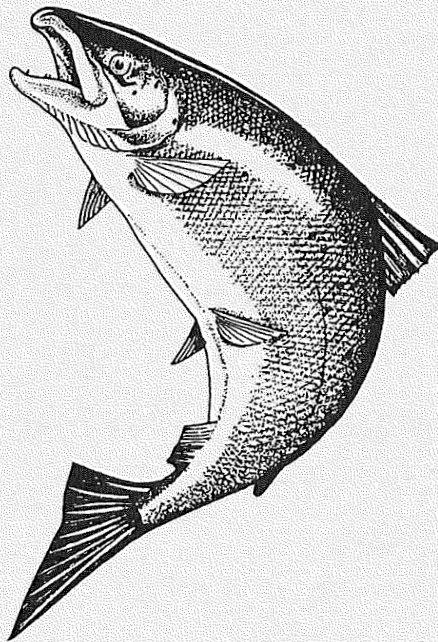


THE 1992 OREGON OCEAN SALMON FISHERIES



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OREGON DEPARTMENT OF FISH AND WILDLIFE
Ocean Salmon Management

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by

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INTRODUCTION

The Ocean Salmon Management Program (OSMP) monitors ocean commercial and recreational salmon fisheries, coordinates Oregon coastal salmon spawning surveys, and conducts ocean and coastal stream research projects. The program uses data from these and other sources to develop management recommendations for the best use of Oregon's salmon resources, and to evaluate proposed ocean salmon fishery regulations. Major forums in which OSMP staff participate include the Pacific Fishery Management Council (PFMC) and its salmon technical teams (STT and SSC), the Pacific Salmon Commission (PSC) and their technical committees, and the Klamath Fishery Management Council (KFMC).

The OSMP fulfills Oregon's technical and management responsibilities to these management entities as directed under the U.S./Canada Salmon Interception Treaty (1986), the Magnuson Fishery Conservation and Management Act (MFCMA) PL 94-265 (1976), and the Anadromous Fisheries Act 89-304.

This report summarizes the activities of OSMP's Ocean Salmon Sampling Project for the 1992 ocean season. In 1992, we collected and analyzed data on Oregon's catch and fishing effort, recovered coded-wire tags (CWT's), and gathered average weight data from commercial salmon landings. In addition, we recorded length frequencies from recreational coho landings, collected chinook scales, and took scales from coho with CWT's to maintain a reference collection of hatchery coho scales. We sampled several estuaries where salmon fisheries developed.

The OSMP sampling project is permanently staffed by a project leader and an assistant project leader in Newport, and two sampling coordinators, one at Tillamook and one at Coos Bay. The south coast sampling coordinator's position was vacant in 1992 due to budget restraints. Up to 35 seasonal aides are hired each year as port samplers. The sampling coordinators serve as liaison between field samplers and Newport program staff, and also deliver data and coded wire tags to Newport.

Ten Oregon coastal ports were sampled in 1992, utilizing 25 seasonal samplers: four were troll, 19 were recreational, and two were "combination" samplers. Most troll samplers did some recreational sampling when there were commercial closures. One seasonal employee helped edit and computer process the sampled data under the direction of OSMP's Data Management Project.

1992 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 to record troll landings separately from gillnet fisheries in 1925.

Landings of ocean troll caught coho salmon remained relatively stable from 1925 to 1941, with landings between 2,000,000 to 4,000,000 pounds (dressed weight) for most years (Figure 1). From 1942 to 1950 catches remained near 1,000,000 pounds, but by 1957 landings had climbed to 3,400,000 pounds. The back-to-back El Nino oceanographic cycles in 1958 and 1959 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 survival rates of smolts to adults resulted in record landings that peaked in 1976 with 1,800,000 coho landed. The late 1970s and 1980s saw decreasing survival and stock sizes and increasing management restrictions, which combined to reduce ocean harvests.

Although chinook harvest by the Oregon troll fishery has also seen dramatic fluctuations, the long term trend has been one of increasing landings. The troll chinook fishery had record harvests in 1987 and 1988. The late 1980s and early 1990s have seen a decline in harvest due to a general decrease in abundance for many stocks, concern for critical natural stocks under both state management and the federal Endangered Species Act (ESA), and increasing allocation conflicts between river and ocean user groups.

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. Through permit non-renewal, the number of troll permits issued has declined to 2,101. In 1992, 649 vessels recorded landings of salmon.

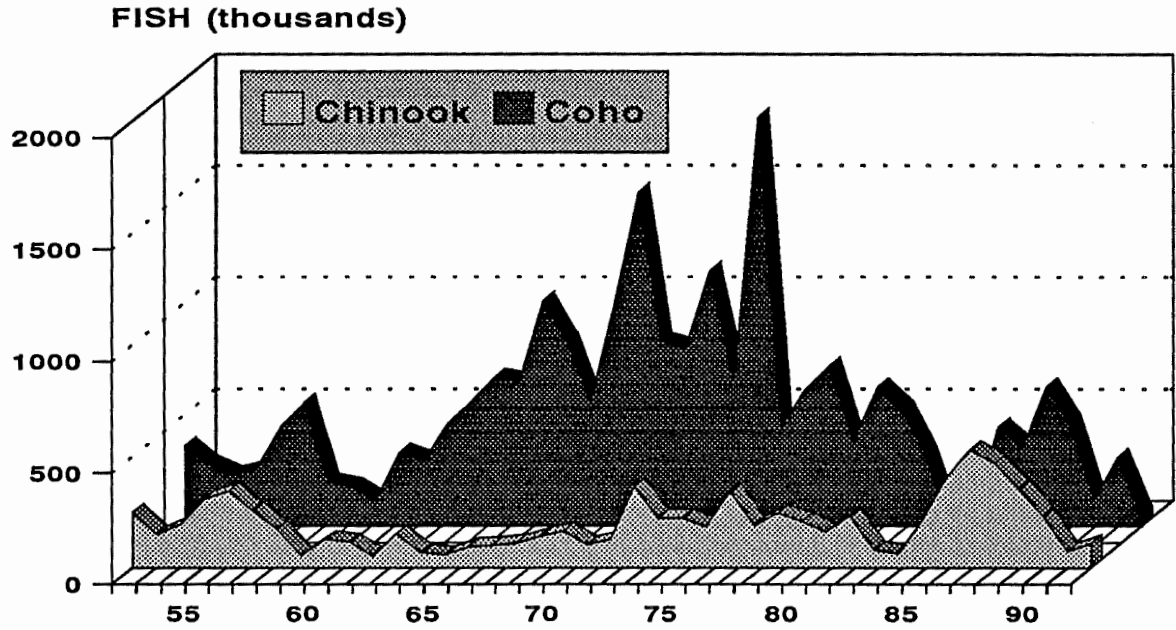
Allocation conflicts continued to intensify in 1992 with concern for adult recruitment and spawning escapement of Klamath River fall chinook. The 1992 ocean salmon troll season off Oregon and California saw the largest time and area block closures, and the most restrictive troll chinook fisheries in history, resulting in low catches of chinook. In addition, continued depressed Oregon Coastal Natural (OCN) coho stocks limited the directed coho troll fishery.

SAMPLING METHODOLOGY

Sampling Areas and Staffing

For the 1992 season, a seasonal staff of 4 troll salmon samplers and 2 combination (troll/recreational) samplers were deployed at major Oregon coastal ports (Appendix Tables 1 and 2). Samplers worked at both permanent and temporary buying stations in Astoria, Warrenton, Hammond, Gearhart, Garibaldi, Pacific City, Newport, Florence, and Port Orford. Troll sampling was supplemented at times by the sampling coordinator and the assistant project leader.

TROLL SALMON LANDINGS, 1952-92 Numbers of Salmon Landed



TROLL SALMON LANDINGS, 1925-92 Pounds Dressed (head on, viscera removed)

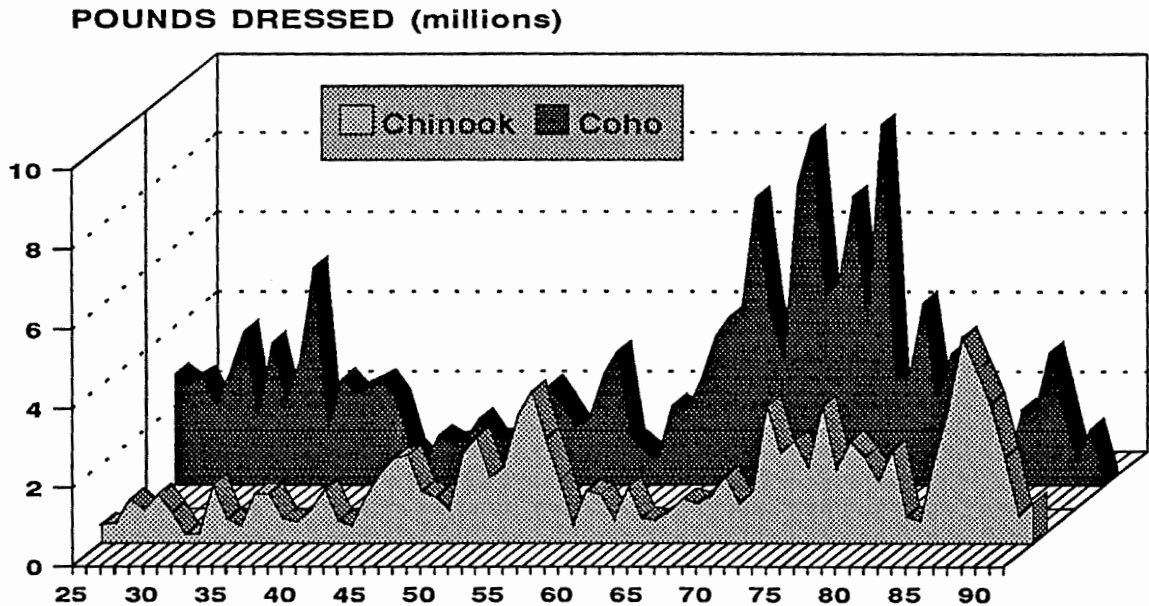


Figure 1. Historical Oregon troll salmon landings in numbers of fish (1952-92), and in pounds dressed (1925-92).

Sampling Design

Sampling was conducted via an established sampling plan using a stratified random design. Samplers were instructed to sample proportionate landings from trip boats and day boats from landings throughout the week, and from all significant buyers. Sampling data were recorded by individual vessel landings on forms designed to be read by an optical scanner. Buyer boats are an exception to sampling by individual vessel landings, since they off-load the catches from many vessels at once. All individual landings are kept confidential.

Average Weights and Coded Wire Tags

Salmon were sorted and weighed by fish plant personnel. Simultaneously, OSMP samplers tallied the fish by species and grade, recorded corresponding total weights, and examined the salmon for clipped adipose fins. A clipped adipose fin indicated that the fish had a coded-wire tag implanted in its snout.

Quota Assessment

Ocean salmon harvests within the PFMC area are managed to achieve specific spawning escapement goals for regional salmon stocks as adopted by the PFMC, and provide for in-river fisheries. 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 mix, 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 our port sampling program. 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 "key buyer" program in 1983. This program monitors daily or periodic troll landings at major buyers along the coast as needed to provide assessment of landings. Sampling staff contact major salmon buyers in each port and summarize total pounds of salmon purchased for a specific 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 the key buyers are expanded to account for the buyers who were not contacted. By dividing the estimated poundage of salmon landed within a given port by the average weight from the sampling data for that port, a reasonable estimate of the landings can be made within 24 hours. Key buyers typically represent more than 90% of the landings and permit expansion of the landings with minimal error.

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

REGULATIONS

Ocean salmon regulations are set by the PFMC for all ocean salmon fisheries from 3 to 200 miles. From 0 to 3 miles, ocean salmon regulations are set by the Oregon Fish and Wildlife Commission within the ocean impact guidelines established by the Council. Special all-species-except-coho fisheries are set by the Oregon Fish and Wildlife Commission for state waters within 3 miles of shore.

All 1992 Oregon and PFMC Area ocean troll salmon fisheries had the requirement of single-point, single-shank, barbless hooks. Minimum length restrictions were 28 inches total length for chinook caught north of Cape Falcon, 26 inches total length for chinook caught south of Cape Falcon, 16 inches total length for coho (Figure 2, Appendix Table 3).

In an attempt to reduce ocean harvest rates on Klamath River fall chinook, no general troll salmon fishery occurred below the Florence South Jetty. The area from Cape Falcon to the Florence South Jetty was also closed from June 1 through July 21.

North of Cape Falcon

The area from Cape Falcon north to the US/Canada border opened for all species except coho on May 1 and ran through to its scheduled closing date of June 15 (46 fishing days). The chinook guideline of 42,100 fish for this fishery was not reached, and the chinook remaining on this quota were made available to later seasons. Vessels were required to land and deliver fish within 48 hours of any closure, and were required to notify the Newport office of the Oregon Department of Fish and Wildlife of any landings south of Cape Falcon.

The all species fishery from Cape Falcon to the US/Canada border was open from July 20 through 21, July 25 through 27, July 31 through August 2, August 6 through 8, August 12 through 14, and August 20 through 22 (17 fishing days). This fishery had quotas of 18,100 coho and 4,400 chinook. During the first opening, boats were limited to no more than 30 coho for the open period. Following a conference call on July 23, the remaining five openings had an open period limit of 44 coho per vessel. The season was closed August 22 due to attainment of the coho quota. Boats were restricted to no more than four spreads per wire and six inch or larger plugs only. All salmon caught north of Cape Falcon were required to be delivered in this area.

The Columbia River Conservation Zone remained closed to all salmon fishing. The conservation zone is defined as follows: The area within a line extending 6 nautical miles due west from North Head along 46°18'00"N to 124°13'18"W, then southerly to the Columbia River Buoy (46°11'06"N, 124°11'00"W), then northeast along the Red Buoy Line to the tip of the Columbia River south jetty (Figure 11).

Cape Falcon to Cascade Head

The all species except coho fishery from Cape Falcon to Cascade Head was open from May 1 through 31, and September 1 through October 31 (92 fishing days). There were no chinook quota restrictions in this area. During May, a four spread per wire gear restriction was in place to reduce coho hooking mortality.

The all species fishery from Cape Falcon to Cascade Head was open from July 22 through August 21 (24 fishing days) with a ratio restriction of no more than two coho for each chinook. From August 22 through 31, a single daily landing limit of 25 coho plus

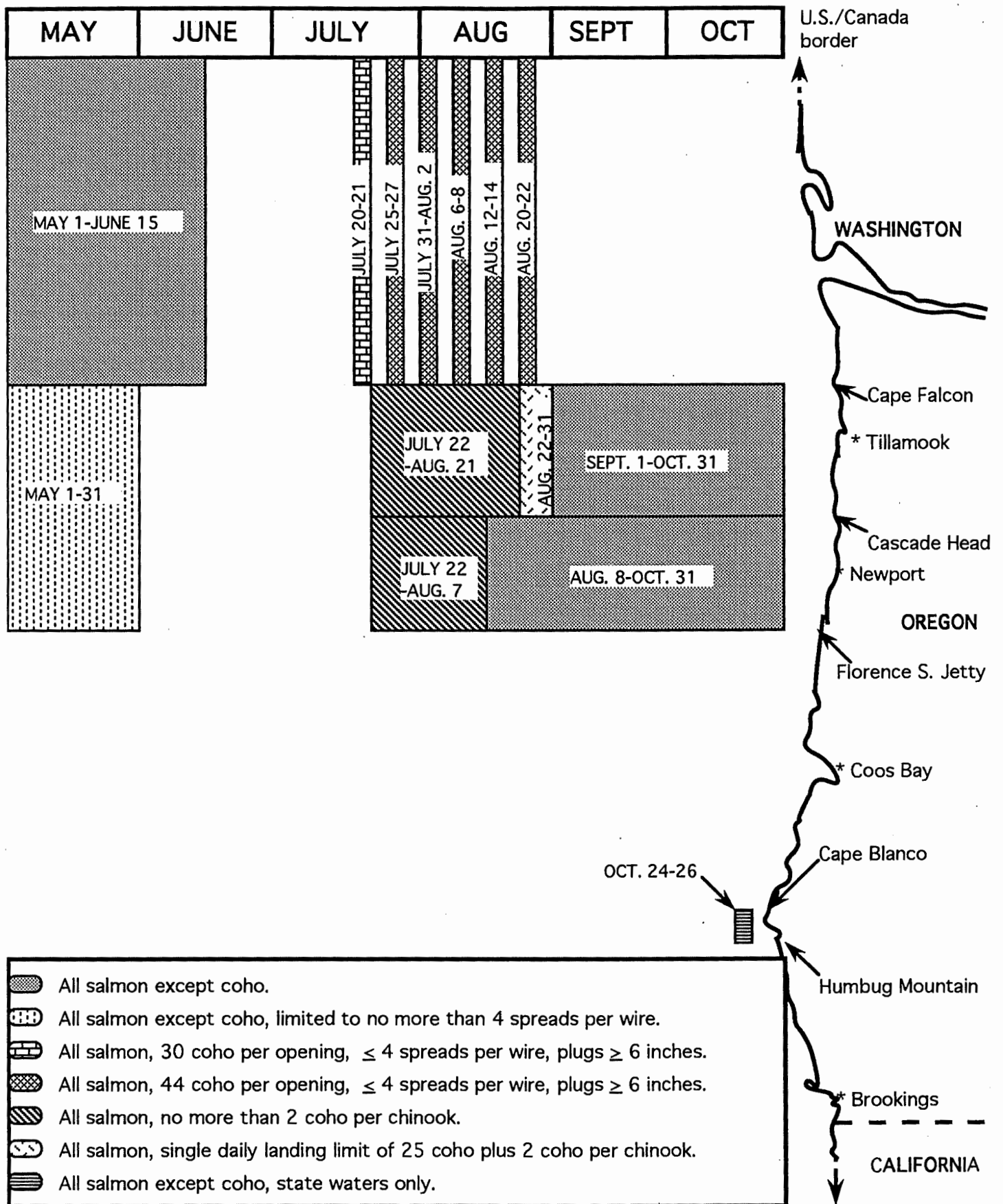


Figure 2. Open troll salmon seasons off Oregon, 1992.

the ratio of two coho for each chinook was in effect. The coho catch quota for this fishery was included in the 57,000 coho allocated for troll landings from Cape Falcon to the US/Mexico border. Due to a number of factors including low value of coho, poor availability of coho and chinook, and an above average albacore tuna year, the coho quota was not met. All landings from this area that included coho were required to be delivered north of Cascade Head..

Cascade Head to Florence South Jetty

The all species except coho fishery between Cascade Head and the South Jetty at Florence was open from May 1 through June 23, July 12 through 23, and August 1 through October 31 (148 fishing days). There were no chinook quotas in this area. During this fishery, a four spread per wire restriction was in effect to reduce coho hooking mortality.

The all species fishery was open from July 22 through August 7 (17 fishing days). This was a ratio fishery of not more than two coho for each chinook landed. Coho caught in this fishery counted against the overall south of Cape Falcon quota of 57,000 coho, and there was a subarea ceiling of 40,000 coho for the area south of Cascade Head. All landings that included coho caught south of Cascade Head were required to be delivered south of Cascade Head.

Cape Blanco to Humbug Mountain

An all salmon except coho season was authorized by the Oregon Fish and Wildlife Commission for state waters (0-3 miles) from Cape Blanco to Humbug Mountain. This fishery was designed to target on an anticipated surplus of returning Elk River fall chinook. The season was opened October 24 with a quota of 400 chinook, and was closed October 26 when the quota was met. All salmon were required to be landing in this area.

EFFORT AND CATCH STATISTICS

Effort and catch statistics for the 1992 Oregon troll salmon fishery are preliminary. Poundages, dollar value, area of catch, and days fished were obtained directly from 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 1992 totaled 9,200 boat days, 37% below the 1991 level of 14,700, and only 18% of the 1988 record of 51,100 boat days (Table 1). Reduced effort was the result of extensive time and area closures, a coho season with a very small quota, ratio landing limits that discouraged traditional coho fishermen, and poor chinook abundance.

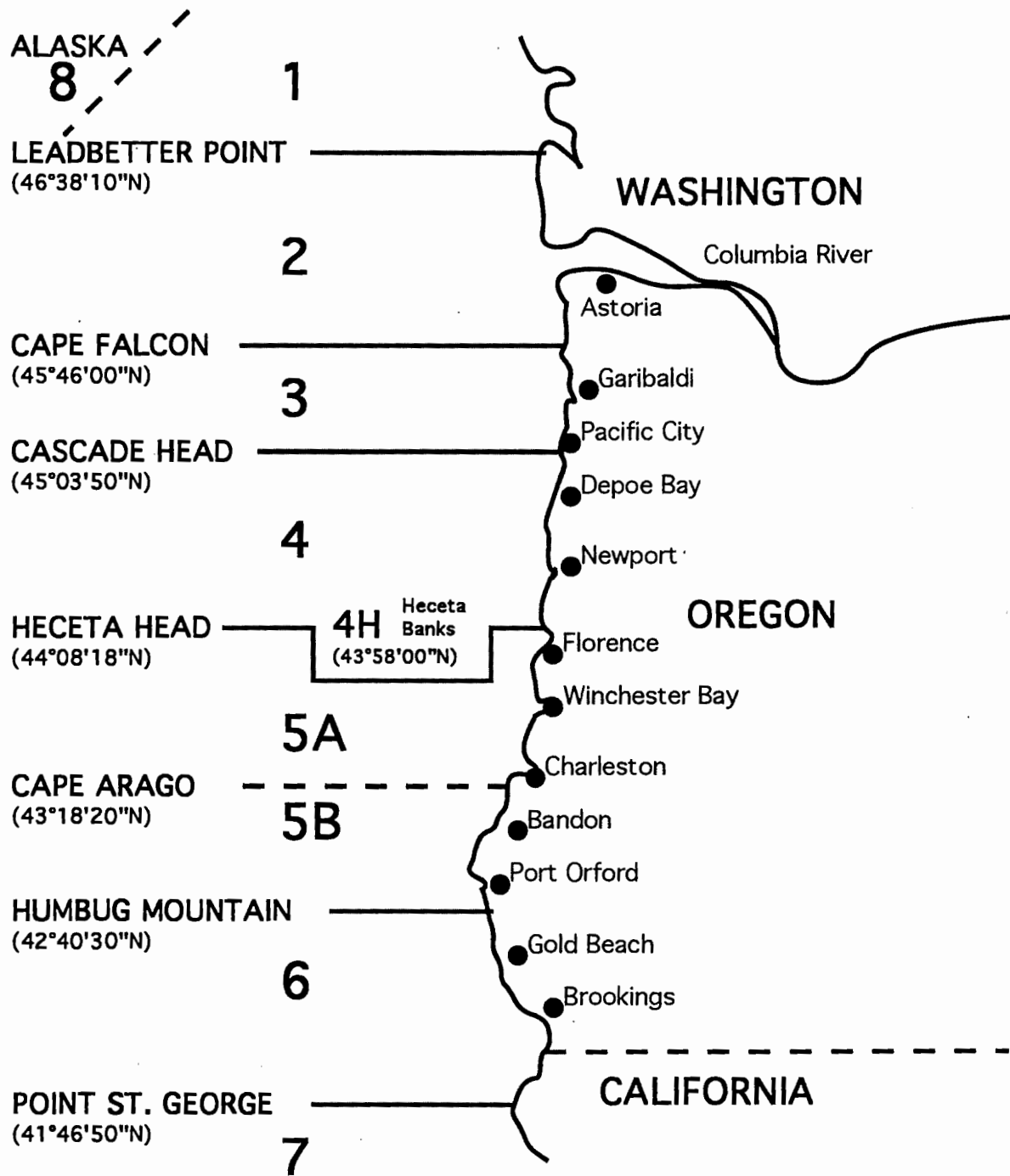


Figure 3. Oregon catch areas and major ports where commercial troll salmon are landed.

Most 1992 fishing effort (63%) occurred within the Newport management area (Figure 4, Appendix Table 4). Effort declined from 1991 levels in all areas except Newport, but most notably in the Coos Bay area (93%) which had a very limited open area, and the Brookings area which had no troll fishery in 1992.

As usual, peak effort coincided with the general all species salmon fishery in most areas. This was during late July and August in all areas (Table 2, Appendix Table 5). In the Tillamook area, substantial effort also coincided with the traditional terminal area chinook fisheries off Tillamook Bay, Nehalem Bay, and Nestucca Bay.

Landings

Chinook: The 1992 chinook landings were 47% above the dismal 1991 catches, but still only 44% of the 1979-91 average of 251,600 chinook (Table 1, Figure 5). A total of 110,300 chinook were landed in 1992 in Oregon as compared to 74,800 in 1991.

Most of the chinook landings (86%) were caught in the Newport area (Table 2, Figure 6). Catches were up in the Columbia River and Newport areas when compared to 1991, but down in all other areas. The Brookings area which had no open seasons in 1992, and the Coos Bay area which had very limited opportunities near the Elk River and between Florence and Heceta Head saw the most significant declines in chinook catch.

July is historically the peak catch month for chinook, and even with little more than a week in July open in 1992, more chinook were landed in July than in any other month (Tables 2 and 3, Appendix Tables 4, 5 and 6). Chinook catches in the Tillamook area peaked in October with 2,400 fish landed (33%).

Coho: Oregon coho landings during the 1992 season were only 84% below the 1991 landings (Figures 5 and 7, Table 1), and 87% below the 1979-91 average of 381,700. Oregon coho landings in 1992 totaled 49,700 fish as compared to deliveries of 306,900 coho in 1991. The Newport catch area had the highest 1992 troll coho landings, with 70% of the Oregon harvest. The Brookings catch area had no coho season in 1992. July accounted for 48% of the coho landings, while landings in August made up another 51% of the total. The July landings were all from the last 10 days of the month when the troll fishery south of Cape Falcon reopened (Appendix Table 5 and 7).

AVERAGE WEIGHT DATA

Average ocean troll salmon weight data was gathered from most port landing locations by the samplers and allowed for conversion of fish ticket poundage information to fish numbers. The 1992 seasonal average dressed weight (head on, viscera removed) for chinook was 9.2 pounds (Table 4). This was similar to the 1991 average weight of 9.3 pounds.

The average dressed weight for troll coho for the 1992 season was 4.2 pounds (Table 5), down substantially from the 1991 average of 4.6 pounds. A moderate El Nino event occurred during 1992, and may have created conditions which resulted in smaller fish.

THE DOLLAR VALUE OF OCEAN SALMON LANDINGS

The 1992 Oregon troll chinook landings were worth \$2,484,000 ex-vessel value. This was a 46% increase over the very poor 1991, but was still only 50% of the 1971-91

Table 1. Oregon commercial troll salmon effort and landings in number of fish and pounds dressed, 1979-92^a.

Year	Effort (boat days)	Chinook		Coho		Pinks	
		No.	lbs dr.	No.	lbs dr.	No.	lbs dr.
1979	48,800	245,500	2,580,000	714,600	4,586,300	20,500	106,300
1980	39,900	209,400	2,171,500	383,300	2,190,200	300	1,600
1981	45,200	160,400	1,573,400	620,300	3,324,300	60,200	324,000
1982	33,900	232,600	2,351,300	523,500	2,708,400	0	0
1983	22,200	79,600	655,500	319,700	1,097,900	<100	200
1984	7,900	64,300	549,900	14,000	71,000	0	0
1985	21,100	216,600	2,030,300	84,100	483,800	44,900	258,600
1986	32,500	402,700	3,370,300	440,600	1,905,600	<100	<100
1987	39,500	529,300	5,182,400	354,000	1,915,900	17,600	87,300
1988	51,100	470,000	4,386,900	623,200	3,335,900	<100	<100
1989	42,300	353,500	3,531,900	455,700	1,995,500	3,800	17,600
1990	25,900	232,500	2,181,100	122,300	633,800	0	0
1991	14,700	74,800	695,000	306,900	1,410,700	1,800	7,600
1992	9,200	110,300	1,010,700	49,700	206,200	<100	<100

^a Includes catches made off California, Washington and Alaska and landed in Oregon.

Table 2. Oregon troll salmon effort and landings, number of fish by area of catch and by statistical month, 1992.

Year	Area of Catch									Total
	Col. R. 2	Tillamook 3	Newport 4	Coos Bay 5	Brookings 6	OR Subtotal	Alaska 8	Wash. 1	Calif. 7	
EFFORT (Boat Days)										
May	100	100	1,300	<50	0	1,500	0	<50	0	1,600
June	100	0	<50	<50	0	200	0	100	0	200
July	<50	200	1,100	100	0	1,500	0	0	0	1,500
Aug.	<50	800	1,700	200	0	2,700	0	<50	0	2,700
Sept.	0	700	700	<50	0	1,500	0	0	0	1,500
Oct.	0	700	900	100	0	1,700	0	0	0	1,700
Total	300	2,600	5,800	400	0	9,100	0	100	0	9,200
Chinook										
May	400	400	19,000	600	0	20,400	0	100	0	20,500
June	900	0	600	100	0	1,600	0	700	0	2,300
July	100	400	28,500	2,600	0	31,600	0	0	0	31,600
Aug.	100	2,200	21,900	2,000	0	26,200	0	<50	0	26,200
Sept.	0	1,900	8,500	300	0	10,800	0	0	0	10,800
Oct.	0	2,400	16,100	600	0	19,100	0	0	0	19,100
Total	1,500	7,300	94,600	6,200	0	109,500	0	800	0	110,300
Coho										
July	700	800	19,000	3,200	0	23,700	0	0	0	23,700
Aug.	800	6,500	15,900	2,100	0	25,300	0	100	0	25,500
Sept.	0	500	0	0	0	500	0	0	0	500
Total	1,400	7,900	34,900	5,300	0	49,500	0	100	0	49,700

Effort

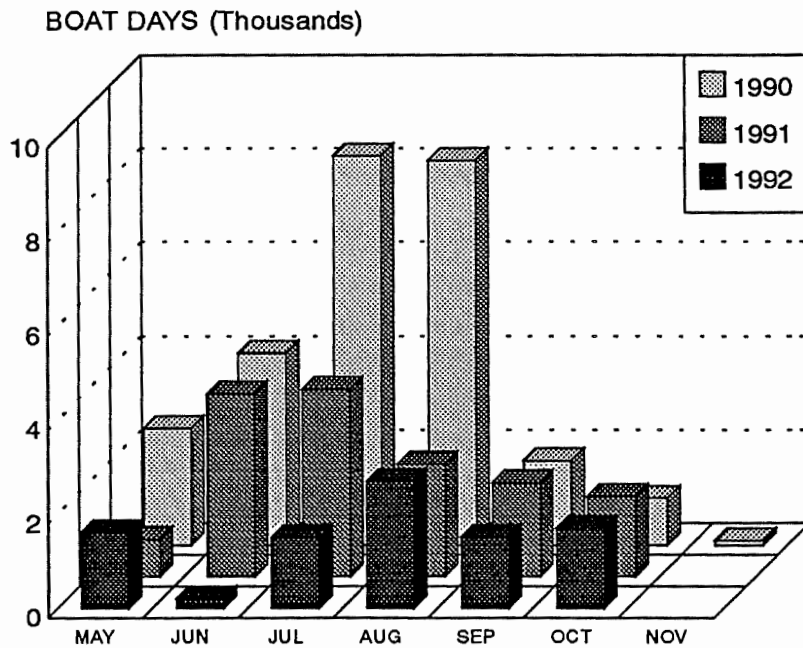
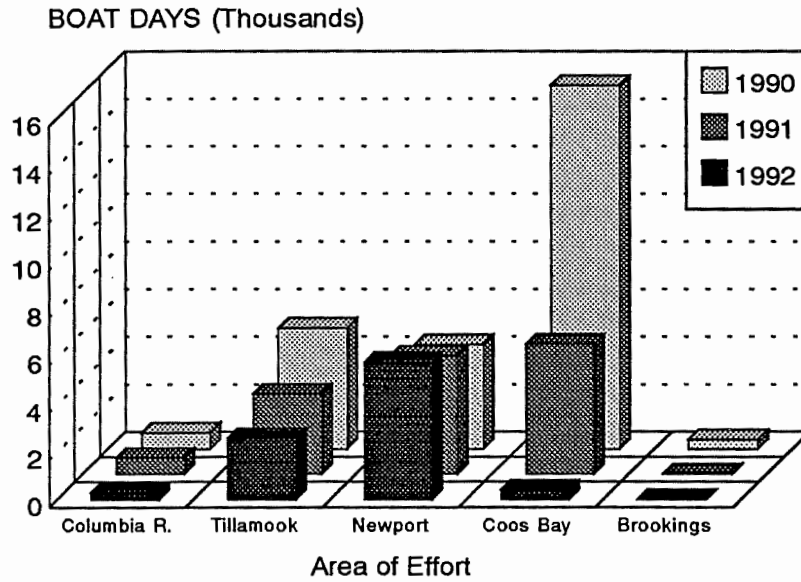


Figure 4. Oregon troll salmon effort in boat days by area of catch and by month, 1990-92.

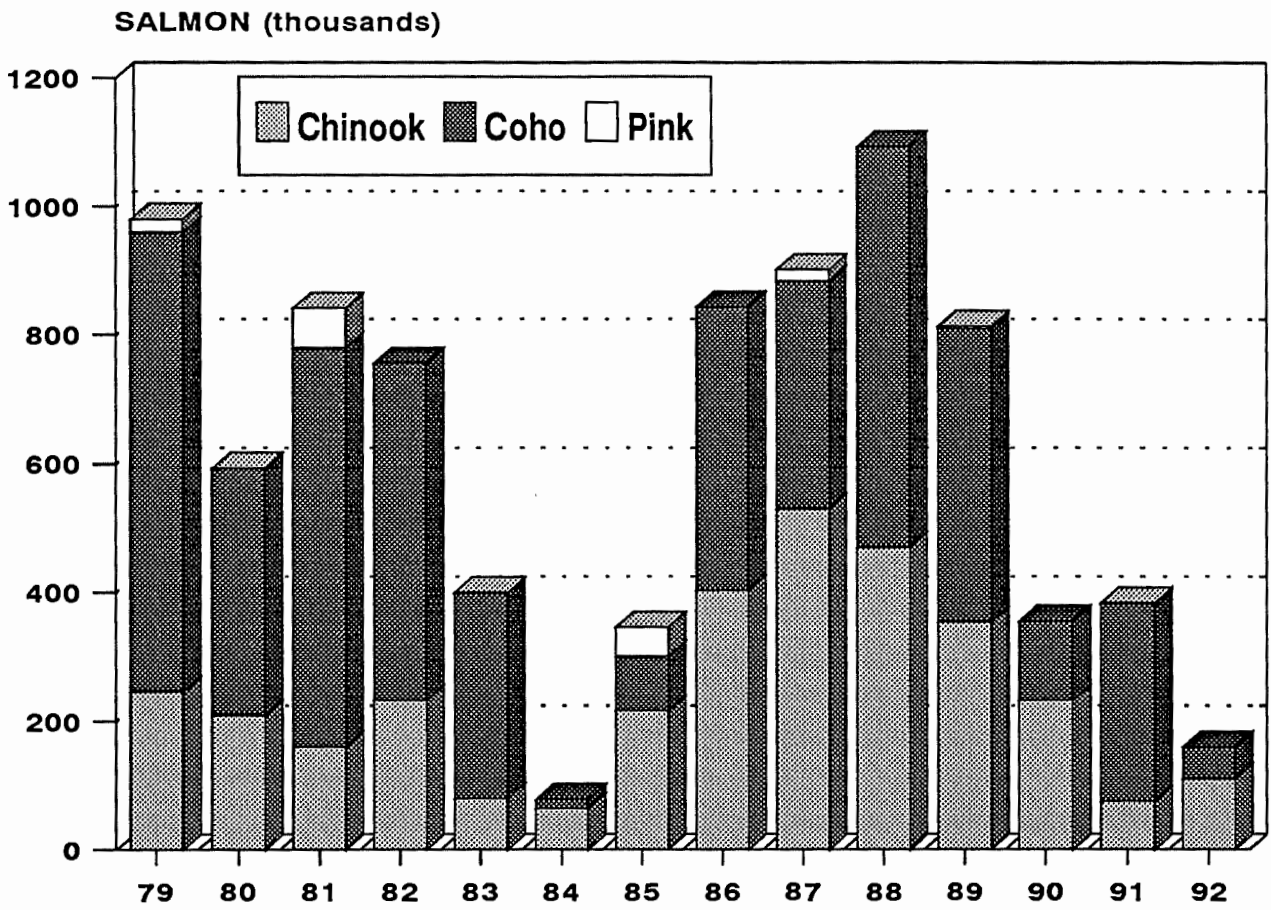


Figure 5. Oregon troll salmon landings, 1979-92.

Chinook

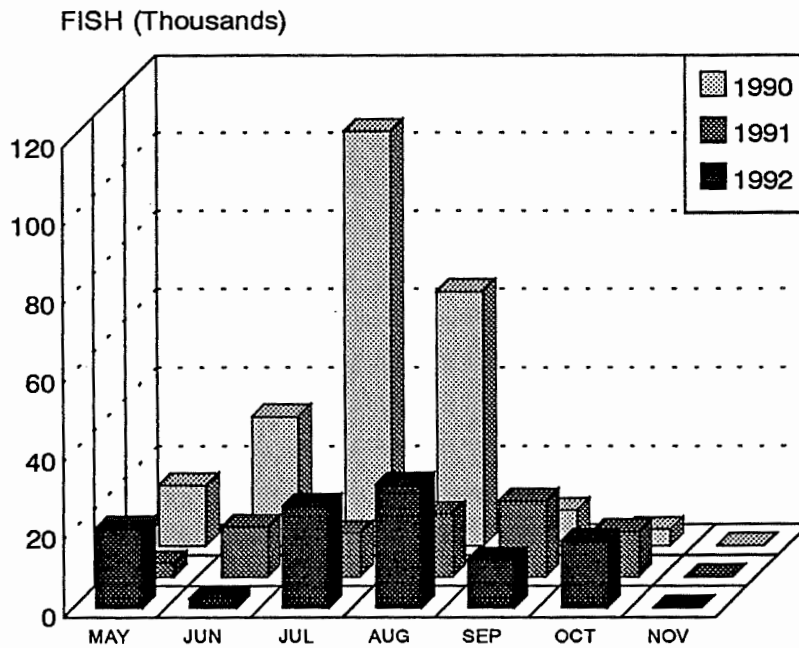
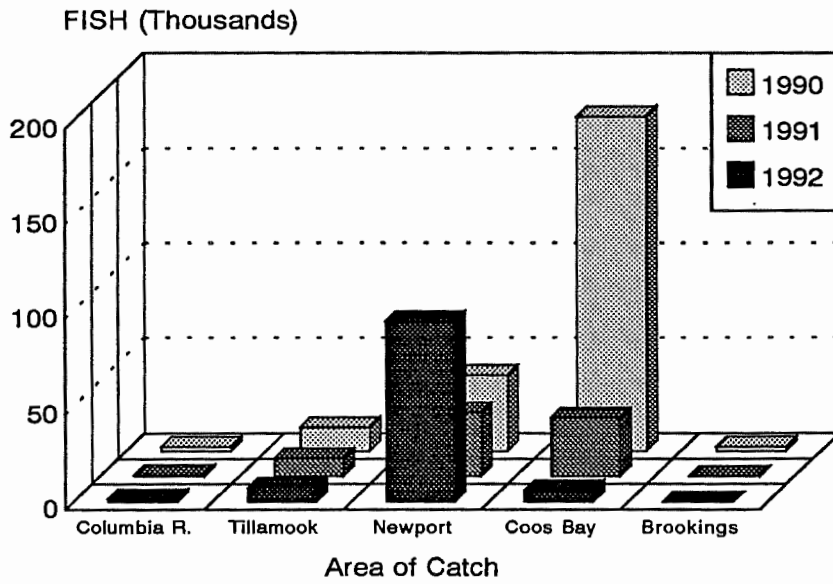


Figure 6. Oregon troll chinook landings by area of catch and by month, 1990-92.

Table 3. Oregon troll salmon landings in pounds dressed, by calendar month, and port of landing, 1992.

Month	May	June	July	August	Sept.	Oct.	Nov.	Total
<u>Chinook</u>								
Astoria	4,372	9,825	308	472	414	538	-	15,929
Gearhart	-	-	94	61	-	-	-	155
Cannon Bch.	-	-	124	577	-	-	-	701
Garibaldi	3,503	1,696	2,639	19,781	31,079	34,386	-	93,084
Netarts	-	-	-	98	-	-	-	98
Pacific City	359	-	1,559	3,365	4,397	4,808	-	14,488
Depoe Bay	280	239	5,463	445	509	-	-	6,936
Newport	145,105	8,624	172,558	172,379	64,897	103,970	-	667,533
Florence	18,559	-	23,078	41,628	11,412	6,335	-	101,012
Winchester	19,283	718	11,183	18,767	1,860	1,132	-	52,943
Charleston	7,136	1,735	10,865	10,870	4,131	14,147	-	48,884
Bandon	298	-	158	1,109	321	518	-	2,404
Port Orford	-	-	-	-	-	5,426	-	5,426
Brookings	-	592	-	432	-	130	-	1,154
Total	198,895	23,429	228,029	269,984	119,020	171,390	0	1,010,747
<u>Coho</u>								
Astoria	-	-	1,006	1,870	-	61	-	2,937
Gearhart	-	-	198	677	-	-	-	875
Cannon Bch.	-	-	626	1,421	-	-	-	2,047
Garibaldi	-	-	1,875	21,111	7	-	-	22,993
Netarts	-	-	-	79	-	-	-	79
Pacific City	-	-	1,172	9,071	-	-	-	10,243
Depoe Bay	-	-	1,728	214	-	-	-	1,942
Newport	-	-	42,489	67,521	-	-	-	110,010
Florence	-	-	11,792	16,887	-	-	-	28,679
Winchester	-	-	6,177	7,950	-	-	-	14,127
Charleston	-	-	5,503	6,067	-	-	-	11,570
Bandon	-	-	13	692	-	-	-	705
Port Orford	-	-	-	-	-	-	-	0
Brookings	-	-	-	-	-	-	-	0
Total	0	0	72,579	133,560	7	61	0	206,207

Coho

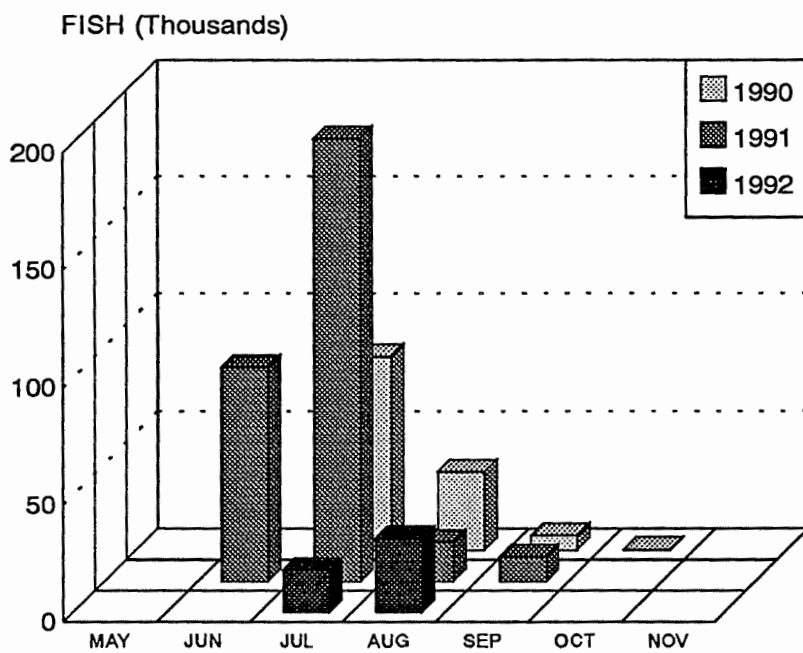
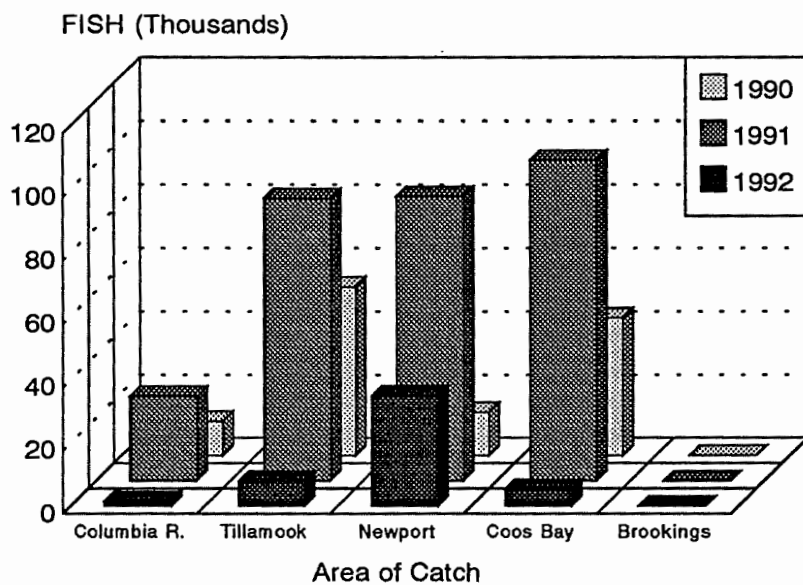


Figure 7. Oregon troll coho landings by area of catch and by month, 1990-92.

Table 4. Observed average dressed weight and calculated number of chinook landed in the Oregon troll fishery by calendar month and area of catch, 1992.

Area of Landing	Month							Total
	May	June	July	Aug.	Sept.	Oct.	Nov.	
<u>Columbia R. (2)</u>								
Numbers	376	923	105	87	-	-	-	1,491
Pounds	3,592	8,807	982	776	-	-	-	14,157
Ave. wt.	9.6	9.5	9.4	8.9	-	-	-	9.5
<u>Tillamook (3)</u>								
Numbers	388	-	295	2,482	1,933	2,185	-	7,283
Pounds	3,862	-	2,985	23,859	35,532	41,914	-	108,152
Ave. wt.	10.0	-	10.1	9.6	18.4	19.2	-	14.9
<u>Newport (4)</u>								
Numbers	19,046	556	23,676	26,773	10,057	14,473	-	94,581
Pounds	185,140	5,760	205,769	226,254	81,377	122,256	-	826,556
Ave. wt.	9.7	10.4	8.7	8.4	8.1	8.4	-	8.7
<u>Coos Bay (5)</u>								
Numbers	567	81	2,254	2,360	297	592	-	6,151
Pounds	5,521	899	18,293	18,881	2,111	7,220	-	52,925
Ave. wt.	9.7	11.1	8.1	8.0	7.1	12.2	-	8.6
<u>Brookings (6)</u>								
Numbers	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-
Ave. wt.	-	-	-	-	-	-	-	-
<u>Oregon Subtotal</u>								
Numbers	20,377	1,560	26,330	31,702	12,287	17,250	-	109,506
Pounds	198,115	15,466	228,029	269,770	119,020	171,390	-	1,001,790
Ave. Wt.	9.7	9.9	8.7	8.5	9.7	9.9	-	9.2
<u>Alaska (8)</u>								
Numbers	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-
Ave. Wt.	-	-	-	-	-	-	-	-
<u>Washington (1)</u>								
Numbers	82	709	-	22	-	-	-	813
Pounds	780	7,963	-	214	-	-	-	8,957
Ave. Wt.	9.5	11.2	-	9.7	-	-	-	11.0
<u>California (7)</u>								
Numbers	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-
Ave. Wt.	-	-	-	-	-	-	-	-
<u>Total</u>								
Numbers	20,459	2,269	26,330	31,724	12,287	17,250	-	110,319
Pounds	198,895	23,429	228,029	269,984	119,020	171,390	-	1,010,747
Ave. wt.	9.7	10.3	8.7	8.5	9.7	9.9	-	9.2

Table 5. Observed average dressed weight and calculated number of coho landed in the Oregon troll fishery by calendar month and area of catch, 1992.

Area of Landing	Month			Total
	July	Aug.	Sept.	
<u>Astoria (2)</u>				
Numbers	636	793	-	1,429
Pounds	2,408	3,144	-	5,552
Ave. wt.	3.8	4.0	-	3.9
<u>Tillamook (3)</u>				
Numbers	503	7,357	2	7,862
Pounds	2,159	30,966	7	33,132
Ave. wt.	4.3	4.2	3.5	4.2
<u>Newport (4)</u>				
Numbers	13,952	20,968	-	34,920
Pounds	56,441	89,240	-	145,681
Ave. wt.	4.0	4.3	-	4.2
<u>Coos Bay (5)</u>				
Numbers	2,960	2,346	-	5,306
Pounds	11,571	9,663	-	21,234
Ave. wt.	3.9	4.1	-	4.0
<u>Brookings (6)</u>				
Numbers	-	-	-	-
Pounds	-	-	-	-
Ave. wt.	-	-	-	-
<u>Oregon Subtotal</u>				
Numbers	18,051	31,464	-	49,517
Pounds	72,579	133,013	-	205,599
Ave. wt.	4.0	4.2	-	4.2
<u>Alaska (8)</u>				
Numbers	-	-	-	-
Pounds	-	-	-	-
Ave. wt.	-	-	-	-
<u>Washington (1)</u>				
Numbers	-	137	-	137
Pounds	-	547	-	547
Ave. wt.	-	4.0	-	4.0
<u>California (7)</u>				
Numbers	-	-	-	-
Pounds	-	-	-	-
Ave. wt.	-	-	-	-
<u>Total</u>				
Numbers	18,051	31,601	2	49,654
Pounds	72,579	133,560	7	206,146
Ave. wt.	4.0	4.2	3.5	4.2

average of \$4,913,000. The average price paid was \$2.45 per pound, the same as in 1991.

Troll coho landings in 1992 showed a 84% decrease in ex-vessel dollar value over 1991 landings, bringing \$222,000 to the fishermen. The average price paid for coho was \$1.07 per pound, up slightly over the 1991 price of \$0.98 (Appendix Table 8).

CODED WIRE TAG SAMPLING

In 1992, the troll sampling program examined 29% of all landed chinook and 30% of all landed coho for coded wire tags (Tables 6 and 7).

Chinook

Samplers observed 916 marked (adipose fin-clip) chinook in 1992 (2.8% mark rate). Technicians recovered readable tags from 823 snouts (90%). Most of the tag recoveries were released by Oregon Department of Fish and Wildlife (46%), and California Department of Fish and Game (27%) (Figure 8). Most of the recovered tags were released in the Columbia River (44%), the Sacramento River (25%), and in Oregon coastal streams (15%) (Figure 8).

Coho

Samplers observed 842 marked coho in 1992 (5.6% mark rate). Technicians recovered readable tags from 712 snouts (84%). Most of the tag recoveries were from fish tagged and released by Oregon Department of Fish and Wildlife (61%), and Washington Department of Fisheries (16%) (Figure 9). Most of the recovered tags were from releases in the Columbia River (57%), Washington coastal rivers (17%), and Oregon coastal streams (9%) (Figure 9).

NOTE: The above information cannot be used to estimate stock contribution since tagging is not representative of stocks, and most stocks of wild fish have no tagging programs or population estimators associated with them. Also many experimental programs have very high mark rates which may give a false impression of high contribution rates.

SPECIAL FISHERIES AND STUDIES

Chinook Genetic Stock Identification

During the 1992 troll salmon season from Cape Falcon to the Florence South Jetty, tissue samples were collected from chinook salmon to allow for post season estimation of the stock composition of the harvest. The genetic stock identification (GSI) process relies on genetic differences between stocks that can be measured using starch gel electrophoresis techniques.

All sampling was performed by a seasonal OSMP employee at buying stations in Garibaldi, Newport, and Florence. Retinal and cheek tissues were collected from each sampled troll chinook and quick frozen with dry ice. Samples were then transferred to Oregon State University's -70°C freezer at the Hatfield Marine Science Center.

Table 6. Oregon ocean troll chinook mark sampling by statistical month and port of landing, 1992.

Area of Landing	Month						Total
	May	June	July	Aug.	Sept.	Oct.	
<u>Astoria</u>							
No. Examined	173	651	14	0	0	0	838
No. Landed	458	946	36	38	48	76	1,602
% Examined	38	69	39	0	0	0	52
No. Marks	4	23	1	0	0	0	28
<u>Gearhart</u>							
No. Examined	-	-	0	0	-	-	0
No. Landed	-	-	13	8	-	-	21
% Examined	-	-	0	0	-	-	0
No. Marks	-	-	0	0	-	-	0
<u>Cannon Beach</u>							
No. Examined	-	-	0	0	-	-	0
No. Landed	-	-	13	60	-	-	73
% Examined	-	-	0	0	-	-	0
No. Marks	-	-	0	0	-	-	0
<u>Garibaldi</u>							
No. Examined	7	0	153	751	771	792	2,474
No. Landed	362	190	349	1,866	1,654	1,867	6,288
% Examined	2	0	44	40	47	42	39
No. Marks	0	0	13	29	24	18	84
<u>Netarts</u>							
No. Examined	-	-	0	0	-	-	0
No. Landed	-	-	1	10	-	-	11
% Examined	-	-	0	0	-	-	0
No. Marks	-	-	0	0	-	-	0
<u>Pacific City</u>							
No. Examined	0	-	0	19	0	0	19
No. Landed	26	-	222	225	231	256	960
% Examined	0	-	0	8	0	0	2
No. Marks	0	-	0	0	0	0	0
<u>Depoe Bay</u>							
No. Examined	0	0	0	0	0	-	0
No. Landed	28	21	696	42	54	-	841
% Examined	0	0	0	0	0	-	0
No. Marks	0	0	0	0	0	-	0
<u>Newport</u>							
No. Examined	4,813	133	6,888	6,265	2,849	3,326	24,274
No. Landed	15,057	847	23,237	16,711	6,695	13,514	76,061
% Examined	32	16	60	37	43	25	32
No. Marks	110	2	219	188	58	108	685
<u>Florence</u>							
No. Examined	1,120	-	1,552	1,520	259	0	4,451
No. Landed	1,893	-	3,593	4,064	1,526	787	11,863
% Examined	59	-	43	37	17	0	38
No. Marks	27	-	33	31	3	0	94

Table 6 continued.

Area of Landing	Month						Total
	May	June	July	Aug.	Sept.	Oct.	
<u>Winchester Bay</u>							
No. Examined	0	0	0	0	0	0	0
No. Landed	1,926	61	1,948	1,628	154	225	5,942
% Examined	0	0	0	0	0	0	0
No. Marks	0	0	0	0	0	0	0
<u>Charleston</u>							
No. Examined	0	0	0	0	0	0	0
No. Landed	677	148	1,436	1,357	356	1,885	5,859
% Examined	0	0	0	0	0	0	0
No. Marks	0	0	0	0	0	0	0
<u>Bandon</u>							
No. Examined	0	-	0	0	0	0	0
No. Landed	32	-	31	124	42	68	297
% Examined	0	-	0	0	0	0	0
No. Marks	0	-	0	0	0	0	0
<u>Port Orford</u>							
No. Examined-	-	-	-	-	-	354	354
No. Landed	-	-	-	-	-	384	384
% Examined	-	-	-	-	-	92	92
No. Marks	-	-	-	-	-	25	25
<u>Brookings</u>							
No. Examined	-	0	-	0	-	0	0
No. Landed	-	56	-	46	-	15	117
% Examined	-	0	-	0	-	0	0
No. Marks	-	0	-	0	-	0	0
<u>Total</u>							
No. Examined	6,113	784	8,607	8,555	3,879	4,472	32,410
No. Landed	20,459	2,269	31,575	26,179	10,760	19,077	110,319
% Examined	30	35	27	33	36	23	29
No. Marks	14	25	266	248	85	151	916

Table 7. Oregon ocean troll coho mark sampling by statistical month and port of landing, 1992.

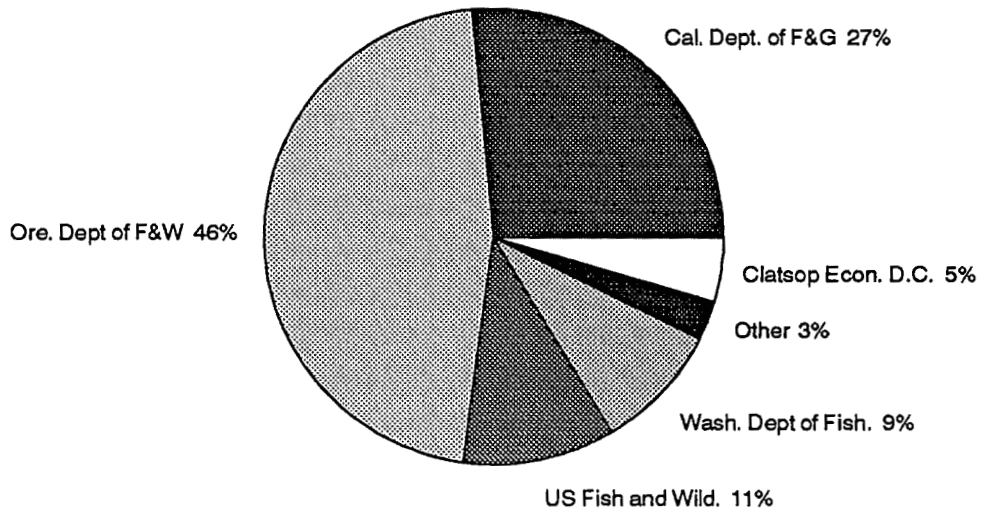
Area of Landing	Month			Total
	July	Aug.	Sept.	
<u>Astoria</u>				
No. Examined	106	0	-	106
No. Landed	264	475	-	739
% Examined	40	0	-	14
No. Marks	9	0	-	9
<u>Gearhart</u>				
No. Examined	0	0	-	0
No. Landed	45	154	-	199
% Examined	0	0	-	0
No. Marks	0	0	-	0
<u>Cannon Beach</u>				
No. Examined	0	0	-	0
No. Landed	169	358	-	527
% Examined	0	0	-	0
No. Marks	0	0	-	0
<u>Garibaldi</u>				
No. Examined	331	1,882	222	2,435
No. Landed	650	4,331	451	5,432
% Examined	51	43	49	45
No. Marks	14	125	16	155
<u>Netarts</u>				
No. Examined	0	0	-	0
No. Landed	1	18	-	19
% Examined	0	0	-	0
No. Marks	0	0	-	0
<u>Pacific City</u>				
No. Examined	0	461	0	461
No. Landed	475	2,063	14	2,492
% Examined	0	22	0	18
No. Marks	0	27	0	27
<u>Depoe Bay</u>				
No. Examined	0	0	-	0
No. Landed	475	30	-	505
% Examined	0	0	-	0
No. Marks	0	0	-	0
<u>Newport</u>				
No. Examined	3,773	4,693	0	8,466
No. Landed	14,509	11,824	27	26,360
% Examined	26	40	0	32
No. Marks	197	286	0	483

Table 7 continued.

Area of Landing	Month			Total
	July	Aug.	Sept.	
<u>Florence</u>				
No. Examined	1,685	1,768	-	3,453
No. Landed	3,746	3,253	-	6,999
% Examined	45	54	-	49
No. Marks	82	86	-	168
<u>Winchester Bay</u>				
No. Examined	0	0	-	0
No. Landed	2,020	1,397	-	3,417
% Examined	0	0	-	0
No. Marks	0	0	-	0
<u>Charleston</u>				
No. Examined	0	0	-	0
No. Landed	1,398	1,401	-	2,799
% Examined	0	0	-	0
No. Marks	0	0	-	0
<u>Bandon</u>				
No. Examined	0	0	-	0
No. Landed	14	152	-	166
% Examined	0	0	-	0
No. Marks	0	0	-	0
<u>Total</u>				
No. Examined	5,895	8,804	222	14,921
No. Landed	23,706	25,456	492	49,654
% Examined	25	35	45	30
No. Marks	302	524	16	843

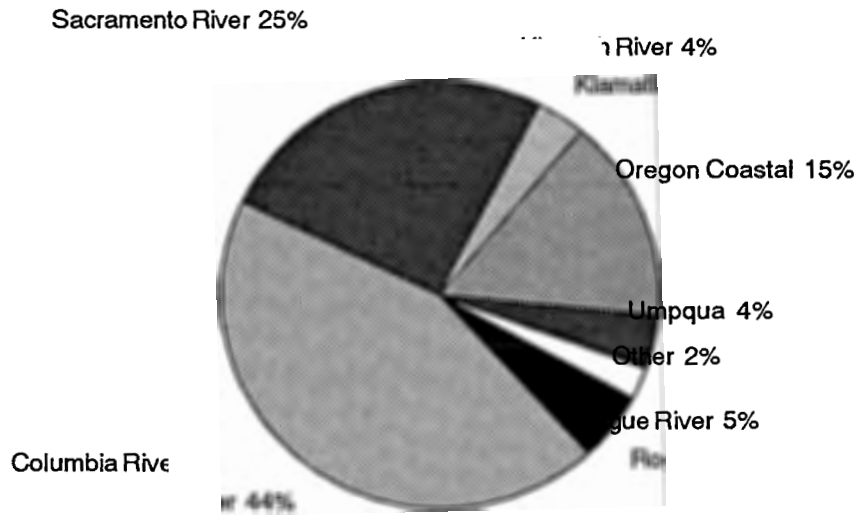
RELEASE AGENCY

n = 825



BASIN OF RELEASE

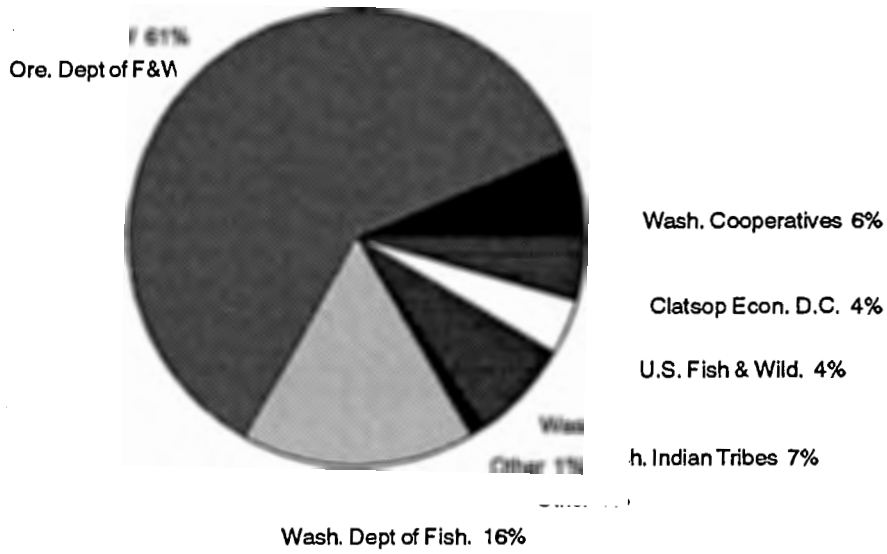
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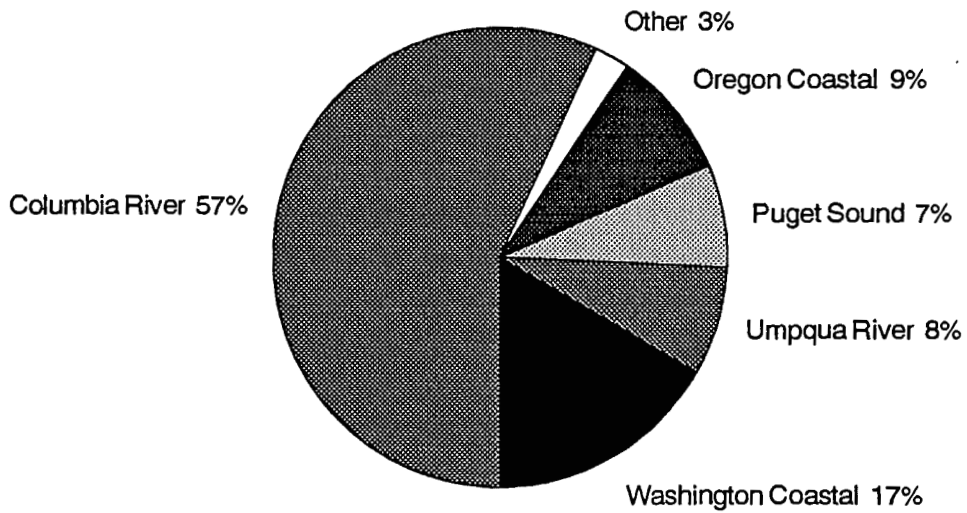
NOTE: Does not represent stock contribution rates, since tagging is not representative of all stocks.

Figure 8. Observed recoveries of chinook coded wire tags from Oregon troll salmon landings by release agency and by basin of release, 1992.

RELEASE AGENCY
n=712



BASIN OF RELEASE
n=712



NOTE: Does not represent stock contribution rates, since tagging is not representative of all stocks.

Figure 9. Observed recoveries of coho coded wire tags from Oregon troll salmon landings by release agency and by basin of release, 1992.

Samples were eventually picked up by employees from the National Marine Fisheries Service's genetics laboratory, Manchester, Washington. Sampling rates were stratified to reflect anticipated harvest patterns of the troll fleet. Two sampling periods were established: May 1 through August 31 and September 1 through October 31. Each sampling period had a goal of 500 samples, and these goals were met (Table 8).

Samples were processed and stock composition estimated by NMFS staff, Manchester, Washington. Sample processing has not been completed, but a preliminary estimate for all samples processed to date ($n = 840$) is included in Table 9. In the aggregate of samples, Sacramento River stocks contributed at 63%, (Figure 10). Lower Columbia fall chinook and Southern Oregon Coastal fall chinook contributed at 14% and 12% rates, respectively.

Table 8. Number of genetic stock identification (GSI) chinook salmon tissue samples collected from Oregon troll landings by month and area of catch, 1992.

Month	Tillamook	Newport	Total
May	0	128	128
July	0	128	128
August	43	213	256
September	25	187	212
October	48	233	281
Total	116	889	1,005

Table 9. Estimated chinook stock percentages in genetic stock identification (GSI) tissue samples collected from the Oregon troll fishery South of Cape Falcon, 1992 (n=840). Data is very preliminary, and is lumped for all time periods.

Stock Grouping ^a	Estimated Contribution Rate	Standard Deviation
Sacramento River (ChS+ChF+ChW)	0.629	0.039
California Coastal (ChF)	0.004	0.006
Klamath River (ChS+ChF)	0.036	0.023
Southern Oregon Coastal (ChS+ChF) ^b	0.120	0.055
Northern Oregon Coastal (ChS+ChF) ^c	0.009	0.012
Lower Columbia & Willamette (ChS)	0.003	0.023
Lower Columbia (ChF)	0.140	0.030
Upper Columbia (ChS)	0.005	0.005
Snake River (ChS+ChSu)	0.006	0.005
Upper Columbia & Snake (ChF)	0.024	0.011
Washington Coastal (ChF)	0.024	0.034

^a Additional stock groups North Washington Coastal (ChS+ChSu), Upper Columbia (ChSu), and Smith River, California (ChF) showed no contribution in the samples collected.

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

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

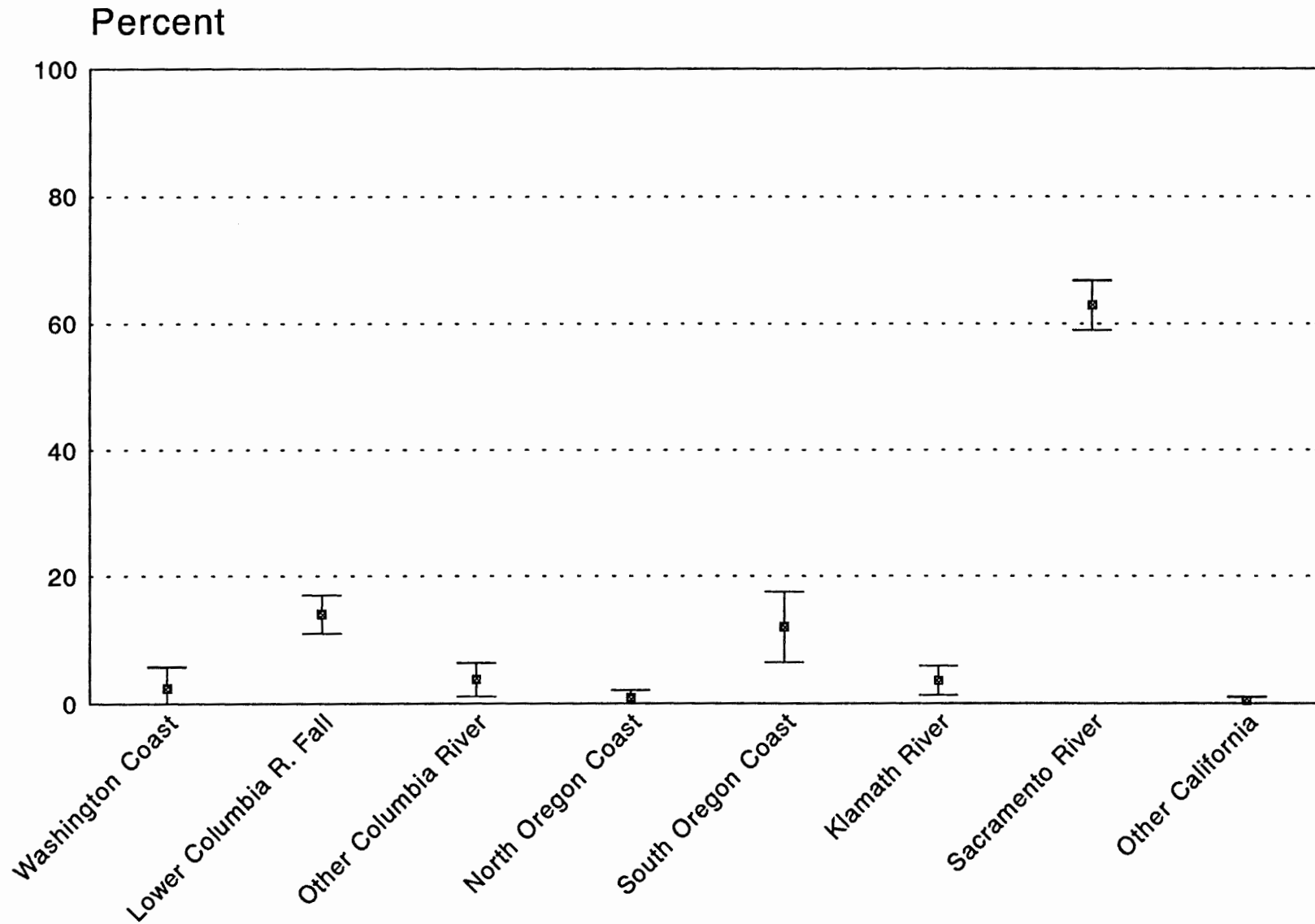


Figure 10. Estimate of 1992 Oregon chinook stock composition from the commercial troll fishery south of Cape Falcon. Estimates are from genetic stock identification tissue samples. Number of samples = 840. Point estimates and standard deviations are displayed.

THE 1992 OCEAN RECREATIONAL SALMON FISHERY

BACKGROUND

Oregon's ocean recreational salmon fishery originated with boats fishing in the bays on stocks returning to freshwater in the fall. A few boats would fish in the ocean on favorable days. The late 1940s and early 1950s marked the beginning of increasing effort by both the charter and private boat fleet in the ocean. Better and safer equipment plus the development of small boat basins, launching ramps, and other support facilities in many coastal towns encouraged ocean fishing (PFMC, 1978).

The primary catch of the present day recreational fleet is coho salmon with chinook a distant second. The 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 79,300 chinook and 501,300 coho were taken. The daily bag limit in 1976 was 3 salmon and the season extended from mid-April to December 31. Since 1982 quotas and seasons have been much more restrictive. In 1992, we estimated an ocean catch of 12,600 chinook and 185,800 coho from 165,300 salmon angler trips (Table 10). Low stock levels were predicted and resulted in low quotas and restrictive regulations in 1992. A moderate El Nino resulted in warmer than usual ocean temperatures and reduced productivity of the near-shore ocean compared to most years.

In spite of the low stock predictions, salmon catch rates were better than average but less than last year's record (Table 10). These catch rates probably reflected ocean conditions that concentrated salmon within reach of the recreational fleet, the restrictive commercial regulations that kept the troll fleet from catching as many salmon as they typically would, and even the increased efficiency of recreational salmon fishing gear and methods.

SAMPLING METHODOLOGY

Sampling Areas and Staffing

Twenty-one seasonal employees sampled the ocean recreational fishery at 9 major ports in 1992. Newport had four people; Astoria had two recreational and one combination sampler and Garibaldi, Winchester Bay, and Coos Bay each had three samplers. Brookings had two creel checkers, and Pacific City and Depoe Bay each had one. Florence had a combination sport and troll sampler. Limited sampling began in May in all ports except Astoria. Additional samplers were added in mid-June and sampling started in Astoria (Appendix Table 1). All samplers counted ocean boats and checked returning anglers. Total sampler months increased slightly from 1991 levels due to a longer salmon season (Appendix Table 9).

Sampling Design

A statistical creel survey using a modified random sampling design has been used in all recent years at each port. Catch per angler data was collected at least 4 days a week, including all weekends and holidays if salmon fishing was open. Ocean anglers were interviewed at boat ramps, moorages, and charter docks. Samplers usually worked from

Table 10. Oregon ocean recreational salmon catch and effort for 1966-92^a.

Year	Effort (Angler Trips)		Salmon Catch			Fish/Angler
	Salmon	Total	Coho	Chinook	Pink	
1966	-	-	227,900	37,400	-	-
1967	-	-	351,000	42,800	-	-
1968	-	-	265,800	25,100	-	-
1969	-	-	232,900	31,800	-	-
1970	-	-	257,400	42,900	-	-
1971	-	303,700	311,700	29,600	121	1.12
1972	-	331,700	248,400	44,100	58	0.88
1973	-	350,400	232,068	60,984	2,008	0.84
1974	-	335,849	314,501	36,729	34	1.05
1975	-	407,498	252,209	75,719	1,218	0.81
1971-75 Avg	-	345,829	271,776	49,426	1,115 ^b	0.93
1976	-	538,414	501,306	79,316	50	1.08
1977	-	404,534	195,277	61,364	4,037	0.62
1978	371,000	403,740	259,769	22,844	24	0.70
1979	301,343	341,770	180,834	20,902	607	0.67
1980	331,443	362,015	325,843	19,014	24	1.04
1981	311,027	350,937	199,812	29,173	1,589	0.74
1982	226,022	275,947	175,128	38,716	14	0.95
1983	226,029	261,456	146,904	24,677	69	0.76
1984	153,061	203,591	123,325	16,992	3	0.91
1985	251,583	270,860	182,486	55,867	7,711	0.97
1986	186,483	212,600	211,666	22,366	0	1.26
1987	255,048	279,500	177,439	58,595	904	0.93
1988	251,979	288,523	226,403	38,617	0	1.05
1989	266,605	311,713	272,240	32,069	1,325	1.15
1990	246,461	293,907	200,294	26,500	3	.92
1991	190,062	230,242	259,119	14,416	280	1.44
Long-term average	245,934 ^c	321,900 ^c	243,528	38,022	1,806 ^b	0.97 ^c
1992	165,318	219,330	185,846	12,570	19	1.20

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

b Odd year average.

c 1979-91 average.

early morning to late afternoon, but varied their hours to reflect fishing activity. The salmon catch was sampled for species, fin marks, coho scales and lengths. Snouts were collected from marked (adipose fin-clipped) fish and forwarded to the ODFW tag reading laboratory in Clackamas for decoding. Bottomfish catch was also recorded.

Effort information was primarily obtained through boat counts by ODFW samplers, but Coast Guard bar crossing counts, and data from charter boat offices were also used. ODFW boat counters worked from dawn until 1 pm. They tallied both out-going and in-coming boats crossing the bar. In Pacific City, total effort was estimated from a combination of boat trailer counts and a tally of outgoing vessels. We also tested a camcorder and VCR system to record boat traffic at Depoe Bay and Yaquina Bay. This is discussed under special studies.

Quota Assessment

Catch and effort data were error-checked and then processed on the Department's Unisys computer by Newport data staff. The angler interviews, stratified by charter and private boat angler, provided average catch rates by species. These catch rates, when multiplied by the total effort for a particular period, resulted in a catch estimate for that period. The same method was used to estimate total number of angler trips. The survey provided weekly estimates of Oregon's ocean recreational effort and catch within 7 days after the week ended. A preliminary catch estimate was available within one day of the end of the week. These catch estimates were necessary to monitor catch quotas.

Department samplers checked 68,866 salmon in 1992 compared to 96,318 in 1991. Catch sampling rates in 1992 ranged from a high of 72% at Pacific City to a low of 25% at Winchester Bay. Samplers checked 37% of the total salmon catch from all ports in 1992 compared to 35% in 1991 (Appendix Table 9).

REGULATIONS

General

The Oregon coast was divided into three salmon management areas for 1992, each with different regulations. The regulations were set by the PFMC and adopted by the Oregon Fish and Wildlife Commission. The Oregon Fish and Wildlife Commission also set three special seasons in state waters. Appendix Table 10 gives a historical perspective of recreational ocean salmon regulations.

North of Cape Falcon

The recreational fishery from Cape Falcon to the US/Canada border had an overall quota of 33,000 chinook and 141,000 coho. A conservation zone closure was in effect at the mouth of the Columbia River from Buoy 10 out to 6 miles (Figure 11). A subarea quota of 67,500 coho was established between Leadbetter Point, Washington, and Cape Falcon. The daily bag limit was two salmon, not more than four fish were allowed in seven consecutive days, and the annual bag limit was 40 fish. Minimum size limits were 24" for chinook, and 16" for coho; there was no size limit for pink salmon. Only single point barbless hooks were permitted and salmon fishing was closed Fridays and Saturdays (Appendix Table 11, Figure 12).

The season opened June 29 and continued through August 6. The season reopened for two days, September 16 and 17 to take the September quota of 5,700 coho. It reopened

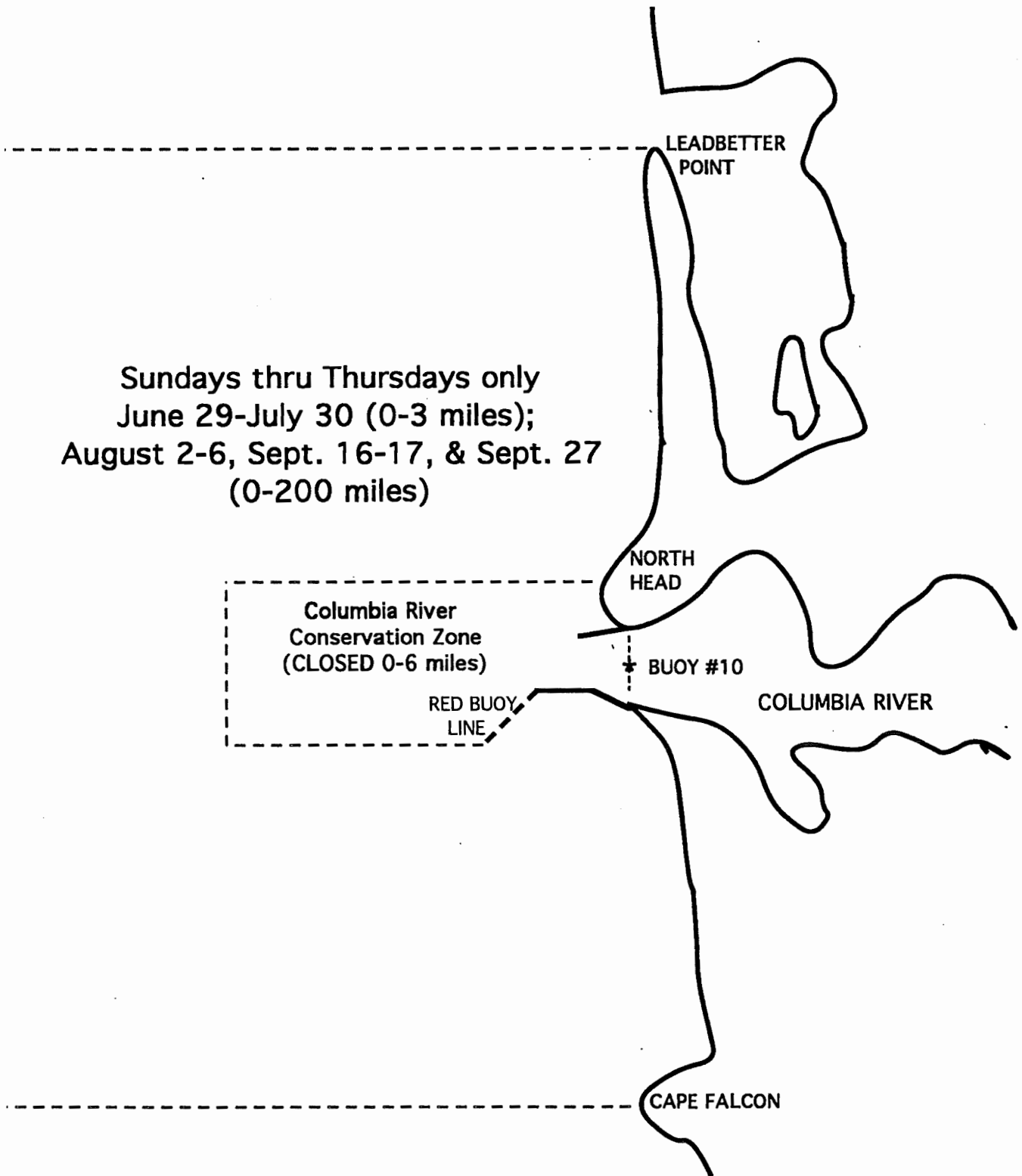


Figure 11. Open areas in the ocean recreational salmon fishery in the Columbia River Area, 1992.

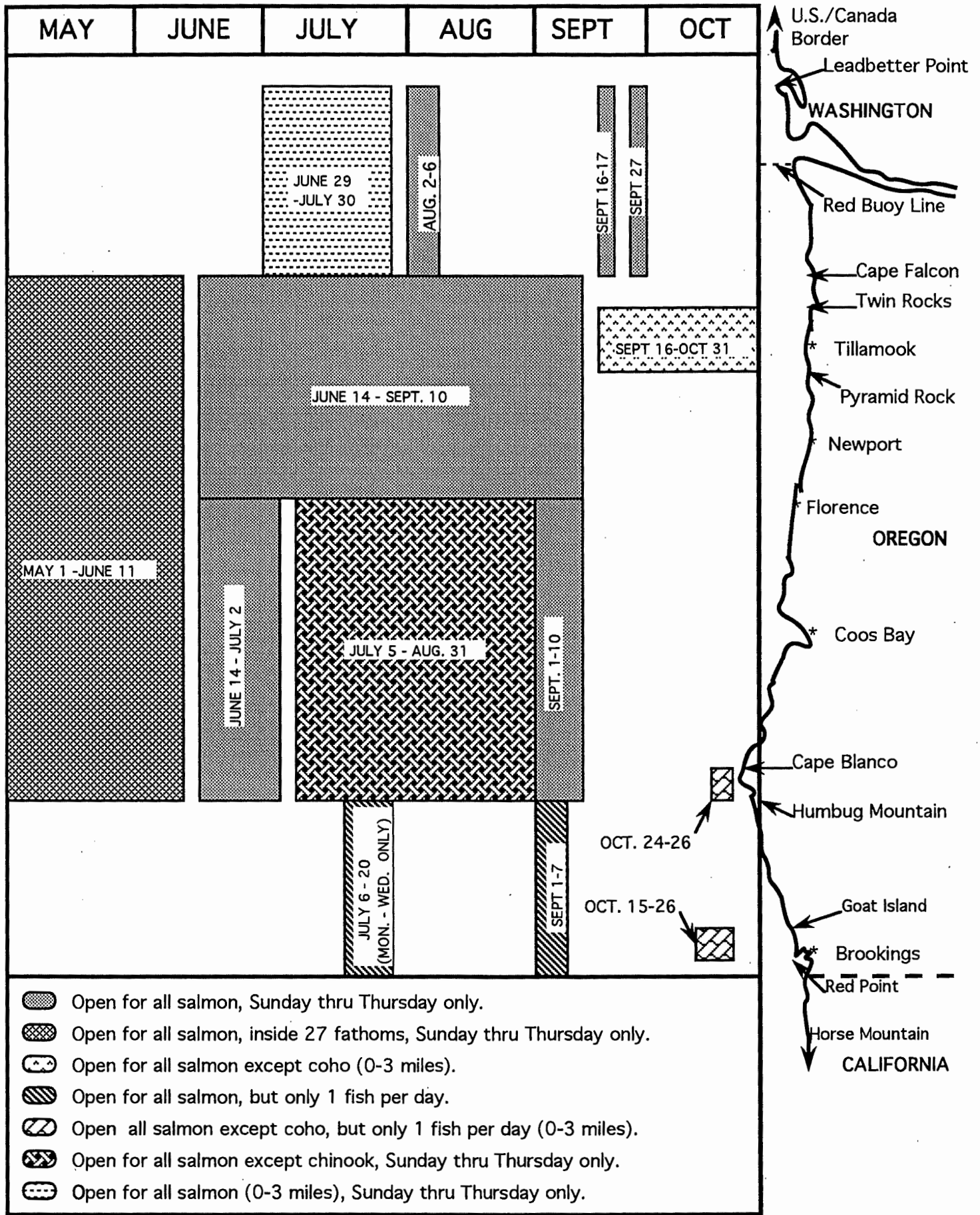


Figure 12. Open recreational salmon seasons off Oregon, 1992.

again for one day, September 27, to catch the remaining quota. The Buoy 10 fishery opened August 1.

Cape Falcon to Humbug Mountain

The recreational coho quota was 172,000 fish south of Cape Falcon. The daily bag limit was two salmon, not more than four fish were allowed in seven consecutive days, and the annual limit was 20 salmon. Minimum size limits were 20" for chinook and 16" for coho; there was no size restriction for pink salmon. Single point barbless hooks were required. For the first time in this management area, salmon fishing was closed on Fridays and Saturdays to dampen effort and catch. Also for the first time, an impact quota (catch plus hooking mortality) of 3,700 chinook was set in the recreational fishery from Heceta Head to Humbug Mountain.

This season was open from May 3 through September 10, almost reaching the scheduled season end of September 20. From May 3 through June 11, the fishery was restricted to the area inside the 27 fathom curve as defined in footnote e of Appendix Table 10. From July 5 through August 31, chinook harvest and landing was prohibited from Heceta Head to Humbug Mountain. This affected the ports of Florence, Winchester Bay, Coos Bay, Bandon, and Port Orford; and was an attempt to minimize impacts on Klamath River chinook stocks.

Humbug Mountain to Horse Mountain, California

The chinook quota was the limiting factor in this area with only 3,500 fish. The daily catch limit was one salmon per day. Oregon had additional restrictions of not more than six salmon could be taken in seven consecutive days, and an annual bag limit of 40 salmon. Minimum size limits for chinook and coho were 20"; there was no size restriction for pink salmon. Single point barbless hooks were required, and salmon fishing was closed Thursday through Sunday. The salmon season was open from July 6 through July 20, for a total of seven fishing days. There was no 27 fathom restriction within the Klamath Management Zone. The season re-opened September 1 through September 7 for an additional seven days.

Late Season, State Waters Fisheries

Special seasons were set in state waters off Tillamook Bay, Port Orford and Brookings. The details of these seasons and catch information are discussed on page 73.

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 tallied separately from bottomfishing trips. Usually ocean anglers choose salmon fishing over bottomfishing when both fisheries are available. However, bottomfishing trips tend to predominate in May and early June, especially in the Newport area where halibut fishing has become popular. In addition, the 27 fathom restriction discourages early season salmon fishing since most coho salmon are well offshore in May. This year the 27 fathom restriction lasted until June 15.

The Friday-Saturday salmon closures from Leadbetter Point to Humbug Mountain and very severe restrictions in the Klamath Management Zone, resulted in decreased salmon angler effort and increased bottomfishing effort. This was in spite of a season that almost lasted the scheduled time period, in contrast to 1991 when it closed on July 28.

In 1992, 165,300 trips (76%) targeted on salmon coastwide, and 56,400 additional trips bottomfished during the salmon season for a combined total of 219,300 angler trips. This total is less than the sum of the salmon and bottomfish trips because of a small number of charter combination trips. Bottomfishing trips increased by 27% over 1991 although the 1991 value of 40,200 trips is a conservative estimate, because the ocean creel was ended in many ports by August 18. The number of 1992 salmon angler trips was 33% below the 1979-91 average and reflects the restrictive salmon season. The total effort was also 32% below the 1971-91 average of 321,900 angler trips; this average includes some years with year-round seasons (Table 10).

July was the peak month for effort with 86,900 salmon angler trips or 53% of the total. July was also the top month for bottomfishing effort with 17,000 trips or 31% of the total bottomfishing trips (Table 11, Figure 13, Appendix Table 12). Historically, July has the highest effort for salmon, especially from Depoe Bay south, while August is often the top month for the Tillamook and Astoria areas. Early closures due to regulations have often obscured this trend (Appendix Table 13).

Newport had the highest salmon fishing effort in 1992 with 37,100 angler trips or 22% of the state's total (Figure 14). Winchester Bay and Garibaldi followed with 26,300 and 20,600 salmon angler trips. Newport also had the highest bottomfishing effort with 17,200 trips. Brookings followed with 14,200 trips. Bottomfishing effort coastwide was up 29% over 1991. Salmon effort was down 13 % from 1991 levels even though the season lasted until September 10 this year. The 1991 season closed on July 28 (Figure 15). Appendix Table 14 shows past ocean recreational effort and catch by management areas. Note that port and management areas are not synonymous.

Catch

The sport sampling survey estimated Oregon's 1992 ocean salmon catch by species, except for minor landings from unsurveyed ports and time periods. Fish landed at these unsurveyed ports usually represent less than two percent of the total catch. Catch estimates from salmon/steelhead tag data for such ports will not be available until mid-1993.

The 1992 Oregon ocean recreational salmon catch was estimated at 198,400 fish, a 27% decrease from 1991. This is well below the record 580,700 catch in 1976 and the 1966-91 average of 283,400 salmon (Table 10). Figure 16 shows the trend in recreational ocean catches since 1966.

Chinook: The chinook catch continued its downward spiral from its most recent peak in 1987. The recreational harvest of 12,600 chinook in 1992 was the lowest on record, 13% below the 1991 level and only 33% of the 1966-91 average catch of 38,000 fish. Restrictive regulations in response to low stock expectations in the Klamath River were largely responsible for the low landings. Although only one salmon was allowed in the daily bag limit and salmon fishing was only open 26 days in the KMZ, Brookings still took 2,700 fish or 21% of the total catch.

The area from Florence to Port Orford was also affected when it was closed to the take and landing of chinook from July 5 through August 31. Even so, these ports together

Table 11. Oregon ocean recreational effort by port, by month and by trip type^a, 1992.

Port/Trip Type	Month						Total ^b
	May	June	July	August	Sept.	Oct.	
Astoria	-	-	9,816	1,842	1,271	-	12,929
Salmon	-	-	9,812	1,842	1,271	-	12,925
Bottomfish	-	-	4	0	0	-	4
Garibaldi	1,909	4,349	11,091	7,712	2,995	-	28,056
Salmon	984	2,744	8,822	5,497	2,561	-	20,608
Bottomfish	925	1,725	2,477	2,413	466	-	8,006
Pacific City	728	1,274	3,640	1,770	434	-	7,846
Salmon	188	674	2,835	1,556	274	-	5,527
Bottomfish	540	600	805	214	160	-	2,319
Depoe Bay	2,496	4,161	11,298	6,775	1,043	-	25,773
Salmon	158	2,224	8,747	4,170	597	-	15,896
Bottomfish	2,338	2,011	2,879	2,740	446	-	10,414
Newport	4,944	8,497	23,001	13,793	2,850	-	53,085
Salmon	966	4,848	19,145	10,441	1,754	-	37,154
Bottomfish	4,002	3,900	4,388	3,727	1,166	-	17,183
Florence	229	1,879	7,850	4,513	1,384	-	15,855
Salmon	205	1,873	7,822	4,488	1,384	-	15,772
Bottomfish	24	6	28	25	0	-	83
Winchester Bay	766	4,991	14,390	5,336	1,205	-	26,688
Salmon	738	4,895	14,227	5,307	1,142	-	26,309
Bottomfish	28	96	163	29	63	-	379
Coos Bay	1,074	3,380	7,714	3,849	1,256	-	17,273
Salmon	453	2,663	6,583	2,987	791	-	13,477
Bottomfish	621	724	1,167	862	465	-	3,839
Brookings	2,122	2,677	13,970	3,957	5,191	3,908	31,825
Salmon	-	-	8,888	-	4,900	3,862	17,650
Bottomfish	2,122	2,677	5,082	3,957	291	46	14,175
Total south of							
Cape Falcon	14,268	31,208	92,954	47,705	16,358	3,908	204,869
Salmon	3,692	19,921	77,069	34,446	13,403	3,862	152,393
Bottomfish	10,600	11,739	16,989	13,967	3,057	46	55,116
State Total	14,268	31,208	102,770	49,547	17,629	3,908	219,330
Salmon	3,692	19,921	86,881	36,288	14,674	3,862	165,318
Bottomfish	10,600	11,739	16,993	13,967	3,057	46	56,402

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

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

ANGLER TRIPS (Thousands)

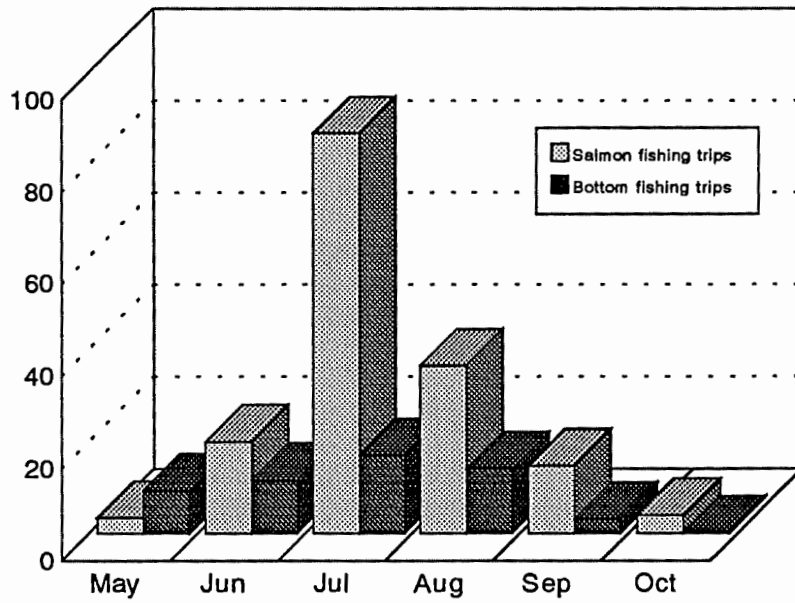


Figure 13. Oregon ocean angler trips by target species during the 1992 salmon season.

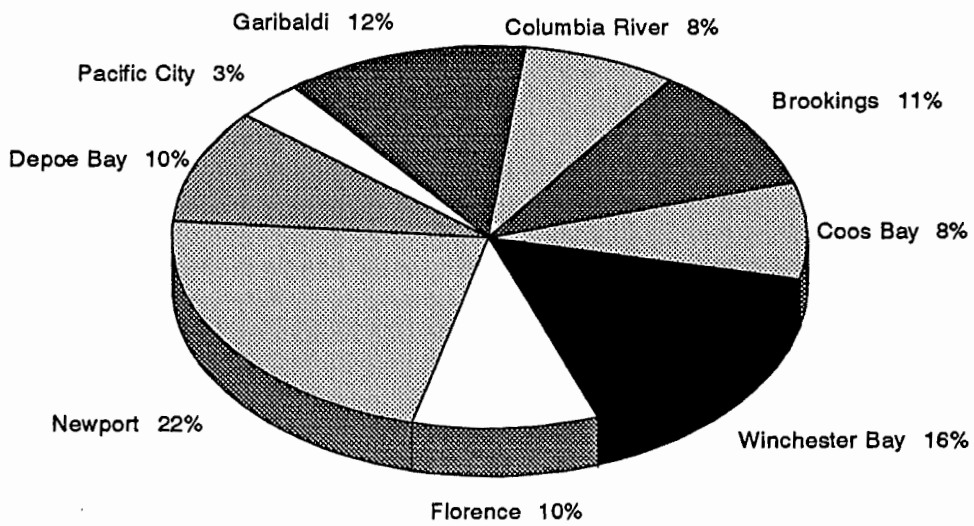
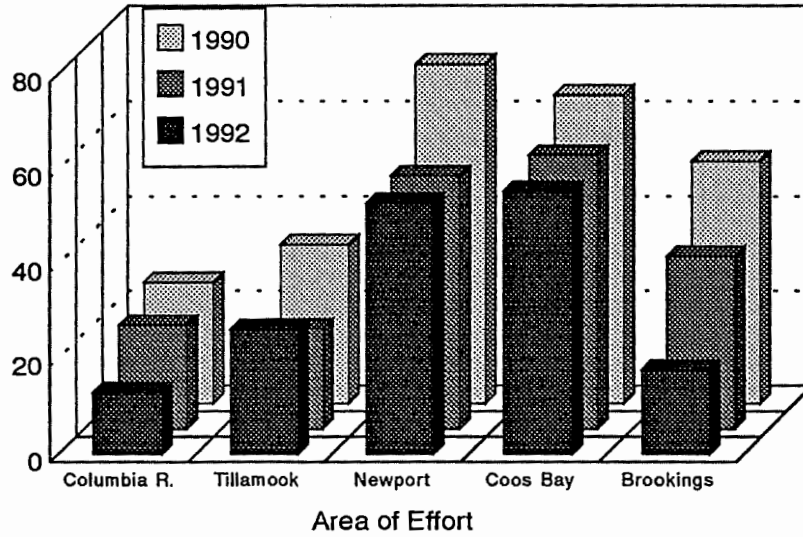


Figure 14. Recreational ocean salmon angler trips by port, 1992.

Effort

ANGLER TRIPS (Thousands)



ANGLER TRIPS (Thousands)

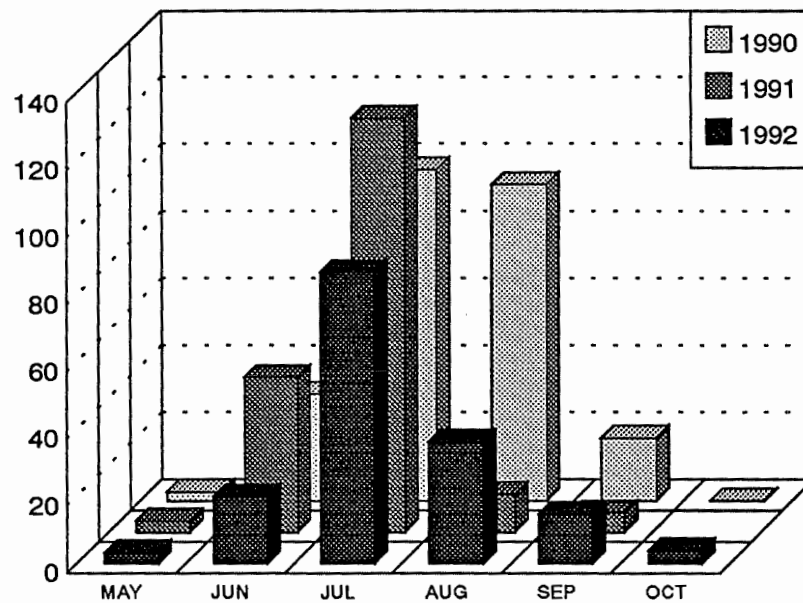


Figure 15. Oregon ocean recreational salmon angler trips by catch area and by month, 1990-92.

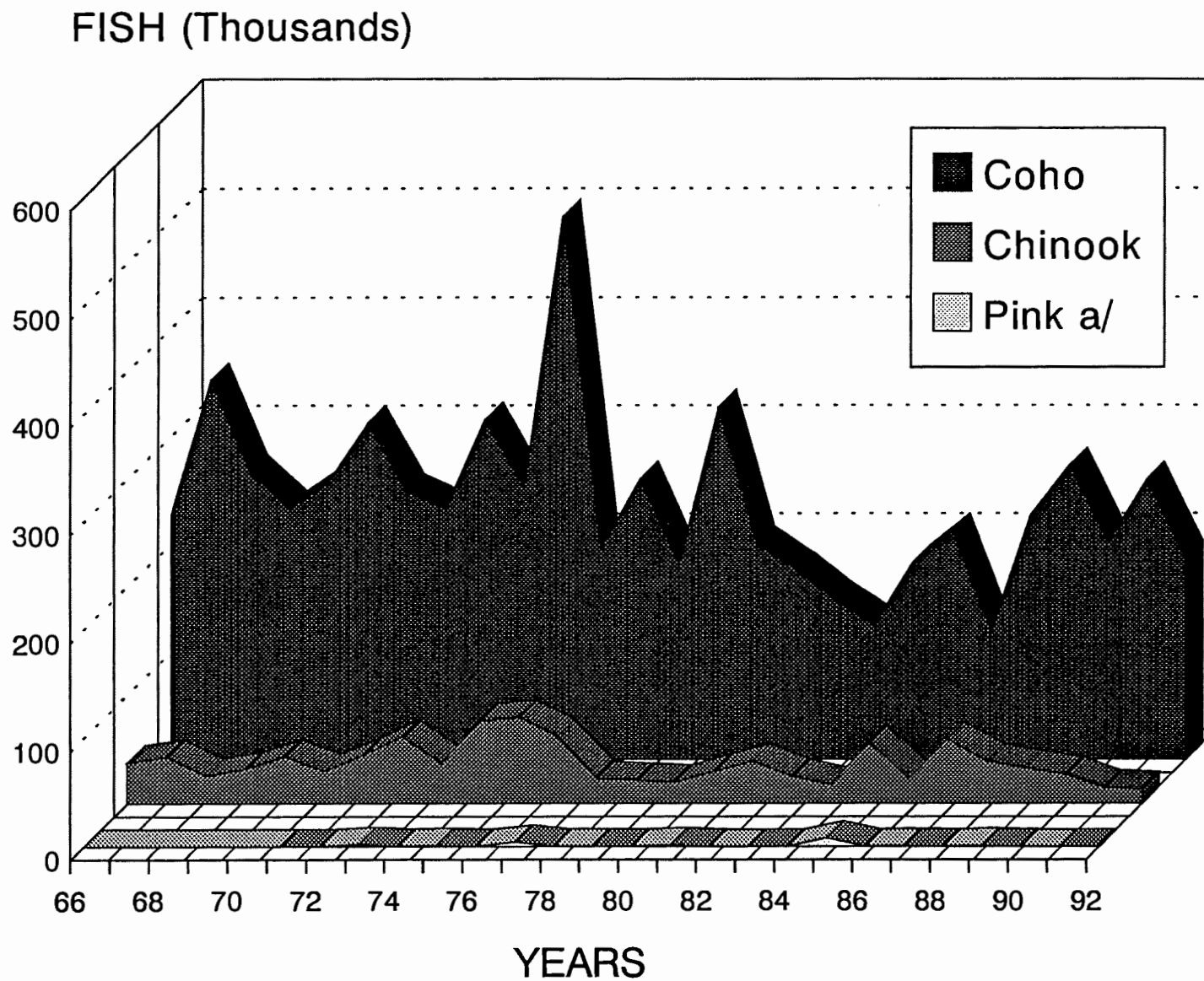


Figure 16. Trends in Oregon's recreational ocean salmon catch, 1966-92.
a/ Pink salmon data from 1971-92 only.

caught 3,800 chinook or 30% of the total. Newport landed the most chinook, 3,000 fish, and all the north coast ports except the Astoria area caught substantially more chinook than usual. (Table 12, Figure 17 and 18). Historically, the Columbia River area has been an important chinook catch area, but complex fishery issues, restrictions, and resulting small quotas have dampened catches (Appendix Tables 14, 15 and 16).

July accounted for 49% of the catch, 6,200 fish, with Newport and Brookings taking 56% of those chinook (Table 12, Figure 17). July is historically the peak catch month but the ports south of Florence usually harvest more chinook than the Newport area (Appendix Tables 13, 14 and 15).

Coho: The 1992 catch of 185,800 coho by the recreational fleet was 28% below the 1991 harvest, and 24% below the 1966-91 average of 243,500 fish (Table 10). Newport landed the most coho, 41,700 fish or 22% of the total. Winchester Bay and the Columbia River area took 37,200 and 22,300 coho each, together making up another 32% of the catch. Landings were below 1991 levels in all ports except Pacific City and Florence (Table 13, Figures 19 and 20, Appendix Table 18).

July had 60% of the catch, 110,600 coho, but another 22% or 41,700 fish, were landed in August. A historical perspective on coho catch by month and catch area is shown in Appendix Tables 14 and 17.

CHARTER/PRIVATE BOAT FISHERIES

Charter Anglers

About 119 charter boats actively participated in Oregon ocean salmon fisheries in 1992, compared to about 123 vessels in 1991. No estimate is available of the number of individual private boats that fished.

Effort: The 1992 charter boat effort was estimated at 30,000 salmon angler trips, down 26% from the 1991 level and about half of the 1979-91 average of 54,200. The 30,000 trips include 2,400 combination salmon/bottomfish trips. Charter anglers made up 18% of the total ocean salmon trips in 1992, compared to 21% in 1991 and the 1979-91 average of 22% (Tables 14 and 15 and Figure 21).

Charter boats operate out of most major Oregon ports, but boat and fleet sizes vary. Depoe Bay with 23 boats had the most salmon effort of any port with 7,400 angler trips. Newport had the largest fleet in 1992 with 33 boats and 7,300 salmon angler trips in the ocean. Winchester Bay (8 boats) followed Newport with 5,000 salmon angler trips. Salmon charter effort was down from 1991 levels in all ports except Garibaldi and Florence which showed slight increases (Table 14). When bottomfish trips are included, Newport and Depoe Bay charters dominated other ports with 16,500 and 16,300 combined angler trips. Garibaldi, with 8,300 combined angler trips was in third place (Table 15).

Salmon is the primary pursuit in all ports when available, but bottomfishing is also important to the Garibaldi, Depoe Bay, Newport, Coos Bay, Gold Beach, and Brookings charter fleets. Halibut fishing is especially important in Newport during May and June and this year the halibut season lasted all summer. The Friday/Saturday closures north of Humbug Mountain and the severe restrictions on salmon fishing in the KMZ increased the percentage of charter anglers that went bottomfishing in 1992. Forty-nine percent or 27,000 charter anglers coastwide targeted on bottomfish during the salmon season. An

additional 2,400 combination trips fished for both salmon and bottomfish (Table 14). In 1991, 26,000 (39%) of the total charter anglers went bottomfishing during the salmon season. In 1990, only 33% of charter anglers chose bottomfishing during the salmon season. It is important to remember that some additional bottomfishing effort takes place before and after the salmon season that is not accounted for in these estimates.

Catch: Charter anglers landed 2,700 chinook, 46,200 coho, and 7 pink salmon in 1992. The total catch of 48,900 salmon by charter anglers was down 31% from 1991. The charter fleet landed 25% of the total recreational salmon catch in 1992, compared to 26% in 1991 and the 1979-91 average of 30% (Tables 14 and 15 and Figure 21).

The Newport and Depoe Bay charter fleets took 11,400 and 11,500 salmon, respectively, for a combined 47% share of the charter catch. Catch rates were down from the record high rates in 1991. Salmon per angler averaged 1.5 in Newport and Depoe Bay compared to the state-wide average of 1.6 and the 1979-91 average of 1.3 salmon per angler. The Columbia River area had a comparatively short season in 1992, and its large charter fleet took 8,900 salmon or 18% of the total charter salmon catch. Angler success was high through most of the season and averaged 1.9 salmon per angler (Table 15).

Private Anglers

Effort: The 1992 salmon effort from private boats was estimated at 135,400 angler trips or 82% of the total salmon effort. This is 10% less than the 1991 effort and 28% below the 1979-91 average of 188,600 angler trips (Table 14, Figure 21).

Newport had 29,800 salmon angler trips or 22% of the total, followed by Winchester Bay with 21,300 trips (16%). Brookings, with a severely restricted season, still had 17,200 private boat angler trips or 13% of the total private effort. Brookings usually accounts for over 20% of the total private salmon effort. Newport, Winchester Bay and Brookings together had half of the total private angler effort for salmon. Almost all anglers target on salmon in the Columbia River area, Florence, and Winchester Bay.

Some private boats only fish for bottomfish even during the salmon season. Trip type (salmon or bottomfish) ratios were calculated from angler interviews, and applied to the total effort. This data showed that 27,000 angler trips or 17% of the private trips only targeted on bottomfish, compared to 14,100 angler trips or 9% in 1991. Brookings, by far, had the most private bottomfish anglers (12,700) followed by Newport with 6,800 (Table 15).

Catch: Anglers from private boats landed 9,900 chinook, 139,600 coho and 12 pink salmon in 1992. The total catch of 149,500 salmon in 1992 was 26% below the 1991 catch and 9% below the 1979-91 average of 164,500 fish. Private boat anglers caught 75% of the total recreational salmon landed in 1992, compared to 74% in 1991, and the 1979-91 average of 70% (Table 15 and Figure 21).

Newport private boat anglers landed the most salmon; 33,400 fish or 22% of the total private boat angler catch. Angler success averaged 1.1 salmon per angler. The high effort port of Winchester Bay had landings of 30,500 salmon with an average success rate of 1.4 fish per angler. Florence had a similar catch rate and landed 21,900 salmon. These three ports accounted for 57% of the total private boat angler catch. The coastwide angler success rate was 1.1 salmon per angler, compared to 1.4 in 1991 and the 1979-91 average of 0.9 (Tables 14 and 15).

Table 12. Oregon ocean recreational chinook catch by port by month^a, 1992.

Port	Month						Total
	May	June	July	Aug.	Sept.	Oct.	
Columbia R.	-	-	307	161	40	-	508
Garibaldi	86	188	395	277	212	-	1,158
Pacific City	10	84	189	46	12	-	341
Depoe Bay	16	59	824	213	7	-	1,119
Newport	66	223	1,965	677	85	-	3,016
Florence	10	206	183	63	89	-	551
Winchester Bay	52	1,178	442	187	197	-	2,056
Coos Bay	8	593	381	43	131	-	1,156
Brookings	-	-	1,518	-	440	707	2,665
Total South of Cape Falcon	248	2,531	5,897	1,506	1,173	707	12,062
Statewide Total	248	2,531	6,204	1,667	1,213	707	12,570

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

Table 13. Oregon ocean recreational coho catch by port by month^a, 1992.

Port	Month					Total
	May	June	July	Aug.	Sept.	
Columbia R.	-	-	17,882	3,005	1,393	22,280
Garibaldi	31	1,244	7,393	4,349	1,396	14,413
Pacific City	29	604	3,947	1,723	35	6,338
Depoe Bay	25	3,481	12,847	4,630	888	21,871
Newport	5	6,245	21,324	12,269	1,342	41,685
Florence	9	2,646	11,988	6,003	1,545	22,191
Winchester Bay	383	7,017	23,028	6,143	613	37,184
Coos Bay	133	3,448	8,834	3,620	555	16,590
Brookings	-	-	2,850	-	444	3,294
Total South of Cape Falcon	615	24,685	92,711	38,737	6,818	163,563
Statewide Total	615	24,685	110,593	41,742	8,211	185,846

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

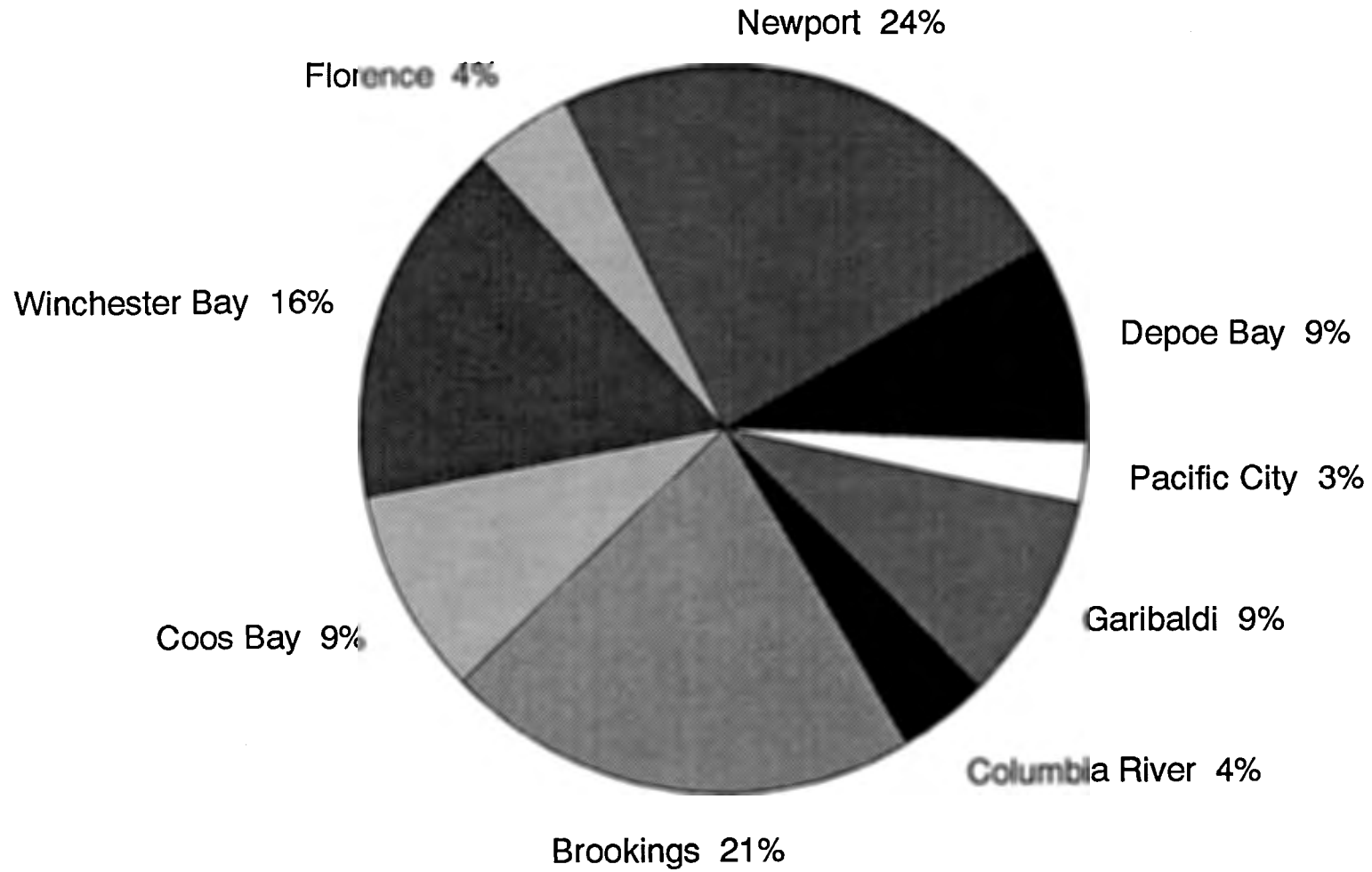


Figure 17. Oregon ocean recreational chinook catch by port, 1992.

Chinook

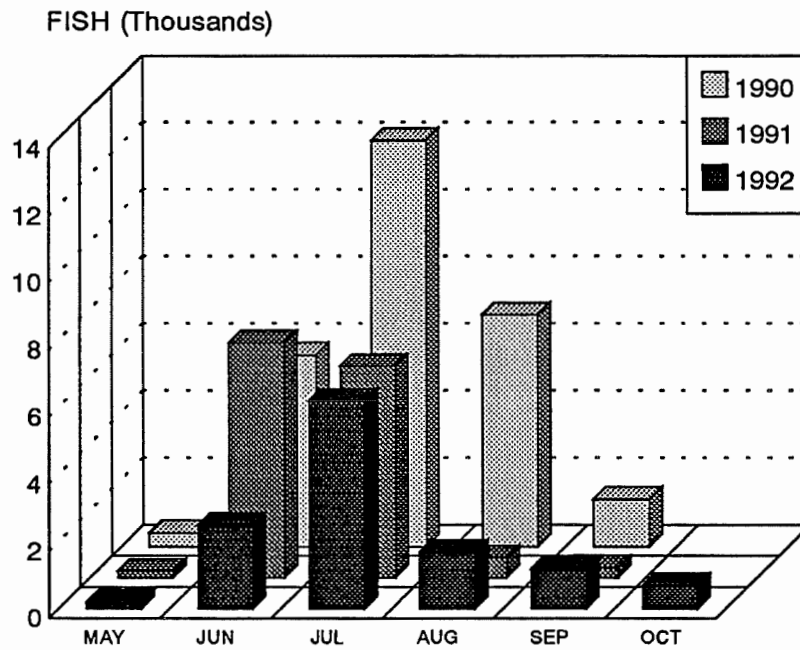
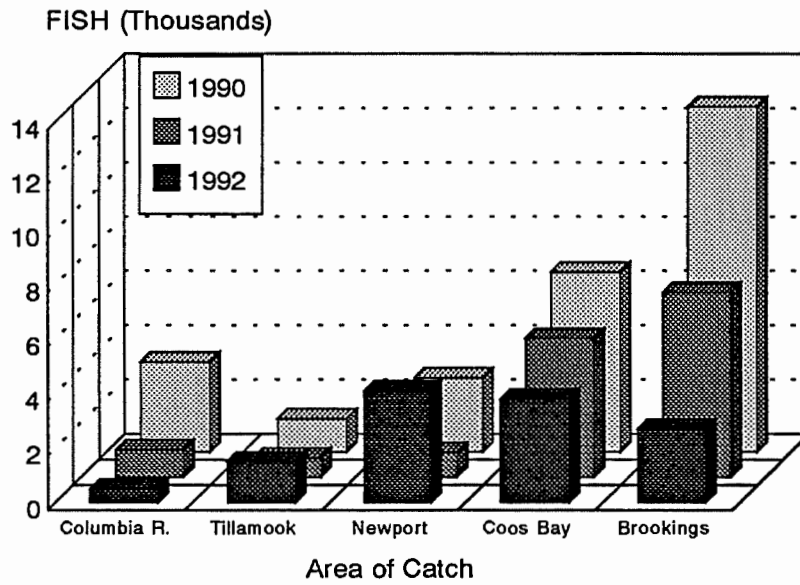


Figure 18. Oregon ocean recreational chinook catch by catch area and by month, 1990-92.

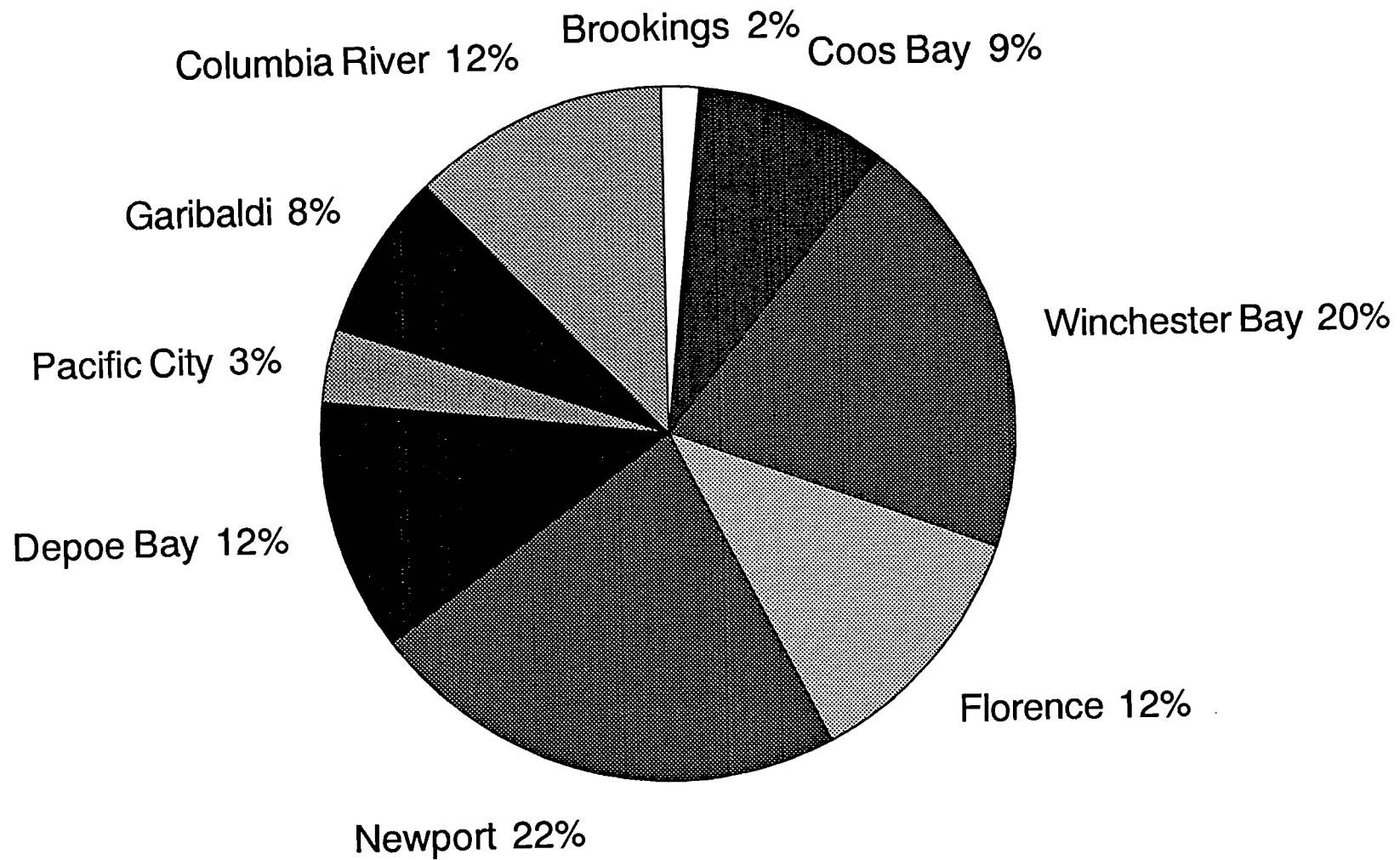


Figure 19. Oregon ocean recreational coho catch by port, 1992.

Coho

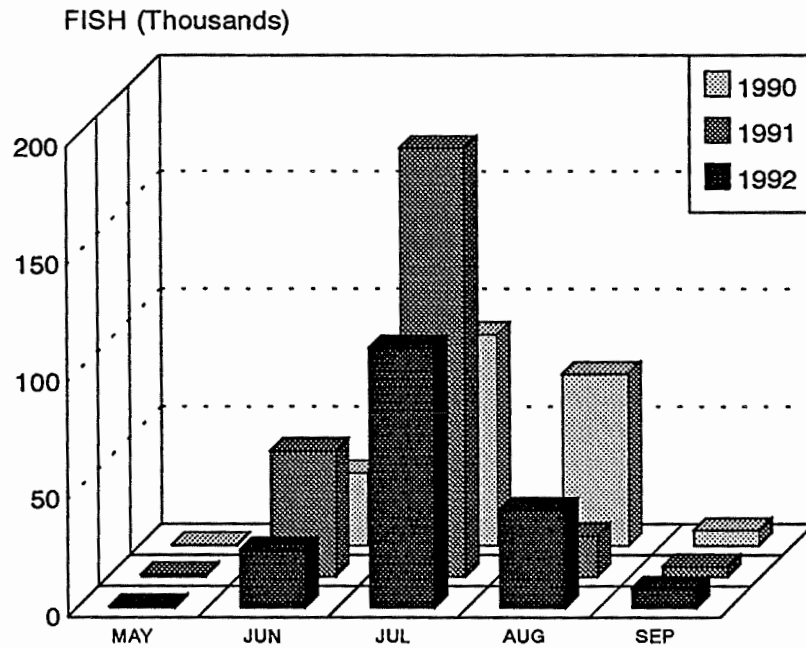
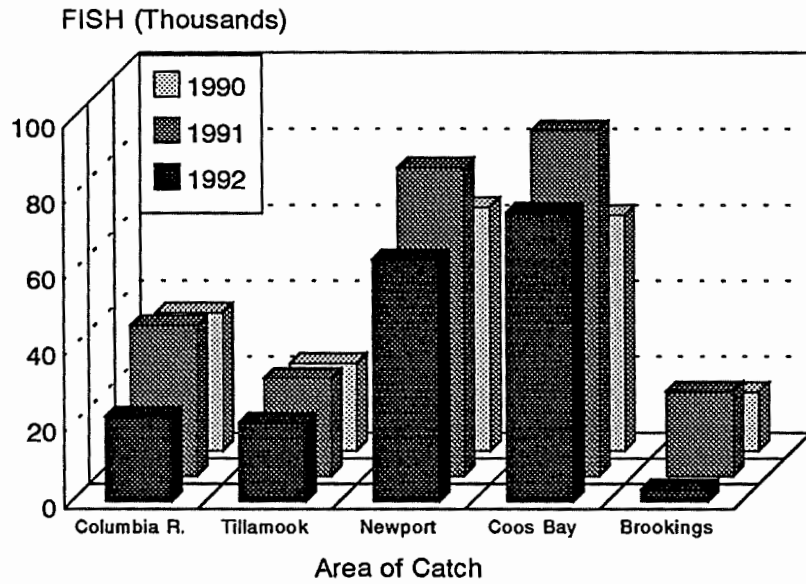


Figure 20. Oregon ocean recreational coho catch by catch area and by month, 1990-92.

Table 14. Oregon ocean recreational salmon effort and catch by boat type, 1992.

Port	Salmon Charter Boats ^a					Salmon Private Boats				
	Boat Trips	Angler Trips	Salmon Catch			Boat Trips	Angler Trips	Salmon Catch		
			Chinook	Coho	Pink			Chinook	Coho	Pink
Columbia R.	578	4,589	172	8,766	0	2,522	8,336	336	13,514	0
Garibaldi	363	2,721	113	4,089	2	7,052	17,887	1,045	10,324	3
Pacific City	0	0	0	0	0	1,769	5,527	341	6,338	0
Depoe Bay	988	7,448	573	10,937	1	2,887	8,448	546	10,934	0
Newport	958	7,345	1,119	10,234	4	10,495	29,809	1,897	31,451	9
Florence	115	595	6	836	0	5,652	15,177	545	21,355	0
Winchester Bay	796	5,027	403	8,295	0	7,367	21,282	1,653	28,889	0
Coos Bay	228	1,768	161	2,897	0	4,517	11,709	995	13,693	0
Brookings	88	468	151	184	0	6,919	17,182	2,514	3,110	0
Total	4,120	29,961	2,698	46,238	7	49,180	135,357	9,872	139,608	12
Combined totals for all Oregon craft	53,300	165,318	12,570	185,846	19					

^a Includes combination salmon & bottomfish trips,

Table 15. Oregon ocean recreational salmon and bottomfish effort and catch by boat and trip type^a, 1992.

Port	Charter						Private							
	Boat Trips			Angler Trips			Total Catch		Boat Trips		Angler Trips		Total Catch	
	Salmon	Combination	Bottom	Salmon	Combination	Bottom	Salmon ^b	Bottom ^c	Salmon	Bottom	Salmon	Bottom	Salmon ^b	Bottom ^c
Columbia R,	578	0	0	4,589	0	0	8,938	25	2,522	2	8,336	4	13,850	412
Garibaldi	284	79	585	2,163	558	5,563	4,204	55,338	7,052	638	17,887	1,885	11,372	10,568
Pacific City	0	0	0	0	0	0	0	0	1,769	774	5,527	2,319	6,679	18,768
Depoe Bay	915	73	1,101	6,911	537	8,854	11,511	60,458	2,887	378	8,448	1,023	11,480	6,281
Newport	796	162	1,209	6,093	1,252	9,134	11,357	77,417	10,495	2,610	29,809	6,797	33,357	24,005
Florence	115	0	0	595	0	0	842	0	5,652	38	15,177	83	21,900	1,335
Winchester Bay	796	0	47	5,027	0	324	8,698	2,641	7,367	21	21,282	55	30,542	1,590
Coos Bay	228	6	222	1,725	43	1,671	3,058	14,802	4,517	805	11,709	2,125	14,688	12,254
Brookings	88	0	301	468	0	1,491	335	17,454	6,919	5,188	17,182	12,684	5,624	74,171
Total	3,800	320	3,465	27,571	2,390	27,037	48,943	228,135	49,180	10,454	135,357	26,975	149,492	149,384

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

^b Includes: coho, chinook and pink salmon.

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

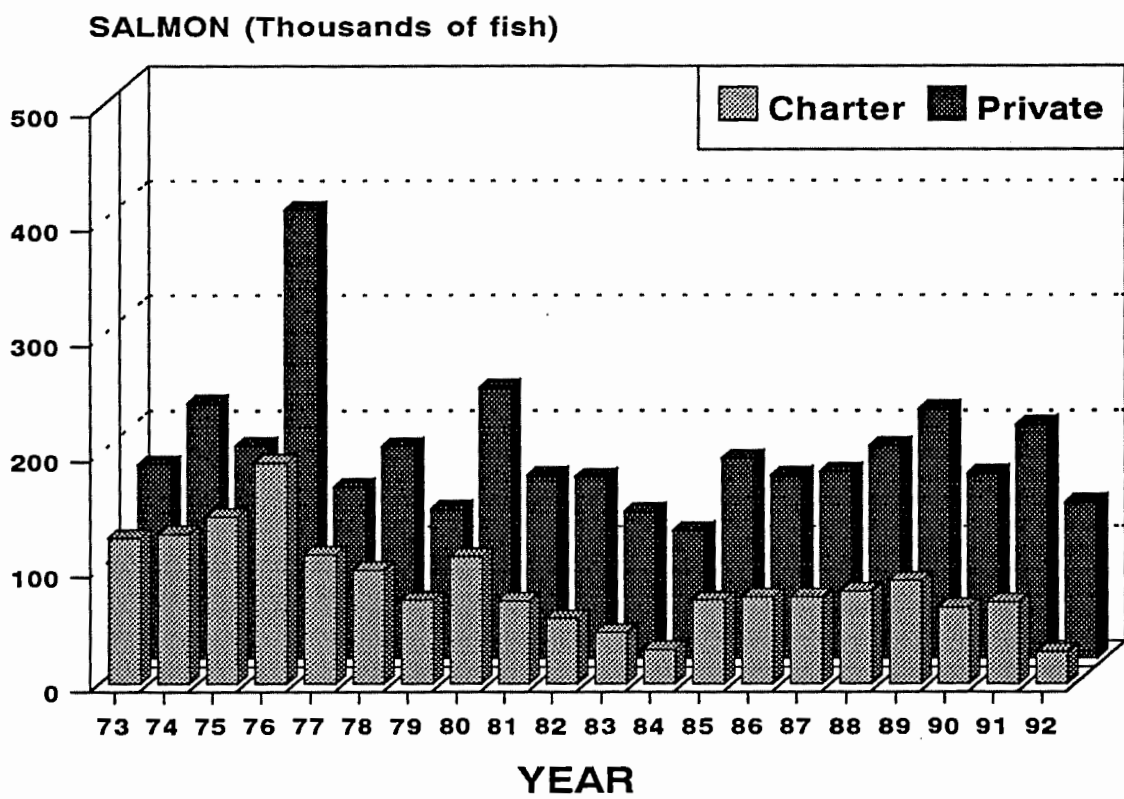
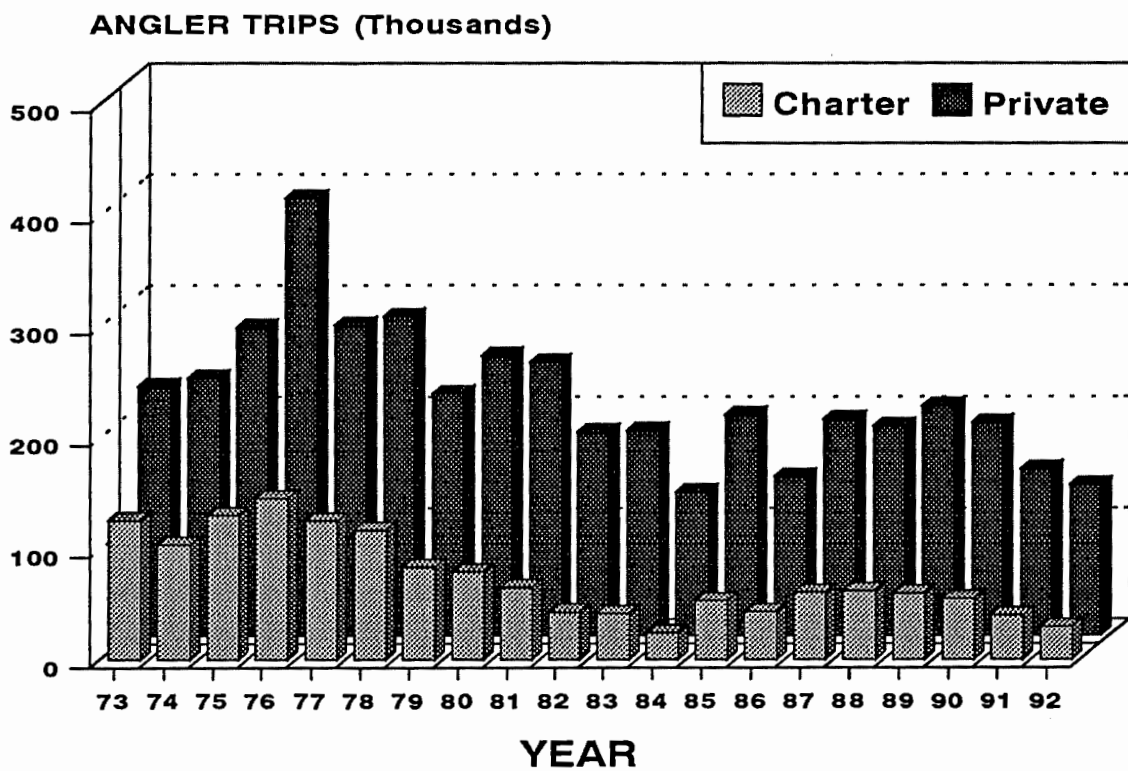


Figure 21. A comparison of effort and catch by Oregon ocean salmon charter and private anglers, 1973-92.

ESTIMATES OF RELEASED SALMON

Background

The number of salmon released, "shakers", was estimated from interview data collected during the ocean sampling survey. The data set depends on people correctly recalling the number and species of salmon released and varies with the expertise of the angler. This data is not used in active management every year, but can be used as a rough estimate to evaluate shaker mortalities or other regulation impacts.

North of Cape Falcon

We estimated that 162 chinook (24%) were released in the Columbia River area by Oregon anglers during the ocean season. This is considerably below the 1979-91 average shaker rate of 54% and similar to 1991. The "shaker" rate for coho in the Columbia River area of 12% was double that of 1991 and the 1979-91 average (Table 16).

South of Cape Falcon

The information on released chinook reflects several points. Winchester Bay and Coos Bay often encounter small chinook during part of the salmon season. The prohibition on chinook landings for most of July and all of August in these and other ports resulted in increased shaker rates. The one salmon regulation in Brookings and a very short season also resulted in increased handling of fish. The coho data showed a larger than expected shaker rate; 6% coastwide compared to 3% in 1991. The season regulations and the slower growth rates due to El Nino ocean conditions both probably played a role (Table 17).

RECREATIONAL OCEAN SALMON CODED-WIRE TAG SAMPLING

Samplers at ten ports observed 35% of the combined chinook and coho landed during the 1991 ocean recreational season.

Chinook

The samplers examined 4,736 chinook and found 180 (3.8%) that had adipose fin clips (Table 18). Department staff found readable tags in 161 of the 180 chinook heads for an 89% recovery rate. Most of the recovered tags were released by the Oregon Department of Fish and Wildlife (48%) and the California Department of Fish and Game (22%) (Figure 22).

Coho

The samplers examined 68,866 coho and found 3,278 (5%) that had adipose fin clips (Table 19). Staff found 2,886 readable tags in the 3,278 coho heads for an 88% recovery rate. Most of the recovered tags were released by the Oregon Department of Fish and Wildlife (44%) and the Washington Department of Fisheries (37%) (Figure 23).

NOTE: The above information cannot be used to estimate stock contribution since tagging is not representative of stocks, and most stocks of wild fish have no tagging programs or population estimators associated with them.

Table 16. Chinook and coho salmon released by Oregon ocean recreational anglers in the Columbia River area, 1979-92.

Year	Number Retained		Number Released		Percent Released	
	Chinook	Coho	Chinook	Coho	Chinook	Coho
1979	7,072	37,894	8,719	4,905	55	12
1980	5,503	55,647	7,891	1,905	59	3
1981	11,516	54,294	21,664	1,643	65	3
1982	8,235	35,476	6,949	2,082	46	6
1983	3,440	37,245	3,671	8,318	52	18
1984	26 ^a	10,874	1,410	654	98	6
1985	3,565	31,010	5,235	1,275	59	4
1986	1,909	36,666	2,320	2,197	55	6
1987	4,019	25,299	2,467	2,145	38	8
1988	481	9,844	289	481	38	5
1989	1,464	34,211	522	2,616	26	7
1990	3,323	36,077	2,166	2,105	39	5
1991	983	39,396	349	2,397	26	6
1979-91 Avg.	4,293^b	34,149	5,061^b	2,517	54^b	7
1992	508	22,280	162	2,926	24	12

^a Illegal or taken south of Cape Falcon.
^b Excluding 1984.

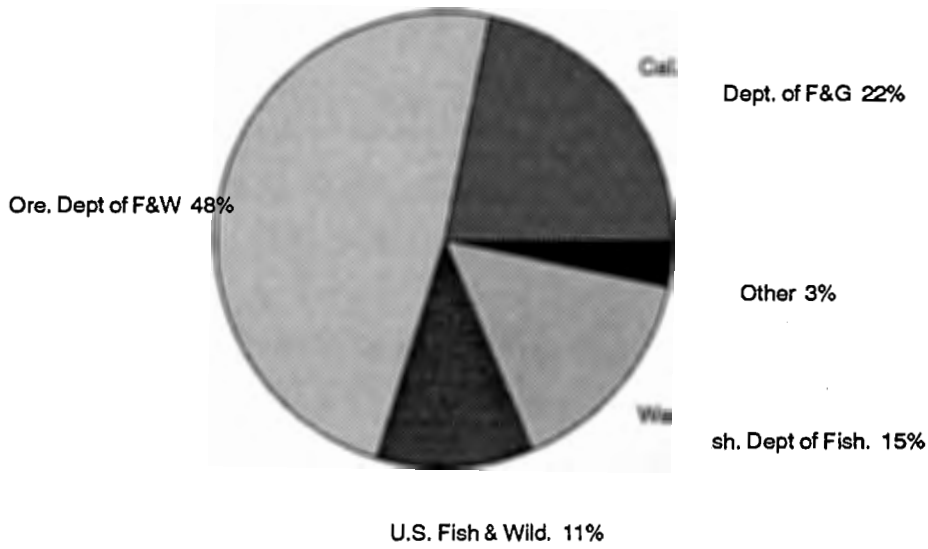
Table 17. Chinook and coho salmon released by Oregon ocean recreational anglers in 1992, by port.

Port	Number Retained		Number Released		Percent Released	
	Chinook	Coho	Chinook	Coho	Chinook	Coho
Columbia R,	508	22,280	162	2,926	24	12
Garibaldi	1,158	14,413	0	109	0	<1
Pacific City	341	6,338	1	17	<1	<1
Depoe Bay	1,119	21,871	5	418	<1	<1
Newport	3,016	41,685	351	1,534	1	4
Florence	551	22,191	47	2,296	8	9
Winchester Bay	2,056	37,184	144	2,156	7	5
Coos Bay	1,156	16,590	129	2,179	10	12
Brookings	2,665	3,294	445	968	14	23
South of Falcon	12,062	163,566	806	9,677	6	6
Total	12,570	185,846	968	12,603	7	6

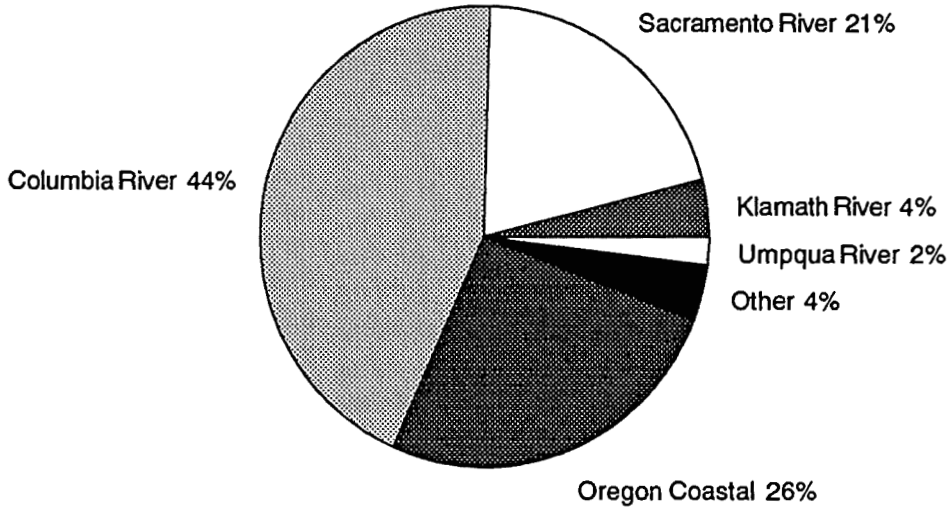
Table 18. Chinook coded-wire tag sampling from the ocean recreational fishery, by port and month, 1992.

Port	May	June	July	August	September	October	Total
<u>Columbia R.</u>							
Total Catch	-	-	307	161	40	-	508
No. Sampled	-	-	133	64	19	-	216
% Sampled	-	-	43	40	48	-	43
No. Ad Marks	-	-	12	4	3	-	19
<u>Garibaldi</u>							
Total Catch	86	188	395	277	212	-	1,158
No. Sampled	34	63	116	95	65	-	373
% Sampled	40	34	29	34	31	-	32
No. Ad Marks	1	2	6	4	1	-	14
<u>Pacific City</u>							
Total Catch	10	84	189	46	12	-	341
No. Sampled	10	70	134	31	3	-	253
% Sampled	100	83	71	67	67	-	74
No. Ad Marks	0	5	7	4	2	-	18
<u>Depoe Bay</u>							
Total Catch	16	59	824	213	7	-	1,119
No. Sampled	10	25	362	103	6	-	509
% Sampled	67	42	44	48	86	-	46
No. Ad Marks	0	1	15	1	0	-	17
<u>Newport</u>							
Total Catch	66	223	1,965	677	85	-	3,016
No. Sampled	17	82	841	233	22	-	1,195
% Sampled	28	37	43	34	26	-	40
No. Ad Marks	1	5	28	8	0	-	42
<u>Florence</u>							
Total Catch	10	206	183	63	89	-	551
No. Sampled	5	99	65	23	32	-	224
% Sampled	50	48	36	37	36	-	41
No. Ad Marks	0	4	3	0	0	-	7
<u>Winchester Bay</u>							
Total Catch	52	1,178	442	187	197	-	2,056
No. Sampled	18	294	101	63	91	-	567
% Sampled	35	25	23	34	46	-	28
No. Ad Marks	0	6	3	1	0	-	10
<u>Coos Bay</u>							
Total Catch	8	593	381	43	131	-	1,156
No. Sampled	4	246	123	19	64	-	456
% Sampled	50	41	32	44	49	-	39
No. Ad Marks	0	2	4	1	3	-	10
<u>Brookings</u>							
Total Catch	-	-	1,518	-	440	707	2,665
No. Sampled	-	-	484	-	113	346	943
% Sampled	-	-	32	-	26	49	35
No. Ad Marks	-	-	8	-	6	29	43
<u>Total</u>							
Total Catch	248	2,531	6,204	1,667	1,213	707	12,570
No. Sampled	98	879	2,362	631	420	346	4,736
% Sampled	40	35	38	38	35	49	38
No. Ad Marks	2	25	86	23	15	29	180

RELEASE AGENCY
n=151



BASIN OF RELEASE
n=151



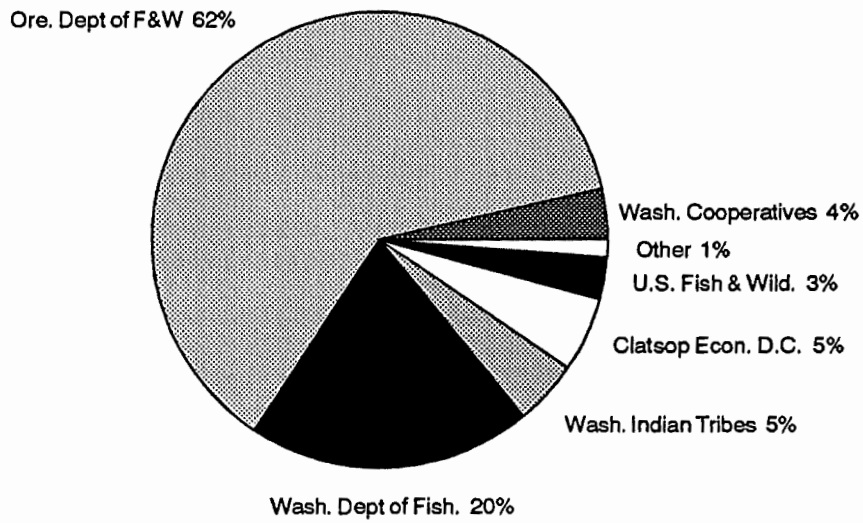
NOTE: Does not represent stock contribution rates, since tagging is not representative of all stocks.

Figure 22. Recoveries of chinook coded wire tags, by release agency and by basin of release, from Oregon's ocean recreational catch, 1992.

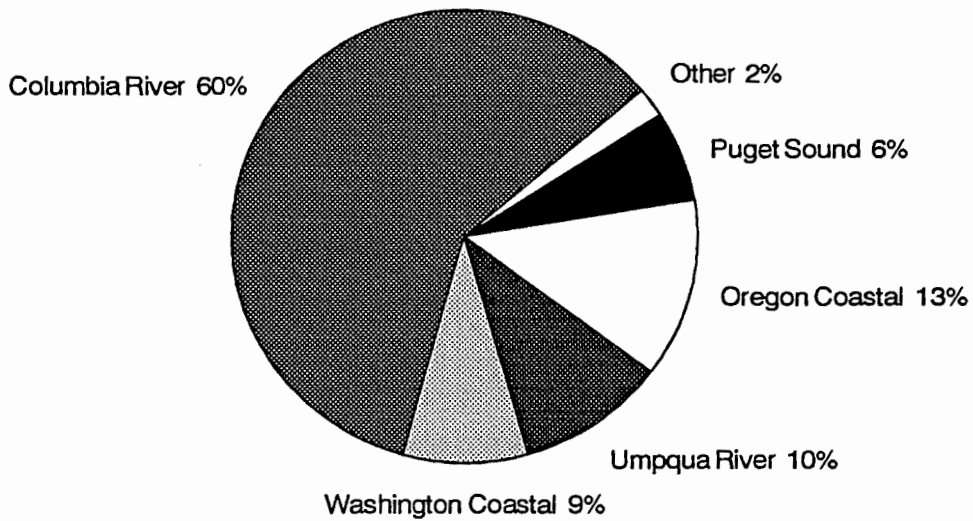
Table 19. Coho coded-wire tag sampling data from the ocean recreational fishery, by port and month, 1992.

Port	May	June	July	August	September	Total
<u>Columbia R.</u>						
Total Catch	-	-	17,882	3,005	1,393	22,280
No. Sampled	-	-	7,897	1,268	626	9,791
% Sampled	-	-	44	42	45	44
No. Ad Marks	-	-	302	58	30	390
<u>Garibaldi</u>						
Total Catch	31	1,244	1,393	4,349	1,396	14,413
No. Sampled	14	618	2,605	1,621	500	5,358
% Sampled	45	50	35	37	36	37
No. Ad Marks	1	31	113	66	19	230
<u>Pacific City</u>						
Total Catch	29	604	3,947	1,723	35	6,338
No. Sampled	26	485	2,866	1,173	26	4,576
% Sampled	90	80	73	68	74	72
No. Ad Marks	0	18	142	54	1	215
<u>Depoe Bay</u>						
Total Catch	25	3,481	12,847	4,630	888	21,871
No. Sampled	20	1,512	5,356	2,330	737	9,955
% Sampled	80	43	42	50	83	46
No. Ad Marks	3	66	284	128	28	509
<u>Newport</u>						
Total Catch	5	6,245	21,824	12,269	1,342	41,685
No. Sampled	1	2,479	8,208	3,819	333	14,840
% Sampled	20	40	38	31	25	36
No. Ad Marks	1	108	370	185	15	679
<u>Florence</u>						
Total Catch	9	2,646	11,988	6,003	1,545	22,191
No. Sampled	5	1,285	3,374	2,193	620	7,477
% Sampled	56	49	28	37	40	34
No. Ad Marks	0	77	179	95	30	381
<u>Winchester Bay</u>						
Total Catch	383	7,017	23,028	6,143	613	37,184
No. Sampled	127	1,738	5,326	1,892	297	9,330
% Sampled	33	25	23	31	48	25
No. Ad Marks	7	90	273	99	9	478
<u>Coos Bay</u>						
Total Catch	133	3,448	8,834	3,620	555	16,590
No. Sampled	81	1,489	2,825	1,767	265	6,427
% Sampled	61	43	32	49	48	39
No. Ad Marks	1	74	140	100	14	329
<u>Brookings</u>						
Total Catch	-	-	2,850	-	444	3,294
No. Sampled	-	-	947	-	115	1,062
% Sampled	-	-	33	-	26	32
No. Ad Marks	-	-	58	-	9	67
<u>Total</u>						
Total Catch	615	24,685	110,593	41,742	8,211	185,846
No. Sampled	274	9,606	39,404	16,063	3,519	68,866
% Sampled	45	39	36	38	43	37
No. Ad Marks	13	464	1,861	785	155	3,278

RELEASE AGENCY
n=2,841



BASIN OF RELEASE
n=2,841



NOTE: Does not represent stock contribution rates, since tagging is not representative of all stocks.

Figure 23. Recoveries of coho coded wire tags, by release agency and by basin of release, from Oregon's ocean recreational catch, 1992.

SPECIAL FISHERIES AND STUDIES

September-October Fishery off Tillamook Bay

The Oregon Fish and Wildlife Commission set a state waters (0-3 miles) season for all salmon except coho off Tillamook Bay between Twin Rocks and Pyramid Rock. The open period was September 16 through October 31. The bag limit remained two fish, but barbed hooks were permitted. This fishery targets on returning fall chinook, and most of the effort and catch is inside Tillamook Bay. This fishery was not surveyed in 1992.

Columbia River Buoy 10 Estuary Fishery

The river mouth opened August 1 for salmon fishing seven days a week, without a weekly bag limit, and without quotas. The Oregon/Washington combined effort was 115,500 angler trips with a catch of 10,700 chinook and 43,100 coho (Table 20). This fishery is discussed in detail in "The 1992 Lower Columbia River and Buoy 10 Recreational Fisheries" by Steven D. King of the Department's Columbia River Management Program.

October Fishery off Brookings

There was a chinook only season off Brookings from Red Point north to Goat Island with a 500 fish quota and a one fish bag limit. The season was scheduled from October 15 through October 31 but closed on October 26 when the quota was exceeded. We estimated 3,862 salmon angler trips and a harvest of 706 chinook. Twenty-five coded wire tags were recovered and represented the Chetco River, Winchuck River, and one coho (illegal) from Iron Gate Hatchery.

October Fishery off Port Orford

This state waters fishery extended from Humbug Mountain north to Cape Blanco and had a quota of 400 chinook. This area was open to both commercial and recreational fishers. The season opened October 24 and closed October 26. As with Brookings, a one fish bag was in force. We did not sample the recreational portion of this fishery but concentrated on the commercial landings. The sport catch was minimal.

Oregon Lower Bay/Bar Recreational Salmon Fishery

Introduction: Unlike 1991, the recreational ocean salmon season lasted until September 10 along most of the coast. However, Fridays and Saturdays were closed to ocean salmon fishing through the whole season, and from July 5 through August 31 the take and landing of ocean-caught chinook salmon was prohibited from Florence to Port Orford. This meant that an interest again developed mid-summer in fishing for salmon at the mouth of the major estuaries. At the end of June and peaking over the 4th of July week, small coho became available on the bars of many estuaries but especially Coos and Winchester (Umpqua) bays. Under state water regulations, salmon between 15 and 24 inches are classified as jack salmon and up to ten can be taken per day. Although anglers averaged only 0.2 "jacks" per angler, the level of this fishery, which harvested about 6,100 coho, was counter to pre-season intent. The Oregon Fish and Wildlife Commission took action and modified the sport salmon fishery regulations for estuaries as follows:

Table 20. Oregon and Washington Buoy 10 season total salmon angler trips and catch, 1992, and totals for 1982-1991.

1992 Fishery	Angler Trips	Catch		Catch/ Trip	Chinook/ Angler	Coho/ Angler
		Chinook	Coho			
OR Boat	32,106	2,776	11,935	0.46	0.09	0.37
OR Bank	6,055	33	1,842	0.31	0.01	0.30
WA Boat	66,974	7,703	27,904	0.53	0.12	0.42
WA Bank	10,346	143	1,401	0.15	0.01	0.14
1992 Total	115,481	10,655	43,082	0.47	0.09	0.37
1991 ^a	168,921	11,549	207,527	1.30	0.07	1.23
1990	76,411	5,149	18,435	0.31	0.07	0.24
1989	144,848	15,900	78,720	0.65	0.11	0.54
1988	186,051	30,770	143,417	0.94	0.17	0.77
1987	124,594	42,100	47,170	0.72	0.34	0.38
1986	102,190	15,600	120,422	1.33	0.15	1.18
1985	32,156	2,655	25,387	0.87	0.08	0.79
1984	67,365	12,177	74,370	1.28	0.18	1.10
1983	7,128	604	3,574	0.59	0.08	0.50
1982	17,336	723	18,857	1.13	0.04	1.09

^a Includes all fishery types (boat, bank, jetty) for 1982-91.

Effective July 24 through August 31, 1992, the size limits and catch limits were modified seaward of Highway 101 in all estuaries from Cape Falcon to Humbug Mountain. The "jack" regulation was suspended by adopting the ocean size limits (16 inches for coho and 20 inches for chinook) and changing the catch limit to 2 salmon per day and 6 salmon in 7 consecutive days.

The bay fisheries in Tillamook, Yaquina, Winchester (Umpqua) and Coos bays were surveyed by our ocean fishery sampling crews from June 29 through September 13. The effort and catch estimates only covered the boat anglers that fished the lower portion of the estuary. Shore anglers were not surveyed. It is important to note that traditional bay fisheries develop after mid-September and these were not surveyed.

Methods: Samplers conducted a stratified creel survey which contacted private and charter boat anglers to gather data on anglers per boat, hours per boat, fish per angler, and to recover snouts from coded wire tagged salmon. Effort estimates for charter boats came from the charter offices. Effort estimates for private boats were made using Area Under the Curve (AUC) methodology by taking counts of the number of boats fishing in the lower estuary on regular intervals, then calculating total boat hours under the curve, and finally dividing total boat hours by the average hours per boat to estimate the number of boats that fished. This methodology is discussed in more detail in the 1991 Oregon Ocean Salmon Fisheries Annual Report.

Results and discussion: An estimated 18,836 salmon angler trips took place in the lower estuary during the sampling period. Anglers landed 1,214 adult and 307 jack-sized chinook, and 3,233 adult and 2,851 jack-sized coho. This is a sharp reduction from 1991 in both total effort (53%) and catch (77%) (Table 21, Figure 24 and Appendix Table 21).

Effort: An estimated 51 charter boat trips (255 charter trips) took place in the estuary fishery during the sampling period in 1992. This is a 95% reduction from the 1991 season. Charter anglers made up only 1% of the 1992 estuarine effort, compared to 12% in 1991.

Winchester Bay accounted for 80% of the charter effort in 1992 with 205 angler trips. This is less than 10% of the 1991 value of 2,149 trips. A very limited effort also took place in Coos and Yaquina bays (Table 21).

We estimated 8,608 private boat trips and 18,581 private angler trips in the lower estuary during the 1992 sampling season. This is a 48% reduction from 1991. Private boat anglers made up 99% of the total lower bay effort in 1992, compared to 88% in 1991.

Coos Bay accounted for 38% of the private angler effort in 1992 with 7,051 angler trips. The lower Umpqua estuary or Winchester Bay had 4,795 angler trips, closely followed by Tillamook Bay with 4,035 angler trips (Table 21).

Catch: Charter anglers landed 34 adult chinook and 128 adult and 48 jack sized coho in 1992. This contrasts sharply with 1991 when we estimated a catch of 82 adults and 26 "jack" chinook and 6,086 adult and 320 "jack" coho. Charter anglers landed 3% of the total bay catch in 1992 compared to 42% in 1991.

The charters in Winchester Bay took all 34 adult chinook and 74 adult and 43 jack-sized coho. Next came Coos Bay with 53 adult coho and 5 "jacks". Winchester Bay's success rate was 0.5 salmon/angler and 0.2 "jacks"/angler, considerably less than the ocean catch rate.

Table 21. Oregon lower estuary recreational salmon effort and catch by boat type, 1992.

Port	Salmon Charter Boats						Salmon Private Boats					
	Boat trips	Angler trips	Chinook		Coho		Boat trips	Angler trips	Chinook		Coho	
			Adults	Jacks	Adults	Jacks			Adults	Jacks		
Tillamook Bay Bar	0	0	0	0	0	0	1,762	4,035	252	0	383	31
Yaquina Bay Bar	7	22	0	0	1	0	1,325	2,700	223	3	111	7
Umpqua River Bar	39	205	34	0	74	43	2,549	4,795	386	90	1,377	1,105
Coos Bay Bar	5	28	0	0	53	5	2,972	7,051	319	214	1,234	1,660
Total	51	255	34	0	128	48	8,608	18,581	1,180	307	3,105	2,803
Combined totals for all Oregon craft	8,659	18,836	1,214	307	3,233	2,851						

Numbers of Adult Coho

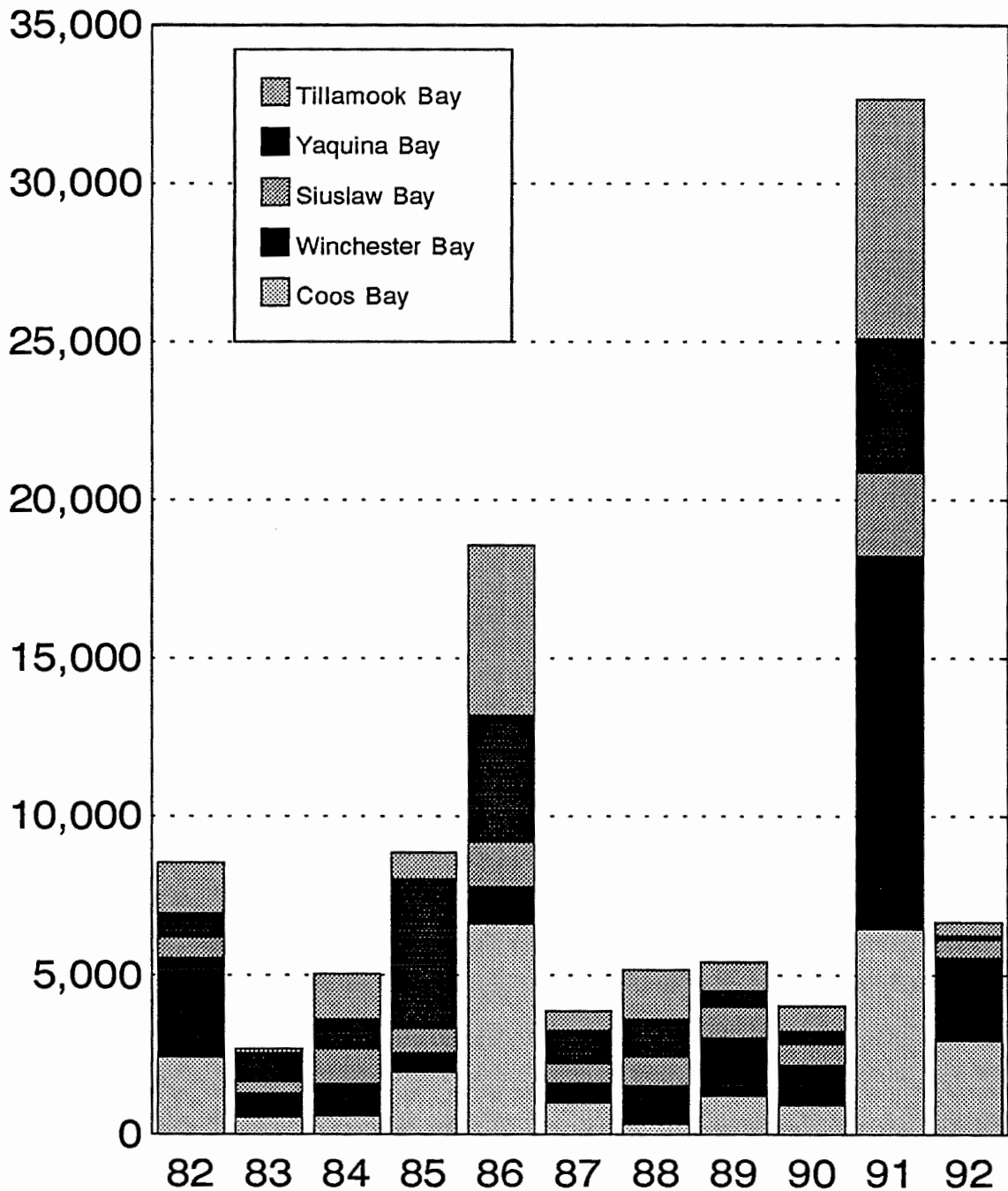


Figure 24. Oregon recreational estuary coho salmon landings. Data from 1982-90 is from punchcards for entire estuaries for the full fall season; 1991 data is from creel survey from the lower estuary and from July 28-Sept. 2. Data for 1992 is from creel survey from June 29-Sept. 13, except for Siuslaw which was estimated based on the ratio of landings at Siuslaw to Winchester from the 1991 creel.

Private boat anglers landed 1,180 adult and 307 jack-sized chinook, and 3,105 adult and 2,803 coho "jacks" in 1992. The total salmon catch represents a 76% drop from the 1991 value. Private boat anglers landed 97% of the total bay catch in 1992 compared to 58% in 1991. Winchester Bay had the highest landings with 2,958 bay caught salmon followed by Coos Bay with 1,767 salmon (Table 21). As with charters, the success rate was lower than in the ocean catch with Winchester Bay taking 0.5 adult salmon/angler and 0.3 jack-sized salmon/angler compared to 0.4 adults/angler and 0.2 "jacks" per angler for Coos Bay.

Coded-wire tag sampling: We only recovered 11 chinook and 55 coho coded-wire tags in the lower bay fishery. As in 1991, the limited information suggested that the lower bay catches were similar to the ocean catches in stock composition.

Conclusion: The 1992 lower estuary fishery can best be described as similar to the ocean fishery in stock composition, crowded at times, with lower catch rates than in the ocean fishery, but with better CPUEs than are normally observed in bay fisheries.

Special Studies - Using a Camcorder/VCR for Effort Counts

Introduction: Counts of boats crossing the bar to fish in the ocean are a vital component of our recreational creel. The Coast Guard provides such counts in a few ports, but most of the time our own samplers complete this task. If we could record the boat traffic on tape, we could fast forward during the slow periods when there was little boat traffic and review 8 hours of effort in considerably less time.

Method: To test this idea, we set up a camcorder and a video cassette recorder (VCR) in the Coast Guard boat house at Depoe Bay throughout most of May and June, and at the Coast Guard tower at Yaquina Bay State Park for half of July. The Depoe Bay location was only 500 feet from the entrance to the ocean, whereas the Yaquina Bay bar was about 5,000 feet from the tower. Recordings were made from 5:00 am to 1:00 pm, and then the tapes were brought to the ODFW Marine Region office for review by staff.

Results and Discussion: The test at the Yaquina Bay site showed significant problems that made the system unworkable at the chosen location. The width of the Yaquina Bay bar prohibited taking full advantage of the zoom lens, and it was difficult to differentiate between charters, small commercial fishing vessels, and large private boats. Fog rendered the system useless, and keeping track of boats fishing on the bar versus boats going to the ocean slowed tape viewing to the point that there was little time advantage over a normal boat count.

The location in Depoe Bay was ideal and analysis of boat counts between the sampler and the video system at Depoe Bay indicated that there is some promise for the system. An eight hour tape of boats leaving the port could be read in about 30 minutes by using the fastforward feature of the VCR. For the days when both the sampler count and the video count systems were in place and operating properly (30 days), an average difference of 12.8% in the private boat counts occurred. Overall, the video system estimated 5.1% more private boat effort than the sampler counts. This bias may be due to the video reviewer counting small charter boats or commercial jig boats as private boats. It is also possible for the port sampler to overlook some boats, especially on a busy day.

Even in Depoe Bay, a number of equipment and setup problems came to light during the tests including: light reflection off the window timer on VCR set incorrectly, power failure, and unintentional equipment shutoff. The compactness of Depoe Bay was an advantage

but at times, the charter boats would form a line in front of the camera and block the view. Finally, the VCR had to be repaired at the end of the brief test, raising the issue of durability.

In conclusion, distance is a definite limiting factor for using this equipment. Fog is even more of a problem for the camera than it is for the human eye. This equipment is no match for human judgement but could be used as a supplemental tool in some situations.

ACKNOWLEDGMENTS

Almost everyone in the Ocean Salmon Management Program at one time or another provided assistance to the sampling program. However, we especially appreciate the help of sampling coordinator David Nuzum and all seasonal samplers. Special thanks goes to samplers Scott Neubig and Shawn Rapp who made a number of data runs from the south coast. Special recognition also goes to the Data Management Project Leader Phil Flanders and his assistants Donna Lamb and John Denton for help in accessing the data and general assistance throughout the sampling year. Marie Jones did the word processing and her help is appreciated.

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APPENDIX

Appendix Table 1. The 1992 Ocean Salmon sampler roster and dates of sampling.

Port	Troll		Recreational	
	Sampler	Dates	Sampler	Dates
Astoria	Chris Rooper ¹	May 1-Sept. 30	Mike Slater Amy Brewster	June 26-Sept. 20 June 26-Sept. 20
Garibaldi	John Rosapepe Scott Eden	May 1-June 21 July 20-Oct. 23	Rodney Garland Jason Dunkin Jon Barber	June 15-Sept. 7 June 15-Sept. 7 June 15-Sept. 7
Pacific City			Adam Crateau	May 7-Sept. 8
Depoe Bay			Tami Wagner	May 1-Sept. 9
Newport	John Eberl Steve Namitz Doree Dennis Mike Day ²	May 1-May 30 July 1-Sept. 20 Aug. 1-Oct. 31 May 7-Oct. 31	Amy Brewster Garin Gregory Debbie Newman Tomas Jamir Aden Smith	May 1-June 25 May 1-Sept. 10 June 15-Aug. 11 June 15-Sept. 9 June 15-Sept. 9
Florence	Shawn Rapp ¹	May 7-Sept. 2		
Winchester Bay			Wayne Graham Kevin Young Rob Preese	May 1-Sept. 13 June 15-Sept. 10 June 15-Sept. 7
Coos Bay			Scott Neubig Jane Chen Lisa Favero	May 1-Sept. 11 June 15-Sept 11 June 15-Sept. 8
Port Orford	Scott Eden	Oct. 24-Oct. 26		
Brookings			David Lancaster Patrick Burns Lisa Johnson	June 15-Sept. 7 June 15-Sept. 7 Oct. 12-Oct. 31

¹ Combination troll/recreational sampler.

² Combination troll and genetic stock identification (GSI) sampler.

Appendix Table 2. Troll mark sampling rates by port, year, and species, 1979-1992.

	1979 ^a	1980 ^a	1981 ^a	1982 ^a	1983 ^a	1984	1985	1986	1987	1988	1989	1990	1991	1992
CHINOOK														
Astoria	15	20	33	50	35	37	36	46	75	24	36	25	11	52
Gearhart	-	-	-	-	-	0	0	0	0	-	27	12	8	0
Cannon Beach	-	-	-	-	0	0	0	0	0	16	0	0	0	0
Garibaldi	18	20	23	23	34	35	34	29	34	20	10	22	7	39
Netarts	-	-	-	-	-	-	-	-	-	0	0	0	0	0
Pacific City	-	-	-	-	-	0	28	20	32	15	19	27	19	2
Salmon River	-	-	-	-	-	-	-	-	-	-	0	0	-	-
Depoe Bay	-	-	-	-	-	0	0	3	73	38	0	0	0	0
Newport	25	30	27	28	44	63	47	34	59	28	21	34	29	32
Waldport	-	-	-	-	-	0	0	0	-	-	-	0	0	-
Florence	-	-	-	-	-	44	0	0	67	30	15	30	52	38
Winchester Bay	-	-	-	-	-	61	24	42	39	29	18	35	15	0
Coos Bay	14	23	24	17	42	77	42	32	31	24	14	26	21	0
Bandon	-	-	-	-	-	0	2	0	2	0	0	0	0	0
Port Orford	-	-	-	-	-	70	89	88	74	59	61	24	0	92
Gold Beach	-	-	-	-	-	53	0	12	1	10	10	0	0	0
Brookings	17	25	26	45	40	49	0	58	66	71	62	65	58	0
Total	17	25	27	30	41	59	39	35	44	30	21	27	24	29
COHO														
Astoria	13	18	26	38	39	80	40	81	35	6	34	34	24	14
Gearhart	-	-	-	-	-	0	0	0	0	-	22	8	40	0
Cannon Beach	-	-	-	-	-	0	0	0	0	0	6	0	2	0
Garibaldi	12	15	14	21	37	86	72	39	35	32	28	25	21	45
Netarts	-	-	-	-	-	-	-	-	-	0	0	0	0	0
Pacific City	-	-	-	-	-	-	13	14	44	21	32	32	30	18
Salmon River	-	-	-	-	-	-	-	-	-	-	0	0	-	-
Depoe Bay	-	-	-	-	-	0	0	8	80	63	0	0	2	0
Newport	24	33	34	26	39	41	58	19	57	27	22	41	29	32
Waldport	-	-	-	-	-	0	-	-	-	-	-	-	0	-
Florence	-	-	-	-	-	-	1	0	73	28	13	39	47	49
Winchester Bay	-	-	-	-	-	-	26	51	34	35	16	40	28	0
Coos Bay	15	27	26	11	46	-	48	31	28	31	16	28	27	0
Bandon	-	-	-	-	-	-	48	0	3	0	0	0	0	0
Port Orford	-	-	-	-	-	-	76	84	73	66	70	10	0	-
Gold Beach	-	-	-	-	-	0	-	1	3	0	-	0	-	-
Brookings	13	30	33	51	54	-	0	34	41	49	41	44	1	-
Total	17	26	26	21	42	61	41	24	43	30	22	29	28	30
# Samplers	11	11	11^b	12^b	12	9	8	10	14	9^c	8^c	10^b	6^b	4^b

^a Sampling rates for aggregated port areas of Astoria - Cannon Beach, Garibaldi - Pacific City, Salmon River - Waldport, Florence - Bandon, and Port Orford - Brookings.

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

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

Appendix Table 3. History of actual Oregon ocean commercial troll fishery regulations, 1948-92.

AREA AND SEASON	SPECIES	SIZE, GEAR AND OTHER RESTRICTIONS
Prior to 1948	No restrictions	
1948 <u>Oregon Coast</u> 1/1 - 12/31 7/1 - 11/15	All except coho All salmon	size limit: chinook - 27", no gear restrictions. chinook - 27", coho - none.
1949-55 <u>Oregon Coast</u> 3/15 - 10/31 6/15 - 10/31	All except coho All salmon	Chin. 26". Chin. 26".
1956-75 <u>Oregon Coast</u> 4/15 - 10/31 6/15 - 10/31	All except coho All salmon	Chin. 26". Chin. 26"; coho 15" beginning in 1965.
1974-75 <u>Elk & Chetco River areas</u> 11/1 - 12/31	All except coho	Chin. 26" - state waters only.
1976 <u>North of Tillamook Head</u> 5/1 - 6/14 7/1 - 9/15	All except coho All salmon	Chin. 28"; until 6/6; then 26". Chin. 26"; coho, 16".
<u>South of Tillamook Head</u> 5/1 - 6/14 6/15 - 10/31	All except coho All salmon	Chin. 26"; barbless hooks, except on whole bait or plugs. Chin. 26"; coho, 16".
<u>Elk & Chetco River areas</u> 11/1 - 11/30	All except coho	Chin. 26" - state waters only.
1977 as above	as above	Chin. 28" N. of Tillamook Head; 26" S. of Tillamook Head. Coho 16". Gear restrictions as above.
1978 Area boundary moved from Tillamook Head to Cape Falcon	as above	
1979 <u>North of Cape Falcon</u> 5/1 - 5/31 7/1 - 24; 8/4 - 31	All except coho All salmon	Chin. 28"; barbless hooks, except on whole bait or plugs. Chin. 28"; coho 16".
<u>South of Cape Falcon</u> 5/1 - 5/31 7/1 - 9/3 9/4 - 10/31	All except coho All salmon All except coho	Chin. 26"; barbless hooks except on whole bait or plugs. Chin. 26"; coho 16". Chin. 26".
<u>Elk & Chetco River areas</u> 11/1 - 11/30	All except coho	Chin. 26". State waters only.
1980 <u>North of Cape Falcon</u> 5/1 - 5/31 7/15 - 9/8	All except coho All salmon	Chin. 28"; barbless hooks, except on whole bait or plugs. Chin. 28"; coho 16".
<u>South of Cape Falcon</u> 5/1 - 5/31	All except coho	Chin. 26"; barbless hooks, except on whole bait or plugs.
<u>Cape Falcon to Cape Blanco</u> 6/16 - 6/30	All except coho	Chin. 26"; whole bait, or plugs 6" or longer.
<u>South of Cape Falcon</u> 7/15 - 9/8 9/9 - 10/31	All salmon All except coho	Chin. 26"; coho 16". Chin. 26".
<u>Elk & Chetco River areas</u> 11/1 - 11/30	All except coho	Chin. 26". State waters only.
1981 <u>North of Cape Falcon</u> 5/1 - 5/31 7/15 - 8/21 8/22 - 8/24	All except coho All salmon All salmon	Chin. 28"; barbless hooks, except on whole bait or plugs. Chin. 28"; coho 16". Chin. 28"; coho 16". State waters only.
<u>South of Cape Falcon</u> 5/1 - 5/31 7/1 - 8/21 8/22 - 8/24	All except coho All salmon All salmon	Chin. 26"; barbless hooks, except on whole bait or plugs. Chin. 26"; coho 16". Chin. 26"; coho 16". State waters only.
<u>C. Falcon to Cape Sebastian</u> 8/22 - 8/24 08/25 - 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.

AREA AND SEASON	SPECIES	SIZE, GEAR AND OTHER RESTRICTIONS
(1981 continued)		
<u>South of Cape Falcon</u> 9/9 - 10/31	All except coho	Chin. 26".
<u>Elk & Chetco River areas</u> 11/1 - 11/30	All except coho	Chin. 26". State waters only.
1982 <u>North of Cape Falcon</u> 5/1 - 5/31 7/1 - 7/8	All except coho All salmon	Chin. 28"; barbless hooks, except on whole bait or plugs. Chin. 28"; coho 16".
<u>South of Cape Falcon</u> 5/1 - 5/31 6/1 - 6/15 7/1 - 7/12 7/13 - 9/5 9/6 - 10/31	All except coho All except coho All salmon All except coho All except coho	Chin. 26"; barbless hooks, except on whole bait. Chin. 26"; whole bait, or plugs not less than 5" long. Chin. 26"; coho 16". Chin. 26"; whole bait, or plugs not less than 5" long. Chin. 26"; barbless hooks, except on whole bait or plugs.
<u>South of Cape Blanco</u> 5/1 - 6/8	All except coho	Chin. 26"; whole bait, or plugs not less than 5" long.
<u>Elk & Chetco River areas</u> 11/1 - 11/30	All except coho	Chin. 26". State waters only.
1983 <u>North of Cape Falcon</u> 5/1 - 5/31 7/1 - 7/31	All except coho All salmon	Chin. 28"; barbless hooks, except on plugs not less than 5". Chin. 28"; coho, 16"; only plugs not less than 6". Must land 2 chin. for each coho retained.
<u>Columbia River S. Jetty to Cape Falcon</u> 8/10 - 9/8	All salmon	Chin. 28"; coho 16"; open out to 10 miles only.
<u>Cape Falcon to Cape Blanco</u> 5/1 - 5/31 6/1 - 6/15 9/5 - 10/31 9/5 - 10/31	All except coho 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". 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> 8/1 - 9/9	All except coho	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. Coho 16". Chin. 26"; whole bait, or plugs not less than 5" long. Chin. 26". Open area is 12 x 24 mile rectangle around mouth of Rogue River. Chin. 26".
<u>Cape Blanco to Humbug Mtn.</u> 11/1 - 11/30	All except coho	Chin. 26". State waters only.
1984 <u>North of Cape Falcon</u> 5/1 - 5/7	All except coho	Chin. 28"; barbless hooks.
<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.
<u>Manhattan Beach to Pyramid Rock (Tillamook)</u> 10/1 - 10/31	All except coho	Chin. 26"; barbless hooks. State waters only.

Appendix Table 3 continued.

AREA AND SEASON	SPECIES	SIZE, GEAR AND OTHER RESTRICTIONS
(1984 continued)		
<u>Cape Blanco to OR/CA border</u> 5/16 - 6/6; 7/16 - 8/22	All except coho	Chin. 26"; barbless hooks.
<u>Cape Blanco to Humbug Mtn.</u> 10/1 - 11/30	All except coho	Chin. 26"; state waters only; barbless hooks.
1985 <u>North of Cape Falcon</u> 5/1 - 5/14; 5/21 - 5/31	All except coho	Chin. 28"; barbless hooks, except on whole bait or plugs.
<u>Columbia River S. Jetty</u> <u>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	All except coho All salmon	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.
7/27 - 10/31	All except coho	Chin. 26"; barbless hooks.
<u>Tower Rock to Cape Blanco</u> 11/1 - 11/30	All except coho	Chin. 26"; barbless hooks. State waters only.
<u>Cape Blanco to Humbug Mtn.</u> 10/1 - 11/30	All except coho	Chin. 26"; barbless hooks. State waters only.
1986 <u>North of Cape Falcon</u> 5/1-10; 5/14-17; 5/24-27; 5/30-31 8/2-3; 8/7-9	All except coho All salmon	Chin. 28"; barbless hooks. Columbia River Mouth Conservation Zone closed. Chin. 28"; Coho 16". Barbless hooks.
<u>Cape Falcon to Cape Perpetua</u> 5/1 - 6/30 7/1-20; 7/23-24	All except coho All salmon	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.
7/25 - 10/31	All except coho	Chin. 26"; barbless hooks.
<u>Twin Rocks to Pyramid Rock</u> <u>(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	All except coho All salmon	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.
7/23 - 24	All salmon	Same regulations as in Cape Falcon to Cape Perpetua (for 7/1-24 see above).
7/25 - 10/31	All except coho	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	All salmon	Chin. 26"; Coho 22"; barbless hooks. At least one chinook must be possessed or landed for each 2 coho possessed or landed.
7/25 - 8/26	All except coho	Chin. 26"; barbless hooks.
<u>Sisters Rock to Mack Arch</u> 8/29	All except coho	Chin. 26"; barbless hooks. Open only within 6 nautical miles of shore.
<u>Cape Blanco to Humbug Mtn.</u> 10/1 - 11/26	All except coho	Chin. 26"; barbless hooks. State waters only.
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.

Appendix Table 3 continued.

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

Appendix Table 3 continued.

AREA AND SEASON	SPECIES	SIZE, GEAR AND OTHER RESTRICTIONS
(1988 continued)		
<u>Sisters Rocks to Mack Arch</u> 9/1 - 14	All except coho	Chin. 26"; barbless hooks.
<u>Orford Reef Red Buoy to Humbug Mountain</u> 10/1 - 31	All except coho	Chin. 26"; barbless hooks. State waters only.
<u>Cape Blanco to Humbug Mtn.</u> 11/1 - 30	All except coho	As above.
1989 <u>North of Cape Falcon</u> 5/1 - 6/8; 6/13 - 15	All except coho	Chin. 28"; barbless hooks. Columbia River Mouth Conservation Zone closed.
8/21; 8/24 - 9/10	All salmon	Chin. 28"; coho 16"; barbless hooks. Columbia River Mouth Conservation Zone closed. Open south of Columbia River 8/21; and extended north to Leadbetter Point from 8/24. Daily landing limit of 40 coho and 4 chinook in effect through 8/27; daily landing of 40 coho and 8 chinook from 8/28 through 9/10. All salmon must be landed within this area.
<u>Cape Falcon to Cascade Head</u> 5/1 - 7/11; 8/18 - 10/31 7/12 - 7/14	All except coho All salmon	Chin. 26"; barbless hooks. Chin. 26"; coho 16"; barbless hooks. Mixed loads of coho and chinook, or coho only must be landed in this area.
7/18 - 8/17	All salmon	Chin. 26"; coho 16"; barbless hooks. A daily landing limit of 50 coho through 8/13; from 8/14 through 17 at least 1 chinook must be possessed or landed for each 2 coho possessed or landed; except that if no chinook were possessed, a single daily landing of 2 coho was permitted. Mixed loads of coho and chinook, or coho only must be landed in this area.
<u>Cascade Head to Orford Reef Red Buoy</u> 5/1 - 6/23; 8/18 - 10/31 7/1 - 14	All except coho All salmon	Chin. 26"; barbless hooks. The subarea from Cape Arago to Port Orford Reef Red Buoy was closed 8/18 - 31. Chin. 26"; coho 16"; barbless hooks. A daily landing limit of 50 coho, plus 3 coho for each chinook landed. Mixed loads of chinook and coho, or coho only must be landed in this area. All chinook must be delivered with the coho.
7/18 - 8/17	All salmon	Chin. 26"; coho 16"; barbless hooks. At least 1 chinook must be landed for each 2 coho, except that a single daily landing of 2 coho without any chinook is permitted. Mixed loads of coho & chinook, or coho only loads must be landed in this area. All chinook must be delivered with the coho.
<u>Orford Reef Red Buoy to Humbug Mountain</u> 10/1 - 31	All except coho	Chin. 26"; barbless hooks. State waters only.
<u>Cape Blanco to Humbug Mountain</u> 11/1 - 30	All except coho	As above.
<u>Sisters Rocks to House Rock</u> 5/1 - 2	All except coho	Chin. 26"; barbless hooks. Open from 0-6 nautical miles only.
<u>Sisters Rocks to Mack Arch</u> 9/1 - 14	All except coho	As above.
<u>Humbug Mountain to OR/CA Border</u> 6/5 - 8	All salmon	Chin. 26"; coho 22"; barbless hooks. A single daily landing of 20 chinook per day. All salmon must be delivered in this area.
8/18 - 20; 8/22 - 31	All except coho	As above.
1990 <u>US-Canada Border to Cape Falcon</u> 5/1 - 5/14; 5/18 - 5/27; 5/31 - 6/2; 6/8 - 6/11; 6/14	All except coho	Chin. 28"; barbless hooks. Columbia River Mouth Conservation Zone closed.
8/18 - 21; 8/25 - 26	All	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.

Appendix Table 3 continued.

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

Appendix Table 3 continued.

AREA AND SEASON	SPECIES	SIZE, GEAR AND OTHER RESTRICTIONS
<u>1992 US-Canada Border to Cape Falcon</u>	All except coho	Chin. 28"; barbless hooks. Columbia River Mouth Conservation closed.
7/20 - 21	All	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	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 South 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	Chin. 26"; coho 16"; barbless hooks. At least one chinook must be landed for each two coho. All loads with coho must be delivered in this area or in adjacent closed areas north of Cascade Head.
8/22 - 31	All	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	Chin. 26"; coho 16"; barbless hooks. At least one chinook must be landed for each two coho. All loads with coho must be delivered in this area or in adjacent closed areas south of Cascade Head.
8/8 - 10/31	All except coho	Chin. 26"; barbless hooks.
<u>Cape Blanco to Humbug Mtn.</u> 10/24 - 26	All except coho	Chin. 26"; barbless hooks. State waters fishery.

Appendix Table 4. Summary of Oregon ocean commercial troll effort and landings of chinook and coho by area of catch, 1979-92.

Year	Area of Catch					OR Subtotal	Alaska 8	Wash. 1	Calif. 7	Total
	Col. R. 2	Tillamook 3	Newport 4	Coos Bay 5	Brookings 6					
EFFORT (Boat Days)										
1979	2,400	6,300	12,800	16,800	9,900	48,200	0	600	100	48,800
1980	1,700	6,000	10,700	12,400	8,300	39,100	<100	700	30	39,900
1981	2,500	8,600	11,000	13,400	9,300	44,800	0	200	100	45,200
1982	800	3,600	5,800	13,600	8,900	32,800	0	700	400	33,900
1983	1,100	3,000	7,100	6,900	3,700	21,700	0	200	300	22,200
1984	500	500	1,900	2,300	2,600	7,800	0	100	<100	7,900
1985	600	1,400	4,100	14,000	600	20,800	0	300	<100	21,100
1986	1,200	3,700	8,600	15,800	3,200	32,500	0	<100	<100	32,500
1987	300	7,300	8,700	21,000	2,000	39,300	0	100	<100	39,500
1988	200	10,500	12,500	26,300	1,400	50,800	0	100	100	51,100
1989	900	7,800	9,300	22,900	1,300	42,200	0	<100	<100	42,300
1990	700	5,100	4,400	15,300	400	25,900	0	100	<100	25,900
1991	700	3,400	5,000	5,500	<100	14,700	0	<100	<100	14,700
1992	300	2,600	5,800	400	0	9,100	0	100	0	9,200
Chinook										
1979	5,900	5,000	38,600	68,700	123,800	242,000	0	2,600	900	245,500
1980	5,600	7,800	48,700	74,800	68,400	205,300	300	2,900	900	209,400
1981	8,400	12,200	27,100	24,400	86,000	158,200	0	1,000	1,300	160,400
1982	7,300	9,000	27,600	109,200	69,500	222,600	0	7,000	3,100	232,600
1983	5,400	4,900	24,000	19,800	22,000	76,100	0	1,600	1,900	79,600
1984	1,500	1,600	18,700	15,400	24,600	61,800	0	200	300	64,300
1985	5,500	3,300	41,700	155,600	6,100	212,200	0	3,600	800	216,600
1986	6,100	14,100	88,000	240,000	53,700	401,900	0	400	400	402,700
1987	4,600	41,400	87,600	350,400	39,800	523,800	0	3,700	1,800	529,300
1988	1,600	32,800	129,000	268,500	31,600	463,500	500	1,400	4,600	470,000
1989	2,900	30,400	70,700	232,300	17,000	353,200	0	200	100	353,500
1990	2,300	12,400	39,500	175,800	2,200	232,200	0	300	<100	232,500
1991	900	9,500	33,400	30,600	100	74,600	0	<100	100	74,800
1992	1,500	7,300	94,600	6,200	0	109,500	0	800	0	110,300
Coho										
1979	48,700	77,900	211,800	263,100	101,200	702,700	0	11,300	600	714,600
1980	23,500	80,600	137,300	99,200	33,500	374,200	1,800	7,200	40	383,300
1981	41,900	160,400	192,400	161,400	53,500	609,600	0	10,400	300	620,300
1982	24,100	114,800	117,800	227,900	22,300	506,800	0	14,100	1,200	522,200
1983	4,900	63,300	118,000	109,700	22,500	318,400	0	100	1,300	319,800
1984	13,900	0	0	0	0	13,900	0	200	0	14,000
1985	18,300	1,600	12,600	29,400	200	62,100	0	21,900	<100	84,100
1986	46,300	96,700	192,300	86,200	19,100	440,600	0	0	0	440,600
1987	7,400	74,700	83,000	177,000	4,100	346,200	0	7,500	300	354,000
1988	0	172,300	252,500	196,400	1,200	622,400	<100	0	800	623,200
1989	21,100	136,300	137,800	159,500	1,000	455,700	0	0	<100	455,700
1990	10,900	53,300	13,700	43,500	0	121,400	0	900	<100	122,300
1991	26,700	89,000	89,700	101,100	0	306,500	0	300	100	306,900
1992	1,400	7,900	34,900	5,300	0	49,500	0	100	0	49,700

Appendix Table 5. Oregon commercial troll effort and landings of chinook and coho in number of fish by month, 1979-92^a.

	May	June	July	Aug	Sept	Oct	Nov ^b	Total
EFFORT (Boat Days)								
1979	1,400	<100 ^c	21,500	21,700	1,300	200	800	48,000
1980	2,100	3,700 ^d	12,100	14,600	4,600	2,300	500	39,900
1981	3,300 ^e	-	21,300	16,700	1,600	1,900	500	45,200
1982	2,300	2,100	18,800	5,600	2,800	1,500	600	33,900
1983	1,600	1,900	12,200	4,100	1,200	1,100	100	22,200
1984	400	400	2,100	4,300	200	300	200	7,900
1985	3,100	2,100	6,300	6,600	1,900	900	200	21,100
1986	4,000	4,000	14,300	6,800	2,000	1,300	100	32,500
1987	3,600	3,900	16,300	7,300	5,500	2,700	300	39,500
1988	4,700	6,700	17,000	14,100	3,600	4,500	400	51,100
1989	6,300	7,100	13,600	8,800	3,500	2,200	700	42,300
1990	2,900	3,700	8,300	8,200	1,800	1,000	<100	25,900
1991	800	3,900	4,000	2,400	2,000	1,700	-	14,700
1992	1,600	200	1,500	2,700	1,500	1,700	-	9,200
Chinook								
1979	11,000	200 ^c	73,600	119,500	13,200	25,200	2,600	245,500
1980	25,800	29,700 ^d	47,700	64,000	25,200	16,000	1,000	209,400
1981	28,600 ^e	-	34,900	65,700	16,900	13,200	1,200	160,400
1982	23,000	14,800	125,400	46,100	15,000	6,900	1,400	232,600
1983	9,500	16,300	34,100	11,500	2,700	4,600	900	79,600
1984	4,600	2,400	17,800	36,900	700	1,000	900	64,300
1985	39,900	14,900	57,900	76,300	21,400	5,300	900	216,600
1986	36,500	52,600	134,100	118,100	34,400	26,100	800	402,700
1987	43,400	56,500	264,200	87,600	60,600	15,100	1,900	529,300
1988	62,600	100,100	100,500	133,900	26,600	44,600	1,700	470,000
1989	100,300	62,500	71,300	75,200	25,100	16,000	3,100	353,500
1990	15,500	33,000	105,900	64,800	9,100	4,200	<100	232,500
1991	3,500	12,800	11,200	16,100	19,600	11,600	-	74,800
1992	20,500	2,300	26,300	31,700	12,300	17,200	-	110,300
Coho								
1979	-	400 ^c	534,000	178,700	1,600	-	-	714,600
1980	-	-	228,700	137,500	17,100	-	-	383,300
1981	-	-	350,300	270,000	-	-	-	620,300
1982	-	-	522,200	-	-	-	-	522,200
1983	-	-	275,300	36,100	8,400	-	-	319,800
1984	-	-	-	14,000	-	-	-	14,000
1985	-	-	65,700	18,300	-	-	-	84,000
1986	-	12,100	382,200	46,300	-	-	-	440,600
1987	-	4,400	266,100	63,700	19,800	-	-	354,000
1988	-	1,600	387,800	233,800	-	-	-	623,200
1989	-	1,000	374,800	70,000	9,900	-	-	455,700
1990	-	100	82,400	33,200	6,200	300	-	122,300
1991	-	91,100	188,700	16,700	10,400	-	-	306,900
1992	-	-	18,100	31,600	-	-	-	49,700

^a Catch statistics 1986-92 are reported by calendar months; monthly effort totals for 1986-92 and catch and effort for 1979-85 are the sum of statistical weeks with closest fit to calendar months. Includes catches made off California, Washington, and Alaska and landed in Oregon.

^b Late season at mouth of Elk and Chetco Rivers only (initiated in 1974). Averages for November include only 1974-75.

^c Caught off California and landed in Oregon.

^d Totals for June 1980 include landings made through July 6.

^e Totals for May 1981 include landings made through June 7.

Appendix Table 6. Oregon commercial troll salmon chinook catch, in number of fish, by statistical week^a and area of catch, 1992.

Stat. Week	Area of Catch									Total
	Col. R. 2	Tillamook 3	Newport 4	Coos Bay 5	Brookings 6	OR Subtotal	Alaska 8	Wash. 1	Calif. 7	
18	-	17	457	-	-	474	-	-	-	474
19	160	97	2,551	7	-	2,815	-	61	-	2,876
20	61	73	2,859	37	-	3,030	-	21	-	3,051
21	105	35	4,650	247	-	5,037	-	-	-	5,037
22	50	166	8,529	276	-	9,021	-	3	-	9,021
23	68	-	556	81	-	705	-	-	-	705
24	469	-	-	-	-	469	-	188	-	657
25	386	-	-	-	-	386	-	521	-	907
26	-	-	-	-	-	0	-	-	-	0
27	-	-	-	-	-	0	-	-	-	0
28	-	-	-	-	-	0	-	-	-	0
29	-	-	-	-	-	0	-	-	-	0
30	76	168	14,755	1,675	-	16,674	-	-	-	16,674
31	42	255	13,707	897	-	14,901	-	-	-	14,901
32	34	609	17,438	1,758	-	19,839	-	-	-	19,839
33	15	551	2,710	110	-	3,386	-	-	-	3,386
34	24	510	1,093	108	-	1,735	-	22	-	1,757
35	1	496	671	29	-	1,197	-	-	-	1,197
36	-	325	1,057	135	-	1,517	-	-	-	1,517
37	-	333	2,209	131	-	2,673	-	-	-	2,673
38	-	887	4,186	25	-	5,098	-	-	-	5,098
39	-	356	1,073	43	-	1,472	-	-	-	1,472
40	-	623	2,705	-	-	3,328	-	-	-	3,328
41	-	1,133	5,464	-	-	6,597	-	-	-	6,597
42	-	511	5,360	190	-	6,061	-	-	-	6,061
43	-	90	730	281	-	1,101	-	-	-	1,101
44	-	48	1,821	121	-	1,990	-	-	-	1,990
Total	1,491	7,283	94,581	6,151	0	109,506	0	813	0	110,319

^a Refer to Appendix Table 19 for 1992 statistical week calendar.

Appendix Table 7. Oregon commercial troll salmon coho catch, in number of fish, by statistical week^a and area of catch, 1992.

Stat. Week	Area of Catch						OR Subtotal	Alaska	Wash.	Calif.	Total
	Col. R. 2	Tillamook 3	Newport 4	Coos Bay 5	Brookings 6						
18	-	-	-	-	-	0	-	-	-	0	
19	-	-	-	-	-	0	-	-	-	0	
20	-	-	-	-	-	0	-	-	-	0	
21	-	-	-	-	-	0	-	-	-	0	
22	-	-	-	-	-	0	-	-	-	0	
23	-	-	-	-	-	0	-	-	-	0	
24	-	-	-	-	-	0	-	-	-	0	
25	-	-	-	-	-	0	-	-	-	0	
26	-	-	-	-	-	0	-	-	-	0	
27	-	-	-	-	-	0	-	-	-	0	
28	-	-	-	-	-	0	-	-	-	0	
29	-	-	-	-	-	0	-	-	-	0	
30	437	334	7,890	2,207	-	10,868	-	-	-	10,868	
31	225	460	11,138	1,015	-	12,838	-	-	-	12,838	
32	99	1,065	15,892	2,084	-	19,140	-	-	-	19,140	
33	210	829	-	-	-	1,039	-	-	-	1,039	
34	440	2,305	-	-	-	2,745	-	137	-	2,882	
35	18	2,243	-	-	-	2,361	-	-	-	2,361	
36	-	526	-	-	-	526	-	-	-	526	
37	-	-	-	-	-	0	-	-	-	0	
38	-	-	-	-	-	0	-	-	-	0	
39	-	-	-	-	-	0	-	-	-	0	
40	-	-	-	-	-	0	-	-	-	0	
41	-	-	-	-	-	0	-	-	-	0	
42	-	-	-	-	-	0	-	-	-	0	
43	-	-	-	-	-	0	-	-	-	0	
44	-	-	-	-	-	0	-	-	-	0	
Total	1,429	7,862	34,920	5,306	0	49,517	0	137	0	49,654	

^a Refer to Appendix Table 19 for 1992 statistical week calendar.

Appendix Table 8. Estimates of nominal ex-vessel value^a for Oregon troll salmon landings and average price per pound, 1971-92.

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	6,639,000	2.57	10,350,000	2.26	16,988,000
1980	5,259,000	2.42	2,926,000	1.34	8,185,000
1981	4,036,000	2.57	5,535,000	1.66	9,571,000
1982	6,094,000	2.59	3,801,000	1.40	9,895,000
1983	1,244,000	1.90	1,052,000	0.96	2,296,000
1984	1,514,000	2.75	118,000	1.67	1,632,000
1985	5,045,000	2.48	729,000	1.51	5,773,000
1986	5,978,000	1.77	1,979,000	1.03	7,958,000
1987	13,324,000	2.57	3,264,000	1.70	16,588,000
1988	13,931,000	3.17	7,614,000	2.28	21,544,000
1989	7,830,000	2.21	2,131,000	1.06	9,961,000
1990	5,454,000	2.50	1,009,000	1.59	6,462,000
1991	1,703,000	2.45	1,394,000	0.98	3,097,000
1992	2,484,000	2.45	222,000	1.07	2,706,000

^a Dressed weight value

Appendix Table 9. Recreational ocean salmon sampling rates at Oregon ports, 1979-92.

Port	Percent of Catch Sampled ^a													
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Astoria	35	20	40	42	44	31	57	38	39	49	44	42	50	44
Garibaldi	43	39	36	55	61	35	47	37	40	32	37	46	34	37
Pacific City	-	-	82	87	82	71	72	75	75	79	70	72	69	72
Depoe Bay	47	45	50	68	60	65	60	55	57	50	56	45	48	46
Newport	31	39	40	31	34	48	36	35	33	39	35	35	28	36
Florence	-	-	30	37	44	27	29	41	38	46	51	46	33	34
Winchester Bay	35	33	26	32	33	27	34	33	31	36	44	42	26	25
Coos Bay	47	49	57	63	47	54	48	50	54	46	46	41	30	39
Gold Beach	42	50	48	62	43	47	43	63	64	-	-	-	-	-
Brookings	29	22	21	30	36	42	49	62	57	51	65	47	34	34
Coastwide percentage	37	34	39	44	42	42	47	44	44	43	43	42	35	37
Number of samplers	13	14	16	16	19	20	23	23	23	20	20	22	21	21
Sampler months	47	54	62	51	60	55	47	62	79	79	70	80	62	64

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

Appendix Table 10. Summary of Oregon's recreational ocean salmon regulations, 1946-91.

Year	Season	Regulations
1946	All Year	3 fish/day; 9 in possession.
1947	All year	2 fish/day; 6 in possession.
1948-54	All year	2 fish/day; 4 in possession; 20 fish annual limit.
1955-57	All year	2 fish/day; 4 in possession; 20 fish annual limit; 20" minimum size, both species.
1958-64	All year	2 fish/day; 4 in possession; 20 fish annual limit; 20" minimum size, both species, except 22" minimum size north of Tillamook Head (July 1-October 31).
1965-69	All year	3 fish/day; 6 in possession; 20 fish annual limit; 20" minimum size, both species.
1970-75	All year	3 fish/day; no possession limit; 40 fish annual limit; North of Tillamook Head, 20" minimum size both species. South of Tillamook Head, no size limits.
1976	4/10 -12/31	3 fish/day; 40 fish annual limit. North of Tillamook Head—Chinook, 24" minimum size; coho, 16" minimum size. South of Tillamook Head, no size limits.
1977	4/30 - 10/31	Same as in 1976.
	11/1-31	State waters off Elk and Chetco rivers—3 chinook/day; no size limit.
1978	4/29 - 10/31	3 fish/day; 40 fish annual limit. North of Cape Falcon—chinook, 24" minimum size; coho, 16" minimum size. South of Cape Falcon—chinook, 22" minimum size; coho, 16" minimum size.
	11/1-30	State waters off Elk and Chetco rivers—3 chinook/day; 22" minimum size.
1979	5/12 - 9/16	2 fish/day south of Cape Falcon; 3 fish/day north of Cape Falcon, of which only 2 may be chinook or coho; 40 fish annual limit. Size limits as in 1978.
	11/1-30	State waters off Elk and Chetco rivers—2 chinook/day; 22" minimum size.
1980	5/10 - 9/14 ^a	3 fish/day lowered to 2 fish/day on July 16; 40 fish annual limit. Size limits as in 1978.
	9/15 - 10/31	South of Cape Falcon; 2 chinook/day; 22" minimum size.
	11/1-30	State waters off Elk and Chetco rivers—as above.
1981	5/15 - 9/20 ^b	South of Cape Falcon; 2 fish/day; increased to 3 fish/day on August 14; 40 fish annual limit. Size limits as in 1978.
	5/23 - 9/7 ^b	North of Cape Falcon; 2 fish/day; 40 fish annual limit. Size limit as in 1978.
	9/21 - 10/31	South of Cape Blanco; 2 chinook per day; 22" minimum size.
	11/1-30	State waters off Elk and Chetco rivers—as above.
1982	5/28 - 6/11	Between Cape Blanco and Cape Falcon in state waters; first 2 chinook taken per day; barbless hook only.
	5/28 - 8/1 ^c	South of Cape Blanco—as above.
	6/12 - 8/1 ^c	Entire coast; 2 fish/day north of Cape Falcon; first 2 fish taken/day south of Cape Falcon, regardless of size. Size limit north of Cape Falcon same as in 1978. 40 fish annual limit.
	8/2 - 10/31	South of Cape Blanco; first 2 chinook taken/day.
	11/1-30	State waters off Elk and Chetco rivers; first 2 chinook taken/day.
1983	5/28 - 9/18	South of Cape Blanco; first 2 fish taken/day regardless of size. 40 fish annual limit.
	6/18 - 9/18	Entire coast south of Cape Falcon; as above.
	6/18 - 9/11	North of Cape Falcon; 2 fish/day.
	9/19 - 10/31	South of Cape Blanco; first 2 chinook taken/day.
	11/1-30	State waters off Elk River; first 2 chinook taken/day.
1984	7/9 - 8/7	South of Cape Falcon; 2 fish/day; 40 fish annual limit. Minimum size 20". Single-point barbless hooks.
	7/28 - 8/8	Cape Falcon to Columbia River South Jetty; 2 coho/day; 40 fish annual limit. Minimum size 16". No chinook allowed. Single-point barbless hooks.

Appendix Table 10 continued.

Year	Season	Regulations
(1984 cont.)	8/9-24	Cape Blanco to OR/CA border; 2 chinook/day; 20" minimum size. Single-point barbless hooks.
	8/25 - 9/3	Cape Falcon to Cape Blanco; 1 fish/day; 20" minimum size. Single-point barbless (State waters only) hooks. (Cape Blanco to OR/CA border) 2 fish/day, one of which can be coho; 20" minimum size. Single-point barbless hooks.
	9/4 - 10/31	Cape Blanco to OR/CA border; 2 chinook/day; 20" minimum size. Single-point barbless hooks.
	9 15-21 ^d	Manhattan Beach to Pyramid Rock off Tillamook Bay; 2 chinook/day; 20" minimum size. (State waters only) Single-point barbless hooks.
	11/1-30	Cape Blanco to Humbug Mountain-Elk River; 2 chinook/day; 20" minimum size. (State waters only) Single-point barbless hooks.
1985	5/25-31	OR-CA border to Cape Blanco; first 2 fish taken per day; no more than 6 fish may be retained in 7 consecutive days.
	7/1-9/2	OR-CA border to Cape Falcon—as above.
	6/30 - 8/22	Cape Falcon to Leadbetter Pt.; 2 fish per day; 40 fish annual bag limit. Minimum size 24" for chinook, 16" for coho and other salmon. Barbless hooks. Area closure: Red Buoy line on Columbia R. mouth north to Klipsan Beach. Fishery closed Fridays and Saturdays.
	9/3 - 10/31	OR-CA border to Cape Blanco; first 2 salmon except coho taken per day; no more than 6 fish may be retained in 7 consecutive days.
	9/15 - 10/31	Twin Rocks to Pyramid Rock off Tillamook Bay, state waters only; first 2 salmon except coho taken per day; no more than 6 fish may be retained in 7 consecutive days.
	10/1 - 11/30	Tower Rock to Humbug Mt., state waters near Elk R.; first 2 salmon except coho taken per day; no more than 6 fish may be retained in 7 consecutive days.
1986	5/24 - 9/7	OR-CA border to Cape Blanco; from May 24 through June 22, not more than 1 coho and 1 chinook per day; after June 22, 2 salmon of any species. Not more than 6 fish may be retained in 7 consecutive days. Minimum size 20" for all salmon; barbless hooks.
	5/24 - 5/26 and 6/28 - 8/13	Cape Blanco to Cape Falcon; first 2 fish hooked per day; not more than 6 fish in 7 consecutive days. On July 27, Sundays and Mondays were closed to salmon fishing. On July 29 possession limit reduced to not more than 2 fish in 7 consecutive days.
	6/29 - 8/19	Cape Falcon to Leadbetter Point; 2 fish per day; minimum size 24" for chinook and 16" for other salmon. Barbless hooks. Area closure: Red Buoy line at Columbia River mouth north to Klipsan Beach. Fishery closed Fridays and Saturdays.
	9/15 - 11/15	Twin Rocks to Pyramid Rock off Tillamook Bay in state waters; first 2 salmon except coho per day; not more than 6 fish in 7 consecutive days; barbed hooks allowed.
	10/1 - 11/26	South of Cape Blanco to Humbug Mountain in state waters; 2 salmon except coho per day; not more than 6 fish in 7 consecutive days; barbless hooks only. Minimum size 20".
	10/1-31	South of Bird Island to OR-CA border in state waters; 2 salmon except coho per day; not more than 6 fish in 7 consecutive days; barbless hooks only. Minimum size 20".
1987	5/23 - 9/13	Cape Blanco to OR/CA Border; 2 salmon per day; not more than 6 salmon may be retained in 7 consecutive days; 40 salmon annual limit, minimum size 20". Single point barbless hooks.
	6/13 - 9/13	Cape Falcon to Cape Blanco; First 2 salmon per day; not more than 6 salmon may be retained in 7 consecutive days; 40 salmon annual limit.
	6/29 - 8/19	Leadbetter Point to Cape Falcon; 2 salmon per day; 40 salmon annual limit. Open Sunday through Thursday only. Area closures inside 3 miles from Cape Falcon to Red Buoy Line, 0-200 miles from Red Buoy line to Klipsan Beach, and inside 3 miles from Klipsan Beach to Leadbetter Point. Minimum size 24" for chinook and 16" for coho. Single point barbless hooks.
	9/15 - 10/31	Twin Rocks to Pyramid Rock, state waters off Tillamook Bay; first 2 salmon except coho per day, not more than 6 salmon may be retained in 7 consecutive days; 40 salmon annual limit.
	10/1 - 11/30	Cape Blanco to Humbug Mountain, state water off Elk River; 2 salmon per except coho; not more than 6 salmon may be retained in 7 consecutive days; 40 salmon annual limit. Minimum size 20" chinook Single point barbless hooks.

Appendix Table 10 continued.

Year	Season	Regulations
(1987 cont.)	10/1 - 31	Bird Island to OR/CA Border east of 124 ^o 20'w, state waters off of Chetco River; 2 salmon per day except coho; not more than 6 salmon may be retained in 7 consecutive days; 40 salmon annual limit. Minimum size 20" chinook. Single point barbless hooks.
1988	5/1 - 27	Cape Falcon to Orford Reef Red Buoy inside the 27 fathom curve ^e only; 2 salmon per day; 6 salmon in 7 consecutive days; 40 salmon annual limit. Minimum size 20" chinook, 16" coho. Single point barbless hooks.
	5/28 - 9/11	Cape Falcon to Orford Reef Red Buoy; as above.
	5/28 - 7/9	Orford Reef Red Buoy to OR/CA border; 2 salmon per day; 6 salmon in 7 consecutive days; 40 salmon annual limit. Minimum size 20". Single point barbless hooks.
	7/10 - 9/11	Orford Reef Red Buoy to OR/CA Border; As above except bag decreased to 1 salmon per day.
	7/11 - 24	Cape Falcon to Leadbetter Point, WA; 2 salmon per day, only 1 of which may be a chinook; 40 salmon annual limit. Open Sunday through Thursday only. Columbia River Conservation Zone closed. Closed 5 to 200 nautical miles from shore between North Head and Klipsan Beach. Closed 3 to 200 nautical miles from shore between Columbia River South Jetty and Cape Falcon. Minimum size 24" for chinook, 16" for coho. Single point barbless hooks.
	9/12 - 10/31	Twin Rocks to Pyramid Rock, state waters off Tillamook Bay; 2 salmon except coho per day; 6 salmon in 7 consecutive days; 40 salmon annual limit. Barbed hooks are permitted. No minimum length.
	10/1 - 31	Orford Reef Red Buoy to Humbug Mountain, state waters off Elk River; 2 salmon except coho per day; 6 salmon in 7 consecutive days; 40 salmon annual limit. Single point barbless hooks. No minimum length.
	11/1 - 30	Cape Blanco to Humbug Mountain, state waters off Elk River; as above.
1989	5/1 - 26	Cape Falcon to Orford Reef Red Buoy inside the 27 fathom curve ^e ; 2 salmon per day; not more than 6 salmon in 7 consecutive days; 40 salmon annual limit. Minimum size 20" chinook, 16" coho. Single point barbless hooks.
	5/27 - 7/27	Cape Falcon to Orford Reef Red Buoy, no fathom restriction. As above.
	7/28 - 8/20	Cape Falcon to Orford Reef Red Buoy. As above except salmon fishing closed Fridays and Saturdays.
	9/2 - 9/4	Cape Falcon to Orford Reef Red Buoy. As above except salmon fishing open every day.
	5/1 - 9/30	Orford Reef Red Buoy to Horse Mtn.; 2 salmon per day; 6 salmon in 7 consecutive days; 40 salmon annual limit. Minimum size 20" for chinook and coho - none for pink. Single point barbless hooks.
	5/28 - 6/12	Cape Falcon to US/Canada border; 2 salmon except coho per day; 40 salmon annual limit. Open Sunday through Monday only from 0 to 6 miles. Columbia River Conservation Zone closed. Minimum size 24" for chinook, 16" coho, none for pink. Single point barbless hooks.
	6/26 - 8/17	Cape Falcon to Leadbetter Point; 2 salmon per day; 40 salmon annual limit. Open Sunday through Thursday only from 0 to 200 miles. Columbia River Conservation Zone closed. Minimum size 24" for chinook, 16" coho, none for pink. Single point barbless hooks.
	9/16 - 10/31	Twin Rocks to Pyramid Rock, state waters off Tillamook Bay; 2 salmon except coho per day; 6 salmon in 7 consecutive days; 40 salmon annual limit. No minimum length. Barbed hooks permitted.
	10/1 - 11/30	Cape Blanco to Humbug Mtn.; 2 salmon except coho per day; 6 salmon in 7 consecutive days; 40 salmon annual limit. Single point barbless hooks. No minimum length.
1990	5/1 - 27	Cape Falcon to Humbug Mountain inside the 27 fathom curve ^e ; 2 salmon per day; not more than 6 salmon in 7 consecutive days; 40 salmon annual limit. Minimum size 20" for chinook, 16" coho; none for pink salmon. Single point barbless hooks.
	5/28 - 9/16 except closed 6/23 - 6/29 and 8/1 - 8/7	Cape Falcon to Humbug Mountain, no fathom restriction. As above.
	5/1 - 9/9	Humbug Mountain to Horse Mountain, CA; 2 salmon per day except 6/30 through 8/15 only one could be a chinook; not more than 6 fish in 7 consecutive days; 40 salmon annual limit. Minimum size 20" for chinook and coho, none for pink. Single point barbless hooks.

Appendix Table 10 continued.

Year	Season	Regulations
(1990 cont.)	6/24 - 8/30	Cape Falcon to Leadbetter Point, WA; 2 salmon per day; 40 salmon annual limit. Open Sunday through Thursday only from 0 to 6 miles. Columbia River conservation Zone closed. Minimum size 24" for chinook, 16" for coho, none for pink salmon. Single point barbless hooks.
	9/8 - 9/9	Cape Falcon to Leadbetter Point, WA; as above.
	9/17 - 10/31	Twin Rocks to Pyramid Rock, state waters of Tillamook Bay; 2 salmon except coho per day; 6 salmon in 7 consecutive days; 40 salmon annual limit. No minimum length. Barbed hooks permitted.
1991	5/1 - 26	Cape Falcon to Humbug Mountain inside the 27 fathom curve; ^e 2 salmon per day, not more than 6 salmon in 7 consecutive days. 40 salmon annual limit. minimum size 20" for chinook, 16" for coho; none for pink salmon. Single point barbless hooks.
	5/27 - 7/28	Cape Falcon to Humbug Mountain; as above except no fathom restriction.
	5/25 - 7/28 8/31 - 9/2	Humbug Mountain to Horse Mountain CA; 2 salmon per day except only 1 may be a chinook; not more than 6 fish in 7 consecutive days; 40 salmon annual limit. Minimum size 20" for chinook and coho, none for pink. Single point barbless hooks. Salmon fishing Thursday through Monday only.
	9/6 - 9/29	Humbug Mountain to Horse Mountain, CA; as above except salmon fishing Friday through Sunday only.
	6/24 - 8/12	Cape Falcon to Leadbetter Point, WA; 2 salmon per day; 40 salmon annual limit. Open Sunday through Thursday only with the Columbia River Conservation Zone closed. Minimum size 24" for chinook, 16" for coho, none for pink salmon. Single point, barbless hooks.
	9/16 - 10/31	Twin Rocks to Pyramid Rock, state waters off Tillamook Bay; 2 salmon except coho per day; 6 salmon in 7 consecutive days; 40 salmon annual limit. No minimum length. Barbed hooks allowed.

^a Federal waters (3-200 miles) closed to coho fishing effective September 1.

^b Federal waters closed August 26-September 20 for all species of salmon.

^c Federal waters closed to coho fishing on July 21, north of Cape Falcon and July 25 south of Cape Falcon.

^d Pacific Ocean between 45 degrees 38 minutes N. Latitude and 45 degrees 29 minutes 45 seconds N. latitude and seaward 3 miles.

^e The 27 fathom curve is defined as follows: Within an area bounded by a line from Cape Falcon to 45°46'N, 124°01'20"W (approximately 1.6 nautical miles west of Cape Falcon) to 45°04'15"N, 123°04'W (approximately 2.2 nautical miles northwest of Cascade Head) to 44°40'40"N, 129°09'15"W (approximately 3 nautical miles west of Yaquina Head) to 44°08'30"N, 124°12'W (approximately 3 nautical miles west of Heceta Head) to 43°40'15"N, 124°14'30"W (approximately 0.5 miles west of the Umpqua Whistle Buoy) to 43°31'30"N, 124°17'W (approximately 1.7 nautical miles west of the beach) to 43°15'15"N, 124°28'W (approximately 3 nautical miles west of the beach) to 43°01'30"N, 124°29'50"W (approximately 2 nautical miles west of Four Mile Creek) to 42°56'N, 124°33'10"W (approximately 2.4 nautical miles west of Floras Creek) to 42°50'N, 124°38'30"W (approximately 3.4 nautical miles west of Cape Blanco) to 42°40'30"N, 124°28'45"W (approximately 1.1 nautical miles west of Humbug Mountain) to Humbug Mountain.

Appendix Table 11. Summary of actual Oregon ocean recreational salmon fishing regulations for 1992.

Area and Season	Quota		Daily Limit and Special Restrictions ^a
	Chinook	Coho	
Leadbetter Point, WA to Cape Falcon 6/29-7/30 (24 days) 0-3 miles 8/2-8/6 (5 days) 0-200 miles 9/16-9/17, 9/27 (3 days) 0-200 miles Sunday through Thursday only	10,000	67,500	Two salmon per day, not more than 4 salmon in 7 consecutive days; not more than 20 fish/year. Conservation Zone 1 (Columbia River mouth) is closed.
Cape Falcon to Humbug Mountain 5/1-6/11 (30 days) inside 27 fathoms 6/14-7/2 (15 days) 0-200 miles Sunday through Thursday only		172,000	Two salmon per day, not more than 4 salmon in 7 consecutive days; not more than 20 fish/year.
Cape Falcon to Heceta Head 7/5-9/10 (50 days) Sunday through Thursday only	no quota		as above
Heceta Head to Humbug Mtn. 7/5-8/31 (42 days) 9/1-9/10 (8 days) Sunday through Thursday only	3,700 ^b no quota	as above	As above except chinook cannot be taken or landed. As above except chinook can be taken or landed again.
Humbug Mountain to Horse Mountain, CA 7/6-7/20 (7 days) Monday through Wednesday only 9/1-9/7 (7 days) No day restriction	3,500	as above except coho quota not binding. as above	One fish per day, not more than 6 salmon in 7 consecutive days; not more than 40 fish/year. as above
Goat Island to Red Rock (off Brookings) 10/15-10/26 (12 days) inside 3 miles - no day restriction	400	--	as above
Cape Blanco to Humbug Mtn. 10/24-10/26 (3 days) inside 3 miles - no day restriction	500	--	as above

^a Single point, single shank barbless hooks were required from U.S.-Canada border to Pt. Conception, CA. Minimum size limits were (1) 24 inches for chinook and 16 inches for coho north of Cape Falcon, OR; (2) 20 inches for chinook and 16 inches for coho from Cape Falcon to Humbug Mountain, OR; and (3) 20 inches for both chinook and coho south of Humbug Mountain. There were no size limits on pink salmon.

^b Impact quota (catch plus estimated "shaker" mortality).

Appendix Table 12. Oregon ocean recreational salmon angler effort, by port and statistical week^a for 1992.

Stat. Week	Astoria	Garibaldi	Pacific City	Depoe Bay	Newport	Florence	Winchester Bay	Coos Bay	Brookings	Total
18	-	0	1	4	149	6	32	62	-	253
19	-	9	11	2	151	16	52	61	-	292
20	-	8	78	26	83	16	88	62	-	294
21	-	408	98	53	262	67	182	56	-	1,106
22	-	559	69	73	321	100	384	212	-	1,747
23	-	312	111	57	152	28	260	102	-	980
24	-	696	159	307	795	396	811	501	-	3,617
25	-	737	335	562	1,346	276	741	396	-	4,217
26	-	999	483	1,298	2,555	1,173	3,083	1,664	-	11,107
27	1,490	953	736	1,657	4,414	1,914	3,722	2,364	-	16,997
28	2,175	1,736	773	2,120	4,452	1,918	3,961	1,119	4,489	22,706
29	2,062	2,336	489	1,796	4,219	1,991	3,067	1,337	3,200	20,781
30	1,827	2,131	354	1,769	3,545	1,357	2,298	1,127	1,199	15,742
31	2,258	1,666	475	1,405	2,515	642	1,179	636	-	10,655
32	1,842	1,448	429	1,233	3,579	1,836	2,322	1,303	-	14,038
33	-	1,451	319	1,236	2,720	1,103	1,349	733	-	9,021
34	-	1,042	333	1,050	2,606	621	812	470	-	6,920
35	-	1,556	205	651	1,536	928	824	481	-	6,309
36	-	1,459	69	393	1,069	732	742	501	4,339	9,440
37	-	1,102	-	204	685	652	400	290	561	3,963
38	1,106	-	-	-	-	-	-	-	-	1,106
39	165	-	-	-	-	-	-	-	-	165
42	-	-	-	-	-	-	-	-	1,969	1,969
43	-	-	-	-	-	-	-	-	1,485	1,485
44	-	-	-	-	-	-	-	-	408	408
Total	12,925	20,608	5,527	15,896	37,154	15,772	26,309	13,477	17,650	165,318

^a Refer to Appendix Table 19 for 1992 statistical week calendar.

Appendix Table 13. Oregon recreational effort in salmon angler trips by area and month for 1979-92.^a

Area	May	June	July	August	Sept.	Oct.	Nov.	Season ^b
<u>Columbia R.</u>								
1979	800	5,000	14,800	19,700	2,900	-	-	43,300
1980	1,300	7,800	13,700	19,700	3,800	-	-	46,300
1981	1,000	4,900	14,100	20,100	4,600	-	-	44,700
1982	-	4,900	22,300	-	-	-	-	27,200
1983	-	2,700	12,900	11,500	3,800	-	-	30,900
1984	-	-	2,000	5,100	-	-	-	7,100
1985	-	600	7,800	11,600	-	-	-	20,000
1986	-	700	12,100	7,800	-	-	-	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
<u>Tillamook</u>								
1979	900	3,200	11,800	14,500	600	-	-	31,000
1980	400	8,500	17,300	18,100	3,600	-	-	47,800
1981	1,300	2,200	11,500	16,500	6,600	-	-	38,000
1982	100	2,700	21,800	-	-	-	-	24,600
1983	-	1,200	12,600	7,800	3,700	-	-	25,300
1984	-	-	11,800	10,800	1,200	-	-	23,800
1985	-	-	13,000	21,700	2,200	1,600 ^c	-	38,600
1986	0	1,900	13,000	3,000	-	-	-	17,900
1987	-	1,800	12,400	10,900	3,800	-	-	29,100
1988	300	2,100	9,600	13,800	7,400	-	-	33,200
1989	300	3,000	15,400	9,500	3,100	-	-	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
<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	38,700	7,900	-	-	-	51,900
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	22,800	4,300	-	-	82,800
1990	600	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

Appendix Table 13 continued.

Area	May	June	July	August	Sept.	Oct.	Nov.	Season ^b
Coos Bay								
1979	4,800	21,500	42,900	25,200	300	-	-	94,700
1980	2,200	32,100	46,200	14,300	2,600	-	-	97,400
1981	6,600	13,900	35,200	22,700	5,500	-	-	83,900
1982	100	12,000	77,300	-	-	-	-	59,400
1983	-	14,200	36,900	13,600	6,900	-	-	71,600
1984	-	-	22,000	17,900	300	-	-	40,200
1985	-	-	33,100	29,200	1,200	-	-	63,500
1986	800	4,900	33,700	4,200	-	-	-	43,600
1987	-	3,900	40,600	12,800	5,200	-	-	62,500
1988	1,400	9,800	33,100	21,000	3,600	-	-	69,000
1989	800	16,200	33,900	13,600	2,100	-	-	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
Brookings								
1979	300	4,900	27,100	18,500	3,300	5,000	900	59,900
1980	200	13,300	23,900	10,000	5,300	2,900	400	56,000
1981	2,700	16,500	23,700	19,300	2,300	2,300	300	67,100
1982	400	5,200	39,700	10,200	3,000	2,600	300	61,400
1983	800	9,800	22,700	11,200	6,100	5,000	100	55,700
1984	-	-	15,100	16,800	2,900	3,100	-	38,000
1985	4,600	-	28,500	19,300	2,600	4,000	-	59,000
1986	3,500	10,400	20,000	12,900	600	5,000	-	52,400
1987	2,300	10,000	29,000	15,200	7,100	5,900	--	69,400
1988	800	14,300	25,500	12,000	1,900	-	-	54,400
1989	3,100	15,700	26,600	14,600	6,200	-	-	66,100
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
All Areas								
1979	8,900	42,800	129,800	106,700	7,300	5,000	900	301,300
1980	5,900	78,400	140,000	84,700	19,100	2,900	400	331,400
1981	13,800	45,700	112,200	110,300	26,400	2,300	300	311,000
1982	700	32,100	177,100	10,200	3,000	2,600	300	226,000
1983	800	31,500	108,000	55,100	25,500	5,000	100	226,000
1984	-	-	74,900	69,800	5,300	3,100	-	153,100
1985	4,600	600	106,800	126,200	7,800	5,600	-	251,600
1986	5,700	21,800	117,500	35,900	600	5,000	-	186,500
1987	2,300	21,500	130,500	62,900	24,700	5,900	-	255,000
1988	3,600	33,300	111,800	81,000	22,400	-	-	252,000
1989	5,200	53,400	122,600	69,600	15,700	-	-	266,600
1990	2,700	32,000	98,700	94,300	18,500	-	-	246,200
1991	3,400	46,200	123,400	11,300	5,800	-	-	190,100
1992	3,400	19,900	86,900	36,300	14,700	3,900	-	165,300

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

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

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

Appendix Table 14. Summary of Oregon recreational ocean salmon effort and catch by area, 1976-92.

Year	Area ^a					Total
	Columbia R.	Tillamook	Newport	Coos Bay	Brookings	
EFFORT (Salmon Angler Trips)^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	51,900	43,600	52,400	186,500
1987	17,100	29,100	76,900	62,500	69,400	255,000
1988	5,700	33,200	89,600	69,000	54,400	252,000
1989	19,800	31,300	82,800	66,600	66,100	266,600
1990	25,500	33,500	71,400	65,000	51,100	246,200
1991	21,700	21,000	53,300	57,700	36,400	190,100
1992 ^c	12,900	26,100	53,000	55,600	17,600	165,300
Chinook						
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	2,200	5,900	11,800	22,400
1987	4,000	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	21,300	32,100
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 ^c	500	1,500	4,100	3,800	2,700	12,600
Coho						
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	36,900	23,500	78,500	61,100	11,700	211,700
1987	25,600	16,400	65,300	54,100	19,000	180,500
1988	9,800	29,900	100,900	71,200	15,000	226,900
1989	34,300	30,300	102,500	73,100	33,100	273,300
1990	36,100	22,900	64,100	62,000	15,300	200,500
1991	39,400	25,600	81,100	90,800	22,200	259,100
1992 ^c	22,300	20,800	63,600	76,000	3,300	185,800

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

^b 1976-1978 effort includes a small number of bottomfishing trips.

^c Preliminary.

Appendix Table 15. Oregon ocean recreational chinook catch (number of fish) by catch area and month, 1979-92.

Area ^a	Chinook							Season ^b
	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
<u>Tillamook</u>								
1979	<50	<50	600	300	<50	-	-	1,000 ^c
1980	<50	200	300	800	200	-	-	1,600 ^c
1981	<50	<50	600	900	400	-	-	1,900 ^c
1982	-	100	1,300	-	-	-	-	1,400
1983	-	<100	400	200	100	-	-	700
1984	-	-	600	500	<100	-	-	1,100
1985	-	-	1,100	1,400	<100	<100	-	2,600
1986	0	<50	200	200	-	-	-	500
1987	-	<100	800	2,000	600	-	-	3,500
1988	<50	100	300	1,300	1,000	-	-	2,700
1989	<50	100	300	400	<50	-	-	900
1990	0	<50	500	400	300	100	-	1,200
1991	<50	300	400	-	-	-	-	700
1992	100	300	600	300	200	-	-	1,500
<u>Newport</u>								
1979	200	300	500	400	<50	-	-	1,400 ^d
1980	100	600	600	400	200	-	-	1,800 ^d
1981	<50	100	1,100	1,000	200	-	-	2,400 ^d
1982	-	600	2,900	-	-	-	-	3,500
1983	-	400	800	300	200	-	-	1,600
1984	-	-	1,100	900	100	-	-	2,000
1985	-	-	1,400	2,600	100	-	-	4,100
1986	100	100	1,800	100	-	-	-	2,200
1987	-	200	2,300	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	<50	-	-	4,100
<u>Coos Bay</u>								
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

Appendix Table 15 continued.

Area ^a	Chinook							Season ^b
	May	June	July	August	Sept.	Oct.	Nov.	
<u>Coos Bay cont.</u>								
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	4,400	500	-	-	-	5,900
1987	-	900	10,600	4,500	2,800	-	-	19,000
1988	200	1,700	2,800	3,100	200	-	-	8,100
1989	100	1,700	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
<u>Brookings</u>								
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	2,700	3,500	3,900	<50	600	-	11,800
1987	100	3,800	9,300	5,600	5,900	1,100	-	26,400
1988	100	12,400	6,500	2,800	200	-	-	21,700
1989	400	3,600	9,400	6,800	1,100	-	-	21,300
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
<u>All Areas</u>								
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	4,000	11,100	5,400	<50	600	-	22,400
1987	100	5,200	25,100	16,000	11,000	1,100	-	59,400
1988	400	15,000	12,400	8,900	2,000	-	-	38,300
1989	600	6,400	14,700	9,300	1,200	-	-	32,100
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

^a Columbia River area includes Astoria, Warrenton and Hammond; Tillamook area includes Garibaldi and Pacific City; Newport area includes Depoe Bay and Newport; Coos Bay area includes Florence, Winchester Bay and Coos Bay; Brookings area includes Gold Beach and Brookings from 1979 through 1987.

^b 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.

^c Includes Nehalem Bay.

^d Includes Salmon and Siletz Rivers and Alsea Bay.

Appendix Table 16. Oregon ocean recreational chinook catch, by port and statistical week^a for 1992.

Stat. Week	Astoria	Garibaldi	Pacific City	Depoe Bay	Newport	Florence	Winchester Bay	Coos Bay	Brookings	Total
18	-	-	-	1	5	0	0	0	-	6
19	-	0	1	0	8	0	0	0	-	9
20	-	0	0	0	4	3	3	0	-	10
21	-	25	4	8	14	3	27	0	-	81
22	-	61	5	7	35	4	22	8	-	142
23	-	31	6	4	10	0	61	9	-	121
24	-	76	15	6	41	53	212	60	-	463
25	-	36	12	15	97	23	168	100	-	451
26	-	45	51	34	75	130	737	424	-	1,496
27	35	23	62	124	204	106	365	359	-	1,278
28	41	94	58	159	381	14	0	13	722	1,482
29	39	136	33	145	627	16	28	0	483	1,507
30	62	70	18	290	548	31	38	4	313	1,374
31	130	72	18	106	205	16	11	5	-	563
32	161	68	15	20	409	36	117	22	-	848
33	-	66	14	75	148	22	24	7	-	356
34	-	40	6	51	96	0	25	2	-	220
35	-	35	11	67	24	5	21	12	-	243
36	-	115	11	4	57	30	113	74	411	815
37	-	97	1	3	28	59	84	57	29	358
38	38	-	-	-	-	-	-	-	-	38
39	2	-	-	-	-	-	-	-	-	2
42	-	-	-	-	-	-	-	-	151	151
43	-	-	-	-	-	-	-	-	458	458
44	-	-	-	-	-	-	-	-	98	98
Total	508	1,158	341	1,119	3,016	551	2,056	1,156	2,665	12,570

^a Refer to Appendix Table 19 for 1992 statistical week calendar.

Appendix Table 17. Oregon ocean recreational coho catch (number of fish) by catch area and month, 1979-92.

Area ^a	Coho						
	May	June	July	August	Sept.	Oct.	Season ^b
<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	-	1,300	21,500	14,000	-	-	36,900
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
<u>Tillamook</u>							
1979	100	1,100	2,600	5,600	<50	-	9,400 ^c
1980	100	7,100	10,800	10,300	600	-	28,900 ^c
1981	300	1,000	5,600	9,600	1,300	-	17,700
1982	-	1,300	21,800	-	-	-	23,100
1983	-	200	6,100	1,600	900	-	8,800
1984	-	-	9,300	10,600	500	-	20,300
1985	-	-	8,900	21,700	400	-	31,000
1986	0	3,300	15,200	5,000	-	-	23,500
1987	-	600	10,200	4,900	700	-	16,400
1988	100	2,700	7,300	14,200	5,700	-	29,900
1989	<50	3,400	19,700	7,000	100	-	30,100
1990	0	900	8,700	12,400	-	-	22,900
1991	<50	2,500	23,100	-	-	-	25,600
1992	<100	1,800	11,300	6,100	1,400	-	20,800
<u>Newport</u>							
1979	200	3,700	18,700	13,600	<50	-	36,300 ^d
1980	200	18,500	41,500	10,800	1,400	-	72,400 ^d
1981	400	6,300	20,700	30,500	7,00	-	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	7,300	56,100	13,600	-	-	78,500
1987	-	1,300	43,100	14,500	6,300	-	65,300
1988	200	6,400	45,800	42,900	5,600	-	100,900
1989	800	24,000	47,100	29,300	600	-	102,500
1990	200	5,800	37,900	18,900	1,200	-	64,100
1991	<100	15,200	65,800	-	-	-	81,100
1992	<50	4,100	34,200	16,900	2,200	-	63,600
<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

Appendix Table 17 continued.

Area ^a	Coho						Season ^b
	May	June	July	August	Sept.	Oct.	
Coos Bay cont.							
1984	-	-	19,600	19,700	100	-	39,400
1985	-	-	30,900	19,700	500	-	51,200
1986	1,000	7,700	46,300	6,000	-	-	61,100
1987	-	1,000	44,500	6,400	2,100	-	54,100
1988	100	10,700	42,100	17,200	1,000	-	71,200
1989	700	22,300	38,500	11,600	<50	-	73,100
1990	<50	12,400	23,400	23,200	3,000	-	62,000
1991	800	23,400	66,500	-	-	-	90,800
1992	500	13,100	43,900	15,800	2,700	-	76,000
Brookings							
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	2,500	5,600	2,100	0	0	11,700
1987	1	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	-	33,100
1990	100	8,400	5,000	1,800	100	-	15,300
1991	0	10,200	10,600	500	900	-	22,200
1992	-	-	2,900	-	400	-	3,300
All Areas							
1979	5,700	35,600	85,800	52,200	1,600	-	180,800
1980	6,000	114,200	156,100	45,100	4,400	-	325,800
1981	9,200	26,300	70,800	80,600	12,900	-	200,600
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	4,000	22,200	144,700	40,800	-	-	211,700
1987	<50	4,300	124,400	41,200	10,500	<50	180,500
1988	300	19,900	117,900	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	6,400	-	200,500
1991	900	53,800	182,400	17,700	4,300	-	259,100
1992	600	24,700	110,600	41,700	8,200	-	185,800

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

^b Individual monthly catches may not equal season total due to rounding, Season totals for individual catch areas for 1974-1975 data may not equal the sum of combined months due to some effort/landings not identified by port of landing, "All Areas" summary includes unidentified data.

^c Includes Nehalem Bay.

^d Includes Salmon and Siletz Rivers and Alsea Bay.

Appendix Table 18. Oregon ocean recreational coho catch, by port and statistical week^a for 1992.

Stat. Week	Astoria	Garibaldi	Pacific City	Depoe Bay	Newport	Florence	Winchester Bay	Coos Bay	Brookings	Total
18	-	0	0	0	0	0	3	0	-	3
19	-	0	0	0	0	0	11	0	-	11
20	-	0	2	0	0	0	9	0	-	11
21	-	0	9	0	0	3	167	21	-	200
22	-	31	18	25	5	6	193	112	-	390
23	-	61	73	37	25	14	284	72	-	566
24	-	157	81	522	1,296	640	916	575	-	4,187
25	-	379	187	773	1,079	347	1,066	528	-	4,359
26	-	647	263	2,149	3,845	1,645	4,751	2,273	-	15,573
27	2,424	447	779	2,905	5,991	3,192	6,251	3,569	-	25,558
28	4,085	2,231	1,241	3,737	5,019	3,012	7,015	1,596	1,721	29,657
29	3,862	2,813	1,126	2,788	4,299	3,280	5,001	1,692	752	25,613
30	3,400	1,111	425	2,355	3,679	1,689	3,229	1,653	377	17,918
31	4,111	791	376	1,062	2,836	815	1,532	324	-	11,847
32	3,005	1,373	518	971	4,912	2,940	3,568	1,846	-	19,133
33	-	1,321	508	1,781	3,571	1,690	1,430	761	-	11,062
34	-	746	437	1,389	2,746	768	651	590	-	7,327
35	-	909	260	489	1,040	605	494	423	-	4,220
36	-	636	21	591	785	755	489	421	399	4,097
37	-	760	14	297	557	790	124	134	45	2,721
38	1,318	-	-	-	-	-	-	-	-	1,318
39	75	-	-	-	-	-	-	-	-	75
Total	22,280	14,413	6,338	21,871	41,685	22,191	37,184	16,590	3,294	185,846

^a Refer to Appendix Table 19 for 1992 statistical week calendar.

Appendix Table 19. Oregon ocean recreational salmon effort and catch by boat type, 1979-92^a and 1979-91 average, in thousands.

Year	Angler Trips		Chinook Catch		Coho Catch	
	Charter	Private	Charter	Private	Charter	Private
1979	73.7	187.7	5.4	13.3	59.8	101.8
1980	79.0	218.9	5.1	11.9	98.3	207.5
1981	65.4	245.8	6.6	22.5	64.5	135.3
1982	43.3	182.7	8.2	30.6	48.5	126.7
1983	41.9	184.1	4.7	20.0	39.7	107.2
1984	24.3	128.7	2.2	14.8	27.3	96.1
1985	53.4	198.2	9.2	46.6	60.2	122.8
1986	43.7	142.8	4.0	18.4	71.1	140.5
1987	60.9	194.2	14.3	45.1	61.9	118.7
1988	63.0	189.0	7.5	30.9	73.1	153.3
1989	60.2	206.4	4.1	27.9	85.1	187.1
1990	55.3	190.9	5.1	21.4	61.6	138.9
1991	40.3	149.7	1.9	12.5	68.9	190.2
1979-1991	54.2	185.9	6.0	24.3	63.0	140.5
1992 ^b	30.0	135.4	2.7	9.9	46.2	139.6

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

^b Preliminary.

Appendix Table 20. Oregon ocean recreational salmon effort and catch, by boat type and port, 1979-1992.

	<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	7,697	12,886	581	1,367	14,683	22,210
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	17,012	1,107	2,210	14,140	21,953
1991	8,102	13,552	334	649	15,534	23,862
1979-91 avg.	10,796	14,542	1,743	2,227	16,472	17,729
1992	4,589	8,336	172	336	8,766	13,514
<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	2,846	11,819	106	278	4,725	13,510
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
1979-91 avg.	3,710	20,873	280	983	5,366	12,874
1992	2,721	17,887	113	1,045	4,089	10,324
<u>Pacific City</u>						
1979	-	-	-	-	-	-
1980	-	-	-	-	-	-
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	110	3,134	2	85	194	5,030
1987	238	4,610	27	328	440	3,432
1988	196	4,449	11	366	148	4,563
1989	254	4,743	5	188	383	6,583
1990	0	3,938	0	227	0	3,811
1991	0	3,220	0	84	0	4,888
1981-91 avg.	177	4,261	9	248	222	4,507
1992	0	5,527	0	341	0	6,338

Appendix Table 20 continued.

	<u>SALMON ANGLER TRIPS</u>		<u>CATCH</u>			
	Charter	Private	<u>Chinook</u>		<u>Coho</u>	
			Charter	Private	Charter	Private
<u>Depoe Bay</u>						
1979	14,535	7,511	197	130	8,435	3,867
1980	14,489	10,251	260	160	15,477	8,783
1981	12,423	9,584	382	399	11,376	7,406
1982	7,883	9,762	421	857	8,608	9,803
1983	5,699	7,464	138	244	3,150	3,900
1984	5,335	8,657	305	475	5,572	8,987
1985	11,918	13,069	691	808	13,155	13,580
1986	10,441	7,129	289	169	18,048	10,800
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	15,591	11,353	313	238	21,240	14,433
1990	8,497	17,012	1,107	2,210	14,140	21,953
1991	9,018	6,592	147	82	14,937	10,650
1979-91 avg.	11,479	10,257	495	575	13,070	10,752
1992	7,448	8,448	573	546	10,937	10,934
<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	9,527	24,819	444	1,284	16,321	33,337
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	12,729	43,100	357	916	18,499	47,620
1990	12,558	35,554	706	1,241	14,189	26,870
1991	10,214	27,431	219	432	17,358	38,122
1979-91 avg.	10,865	34,426	567	1,337	11,961	29,109
1992	7,345	29,809	1,119	1,897	10,234	31,451
<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	8,269	87	1,168	1,036	11,400
1987	625	12,927	196	3,166	450	9,794
1988	716	14,357	23	1,431	707	15,485
1989	0	12,178	0	1,745	0	10,718
1990	429	15,358	11	980	314	13,852
1991	468	12,048	24	1,008	615	19,195
1981-91 avg.	306	11,523	37	1,400	320	10,401
1992	595	15,177	6	545	836	21,355

Appendix Table 20 continued.

	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	6,955	16,217	817	1,509	11,498	21,414
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	9,583	26,220	709	2,642	12,688	29,711
1990	9,120	26,313	1,235	2,588	9,013	26,992
1991	5,553	23,400	380	2,054	9,964	36,714
1979-91 avg.	9,114	27,180	1,259	2,970	10,480	28,210
1992	5,027	21,282	403	1,653	8,295	28,889
<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	9,447	454	1,883	3,513	12,236
1987	3,607	13,112	969	2,954	3,521	12,049
1988	3,446	12,213	488	934	4,130	10,860
1989	3,551	15,077	213	1,344	4,691	15,248
1990	2,689	10,781	269	1,461	2,294	9,584
1991	2,374	13,839	102	1,488	4,139	20,153
1979-91 avg.	4,106	14,458	441	1,432	5,081	13,857
1992	1,768	11,709	161	995	2,897	13,693
<u>Gold Beach</u>						
1979	1,515	5,840	154	974	201	625
1980	1,182	2,891	134	285	306	888
1981	1,482	3,131	246	658	247	644
1982	1,993	4,792	469	888	271	839
1983	2,174	6,685	511	1,557	366	1,192
1984	966	4,072	251	661	256	1,330
1985	1,755	4,786	723	1,857	168	539
1986	1,365	3,016	363	812	255	590
1987	1,399	2,709	394	992	446	1,176
1988	-	-	-	-	-	-
1989	-	-	-	-	-	-
1990	-	-	-	-	-	-
1991	-	-	-	-	-	-
1992	-	-	-	-	-	-

Appendix Table 20 continued.

	<u>SALMON ANGLER TRIPS</u>		<u>CATCH</u>			
	Charter	Private	Chinook		Coho	
			Charter	Private	Charter	Private
<u>Brookings</u>						
1979	1,507	42,995	160	4,446	497	16,811
1980	1,590	44,783	134	3,686	1,176	30,589
1981	1,753	60,891	216	7,775	595	6,838
1982	1,398	53,171	669	13,502	565	15,234
1983	1,415	45,403	697	9,589	610	14,181
1984	1,132	31,803	424	7,709	468	9,437
1985	2,417	49,993	2,296	31,266	318	6,847
1986	1,996	46,056	838	9,830	861	10,005
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	4,400	61,696	1,903	19,354	3,767	29,267
1990	2,495	48,613	1,124	11,608	1,235	14,083
1991	2,080	34,367	663	6,148	1,897	20,329
1979-91 avg.	2,158	48,572	1,043	12,854	1,103	15,656
1992	468	17,182	151	2,514	184	3,110
<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	35,994	129,906	3,400	17,018	56,451	118,322
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	51,054	195,717	3,613	26,992	68,326	169,703
1990	46,788	173,870	3,965	19,199	47,431	116,942
1991	32,242	136,166	1,579	11,854	53,356	166,367
1979-91 avg.	43,360	171,477	4,272	22,082	46,640	122,747
1992	25,372	127,021	2,526	9,536	37,472	126,094
<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	43,691	142,792	3,981	18,385	71,134	140,532
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	60,178	206,427	4,137	27,932	85,140	187,100
1990	55,285	190,882	5,072	21,409	61,571	138,895
1991	40,344	149,718	1,913	12,503	68,890	190,229
1979-91 avg.	54,156	186,019	6,017	24,309	63,108	140,473
1992	29,961	135,357	2,698	9,872	46,238	139,608

Appendix Table 21. Summary of 1992 Oregon lower estuary recreational salmon fishery landings and effort. Data is for the listed ports only, and for the time period of June 29 through September 13, 1992.^a

	6/29-7/5	7/6-12	7/13-19	7/20-26	7/27-8/2	8/3-9	8/10-16	8/17-23	8/24-30	8/31-9/6	9/7-13	Total
Nehalem												
Coho Adults	0	48	52	31	0	17	4	8	14	7	7	188
Coho Jacks	0	15	0	0	0	0	0	0	0	0	0	15
Chinook Adults	0	11	0	15	3	4	0	5	16	44	51	149
Chinook Jacks	0	0	0	0	0	0	0	0	0	0	0	0
Tillamook Bay												
Private Boats												
Boat Trips	23	112	144	233	201	175	189	171	124	254	136	1,762
Angler Trips	52	297	355	550	453	440	378	358	332	507	313	4,035
Coho Adults	0	96	105	63	0	34	11	16	28	15	15	383
Coho Jacks	0	31	0	0	0	0	0	0	0	0	0	31
Chinook Adults	0	19	0	25	5	6	0	8	28	75	86	252
Chinook Jacks	0	0	0	0	0	0	0	0	0	0	0	0
Charter Boats												
Boat Trips	0	0	0	0	0	0	0	0	0	0	0	0
Angler Trips	0	0	0	0	0	0	0	0	0	0	0	0
Coho Adults	0	0	0	0	0	0	0	0	0	0	0	0
Coho Jacks	0	0	0	0	0	0	0	0	0	0	0	0
Chinook Adults	0	0	0	0	0	0	0	0	0	0	0	0
Chinook Jacks	0	0	0	0	0	0	0	0	0	0	0	0
Yaquina Bay												
Private Boats												
Boat Trips	174	162	229	231	139	61	141	97	48	43	0	1,325
Angler Trips	392	369	569	546	273	87	203	180	43	38	0	2,700
Coho Adults	7	32	24	0	0	6	42	0	0	0	0	111
Coho Jacks	7	0	0	0	0	0	0	0	0	0	0	7
Chinook Adults	7	91	91	17	17	0	0	0	0	0	0	223
Chinook Jacks	0	3	0	0	0	0	0	0	0	0	0	3
Charter Boats												
Boat Trips	6	0	1	0	0	0	0	0	0	0	0	7
Angler Trips	18	0	4	0	0	0	0	0	0	0	0	22
Coho Adults	1	0	0	0	0	0	0	0	0	0	0	1
Coho Jacks	0	0	0	0	0	0	0	0	0	0	0	0
Chinook Adults	0	0	0	0	0	0	0	0	0	0	0	0
Chinook Jacks	0	0	0	0	0	0	0	0	0	0	0	0

Appendix Table 21 continued.

	6/29-7/5	7/6-12	7/13-19	7/20-26	7/27-8/2	8/3-9	8/10-16	8/17-23	8/24-30	8/31-9/6	9/7-13	Total
Siuslaw												
Coho Adults	161	44	27	13	3	30	30	4	4	8	0	324
Coho Jacks	178	60	13	3	0	0	0	3	0	1	0	258
Chinook Adults	4	4	6	2	1	7	3	3	1	3	1	35
Chinook Jacks	1	0	0	0	0	0	0	0	0	4	2	7
Umpqua												
Private Boats												
Boat Trips	386	376	404	237	149	185	228	166	146	121	151	2,549
Angler Trips	863	818	754	435	250	293	462	301	194	208	217	4,795
Coho Adults	683	186	122	44	13	125	135	17	16	36	0	1,377
Coho Jacks	766	262	58	15	0	0	0	0	0	4	0	1,105
Chinook Adults	35	38	69	25	13	71	32	37	14	40	12	386
Chinook Jacks	7	5	5	5	0	0	0	0	0	48	20	90
Charter Boats												
Boat Trips	6	8	0	10	0	4	9	1	1	0	0	39
Angler Trips	42	43	0	50	0	20	41	6	3	0	0	205
Coho Adults	39	11	0	16	0	8	0	0	0	0	0	74
Coho Jacks	34	9	0	0	0	0	0	0	0	0	0	43
Chinook Adults	7	5	0	2	0	12	4	3	1	0	0	34
Chinook Jacks	0	0	0	0	0	0	0	0	0	0	0	0
Coos Bay												
Private Boats												
Boat Trips	420	540	402	233	305	117	276	212	163	212	92	2,972
Angler Trips	977	1,369	660	567	783	271	654	516	363	489	202	7,051
Coho Adults	377	146	90	102	36	81	300	66	20	16	0	1,234
Coho Jacks	1,373	212	37	27	0	0	0	0	0	11	0	1,660
Chinook Adults	58	60	86	5	36	9	20	10	3	32	0	319
Chinook Jacks	92	54	10	0	9	0	3	0	0	42	4	214
Charter Boats												
Boat Trips	0	4	0	0	0	0	0	0	1	0	0	5
Angler Trips	0	16	0	0	0	0	4	3	5	0	0	28
Coho Adults	0	20	0	0	0	0	20	12	1	0	0	53
Coho Jacks	0	0	0	0	0	0	2	3	0	0	0	5
Chinook Adults	0	0	0	0	0	0	0	0	0	0	0	0
Chinook Jacks	0	0	0	0	0	0	0	0	0	0	0	0
Coquille												
Coho Adults	5	2	1	1	0	1	4	1	0	0	0	15
Coho Jacks	17	3	0	0	0	0	0	0	0	0	0	20
Chinook Adults	10	10	14	1	6	1	3	2	0	5	0	52
Chinook Jacks	15	9	2	0	1	0	0	0	0	7	1	35

Appendix Table 21 continued.

	6/29-7/5	7/6-12	7/13-19	7/20-26	7/27-8/2	8/3-9	8/10-16	8/17-23	8/24-30	8/31-9/6	9/7-13	Total
Total-Sampled Ports^a												
Private Boats												
Boat Trips	1,003	1,190	1,179	934	794	538	834	646	481	630	379	8,608
Angler Trips	2,284	2,853	2,538	2,096	1,759	1,091	1,697	1,355	932	1,242	732	18,581
Coho Adults	1,067	460	341	209	49	246	488	99	64	67	15	3,105
Coho Jacks	2,146	505	95	42	0	0	0	0	0	15	0	2,803
Chinook Adults	100	208	246	72	71	86	52	55	45	147	98	1,180
Chinook Jacks	99	62	15	5	9	0	3	0	0	90	24	307
Charter Boats												
Boat Trips	12	12	1	10	0	4	9	1	2	0	0	51
Angler Trips	60	59	4	50	0	20	45	9	8	0	0	255
Coho Adults	40	31	0	16	0	8	20	12	1	0	0	128
Coho Jacks	34	9	0	0	0	0	2	3	0	0	0	48
Chinook Adults	7	5	0	2	0	12	4	3	1	0	0	34
Chinook Jacks	0	0	0	0	0	0	0	0	0	0	0	0
All Trips												
Boat Trips	1,015	1,202	1,180	944	794	542	843	647	483	630	379	8,659
Angler Trips	2,344	2,912	2,542	2,148	1,759	1,111	1,742	1,364	940	1,242	732	18,836
Coho Adults	1,107	491	341	225	49	254	508	111	65	67	15	3,233
Coho Jacks	2,180	514	95	42	0	0	2	3	0	15	0	2,851
Chinook Adults	107	213	246	74	71	98	56	58	46	147	98	1,214
Chinook Jacks	99	62	15	5	9	0	3	0	0	90	24	307
Total-Sampled & Expansion Ports^b												
Coho Adults	1,273	585	421	270	52	302	546	124	83	82	22	3,760
Coho Jacks	2,375	592	108	45	0	0	2	6	0	16	0	3,144
Chinook Adults	121	238	266	92	81	110	62	68	63	199	150	1,450
Chinook Jacks	115	71	17	5	10	0	3	0	0	101	27	349

^a Sampled estuaries include Tillamook Bay, Yaquina Bay, Winchester Bay, and Coos Bay. Effort estimation and catch sampling was only for boats in the area between the jetties in the lower bay.

^b The lower estuaries of the Nehalem, Siuslaw, and Coquille Rivers were not sampled in 1992 (spot checks were made on the Siuslaw). The Nehalem was expanded based on the ratio of salmon punchcard landings of Tillamook to Nehalem for the month of August 1990. A similar expansion was made for the Coquille using the August 1990 Coos Bay to Coquille punchcard ratio. For the Siuslaw, the expansion was based on the ratio of Umpqua to Siuslaw catches from the 1991 lower estuary creel sampling (July 29-September 2, 1991).

Appendix Table 22. Statistical week calendar for 1992.

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