,500	6,600	3,300	2,300	-	15,800
<b>All Areas</b>									
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
1998	-	2,100	2,200	2,400	8,500	4,800	5,700	0	25,700
1999	<50	800	1,700	20,200	12,400	8,400	5,800	100	49,400

<sup>a</sup> 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.

<sup>b</sup> By area and calendar month. Season totals may vary from summarized months due to rounding.

<sup>c</sup> Only 600 were ocean only trips. Most were combination bay-ocean trips.

Appendix Table 12. Summary of Oregon recreational ocean salmon effort and catch by area, 1976-99.

Year	Area <sup>a</sup>					Total
	Columbia R.	Tillamook	Newport	Coos Bay	Brookings	
<b>EFFORT (Salmon Angler Trips)<sup>b</sup></b>						
1976	100,900	56,500	132,200	154,600	94,200	538,400
1977	60,500	57,500	92,200	113,000	81,200	404,500
1978	63,400	31,700	115,600	104,400	88,600	403,700
1979	43,300	31,000	72,400	94,700	59,900	301,300
1980	46,300	47,800	83,900	97,400	56,000	331,400
1981	44,700	38,000	77,300	83,900	67,100	311,000
1982	27,200	24,600	53,500	59,400	61,300	226,000
1983	30,900	25,300	42,600	71,600	55,700	226,000
1984	7,100	23,800	44,000	40,200	38,000	153,100
1985	20,200	38,500	70,600	63,500	59,000	251,600
1986	20,600	17,900	52,200	43,600	52,700	187,000
1987	17,100	29,100	76,900	62,500	69,400	255,100
1988	5,700	33,300	89,600	69,000	53,100	250,700
1989	19,800	31,300	82,800	66,600	65,800	266,300
1990	25,500	33,500	71,400	65,000	51,100	246,600
1991	21,700	21,000	53,300	57,700	36,400	190,100
1992	12,900	26,100	53,000	55,600	17,600	165,300
1993	18,500	5,600	17,100	15,300	23,800	80,300
1994	0	10,300	100	400	16,200	27,900
1995	10,900	3,800	900	700	19,400	35,900
1996	5,600	8,300	2,800	3,900	23,300	44,000
1997	3,600	3,700	2,400	3,900	16,400	30,100
1998	2,100	6,100	1,300	2,300	14,000	25,700
1999	7,400	11,200	7,400	7,600	15,800	49,400
<b>Chinook</b>						
1976	44,600	2,300	4,600	14,600	13,200	79,300
1977	22,600	1,500	2,600	22,700	11,800	61,400
1978	7,900	800	2,100	4,800	7,300	22,800
1979	7,500	1,000	1,400	4,500	6,400	20,900
1980	5,500	1,600	1,800	5,300	4,800	19,000
1981	11,500	1,900	2,400	4,500	8,900	29,200
1982	8,200	1,400	3,500	10,100	15,500	38,700
1983	3,400	700	1,600	6,600	12,400	24,700
1984	100	1,100	2,000	4,900	9,000	17,000
1985	3,600	2,600	4,100	9,500	36,100	55,900
1986	1,900	500	2,300	6,100	12,000	22,800
1987	4,100	3,500	6,400	19,000	26,400	59,400
1988	500	2,700	5,300	8,100	21,700	38,300
1989	1,500	900	1,800	6,700	21,200	32,000
1990	3,300	1,200	2,700	6,600	12,700	26,500
1991	1,000	700	900	5,100	6,800	14,400
1992	500	1,500	4,100	3,800	2,700	12,600
1993	900	300	400	1,100	3,800	6,500
1994	0	2,400	<50	<50	3,600	6,000
1995	100	500	100	200	5,700	6,700
1996	<50	1,600	600	800	8,200	11,200
1997	200	500	1,300	700	5,100	7,700
1998	100	1,100	400	500	1,900	4,000
1999	900	1,600	300	1,400	3,400	7,700
<b>Coho</b>						
1976	116,700	50,000	118,100	164,800	51,800	501,300
1977	55,300	15,600	34,000	76,300	14,000	195,300
1978	60,200	8,500	61,200	82,800	47,100	259,800
1979	38,000	9,400	36,300	79,000	18,200	180,800
1980	55,600	28,900	72,400	135,900	33,000	325,800
1981	54,300	17,700	61,900	57,600	8,300	199,800
1982	35,500	23,100	44,000	55,600	16,900	175,100
1983	37,200	8,800	21,800	62,700	16,300	146,900
1984	10,900	20,300	41,200	39,400	11,500	123,300
1985	31,000	31,000	61,800	51,200	7,400	182,400
1986	39,100	24,300	80,400	63,200	12,000	218,900
1987	25,600	16,400	65,300	54,100	19,000	180,500
1988	9,800	29,900	100,800	71,200	15,000	226,900
1989	34,300	30,300	102,500	73,100	33,000	273,300
1990	36,100	22,900	64,100	62,200	15,300	200,600
1991	39,400	25,600	81,100	90,800	22,200	259,100
1992	22,300	20,800	63,500	76,000	3,300	185,800
1993	22,300	2,300	16,400	12,200	6,000	59,300
1994	0	<50 <sup>c</sup>	0	0	<50 <sup>c</sup>	<50 <sup>c</sup>
1995	11,800	<50 <sup>c</sup>	<50 <sup>c</sup>	0	100 <sup>c</sup>	11,900
1996	7,000	<50 <sup>c</sup>	<50 <sup>c</sup>	<50 <sup>c</sup>	100 <sup>c</sup>	7,200
1997	5,800	<50 <sup>c</sup>	<50 <sup>c</sup>	<50 <sup>c</sup>	100 <sup>c</sup>	6,000
1998	2,100	<50 <sup>c</sup>	<50 <sup>c</sup>	100 <sup>c</sup>	<50 <sup>c</sup>	2,300
1999	7,600	1,000	4,000	1,100	<50 <sup>c</sup>	13,600

<sup>a</sup> 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.

<sup>b</sup> 1976-1978 effort includes a small number of bottomfishing trips.

<sup>c</sup> Represents illegal coho landings.

Appendix Table 13. Oregon ocean recreational chinook catch (number of fish) by catch area and month, 1979-99.

Area <sup>a</sup>	Chinook								Season <sup>b</sup>
	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
1998	-	-	-	-	100	<50	-	-	100
1999	-	-	-	200	600	100	-	-	900
<u>Tillamook<sup>e</sup></u>									
1979	-	<50	<50	600	300	<50	-	-	1,000 <sup>c</sup>
1980	-	<50	200	300	800	200	-	-	1,600 <sup>c</sup>
1981	-	<50	<50	600	900	400	-	-	1,900 <sup>c</sup>
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
1998	-	100	<50	<50	<50	500	500	-	1,100
1999	-	100	<50	200	<50	700	500	<50	1,600
<u>Newport</u>									
1979	-	200	300	500	400	<50	-	-	1,400 <sup>d</sup>
1980	-	100	600	600	400	200	-	-	1,800 <sup>d</sup>
1981	-	<50	100	1,100	1,000	200	-	-	2,400 <sup>d</sup>
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
1998	-	<50	100	100	100	<50	<50	-	400
1999	-	<50	<50	300	<50	<50	<50	-	300

Appendix Table 13 continued. Oregon ocean recreational chinook catch (number of fish), 1979-99.

Area <sup>a</sup>	Chinook								Season <sup>b</sup>
	April	May	June	July	August	Sept.	Oct.	Nov.	
<b>Coos Bay</b>									
1979	-	200	2,400	1,500	500	<50	-	-	4,500
1980	-	<50	1,400	2,700	700	200	-	-	5,300
1981	-	100	400	2,300	1,300	300	-	-	4,500
1982	-	<50	1,000	9,100	-	-	-	-	10,100
1983	-	-	1,300	2,400	1,100	1,700	-	-	6,600
1984	-	-	-	2,200	2,600	100	-	-	4,900
1985	-	-	-	4,400	4,900	100	-	-	9,500
1986	-	<50	1,000	4,500	500	-	-	-	6,100
1987	-	-	900	10,700	4,600	2,800	-	-	19,000
1988	-	200	1,700	2,800	3,100	200	-	-	8,100
1989	-	100	1,800	4,300	600	<50	-	-	6,700
1990	-	<50	600	2,800	2,300	800	-	-	6,600
1991	-	<50	2,100	2,900	-	-	-	-	5,100
1992	-	100	2,000	1,000	300	400	-	-	3,800
1993	-	100	<50	600	400	-	-	-	1,100
1994	-	<50	<50	-	-	-	-	-	<50
1995	-	<50	200	-	-	<50	<50	-	200
1996	-	<50	100	300	300	100	-	-	800
1997	<50	<50	100	200	300	100	0	-	700
1998	-	-	<50	100	300	<50	-	-	500
1999	-	<50	200	900	400	<50	-	-	1,400
<b>Brookings</b>									
1979	-	<50	300	2,100	3,400	<50	600	100	6,400
1980	-	<50	1,300	1,700	1,000	400	300	100	4,800
1981	-	500	2,200	3,200	2,600	100	300	<50	8,900
1982	-	<50	800	12,700	1,500	200	200	<50	15,500
1983	-	500	3,400	4,900	1,500	1,000	1,000	<50	12,400
1984	-	-	-	1,900	5,600	1,100	400	-	9,000
1985	-	2,500	-	23,000	9,700	400	600	-	36,100
1986	-	1,100	2,800	3,500	3,900	<50	600	-	12,000
1987	-	100	3,800	9,800	5,600	5,900	1,100	-	26,400
1988	-	100	12,400	6,500	2,600	100	-	-	21,700
1989	-	400	3,600	9,400	6,800	1,000	-	-	21,200
1990	-	400	4,600	6,500	1,200	<50	-	-	12,700
1991	-	<50	4,100	2,300	100	300	-	-	6,800
1992	-	-	-	1,500	-	400	700	-	2,700
1993	-	1,100	200	600	1,300	500	-	-	3,800
1994	-	1,900	100	-	300	300	1,100	-	3,600
1995	-	200	1,600	0	2,300	800	800	-	5,700
1996	-	500	2,700	300	2,800	600	1,300	-	8,200
1997	-	800	800	1,000	1,600	100	700	-	5,100
1998	-	200	300	300	400	200	400	-	1,900
1999	-	<50	<50	900	1,700	500	300	-	3,400
<b>All Areas</b>									
1979	-	1,000	4,600	6,700	7,700	200	600	100	20,900
1980	-	300	4,700	6,900	5,400	1,300	300	100	19,000
1981	-	700	3,100	10,300	12,500	2,200	300	<50	29,200
1982	-	<50	4,700	31,900	1,500	200	200	<50	38,700
1983	-	500	6,100	10,100	3,600	3,300	1,000	-	24,700
1984	-	-	-	5,800	9,600	1,200	400	-	17,000
1985	-	2,500	100	31,400	20,800	600	600	-	55,900
1986	-	1,200	4,100	11,400	5,400	<50	600	-	22,800
1987	-	100	5,300	25,800	16,100	11,000	1,100	-	59,400
1988	-	400	15,000	12,400	8,700	1,900	-	-	38,300
1989	-	600	6,400	14,700	9,300	1,100	-	-	32,000
1990	-	400	5,700	12,100	6,900	1,400	100	-	26,500
1991	-	200	7,000	6,300	600	300	-	-	14,400
1992	-	200	2,500	6,200	1,700	1,200	700	-	12,600
1993	-	1,300	200	1,900	2,300	700	-	-	6,400
1994	-	1,900	300	-	300	300	3,300	-	6,000
1995	-	300	1,800	<50	2,400	1,000	1,100	100	6,700
1996	-	700	2,900	600	3,500	1,500	2,000	-	11,200
1997	<50	900	900	1,600	2,800	500	1,000	0	7,700
1998	-	300	400	600	1,000	800	900	-	4,000
1999	-	100	300	2,400	2,700	1,300	900	-	7,700

<sup>a</sup> 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 from 1979 through 1987.

<sup>b</sup> Individual monthly catches may not equal season total due to rounding. Season totals for individual catch areas for 1974-75 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.

<sup>c</sup> Includes Nehalem Bay.

<sup>d</sup> Includes Salmon and Siletz Rivers and Alsea Bay.

<sup>e</sup> Catch estimates for the fall state waters fishery off the mouth of Tillamook Bay, are not included for 1983, 1984, 1986-89, or 1991-93.

Appendix Table 14. Oregon ocean recreational chinook catch, by port and statistical week<sup>a</sup> for 1999 (NS = open for salmon, but no sampling).

Stat.	Pacific		Depoe	Winchester				Port	Gold		Total		
Week	Astoria	Garibaldi	City	Bay	Newport	Florence	Bay	Coos Bay	Bandon	Orford	Beach	Brookings	
14	-	NS	NS	0	0	NS	NS	NS	NS	NS	-	0	0
15	-	0	NS	0	0	NS	NS	NS	NS	NS	-	0	0
16	-	0	NS	0	0	NS	NS	NS	NS	NS	-	0	0
17	-	0	NS	0	0	NS	NS	NS	NS	NS	-	0	0
18	-	0	NS	0	0	NS	NS	NS	NS	NS	-	0	0
19	-	0	NS	0	0	NS	0	0	NS	NS	-	0	0
20	-	19	NS	0	3	0	0	1	0	0	0	0	23
21	-	44	NS	0	2	0	0	2	0	0	0	0	48
22	-	56	NS	2	0	0	0	0	0	0	0	7	65
23	-	11	0	0	0	0	0	0	0	0	0	3	14
24	-	0	0	3	0	0	0	6	0	0	0	0	9
25	-	0	0	0	2	2	11	21	3	0	0	15	54
26	-	2	0	2	2	6	83	79	0	0	0	26	200
27	-	0	1	0	5	17	67	36	0	0	0	10	136
28	-	42	34	44	131	42	260	39	0	0	0	0	592
29	-	6	5	13	14	11	66	2	0	0	0	0	117
30	80	16	5	11	22	17	56	12	0	0	0	0	219
31	140	31	44	18	18	34	170	27	10	0	3	880	1,375
32	387	4	8	6	0	2	64	7	18	0	29	320	845
33	98	15	1	4	3	2	79	6	5	0	11	416	640
34	101	2	2	11	0	3	96	3	20	0	6	449	693
35	35	2	0	4	1	0	31	6	5	4	0	449	537
36	44	5	1	2	4	0	0	2	0	0	2	284	344
37	10	3	0	0	0	0	4	2	0	0	0	39	58
38	36	160	NS	3	0	0	0	2	2	NS	0	51	254
39	3	88	NS	0	0	0	0	0	0	NS	-	0	91
40	0	426	NS	0	0	NS	NS	0	NS	NS	-	99	525
41	-	127	NS	8	3	NS	NS	0	NS	NS	-	290	428
42	-	204	NS	0	0	NS	NS	0	NS	NS	-	58	262
43	-	185	NS	0	0	NS	NS	0	NS	NS	-	0	185
44	-	0	NS	0	0	NS	NS	NS	NS	NS	-	0	0
45	-	4	-	0	0	-	-	-	-	NS	-	0	4
46	-	4	-	0	0	-	-	-	-	NS	-	0	4
<b>Total</b>	<b>934</b>	<b>1,456</b>	<b>101</b>	<b>131</b>	<b>210</b>	<b>136</b>	<b>987</b>	<b>253</b>	<b>63</b>	<b>4</b>	<b>51</b>	<b>3,396</b>	<b>7,722</b>

<sup>a</sup> Refer to Appendix Table 20 for 1999 statistical week calendar.

Appendix Table 15. Oregon ocean recreational coho catch (number of fish) by catch area and month, 1979-99.

Area	Coho						Season
	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
1998	-	-	-	2,000	200	-	2,100
1999	-	-	2,500	3,400	1,700	-	7,600
<u>Tillamook</u>							
1979	100	1,100	2,600	5,600	<50	-	9,400 <sup>a</sup>
1980	100	7,100	10,800	10,300	600	-	28,900 <sup>a</sup>
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 <sup>c</sup>	<50 <sup>c</sup>
1995	0	0	-	-	<50 <sup>c</sup>	0	<50 <sup>c</sup>
1996	0	0	0	<50 <sup>c</sup>	<50 <sup>c</sup>	<50 <sup>c</sup>	<50 <sup>c</sup>
1997	0	0	<50 <sup>c</sup>	0	<50 <sup>c</sup>	0	<50 <sup>c</sup>
1998	0	0	<50 <sup>c</sup>	<50 <sup>c</sup>	<50 <sup>c</sup>	<50 <sup>c</sup>	<50 <sup>c</sup>
1999	0	0	1,000	<50 <sup>c</sup>	<50 <sup>c</sup>	<50 <sup>c</sup>	1,000

Appendix Table 15 (cont.). Oregon ocean recreational coho catch by catch area and month, 1979-99.

Area	Coho						Season
	May	June	July	August	Sept.	Oct.	
<u>Newport</u>							
1979	200	3,700	18,700	13,600	<50	-	36,300 <sup>b</sup>
1980	200	18,500	41,500	10,800	1,400	-	72,400 <sup>b</sup>
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 <sup>c</sup>	0	<50 <sup>c</sup>
1996	0	0	0	<50 <sup>c</sup>	<50 <sup>c</sup>	-	<50 <sup>c</sup>
1997	0	0	0	<50 <sup>c</sup>	0	0	<50 <sup>c</sup>
1998	0	0	<50 <sup>c</sup>	0	0	0	<50 <sup>c</sup>
1999	0	0	4,000	0	0	0	4,000
<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 <sup>c</sup>	<50 <sup>c</sup>	-	<50 <sup>c</sup>
1997	0	0	<50 <sup>c</sup>	<50 <sup>c</sup>	0	0	<50 <sup>c</sup>
1998	0	0	<50 <sup>c</sup>	<50 <sup>c</sup>	0	0	100 <sup>c</sup>
1999	0	0	1,100	0	0	0	1,100

Appendix Table 15 (cont.). Oregon ocean recreational coho catch by catch area and month, 1979-99.

Area	Coho						Season
	May	June	July	August	Sept.	Oct.	
<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 <sup>C</sup>	<50 <sup>C</sup>	-	<50 <sup>C</sup>
1995	0	<50 <sup>C</sup>	0	100 <sup>C</sup>	<50 <sup>C</sup>	<50 <sup>C</sup>	100 <sup>C</sup>
1996	0	<50 <sup>C</sup>	<50 <sup>C</sup>	<50 <sup>C</sup>	<50 <sup>C</sup>	<50 <sup>C</sup>	100 <sup>C</sup>
1997	<50 <sup>C</sup>	<50 <sup>C</sup>	<50 <sup>C</sup>	<50 <sup>C</sup>	<50 <sup>C</sup>	-	100 <sup>C</sup>
1998	0	<50 <sup>C</sup>	<50 <sup>C</sup>	<50 <sup>C</sup>	0	<50 <sup>C</sup>	<50 <sup>C</sup>
1999	0	<50 <sup>C</sup>	<50 <sup>C</sup>	<50 <sup>C</sup>	<50 <sup>C</sup>	0	<50 <sup>C</sup>
<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 <sup>C</sup>	<50 <sup>C</sup>	<50 <sup>C</sup>	<50 <sup>C</sup>
1995	0	<50 <sup>C</sup>	2,000	9,100	800	<50 <sup>C</sup>	11,900
1996	0	<50 <sup>C</sup>	1,500	4,700	1,000	<50 <sup>C</sup>	7,200
1997	<50 <sup>C</sup>	<50 <sup>C</sup>	4,500	1,500	<50 <sup>C</sup>	0	6,000
1998	0	<50 <sup>C</sup>	<50 <sup>C</sup>	2,100	200	<50 <sup>C</sup>	2,300
1999	0	<50 <sup>C</sup>	8,500	3,400	1,700	<50 <sup>C</sup>	13,600

a Includes Nehalem Bay.

b Includes Salmon and Siletz Rivers, and Alsea Bay.

c Illegal coho landings during closed season.



Appendix Table 16. Oregon ocean recreational coho catch, by port and statistical week<sup>a</sup> for 1999. (NS = open for salmon, but no sampling)

Stat.	Pacific		Depoe	Winchester			Port	Gold		Total			
Week	Astoria	Garibaldi	City	Bay	Newport	Florence	Bay	Coos Bay	Bandon	Orford	Beach	Brookings	Total
14	-	NS	NS	0	0	NS	NS	NS	NS	NS	-	0	0
15	-	0	NS	0	0	NS	NS	NS	NS	NS	-	0	0
16	-	0	NS	0	0	NS	NS	NS	NS	NS	-	0	0
17	-	0	NS	0	0	NS	NS	NS	NS	NS	-	0	0
18	-	0	NS	0	0	NS	NS	NS	NS	NS	-	0	0
19	-	0	NS	0	0	NS	0	0	NS	NS	-	0	0
20	-	0	NS	0	0	0	0	0	0	0	0	0	0
21	-	0	NS	0	0	0	0	0	0	0	0	0	0
22	-	0	NS	0	0	0	0	0	0	0	0	0	0
23	-	0	0	0	0	0	0	0	0	0	0	0	0
24	-	0	0	0	0	0	0	0	0	0	0	0	0
25	-	0	0	0	0	0	0	0	0	0	0	2 <sup>b</sup>	2
26	-	0	0	0	0	0	0	0	0	0	0	0	0
27	-	0	0	0	0	0	2 <sup>b</sup>	1 <sup>b</sup>	0	0	0	0	3
28	-	213	358	339	995	7	155	177	2	0	0	0	2,246
29	-	29	75	139	258	25	143	14	0	0	0	0	683
30	1,063	54	71	176	668	9	6	11	3	0	0	0	2,061
31	1,400	58	153	89	1,300	209	112	170	12	8	0	8 <sup>b</sup>	3,519
32	1,972	2	0	0	0	0	0	0	0	0	0	0	1,974
33	520	0	0	0	0	0	0	0	0	0	0	4 <sup>b</sup>	524
34	431	0	0	0	0	0	0	0	0	0	0	4 <sup>b</sup>	435
35	436	0	0	0	0	0	0	0	0	0	0	24 <sup>b</sup>	460
36	797	0	0	0	0	0	0	0	0	0	0	2 <sup>b</sup>	799
37	445	0	0	0	0	0	0	0	0	0	0	0	445
38	475	3 <sup>b</sup>	NS	0	0	0	0	0	0	NS	0	0	478
39	3	4 <sup>b</sup>	NS	0	0	0	0	0	0	NS	-	0	7
40	0	4 <sup>b</sup>	NS	0	0	NS	NS	0	NS	NS	-	2 <sup>b</sup>	6
41	-	2 <sup>b</sup>	NS	0	0	NS	NS	0	NS	NS	-	0	2
42	-	0	NS	0	0	NS	NS	0	NS	NS	-	0	0
43	-	0	NS	0	0	NS	NS	0	NS	NS	-	0	0
44	-	0	NS	0	0	NS	NS	NS	NS	NS	-	0	0
45	-	0	-	0	0	-	-	-	-	NS	-	0	0
46	-	0	-	0	0	-	-	-	-	NS	-	0	0
<b>Total</b>	<b>7,542</b>	<b>369</b>	<b>657</b>	<b>743</b>	<b>3,221</b>	<b>250</b>	<b>418</b>	<b>373</b>	<b>17</b>	<b>8</b>	<b>0</b>	<b>46</b>	<b>13,644</b>

<sup>a</sup> Refer to Appendix Table 20 for 1999 statistical week calendar.

Appendix Table 16. Oregon ocean recreational coho catch, by port and statistical week<sup>a</sup> for 1999. (NS = open for salmon, but no sampling)

Appendix Table 17. The number of Oregon charter boats active by port<sup>a</sup> and year (1987-99)<sup>b</sup>.

Port	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Astoria	50	48	42	41	34	30	24	NA	30	25	16	14	14
Nehalem										1	1	1	1
Garibaldi	20	24	20	18	17	17	13	15	15	14	13	15	15
Pacific City	2	3	3	0	0	0	0	0	0	0	1	1	1
Depoe Bay	24	24	24	24	23	23	21	20	20	20	22	20	22
Newport	32	32	31	33	30	33	30	33	20	28	20	19	19
Florence	1	1	1	1	2	1	1	1	0	0	0	0	0
Winchester Bay	10	10	8	9	8	8	6	2	0	0	0	1	2
Coos Bay	5	5	5	5	4	4	4	4	2	5	4	2	2
Bandon										2	2	2	2
Gold Beach	2	2	1	1	1	1	1	3	3	0	2	4	2
Brookings	5	9	7	9	10	6	4	4	3	4	5	7	8
Total	151	158	139	141	129	123	103	81	93	96	83	85	88

<sup>a</sup> Some vessels operated in more than one port and are, therefore, included more than once on the table.

<sup>b</sup> Not all vessels fished for salmon.

Appendix Table 18. Oregon ocean recreational salmon effort and catch by boat type, 1979-99<sup>a</sup> and 1979-98 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
1997	3,900	26,200	1,500	6,200	2,400	3,600
1998	1,800	24,000	500	3,500	500	1,800
1979-1998	38,200	138,300	4,300	18,200	44,900	101,500
1999	5,500	44,000	900	6,900	3,400	10,300

<sup>a</sup> 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, and 1998.

Appendix Table 19. Oregon ocean recreational salmon effort and catch, by boat type and port, 1979-99.

	<u>SALMON ANGLER TRIPS</u>		<u>CATCH</u>			
	Charter	Private	<u>Chinook</u>		<u>Coho</u>	
			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
1997	1,201	2,102	34	130	2,237	3,244
1998	368	1,646	16	80	479	1,614
<b>1979-98 avg.</b>	<b>8,239</b>	<b>11,817</b>	<b>1,227</b>	<b>1,591</b>	<b>12,770</b>	<b>14,447</b>
1999	1,730	5,676	288	646	2,318	5,224
<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
1997	376	3,278	51	419	113	219
1998	191	5,875	30	1,097	25	51
<b>1979-98 avg.</b>	<b>2,774</b>	<b>16,135</b>	<b>228</b>	<b>971</b>	<b>3,954</b>	<b>8,976</b>
1999	243	9,453	24	1,432	30	330

Appendix Table 19 cont.. Oregon ocean recreational salmon effort and catch, by boat type and port, 1979-99.

	SALMON ANGLER TRIPS		CATCH			
	Charter	Private	Chinook		Coho	
			Charter	Private	Charter	Private
<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
1997	0	99	0	11	0	1
1998	0	102	0	10	0	10
<b>1981-98 avg.</b>	<b>109</b>	<b>2,998</b>	<b>6</b>	<b>180</b>	<b>130</b>	<b>3,170</b>
1999	34	1,430	2	99	5	652
<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
1997	550	29	105	2	0	0
1998	230	25	65	3	0	4
<b>1979-98 avg.</b>	<b>8,292</b>	<b>6,821</b>	<b>332</b>	<b>309</b>	<b>9,660</b>	<b>7,379</b>
1999	1,113	1,158	57	74	324	419

Appendix Table 19 cont.. Oregon ocean recreational salmon effort and catch, by boat type and port, 1979-99.

	SALMON ANGLER TRIPS		CATCH			
	Charter	Private	Chinook		Coho	
			Charter	Private	Charter	Private
<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
1997	1,254	602	1,100	93	0	14
1998	555	455	229	103	0	2
<b>1979-98 avg.</b>	<b>7,750</b>	<b>24,488</b>	<b>521</b>	<b>992</b>	<b>8,934</b>	<b>22,085</b>
1999	1,178	3,983	53	157	625	2,596
<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
1997	0	712	0	80	0	2
1998	0	349	0	44	0	0
<b>1981-98 avg.</b>	<b>230</b>	<b>8,651</b>	<b>25</b>	<b>965</b>	<b>294</b>	<b>8,627</b>
1999	0	1,279	0	136	0	250

Appendix Table 19 cont.. Oregon ocean recreational salmon effort and catch, by boat type and port, 1979-99.

	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
1997	0	2,470	0	457	0	11
1998	165	1,286	74	299	0	50
<b>1979-98 avg.</b>	<b>6,566</b>	<b>20,328</b>	<b>895</b>	<b>2,208</b>	<b>8,111</b>	<b>22,348</b>
1999	472	3,962	119	868	22	396
<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
1997	0	750	2	115	0	4
1998	0	495	20	38	0	0
<b>1979-98 avg.</b>	<b>2,788</b>	<b>10,371</b>	<b>304</b>	<b>1,027</b>	<b>3,670</b>	<b>10,428</b>
1999	36	1,768	16	237	12	361

Appendix Table 19 cont.. Oregon ocean recreational salmon effort and catch, by boat type and port, 1979-99.

		SALMON ANGLER TRIPS		CATCH			
		Charter	Private	Chinook		Coho	
				Charter	Private	Charter	Private
<u>Bandon</u>							
1979		NA	NA	-	-	-	-
1980		NA	NA	-	-	-	-
1981		NA	NA	-	-	-	-
1982		NA	NA	-	-	-	-
1983		NA	NA	-	-	-	-
1984		NA	NA	-	-	-	-
1985		NA	NA	-	-	-	-
1986		NA	NA	-	-	-	-
1987		NA	NA	-	-	-	-
1988		NA	NA	-	-	-	-
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	-	-	-	-
1998		NA	NA	-	-	-	-
<b>1979-98 avg.</b>		<b>NA</b>	<b>NA</b>	-	-	-	-
1999		0	82	57	6	6	11
<u>Port Orford</u>							
1979		NA	NA	-	-	-	-
1980		NA	NA	-	-	-	-
1981		NA	NA	-	-	-	-
1982		NA	NA	-	-	-	-
1983		NA	NA	-	-	-	-
1984		NA	NA	-	-	-	-
1985		NA	NA	-	-	-	-
1986		NA	NA	-	-	-	-
1987		NA	NA	-	-	-	-
1988		NA	NA	-	-	-	-
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	-	-	-	-
1998		NA	NA	-	-	-	-
<b>1979-98 avg.</b>		<b>NA</b>	<b>NA</b>	-	-	-	-
1999		0	39	0	4	0	8



Appendix Table 19 cont.. Oregon ocean recreational salmon effort and catch, by boat type and port, 1979-99.

	SALMON ANGLER TRIPS		CATCH			
	Charter	Private	Chinook		Coho	
			Charter	Private	Charter	Private
<b>Gold Beach</b>						
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	-	-	-	-
1998	0	253	0	8	0	0
<b>1979-98 avg.</b>	<b>1,292</b>	<b>3,513</b>	<b>298</b>	<b>796</b>	<b>239</b>	<b>720</b>
1999	0	313	0	51	0	0
<b>Brookings</b>						
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
1997	471	15,973	218	4,869	0	127
1998	269	13,464	66	1,839	0	37
<b>1979-98 avg.</b>	<b>1,553</b>	<b>37,945</b>	<b>743</b>	<b>9,841</b>	<b>782</b>	<b>10,650</b>
1999	664	14,807	236	3,160	2	44

Appendix Table 19 cont.. Oregon ocean recreational salmon effort and catch, by boat type and port, 1979-99.

	SALMON ANGLER TRIPS		CATCH			
	Charter	Private	Chinook		Coho	
			Charter	Private	Charter	Private
<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
1997	2,548	23,913	1,466	6,037	0	165
1998	1,363	22,283	479	3,441	0	268
<b>1979-98 avg.</b>	<b>30,391</b>	<b>127,067</b>	<b>3,135</b>	<b>16,661</b>	<b>32,718</b>	<b>87,777</b>
1999	3,740	38,260	562	6,224	2,070	10,118
<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
1997	3,852	26,211	1,510	6,176	2,350	3,622
1998	1,778	23,950	500	3,521	504	1,768
<b>1979-98 avg.</b>	<b>38,237</b>	<b>138,311</b>	<b>4,301</b>	<b>18,173</b>	<b>44,863</b>	<b>101,512</b>
1999	5,470	43,950	852	6,870	3,353	10,291

Appendix Table 20. Statistical week calendar for 1999.

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

Appendix Table 21. 1999 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
Nehalem Bay from an imaginary line from the state park Boat ramp to Fishery Point upstream to the confluence of the North Fork Nehalem River open for fin-clipped coho.	Aug. 16 - Oct. 31
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 open for fin-clipped coho.	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
Alsea River within 200 feet downstream of mouth of Fall Creek. Anglers fishing this area required to have a daily fishing permit issued free of charge by ODFW Fall Creek Hatchery.	Oct. 1 - 31
Fall Creek upstream to Carns Creek. Anglers fishing this area required to have a daily fishing permit issued free of charge by ODFW Fall Creek Hatchery.	Oct. 1 - 31
The mainstem Umpqua River (including tidewater) open for fin-clipped coho downstream from the confluence with North and South Forks.	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.	Aug. 16 - 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 1987-99, by port and year, as estimated from angler interviews.

<b>Astoria:</b>		Number Retained		Number Released		Percent Released	
Year	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%	
1998	96	2,093	56	3,260	37%	61%	
1999	934	7,542	570	4,302	38%	36%	

<b>Garibaldi:</b>		Number Retained		Number Released		Percent Released	
Year	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%	
1998	1,127	76	37	565	3%	88%	
1999	1,456	369	42	540	3%	59%	

<b>Pacific City:</b>		Number Retained		Number Released		Percent Released	
Year	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 <sup>a</sup>	0	1	0%	50%	
1998	10	10 <sup>a</sup>	9	46	47%	82%	
1999	101	657	30	447	23%	40%	

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

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%
1998	68	4 <sup>a</sup>	27	174	28%	98%
1999	131	743	30	441	19%	37%

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 <sup>a</sup>	110	48	51%	87%
1996	448	11 <sup>a</sup>	63	943	12%	99%
1997	1,193	14 <sup>a</sup>	388	442	25%	97%
1998	332	2 <sup>a</sup>	80	196	19%	99%
1999	210	3221	71	1706	25%	87%

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 <sup>a</sup>	13	37	14%	95%
1998	44	0	22	114	33%	95%
1999	136	250	4	258	3%	51%

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

<b>Winchester Bay:</b>		Number Retained		Number Released		Percent Released	
Year	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 <sup>a</sup>	55	251	11%	96%	
1997	457	11 <sup>a</sup>	469	592	51%	98%	
1998	373	50 <sup>a</sup>	131	1,125	26%	96%	
1999	987	418	42	620	4%	60%	

<b>Coos Bay:</b>		Number Retained		Number Released		Percent Released	
Year	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 <sup>a</sup>	59	144	17%	96%	
1997	117	4 <sup>a</sup>	80	126	41%	97%	
1998	58	0	32	56	36%	100%	
1999	253	373	15	350	6%	48%	

<b>Bandon:</b>		Number Retained		Number Released		Percent Released	
Year	Chinook	Coho	Chinook	Coho	Chinook	Coho	
1987	NA	NA	NA	NA	-	-	
1988	NA	NA	NA	NA	-	-	
1989	NA	NA	NA	NA	-	-	
1990	NA	NA	NA	NA	-	-	
1991	NA	NA	NA	NA	-	-	
1992	NA	NA	NA	NA	-	-	
1993	NA	NA	NA	NA	-	-	
1994	NA	NA	NA	NA	-	-	
1995	NA	NA	NA	NA	-	-	
1996	NA	NA	NA	NA	-	-	
1997	NA	NA	NA	NA	-	-	
1998	NA	NA	NA	NA	-	-	
1999	63	17	0	7	0%	29%	

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

Port Orford:	Year	Number Retained		Number Released		Percent Released	
		Chinook	Coho	Chinook	Coho	Chinook	Coho
	1987	NA	NA	NA	NA	-	-
	1988	NA	NA	NA	NA	-	-
	1989	NA	NA	NA	NA	-	-
	1990	NA	NA	NA	NA	-	-
	1991	NA	NA	NA	NA	-	-
	1992	NA	NA	NA	NA	-	-
	1993	NA	NA	NA	NA	-	-
	1994	NA	NA	NA	NA	-	-
	1995	NA	NA	NA	NA	-	-
	1996	NA	NA	NA	NA	-	-
	1997	NA	NA	NA	NA	-	-
	1998	NA	NA	NA	NA	-	-
	1998	4	8	0	0	0%	0%

Gold Beach:	Year	Number Retained		Number Released		Percent Released	
		Chinook	Coho	Chinook	Coho	Chinook	Coho
	1987	1,386	1,622	109	126	7%	7%
	1988	107	202	1	4	1%	2%
	1989	NA	NA	NA	NA	-	-
	1990	NA	NA	NA	NA	-	-
	1991	NA	NA	NA	NA	-	-
	1992	NA	NA	NA	NA	-	-
	1993	NA	NA	NA	NA	-	-
	1994	NA	NA	NA	NA	-	-
	1995	NA	NA	NA	NA	-	-
	1996	NA	NA	NA	NA	-	-
	1997	NA	NA	NA	NA	-	-
	1998	8	0	7	0	47%	0%
	1999	51	0	6	3	11%	100%

Brookings:	Year	Number Retained		Number Released		Percent Released	
		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 <sup>a</sup>	363	942	6%	88%
	1996	8,197	106 <sup>a</sup>	1,893	2,303	19%	96%
	1997	5,087	127 <sup>a</sup>	4,690	3,236	48%	96%
	1998	1,905	37 <sup>a</sup>	1,055	771	36%	95%
	1999	3,396	46 <sup>a</sup>	568	2,414	14%	98%



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

Statewide totals: Year	Number Retained		Number Released		Percent Released	
	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%
1998	4,021	2,272	1,456	6,307	27%	74%
1999	7,722	13,644	1,378	11,088	15%	45%

<sup>a</sup> Illegal landings