

Reimers

PRP
M/S
Lura

**THE 1980-81 OREGON
OCEAN SALMON FISHERIES**

**Robert K. McQueen, David W. Loomis
and Stephen L. Lewis**

**OREGON DEPARTMENT OF FISH AND WILDLIFE
Anadromous Fish
Ocean Salmon Management**

MANAGEMENT OF THE OCEAN SALMON FISHERY

Annual Report

October 1, 1980 to September 30, 1981

by

Robert K. McQueen, David W. Loomis, and
Stephen L. Lewis

Oregon Department of Fish and Wildlife
Fisheries Division

National Marine Fisheries Service
National Oceanic and Atmospheric Administration
United States Department of Commerce
Anadromous Fisheries Act
Project Number: AFC-99-2
Contract Number: 81-ABD-ORIC

U.S. Fish and Wildlife Service
Federal Aid in Fish Restoration Act (Dingell-Johnson)
Project Number: F-105-R-2
Contract Number: 14-16-0001-80-455

CONTENTS

	<u>Page</u>
INTRODUCTION	1
THE OCEAN TROLL SALMON FISHERY	1
<u>1981 Regulations</u>	1
<u>1980 Regulations</u>	3
Catch and Effort Statistics	4
Effort	4
<u>Chinook Catch</u>	4
<u>Coho Catch</u>	9
<u>Pink Catch</u>	12
The Dollar Value of the Catch	12
Extended Troll Season Landings	12
Average Weight Data	14
Troll Salmon Mark Sampling	19
<u>1981</u>	19
<u>1980</u>	19
THE RECREATIONAL FISHERY	24
Regulations	24
Ocean Sampling Program	26
Effort	27
Catch Statistics	35
<u>Chinook Catch</u>	35
<u>Coho Catch</u>	42
Evaluation of Minimum Size Limits	45
Extended Recreational Season	45
Charter/Private Boat Fisheries	48
Recreational Ocean Salmon Mark Sampling	56
<u>1981</u>	56
<u>Chinook</u>	56
<u>Coho</u>	56
<u>1980</u>	59
<u>Chinook</u>	59
<u>Coho</u>	59
ACKNOWLEDGMENTS	59
REFERENCES	62

TABLES

<u>Table</u>	<u>Page</u>
1 History of Oregon Troll Regulations, 1948-81	2
2 Oregon Commercial Troll Salmon Effort and Catch 1971-1981. . .	5
3 Summary of Oregon Commercial Troll Effort and Catch by Area of Catch 1979-1981	6
4 Oregon Commercial Troll Effort and Landings of Coho and Chinook by Month, 1971-75 Average and 1978-81	7
5 Oregon Troll Salmon Landings in Numbers of Fish by Area of Catch by Species by Month, 1980-81	10
6 Oregon Troll Salmon Landings by Species in Pounds Dressed by Port by Management Area and Month, 1980-81	11
7 Estimates of Ex-vessel Value of Oregon Troll Landings and Average Price per Pound, 1971-81	13
8 Observed Average Dressed Weight and Calculated Number of Chinook by Month and Management Area, 1981	15
9 Observed Average Dressed Weight and Calculated Numbers of Coho by Month and Management Area, 1981	16
10 Observed Average Dressed Weight and Calculated Numbers of Chinook by Month and Management Area, 1980	17
11 Observed Average Dressed Weight and Calculated Numbers of Coho by Month and Management Area, 1980.	18
12 Oregon Troll Chinook Mark Sampling by Management Area, 1981. .	20
13 Oregon Troll Coho Mark Sampling by Management Area, 1981 . . .	21
14 Oregon Troll Chinook Mark Sampling by Management Area, 1980. .	22
15 Oregon Troll Coho Mark Sampling by Management Area, 1980 . . .	23
16 Oregon Ocean Recreational Salmon Regulations 1946-81	25
17 Oregon Ocean Recreational Salmon Catch Statistics from Sampling Data, 1981	28
18 Oregon Ocean Recreational Salmon Catch Statistics from Sampling Data, 1980	29
19 Oregon Ocean Recreational Salmon Catch and Effort for 1966-81.	30

<u>Table</u>	<u>Page</u>
20 Oregon Ocean Recreational Effort (Angler Trips) by Port by Month, 1981	32
21 Oregon Ocean Recreational Effort (Angler Trips) by Port by Month, 1980	33
22 Oregon Ocean Recreational Effort (Angler Trips) by Management Area, 1974 to 1981	34
23 Oregon Ocean Recreational Chinook Catch by Port by Month, 1981.	37
24 Oregon Ocean Recreational Coho Catch by Port by Month, 1981 . .	38
25 Oregon Ocean Recreational Chinook Catch by Port by Month, 1980.	39
26 Oregon Ocean Recreational Coho Catch by Port by Month, 1980 . .	40
27 Oregon Ocean Recreational Chinook Landings by Management Area, 1974 to 1981	41
28 Oregon Ocean Recreational Effort (Angler Trips) by Month, 1974-75 Average, 1978-81 and Salmon Catch in Numbers of Fish by Species by Month, 1974-75 Average, and 1976-81	43
29 Oregon Ocean Recreational Coho Landings by Management Area, 1974 to 1981	44
30 Chinook Salmon Released by Ocean Recreational Fishery in 1981 by Port	46
31 Chinook Salmon Released by Ocean Recreational Fishery in 1980 by Port	46
32 Coho Salmon Released by Ocean Recreational Fishery in 1981 by Port	47
33 Coho Salmon Released by Ocean Recreational Fishery in 1980 by Port	47
34 Oregon Ocean Recreational Salmon Statistics by Boat-Type, 1981.	49
35 Oregon Ocean Recreational Salmon Statistics by Boat-Type, 1980.	50
36 Oregon Ocean Recreational Salmon Catch Statistics by Boat and Trip Type from Angler Creel Survey, 1981	53
37 1980 Oregon Ocean Recreational Salmon Catch Statistics by Boat and Trip Type from Angler Creel Survey	54
38 Oregon Ocean Recreational Chinook Mark Sampling, 1981	57

<u>Table</u>		<u>Page</u>
39	Oregon Ocean Recreational Coho Mark Sampling, 1981	58
40	Oregon Ocean Recreational Chinook Mark Sampling, 1980	60
41	Oregon Ocean Recreational Coho Mark Sampling, 1980	61

FIGURES

<u>Figure</u>		
1	Oregon Ocean Troll Salmon Production 1930-1981	8
2	Oregon Ocean Recreational Salmon Catch 1966-81	36
3	Oregon Ocean Recreational Salmon Fishery Statistics by Boat-Type 1973-1981	51

MANAGEMENT OF THE OCEAN SALMON FISHERY

INTRODUCTION

The Ocean Salmon Management Program is responsible for obtaining fishery and biological data, analyzing these data and recommending appropriate management regulations for the ocean fisheries. Management regulations are designed to achieve the optimum use of the salmon resource on a sustained basis.

Activities pursued during FY 1981 included the sampling and analysis of catch and effort statistics, chinook age composition, mark recovery data, and coded wire tag data. Short-term work was done on the evaluation of a troll season extension for chinook salmon of southern Oregon, and the collection of random coho scales for a Research Section scale study to separate hatchery and wild coho.

The format of this report was changed slightly. Both 1980 and 1981 data are incorporated in this report to put it on a current basis. However, the 1981 troll data should be considered as preliminary at this time.

THE OCEAN TROLL SALMON FISHERY

Regulations

1981 Regulations

In the area north of Cape Falcon, commercial troll fishing was open for all salmon except coho from May 1-31 and was open for all salmon from July 15-August 21 when the fishery was projected to reach its preseason harvest guideline of 372,000 coho (Table 1). State waters remained open through August 24. Minimum size limits north of Cape Falcon were 28" for chinook and 16" for coho.

From Cape Falcon to the Oregon/California border, fishing was open for all

Table 1. History of Oregon Troll Regulations, 1948-81.

Year	Chinook		Coho	
	Season	Size	Season	Size
Prior to 1948	No Restrictions	No Restrictions	No Restrictions	No Restrictions
1948	No Restrictions	27"	July 1-November 15	Same
1949-1955	March 15-October 31	26"	June 15-October 31	Same
1956-1964	April 15-October 31	Same	Same	Same
1965-1975	Same	Same	Same	15"
1976	North of Tillamook Head May 1-June 14 and July 1-October 31	28" until 6-4-76 26" after 6-4-76	North of Tillamook Head July 1-October 31	16"
	South of Tillamook Head May 1-October 31	26"	South of Tillamook Head June 15-October 31	Same
1977	Same	28" N. of Tillamook Head 26" S. of Tillamook Head	Same	Same
1978	Boundary moved south to Cape Falcon - same dates and size limits as 1977.			
1979	North of Cape Falcon May 1-May 31 and July 1-July 24 and August 4-August 31	28"	North of Cape Falcon July 1-July 24 and August 4-August 31	Same
	South of Cape Falcon May 1-May 31 and July 1-October 31	26"	South of Cape Falcon July 1-September 3	Same
1980	North of Cape Falcon May 1-May 31 and July 15-September 8	28"	North of Cape Falcon July 15-September 8	Same
	South of Cape Falcon May 1-May 31 and June 16-June 30 (Cape Falcon to Cape Blanco only) July 15-October 31	26"	South of Cape Falcon July 15-September 8	Same
1981	North of Cape Falcon May 1-May 31 and July 15-August 24 ^{a/}	28"	North of Cape Falcon July 15-August 24 ^{a/}	Same
	South of Cape Falcon May 1-May 31 and July 1-October 31 ^{b/}	26"	South of Cape Falcon July 1-August 24 ^{a/}	Same
SPECIAL SOUTH COAST TROLL SEASONS OFF CHETCO AND ELK RIVERS:				
1974-1975	November 1 through December 31			
1976-1980	November 1 through November 30			

^{a/} Closed August 21 in FCZ (3-200 miles)

^{b/} From 3-200 miles, chinook fishery was limited to the area between Cape Falcon and Cape Sebastian from August 25 through September 8 using whole bait or five inch or larger plugs.

salmon except coho from May 1-31, and for all salmon from July 1-August 21 when the fishery was projected to exceed its preseason harvest guideline of 548,000 coho. In state waters the all species season was extended through August 24. Minimum size limits south of Cape Falcon were 26" for chinook and 16" for coho.

Fishing was allowed for all salmon except coho between Cape Falcon and Cape Sebastian from August 22 through September 8 using whole bait or 5-inch or larger plugs. In state waters, fishing was allowed for all species except coho between Cape Falcon and the Oregon/California border from August 25 through September 8 with the same gear restrictions.

The area from Cape Falcon to the Oregon/California border was open from September 9 to October 31 for all salmon except coho with no gear restrictions.

1980 Regulations

The 1980 chinook troll season opened on May 1 coastwide and continued through May 31 (Table 1). The month of June was closed with the exception of a special season June 16-30 between Cape Falcon and Cape Blanco. North of Cape Falcon, the season then ran from July 15-September 8. South of Cape Falcon, the season ran from July 15-October 31.

The coho fishery north and south of Cape Falcon ran from July 15-September 8.

The Department of Fish and Wildlife extended the troll season through November in both 1980 and 1981, in two areas off the southern Oregon coast within state waters. The purpose of the extension was to reduce the numbers of surplus hatchery chinook anticipated at the Elk and Chetco river stations. The extended fishery was restricted to the following areas:

Elk River Area: Cape Blanco south to Humbug Mountain offshore to three miles.

Chetco River Area: Goat Island south to the Oregon/California border offshore to three miles.

Catch and Effort Statistics

Catch and effort data for the 1981 Oregon troll salmon fishery are preliminary. Poundages, dollar value, area of catch and days fished are obtained directly from commercial fish receiving tickets. Pounds landed are converted to numbers of fish utilizing average weight information. In the past, all troll catch statistics for Oregon were reported by port of landing; however, catch and effort estimates for 1979-81 are reported by catch area.

Effort - Since 1979, Oregon's troll effort has been estimated in boat days. Cumulative effort for the troll fishery totaled 45,200 boat days in 1981, compared with 39,900 in 1980 and 48,800 in 1979 (Table 2). The 1981 effort was 12% above 1980 and 7% below 1979.

The Newport and Coos Bay areas accounted for 54% of the total troll effort in 1981, which is similar to 1979 and 1980 (Table 3). The Tillamook area contributed a somewhat larger percentage of the total effort for Oregon than in previous years. The effort increase in this area occurred primarily during the first two weeks of July when the area north of Cape Falcon was closed.

Effort during May was higher in 1981 than in either 1979 or 1980 (Table 4). Approximately 84% of the total effort for 1981 occurred in the months of July and August, during the open season for coho. Only 3,900 boat days were expended during the late chinook fishery in September, October, and November of 1981, which is similar to 1979 but considerably below 1980.

Chinook Catch - The 1981 troll chinook catch was considerably lower than in any year since 1972 (Table 2, Figure 1). A total of 160,500 chinook weighing 1.6 million pounds (dressed weight) was landed in 1981, compared to 209,400

Table 2. Oregon Commercial Troll Salmon Effort and Catch 1971-1981^{a/}.

Year	Effort (boat days fished)	Chinook		Coho		Pink	
		No.	Lbs. (dressed)	No.	Lbs. (dressed)	No.	Lbs. (dressed)
1971	-	102,900	1,000,800	1,490,100	8,765,100	2,000	9,000
1972	-	127,300	1,303,700	824,600	4,856,300	<100	100
1973	-	363,300	3,461,300	795,500	5,137,100	3,200	14,200
1974	-	224,100	2,290,400	1,137,200	7,230,900	<100	100
1975	-	224,700	2,583,300	657,400	4,087,500	200	900
1971-75 Average	-	208,500	2,127,900	981,000	6,015,400	1,800 ^{b/}	8,000 ^{b/}
1976	-	184,300	1,921,600	1,827,000	9,061,200	0	0
1977	-	340,000	3,464,900	446,100	2,640,800	88,000	396,100
1978	-	191,500	1,893,600	611,600	2,779,000	<100	200
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 ^{c/}	45,200	160,500	1,574,200	620,300	3,324,200	60,200	323,900

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

^{b/} Odd-year average

^{c/} Preliminary

Table 3. Summary of Oregon Commercial Troll Effort and Catch by Area of Catch 1979-1981.

Year	Area of Catch					Oregon Subtotal	Alaska	Wash.	Calif.	Total
	Columbia River	Tillamook	Newport	Coos Bay	Brookings					
<u>EFFORT</u> (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	50	700	30	39,900
1981 _{a/}	2,500	8,600	11,000	13,400	9,300	44,800	0	200	100	45,200
<u>CATCH</u> <u>Chinook</u>										
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 _{a/}	8,400	12,200	27,100	24,400	86,000	158,100	0	1,000	1,500	160,500
<u>Coho</u>										
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 _{a/}	41,900	160,400	192,400	161,400	53,500	609,500	0	10,400	300	620,300

a/ Preliminary

Table 4. Oregon Commercial Troll Effort and Landings of Coho and Chinook by Month, 1971-75 Average and 1978-81a/.

		April	May	June	July	August	September	October	November	Season Total
EFFORT (Boat Days)										
1971-75										
Average		NA	NA	NA	NA	NA	NA	NA	NA	NA
1979	Monthly	-	1,400	<100c/	21,500	21,700	1,300	2,000	800	
	Cumulative	-	1,400	1,500	23,000	44,700	46,000	48,000	48,800	48,800
1980	Monthly	-	2,100	3,700d/	12,100	14,600	4,600	2,300	500	
	Cumulative	-	2,100	5,800	17,900	32,500	37,100	39,400	39,900	39,900
1981	Monthly	-	3,300e/	-	21,300	16,700	1,600	1,900	500	
Prelim.	Cumulative	-	3,300	3,300	24,600	41,300	42,800	44,700	45,200	45,200
CHINOOK										
1971-75										
Average		500	8,300	27,500	56,600	69,700	31,400	13,700	1,300	
1978	Monthly	-	3,200	40,600	63,100	46,900	25,000	9,300	3,500	
	Cumulative	-	3,200	43,800	106,900	153,800	178,800	188,100	191,500	191,500
1979	Monthly	-	11,000	200c/	73,600	119,500	13,200	25,200	2,600	
	Cumulative	-	11,000	11,300	84,900	204,400	217,700	242,900	245,500	245,500
1980	Monthlyb/	-	25,800	29,700d/	47,700	64,000	25,200	16,000	1,000	
	Cumulative	-	25,800	55,400	103,200	167,200	192,300	208,400	209,400	209,400
1981	Monthly	-	28,700e/	-	34,900	65,600	16,900	13,200	1,200	
Prelim.	Cumulative	-	28,700	28,700	63,600	129,300	146,200	159,400	160,500	160,500
COHO										
1971-75										
Average		-	-	227,800	414,400	305,800	29,700	3,300	-	
1978	Monthly	-	-	279,600	227,200	92,800	10,400	1,600	-	
	Cumulative	-	-	279,600	506,800	599,700	610,000	611,600	-	611,600
1979	Monthly	-	-	400c/	534,000	178,700	1,600	-	-	
	Cumulative	-	-	400	534,400	713,100	714,600	-	-	714,600
1980	Monthly	-	-	-	228,700	137,500	17,100	-	-	
	Cumulative	-	-	-	228,700	366,300	383,300	-	-	383,300
1981	Monthly	-	-	-	350,300	270,000	-	-	-	
Prelim.	Cumulative	-	-	-	350,300	620,300	-	-	-	620,300

a/ Statistics from 1971-78 are reported by calendar months; monthly totals from 1979-81 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.

c/ Caught off California and landed in Oregon.

d/ Totals for June 1980 include landings made through July 5.

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

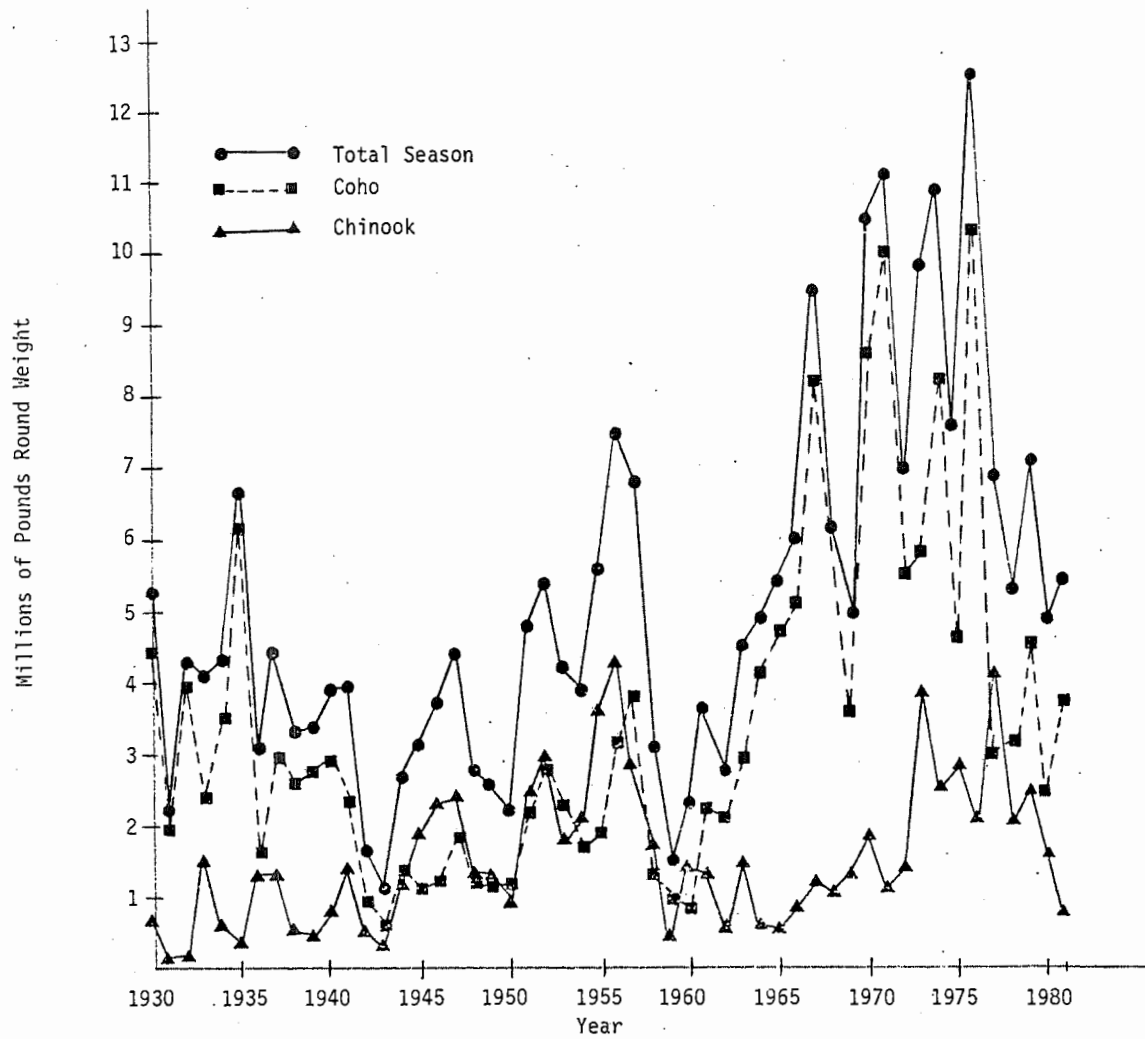


Figure 1. Oregon Ocean Troll Salmon Production 1930-1981.

chinook in 1980, and an average of 208,500 chinook for 1971-75. The 1981 catch was 23% below 1980 and 23% below the 1971-75 average.

Of the total Oregon chinook catch, 87% was caught from the Newport area south (Table 3). Catches in the Columbia River and Tillamook areas increased in 1981 from 1980 and 1979 levels. The Coos Bay area showed a dramatic decline in the 1981 chinook catch compared to 1979 and 1980. The Brookings area showed moderate catches of chinook in 1981--below 1979, but exceeding 1980 levels.

The troll catch of chinook salmon peaked in August 1981 when 41% of the total catch was made (Tables 4, 5 and 6). The May fishery landed 28,700 chinook (18% of the season total), which is significantly higher than in earlier years. Catches in July, September, and October of 1981 were below average.

Coho Catch - The commercial troll coho catch in 1981 totaled 620,300 fish, weighing 3.3 million pounds, which is substantially higher than the 383,300 coho landed in 1980 but well below the 1971-75 average of 981,000 (Table 2, Figure 1). The 1981 coho catch was 62% above 1980 but was 37% below the 1971-75 average.

The distribution of the 1981 coho catch by area was shifted more northerly than in 1979 or 1980 (Table 3). Of the total coho catch off Oregon during 1981, 83% were caught in the Tillamook, Newport, and Coos Bay areas.

In recent years, peak coho catch usually occurs during the first few weeks of the season. In 1981, however, weekly catches of coho remained fairly constant through early August and peaked in mid-August. This late peak occurred primarily in the Newport area, where high catch rates and effort resulted in an extremely large coho catch in mid-August (Tables 4, 5 and 6).

Table 5. Oregon Troll Salmon Landings in Numbers of Fish by Area of Catch by Species by Month, 1980-81.

	Columbia River	Tillamook	Newport	Coos Bay	Brookings	Subtotal	Alaska	Wash.	Calif.	Total
<u>CHINOOK</u>										
<u>1980</u>										
May	4,390	947	9,429	2,545	6,183	23,494	0	1,494	782	25,770
June	15	288	8,972	15,779	2,566	27,620	0	246	0	27,866
July	548	1,588	8,645	26,291	12,169	49,241	0	241	38	49,520
August	529	4,375	12,333	17,558	28,303	63,098	0	891	17	64,006
September	111	526	3,148	6,583	14,453	24,821	317	46	0	25,184
October	5	75	6,208	6,003	3,748	16,039	0	0	0	16,039
November	0	0	0	1	983	984	0	0	0	984
Total	5,598	7,799	48,735	74,760	68,405	205,297	317	2,918	837	209,369
<u>1981</u>										
May	7,028	4,027	9,533	2,639	5,066	28,293	0	144	289	28,726
June	0	0	0	0	0	0	0	0	0	0
July	908	5,417	9,879	8,738	9,057	33,999	0	716	196	34,911
August	444	2,398	7,047	10,547	44,681	65,117	0	93	424	65,634
September	0	213	312	1,180	14,740	16,445	0	0	469	16,914
October	0	177	343	1,292	11,258	13,070	0	0	103	13,173
November	0	0	0	4	1,170	1,174	0	0	0	1,174
Total	8,380	12,232	27,114	24,400	85,972	158,098	0	953	1,481	160,532
<u>COHO</u>										
<u>1980</u>										
July	14,927	36,124	86,856	71,887	15,737	225,531	0	3,181	32	228,744
August	7,840	43,233	45,255	22,971	14,364	133,663	0	3,821	10	137,494
September	737	1,292	5,227	4,748	3,441	15,039	1,816	195	0	17,050
Total	23,504	80,649	137,332	99,206	33,542	374,233	1,816	7,197	42	383,288
<u>1981</u>										
July	29,787	117,767	77,909	96,697	18,231	340,391	0	9,702	179	350,272
August	12,086	42,646	114,486	64,705	35,275	269,178	0	654	157	269,989
Total	41,853	160,413	192,395	161,402	53,506	609,569	0	10,356	336	620,261

Table 6. Oregon Troll Salmon Landings by Species in Pounds Dressed by Port by Management Area and Month, 1980-81.

	Astoria	Garibaldi Pacific City	Depoe Bay to Waldport	Florence to Bandon	Port Orford to Brookings	Total
<u>CHINOOK</u>						
<u>1980</u>						
May	60,664	5,844	76,607	63,587	66,154	272,856
June	1,769	3,563	101,292	158,840	45,019	310,483
July	13,049	7,468	63,497	254,224	80,642	418,880
August	27,754	41,174	184,998	233,049	260,137	747,112
September	3,794	4,997	28,152	86,870	131,148	254,961
October	229	718	42,813	70,841	35,319	149,920
November	0	0	20	90	17,186	17,296
Total	107,259	63,764	497,379	867,501	635,605	2,171,508
<u>1981</u>						
May	99,886	4,223	83,889	25,668	42,007	255,773
June	4,342	0	3,035	605	229	8,211
July	19,631	41,789	99,829	94,889	60,889	317,027
August	5,851	26,998	106,574	156,096	402,547	698,066
September	241	2,159	3,064	14,474	125,699	145,637
October	192	838	6,220	13,396	108,841	129,487
November	0	0	0	487	19,573	20,060
Total	130,143	76,007	302,611	305,615	759,785	1,574,161
<u>COHO</u>						
<u>1980</u>						
July	73,395	153,616	380,205	363,799	69,716	1,039,731
August	98,105	259,430	395,073	201,809	91,865	1,046,282
September	15,052	6,594	30,072	33,546	18,931	104,195
Total	185,552	419,640	805,350	599,154	180,512	2,190,208
<u>1981</u>						
July	199,918	419,594	364,482	459,096	76,963	1,520,053
August	69,594	268,372	702,101	509,952	254,080	1,804,099
Total	269,512	687,966	1,066,583	969,048	331,043	3,324,152

Pink Catch - Troll catches of pink salmon from the Oregon coast totaled 60,200 fish in 1981 compared to 20,500 in 1979 and 88,000 in 1977 (Table 2). The 1981 total was well above the 1971-75 odd-year average of 1,800 fish.

Poundage data by Port of landing are reported on a management area format. The Astoria area includes the Astoria, Warrenton, Hammond complex and some dory landings at Seaside and Cannon Beach. Garibaldi-Pacific City area includes Nehalem, Garibaldi and Pacific City. Depoe Bay-Waldport includes Depoe Bay, Newport and Waldport. Florence-Bandon area includes Florence, Winchester Bay, Coos Bay and Bandon. Port Orford-Brookings includes Port Orford, Gold Beach and Brookings.

The Dollar Value of the Catch

The chinook landings in 1981 were worth \$4,006,000 to the fishermen. The coho value was \$5,531,000. The average price per pound for chinook was \$2.56 and for coho, \$1.66.

Table 7 lists the dollar value for chinook and coho for the years 1971-81.

The chinook landings in 1980 were worth \$5,259,000 to the fishermen. The coho value was \$2,926,000. The average price per pound for chinook was \$2.42 and for coho, \$1.34.

Extended Troll Season Landings

Chinook landings during the 1981 extended troll season were 20,060 pounds dressed weight or an estimated 1,394 fish.

The 1980 chinook landings during the extended troll season were 17,296 pounds dressed or an estimated 1,057 fish.

An anticipated benefit of the extended season has always been the high incidence of mature Elk and Sixes river chinook observed in the catch. The available data indicate that the extended season is taking primarily mature

Table 7. Estimates of Ex-vessel Value^{a/} of Oregon Troll Landings and Average Price per Pound, 1971-81.

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 ^{b/}	4,006,000	2.56	5,531,000	1.66	9,537,000

^{a/} Dressed, weight value

^{b/} Preliminary

local stocks of chinook.

Average Weight Data

Average weight data were collected from chinook and coho for conversion of landings in pounds to numbers of fish.

The seasonal average weight for chinook in 1981 was 9.8 pounds dressed weight compared to 10.4 pounds in 1980 (Table 8). In 1981, the Depoe Bay-Waldport area average weight was greater than in 1980. The Florence-Bandon average weight was the same as in 1980. The other areas had smaller average weights in 1981.

The seasonal average weight for coho in 1981 was 5.4 pounds dressed weight compared to 5.7 pounds in 1980 (Table 9). With the short season in 1981, it is difficult to say anything about trends in average weight during the season.

The 1980 chinook average weights are presented in Table 10. The seasonal average weight for chinook in 1980 was 10.4 pounds dressed weight, almost identical to the 10.5 pounds observed in 1979. In 1980, average weights in the Astoria and Port Orford-Brookings areas were greater than in 1979. All other areas had lower average weights than in 1979. Chinook weights seldom reflect growth with time because age and stock composition in a given area continually fluctuates.

The seasonal average weight for coho in 1980 was 5.7 pounds dressed weight compared to 6.4 pounds in 1979 (Table 11). Coho average weights usually show a monthly increase from the start to the end of the season. Some decrease is normal in the final period as coho jacks enter the fishery in great numbers. This pattern was evident during 1980 with the exception of the Port Orford-Brookings area.

Table 8. Observed Average Dressed Weight and Calculated Number of Chinook by Month and Management Area, 1981.

	May	June	July	August	Sept.	October	Nov.	Total
<u>Astoria</u>								
Numbers	10,882	514	1,952	541	20	1	0	13,910
Pounds	99,486	4,342	19,631	5,851	241	14	0	129,965
Ave. wt	9.1	8.4	10.1	10.8	12.1	14.0	0	9.3
<u>Garibaldi-Pacific City</u>								
Numbers	518	0	4,228	2,671	167	64	0	7,648
Pounds	4,214	0	41,762	26,984	2,159	838	0	75,957
Ave. wt	8.1	0	9.9	10.1	12.9	13.0	0	9.9
<u>Depoe Bay-Waldport</u>								
Numbers	8,740	316	8,110	8,595	339	571	0	26,671
Pounds	83,898	3,035	99,829	106,544	3,064	6,220	0	302,590
Ave. wt	9.6	9.6	12.3	12.4	9.1	10.9	0	11.3
<u>Florence-Bandon</u>								
Numbers	2,820	59	8,852	15,165	1,693	1,559	19	30,167
Pounds	25,668	605	94,889	156,096	14,474	13,388	198	305,318
Ave. wt	9.1	10.3	10.7	10.3	8.5	8.6	10.4	10.1
<u>Port Orford-Brookings</u>								
Numbers	4,863	28	6,494	44,557	14,633	10,128	580	81,283
Pounds	42,007	229	60,889	402,377	125,512	108,841	8,631	748,486
Ave. wt	8.6	8.2	9.4	9.0	8.5	10.7	14.9	9.2
<u>Total</u>								
Numbers	27,823	917	29,636	71,529	16,852	12,323	599	159,679
Pounds	255,673	8,211	317,000	697,852	145,450	129,301	8,829	1,562,316
Ave. wt	9.2	9.0	10.7	9.8	8.6	10.5	14.7	9.8

Table 9. Observed Average Dressed Weight and Calculated Numbers of Coho by Month and Management Area, 1981.

	July	August	Total
<u>Astoria</u>			
Numbers	49,801	13,775	63,576
Pounds	199,918	69,594	269,512
Ave. wt	4.0	5.1	4.2
<u>Garibaldi-Pacific City</u>			
Numbers	97,872	46,374	144,246
Pounds	419,529	268,327	687,856
Ave. wt	4.6	5.8	4.8
<u>Depoe Bay-Waldport</u>			
Numbers	70,176	117,601	187,777
Pounds	364,482	701,809	1,066,291
Ave. wt	5.2	6.0	5.7
<u>Florence-Bandon</u>			
Number	88,198	85,356	173,554
Pounds	459,096	509,912	969,008
Ave. wt	5.2	6.0	5.6
<u>Port Orford-Brookings</u>			
Numbers	12,492	38,508	51,000
Pounds	76,963	253,884	330,847
Ave. wt	6.2	6.6	6.5
<u>Total</u>			
Numbers	318,539	301,614	620,153
Pounds	1,519,988	1,803,526	3,323,514
Ave. wt	4.8	6.0	5.4

Table 10. Observed Average Dressed Weight and Calculated Numbers of Chinook by Month and Management Area, 1980.

	May	June	July	August	Sept.	October	Nov.	Total
<u>Astoria</u>								
Number	5,600	150	1,204	2,405	389	21	0	9,769
Pounds	60,664	1,769	13,049	27,754	3,794	229	0	107,259
Ave. wt	10.8	11.8	10.8	11.5	9.8	10.9	0	11.0
<u>Garibaldi-Pacific City</u>								
Numbers	577	318	694	3,985	473	54	0	6,101
Pounds	5,844	3,563	7,468	41,174	4,997	718	0	63,764
Ave. wt	10.1	11.2	10.8	10.3	10.6	13.3	0	10.5
<u>Depoe Bay-Waldport</u>								
Numbers	7,239	9,297	4,954	14,568	2,849	4,695	1	43,603
Pounds	76,607	101,292	63,497	184,998	28,152	42,813	20	497,379
Ave. wt	10.6	10.9	12.8	12.7	9.9	9.1	20.0	10.4
<u>Florence-Bandon</u>								
Numbers	5,796	15,721	24,559	23,902	8,553	7,557	4	86,092
Pounds	63,587	158,840	254,224	233,049	86,870	70,841	90	867,501
Ave. wt	11.0	10.1	10.4	9.8	10.2	9.4	22.5	10.1
<u>Port Orford-Brookings</u>								
Numbers	6,276	4,075	8,183	27,672	13,736	2,825	1,054	63,821
Pounds	66,154	45,019	80,642	260,137	131,148	35,319	17,186	635,605
Ave. wt	10.5	11.0	9.9	9.4	9.5	12.5	16.3	10.0
<u>Total</u>								
Numbers	25,488	29,561	39,594	72,532	26,000	15,152	1,059	209,386
Pounds	272,856	310,483	418,880	747,112	254,961	149,920	17,296	2,171,508
Ave. wt	10.7	10.5	10.6	10.3	9.8	9.9	16.3	10.4

Table 11. Observed Average Dressed Weight and Calculated Numbers of Coho by Month and Management Area, 1980.

	July	August	September	Total
<u>Astoria</u>				
Numbers	16,815	17,232	2,769	36,816
Pounds	72,395	98,105	15,052	185,552
Ave. wt	4.3	5.7	5.4	5.0
<u>Garibaldi-Pacific City</u>				
Numbers	30,131	44,452	1,107	75,690
Pounds	153,616	259,430	6,594	419,640
Ave. wt	5.1	5.8	6.0	5.5
<u>Depoe Bay-Waldport</u>				
Numbers	65,262	60,058	4,877	136,197
Pounds	380,205	395,073	30,072	805,350
Ave. wt	5.8	6.6	6.2	5.9
<u>Florence-Bandon</u>				
Numbers	64,936	35,059	5,471	105,466
Pounds	363,799	201,809	33,546	599,154
Ave. wt	5.6	5.8	6.1	5.7
<u>Port Orford-Brookings</u>				
Numbers	11,775	14,412	2,927	29,114
Pounds	69,716	91,865	18,931	180,512
Ave. wt	5.9	6.4	6.5	6.2
<u>Total</u>				
Numbers	188,919	177,213	17,151	383,283
Pounds	1,039,731	1,046,282	104,195	2,190,208
Ave. wt	5.5	5.9	6.1	5.7

Troll Salmon Mark Sampling

1981

Two samplers each were assigned to Astoria, Newport, and Charleston. Garibaldi, Depoe Bay, Winchester Bay, Port Orford and Brookings were assigned one sampler each in 1981. Some minimal sampling was done at Pacific City and Florence by using some of the recreational samplers time. This sampling effort resulted in 27% of all chinook and 26% of all coho being examined for coded wire tags. Detailed sampling information for 1981 is presented in Tables 12 and 13.

Samplers found 1926 adipose-clipped chinook in the 1981 troll landings and obtained 1718 snouts. Technicians found coded-wire tags in 1518 or 88%. The main contributing agencies were:

California Department of Fish and Game	- 51%
Oregon Department of Fish and Wildlife	- 27%
U.S. Fish and Wildlife Service	- 7%
Washington Department of Fisheries	- 6%

Samplers found 8291 adipose-clipped coho in the 1981 troll landings and obtained 7989 snouts. Technicians found coded-wire tags in 6992 or 88% of the total. The main contributing agencies were:

Washington Department of Fisheries	- 35%
Oregon Department of Fisheries	- 29%
Oregon Aqua-Foods	- 16%
National Marine Fisheries Service	- 6%

1980

Two samplers each were assigned to Astoria, Newport and Charleston. Garibaldi, Depoe Bay, Winchester Bay, Port Orford and Brookings were assigned one sampler each in 1980. This sampling effort resulted in 25% of all chinook and 26% of all coho being examined for coded wire tags. Detailed sampling information for 1980 is presented in Tables 14 and 15 for chinook and coho.

Table 12. Oregon Troll Chinook Mark Sampling by Management Area, 1981.

Area	May	June	July	Aug.	Sept.	Oct.	Nov.	Total
<u>Astoria</u>								
No. Examined	3,962	60	460	97	0	0	0	4,579
No. Landed	10,882	514	1,952	541	20	12	0	13,921
% Examined	36	12	24	18	0	0	0	33
No. Marks	209	5	21	6	0	0	0	241
<u>Garibaldi-Pacific City</u>								
No. Examined	0	0	1,002	674	81	0	0	1,757
No. Landed	518	0	4,230	2,674	167	64	0	7,653
% Examined	0	0	24	25	49	0	0	23
No. Marks	0	0	50	20	4	0	0	74
<u>Depoe Bay-Waldport</u>								
No. Examined	1,801	312	2,732	2,403	7	0	0	7,255
No. Landed	8,740	316	8,110	8,598	339	571	0	26,674
% Examined	21	99	34	28	2	0	0	27
No. Marks	57	4	88	88	2	0	0	239
<u>Florence-Bandon</u>								
No. Examined	1,298	63	2,617	2,783	118	313	0	7,192
No. Landed	2,820	59	8,852	15,164	1,693	1,560	47	30,195
% Examined	46	100	30	18	7	20	0	24
No. Marks	37	4	77	138	3	17	0	276
<u>Port Orford-Brookings</u>								
No. Examined	1,224	0	2,520	10,216	3,475	3,368	570	21,373
No. Landed	4,863	28	6,494	44,574	14,655	10,128	1,347	82,089
% Examined	25	0	39	23	24	33	42	26
No. Marks	49	0	123	505	192	213	14	1,096
<u>Total</u>								
No. Examined	8,285	435	9,331	16,173	3,681	3,681	570	42,156
No. Landed	27,823	917	29,638	71,551	16,874	12,335	1,394	160,532
% Examined	30	47	31	23	22	30	41	26
No. Marks	352	13	359	757	201	230	14	1,926

Table 13. Oregon Troll Coho Mark Sampling by Management Area, 1981.

Area	July	August	Total
<u>Astoria</u>			
No. Examined	13,720	3,006	16,726
No. Landed	49,801	13,775	63,576
% Examined	28	22	26
No. Marks	833	183	1,016
<u>Garibaldi-Pacific City</u>			
No. Examined	14,145	5,798	19,943
No. Landed	97,885	46,382	144,267
% Examined	14	13	14
No. Marks	713	338	1,051
<u>Depoe Bay-Waldport</u>			
No. Examined	27,210	36,997	64,207
No. Landed	70,176	117,651	187,827
% Examined	39	31	34
No. Marks	1,169	1,913	3,082
<u>Florence-Bandon</u>			
No. Examined	25,850	18,647	44,497
No. Landed	88,198	85,362	173,560
% Examined	29	22	26
No. Marks	1,265	924	2,189
<u>Port Orford-Brookings</u>			
No. Examined	6,161	10,599	16,760
No. Landed	12,492	38,539	51,031
% Examined	49	28	33
No. Marks	268	685	953
<u>Total</u>			
No. Examined	87,086	75,047	162,133
No. Landed	318,552	301,709	620,261
% Examined	27	25	26
No. Marks	4,238	4,044	8,291

Table 14. Oregon Troll Chinook Mark Sampling by Management Area, 1980.

Area	May	June	July	August	Sept.	Oct.	Nov.	Total
<u>Astoria</u>								
No. Examined	1,092	0	216	588	10	0	0	1,906
No. Landed	5,603	150	1,203	2,406	388	20	0	9,770
% Examined	20	0	18	24	3	0	0	20
No. Marks	75	0	17	34	0	0	0	126
<u>Garibaldi-Pacific City</u>								
No. Examined	0	2	198	895	131	0	0	1,226
No. Landed	577	317	695	3,980	473	54	0	6,096
% Examined	0	1	29	22	28	0	0	20
No. Marks	0	0	12	80	19	0	0	111
<u>Depoe Bay-Waldport</u>								
No. Examined	3,008	2,767	1,510	3,641	873	1,326	0	13,125
No. Landed	7,238	9,297	4,955	14,567	2,849	4,696	1	43,603
% Examined	42	30	30	25	31	28	0	30
No. Marks	32	56	26	118	27	34	0	293
<u>Florence-Bandon</u>								
No. Examined	1,288	4,472	6,365	4,207	1,927	1,438	0	19,697
No. Landed	5,798	15,716	24,556	23,899	8,555	7,558	4	86,086
% Examined	22	28	26	18	23	19	0	23
No. Marks	48	101	170	273	85	60	0	737
<u>Port Orford-Brookings</u>								
No. Examined	0	1,791	3,157	6,477	3,061	1,156	537	16,179
No. Landed	6,277	4,074	8,182	27,672	13,731	2,826	1,052	63,814
% Examined	0	43	39	23	22	41	51	25
No. Marks	0	61	81	242	131	23	3	541
<u>Total</u>								
No. Examined	5,388	9,032	11,446	15,808	6,002	3,920	537	52,133
No. Landed	25,493	29,554	39,591	72,524	25,996	15,154	1,057	209,369
% Examined	21	31	29	22	23	26	51	25
No. Marks	155	218	306	747	262	117	3	1,808

Table 15. Oregon Troll Coho Mark Sampling by Management Area, 1980.

Area	July	August	Sept.	Total
<u>Astoria</u>				
No. Examined	2,747	3,658	63	6,468
No. Landed	16,816	17,237	2,768	36,821
% Examined	16	21	2	18
No. Marks	133	164	2	299
<u>Garibaldi-Pacific City</u>				
No. Examined	4,167	6,553	357	11,077
No. Landed	30,133	44,452	1,108	75,693
% Examined	14	15	32	15
No. Marks	154	304	10	468
<u>Depoe Bay-Waldport</u>				
No. Examined	20,944	22,502	1,240	44,686
No. Landed	65,260	66,057	4,875	136,192
% Examined	32	34	25	33
No. Marks	874	1,133	58	2,065
<u>Florence-Bandon</u>				
No. Examined	17,663	9,107	1,225	27,995
No. Landed	64,942	35,060	5,470	105,472
% Examined	27	26	22	27
No. Marks	860	464	76	1,400
<u>Port Orford-Brookings</u>				
No. Examined	4,813	3,281	557	8,651
No. Landed	11,776	14,409	2,925	29,110
% Examined	41	23	19	30
No. Marks	158	134	27	319
<u>Total</u>				
No. Examined	50,334	45,101	3,442	98,877
No. Landed	188,927	177,215	17,146	383,288
% Examined	27	25	20	26
No. Marks	2,179	2,199	173	4,551

Samplers observed 1808 adipose-clipped chinook in the 1980 troll landings and obtained 1514 snouts. Technicians found coded-wire tags in 1401 or 93% of the total. The main contributing agencies were:

California Department of Fish and Game	- 43%
Oregon Department of Fish and Wildlife	- 39%
Washington Department of Fisheries	- 10%
U.S. Fish and Wildlife Service	- 6%

Samplers found 4551 adipose-clipped coho in the 1980 troll landings and obtained 3816 snouts. Technicians found coded-wire tags in 3765 or 99%. The main contributing agencies were:

Oregon Department of Fish and Wildlife	- 40%
Washington Department of Fisheries	- 29%
Oregon Aqua-Foods	- 9%

THE RECREATIONAL FISHERY

Regulations

Ocean salmon regulations for Oregon's recreational fishery in 1981 were similar to the 1980 and 1979 seasons with a few exceptions (Table 16). These recent regulations, which are more restrictive than any previous years, were implemented by the Pacific Fisheries Management Council because of the continued poor status of coho salmon stocks along the Pacific coast.

The 1981 ocean salmon season opened May 15 for the recreational fishery south of Cape Falcon and May 23 north of Cape Falcon. Fishing for all species was allowed through September 20 and September 7 for the respective areas, except federal waters (3-200 miles offshore) which closed August 26 for all ocean salmon angling. The NMFS Regional Director closed these waters because in-season management harvest guidelines had been met; however, the Oregon Fish and Wildlife Commission decided to allow the seasons in state waters to remain as scheduled. A chinook only season was allowed Sept. 21-Oct. 31 for all waters south of Cape Blanco with the extended chinook season off the Elk and

Table 16. Oregon Ocean Recreational Salmon Regulations 1946-81.

Year	Season	Regulations
1946	All Year	3 Fish daily limit; 9 in possession; no annual limit; no size limits.
1947	All Year	2 Fish daily limit; 6 in possession; no annual limit; no size limits.
1948-54	All Year	2 Fish daily limit; 4 in possession; 20 fish annual limit; no size limits.
1955-57	All Year	2 Fish daily limit; 4 in possession; 20 salmon annual limit; 20" minimum size limit - both species.
1958-64	All Year	2 Fish daily limit; 4 in possession; 20 salmon annual limit; 20" minimum size limit - both species except; 22" minimum size limit - north of Tillamook Head (July 1-October 31).
1965-69	All Year	3 Fish daily limit; 6 in possession; 20 salmon annual limit; 20" minimum size limit; both species all year.
1970-75	All Year	3 Fish daily limit; no possession limit; 40 fish annual limit. North of Tillamook Head - 20" minimum size limit; both species. South of Tillamook Head - no size limit, both species.
1976	April 10- Dec. 31	3 Fish daily limit; no possession limit; 40 fish annual limit. North of Tillamook Head - 24" minimum size for chinook; 16" minimum size for coho. South of Tillamook Head - no size limit for both species.
1977	April 30- Oct. 31	Same as 1976.
1978	April 29- Oct. 31	3 Fish daily limit; no possession limit; 40 fish annual limit. North of Falcon - chinook, 24" minimum; coho, 16" minimum. South of Falcon - chinook, 22" minimum; coho, 16" minimum.
1979	May 12- Sept. 16	2 Fish daily limit south of Cape Falcon; 3 fish daily limit north of Cape Falcon, of which only 2 may be chinook or coho; no possession limit; 40 fish annual limit. Size limit - same as above.
1980	May 10- Sept. 14 ^{a/}	3 Fish daily limit lowered to 2 fish daily limit effective July 16; no possession limit; 40 fish annual limit. Size limit - same as above.
1981	May 15- Sept. 20 ^{b/} (South of Cape Falcon) May 23- Sept. 7 (North of Cape Falcon)	2 Fish daily limit increased to 3 fish daily limit effective August 14 south of Cape Falcon only; no possession limit; 40 fish annual limit. Size limit - same as above.

^{a/} Federal waters (3-200 miles) closed coho season effective Sept. 1. Chinook only season opened Sept. 15-Oct. 31 for area south of Cape Falcon.

^{b/} Federal waters closed August 26-Sept. 20 for all species. Chinook only season Sept. 21-Oct. 31 for area south of Cape Blanco.

NOTE: The ocean salmon season off the Elk and Chetco rivers was extended through November in 1977-81.

Chetco rivers areas continuing through November 30.

In 1981, the daily bag limit was 2 salmon through most of the season. Effective August 14, the bag limit was increased to 3 fish for the area south of Cape Falcon. There was no possession limit for the ocean fishery, and Oregon's annual bag limit was 40 adult salmon and steelhead. Minimum size limits for ocean-caught salmon remained the same for 1981 with a coastwide 16" size limit for coho, a 24" chinook size limit north of Cape Falcon, and a 22" size limit south of Cape Falcon.

Ocean Sampling Program

The ocean salmon survey for the recreational fishery was conducted at 8 ports in 1980 and all 10 major Oregon ports in 1981. These ports were: Astoria, Garibaldi, Pacific City, Depoe Bay, Newport, Florence, Winchester Bay, Coos Bay, Gold Beach, and Brookings. Every port had sampling coverage for the entire salmon seasons in 1980 and 1981. The survey estimates for 1981 represent the total Oregon salmon catch for the ocean fishery^{1/}. A total of 20 seasonal aides were employed in 1981, compared to 17 in 1980 and 13 in 1979. The 3 additional positions in 1981 were assigned to sample Pacific City and Florence, and to conduct boat counts at Astoria. There were 3 samplers assigned to Newport; 2 each to Astoria, Garibaldi, Winchester Bay, and Coos Bay; and 1 person at each remaining port. A boat counter assisted in the surveys at Astoria, Newport and Winchester Bay. A seasonal person was also stationed at Newport to edit, keypunch, and computer process the sampling data from all ports.

A random sampling design was used at each port to survey the ocean

^{1/} Some landings are made at other minor ports, but represent less than 1% of the total catch and will not be included in the final catch figures for 1981.

recreational fishery. A 5-day per week sampling schedule including all weekends and holidays was followed to collect catch per unit effort data. Anglers were interviewed to obtain catch and effort data upon completion of their ocean angling trips. Samplers conducted the survey at several locations including boat ramps, moorages, and charter docks in each port. Pressure counts (utilizing boat counts from Coast Guard or direct observations) or trailer counts at boat ramps were used to estimate total angling effort. The salmon catch was sampled for species, marks, scales, and lengths. Samplers collected biological data and snouts from adipose-clipped fish for coded wire tag recovery. Bottomfish catches were also sampled and recorded by species. All catch and effort data was keypunched and processed on the OSU CYBER computer. The survey at its present manpower level gives ocean salmon managers accurate weekly estimates of Oregon's total ocean recreational catch within 5 days lag time.

A total of 128,279 ocean anglers were interviewed and 89,765 salmon were examined at 10 ports in 1981. In 1980, 113,142 anglers and 108,407 salmon were sampled during the surveys at the 8 ports. These data were used to estimate the effort and catch statistics by port and week for Oregon's ocean recreational fishery (Tables 17 and 18). Salmon-steelhead tag return data was used in 1980 to estimate the catch for the ports not included in the survey. Sampling rates in 1981 ranged from 82% at Pacific City to 21% at Brookings, with an average of 39% of the total salmon catch observed for all ports. This overall sampling rate is higher than the 31% and 33% rates for 1980 and 1979, respectively, when only 8 ports were surveyed.

Effort

Recreational ocean salmon effort in 1981 was below the 1980 effort, but slightly above the 1971-75 average (Table 19). Total effort for 1981 was

Table 17. Oregon Ocean Recreational Salmon Catch Statistics from Sampling Data, 1981^{a/}.

Port	Catch						Pinks	Marked Coho	Marked Chinook	Angler Trips	Total Salmon	Salmon per Angler Trip
	Adult	Coho		Chinook								
		Jack	Total	Adult	Jack	Total						
Col. R.	54,290	4	54,294	11,516	0	11,516	112	2,779	308	44,839	65,922	1.5
Garibaldi	14,877	51	14,928	1,564	214	1,778	95	475	64	39,470	16,801	0.4
Pac. City	2,765	0	2,765	117	0	117	53	116	2	5,820	2,935	0.5
Depoe Bay	18,485	297	18,782	662	119	781	380	859	22	26,817	19,943	0.7
Newport	42,392	679	43,071	1,492	139	1,631	361	1,791	42	67,253	45,063	0.7
Florence	7,051	0	7,051	755	9	764	6	188	3	13,196	7,821	0.6
Winchester	30,134	409	30,543	2,378	181	2,559	115	1,136	56	44,852	33,217	0.7
Coos Bay	19,973	81	20,054	1,065	67	1,132	316	1,018	47	29,164	21,502	0.7
Gold Beach	891	0	891	891	13	904	2	34	6	5,911	1,797	0.3
Brookings	7,429	4	7,433	7,871	120	7,991	149	478	172	73,615	15,573	0.2
Total	198,287	1,525	199,812	28,311	862	29,173	1,589	8,874	722	350,937	230,574	0.7

^{a/} All ports were sampled the entire recreational season.

Table 18. Oregon Ocean Recreational Salmon Catch Statistics from Sampling Data, 1980^{a/}.

Port	Catch							Pinks	Marked Coho	Marked Chinook	Angler Trips	Total Salmon	Salmon per Angler Trip
	Coho			Chinook									
	Adult	Jack	Total	Adult	Jack	Total							
Col. R.	55,515	132	55,647	5,503	0	5,503	3	1,833	304	46,335	61,153	1.3	
Garibaldi	19,361	46	19,407	760	37	797	1	570	38	37,784	20,205	0.5	
Depoe Bay	24,128	132	24,260	395	25	420	2	917	12	28,730	24,682	0.9	
Newport	47,407	297	47,704	1,312	34	1,346	3	1,429	13	69,122	49,053	0.7	
Winchester	83,932	464	84,396	3,297	203	3,500	15	2,692	63	55,567	87,911	1.6	
Coos Bay	41,347	127	41,474	1,086	124	1,210	0	1,522	33	31,204	42,684	1.4	
62 Gold Beach	1,194	0	1,194	395	24	419	0	24	0	5,242	1,613	0.3	
Brookings	31,756	9	31,765	3,820	0	3,820	0	895	118	54,530	35,585	0.7	
Total	304,640	1,207	305,847	16,568	447	17,015	24	9,882	581	328,514	322,886	1.0	

^{a/} All ports were sampled from May 10-September 14 (entire ocean salmon season).

Table 19. Oregon Ocean Recreational Salmon Catch and Effort for 1966-81.

Year	Number of Angler Trips	Catch			Fish/Angler
		Coho	Chinook	Pinks	
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	.88
1973	350,400	232,068	60,984	2,008	.84
1974	335,849	314,501	36,729	34	1.05
1975	407,498	252,209	75,719	1,218	.81
1971-75 Av.	345,829	271,776	49,426	1,115 ^{a/}	.93
1976	538,414	501,306	79,316	50	1.08
1977	404,534	195,277	61,364	4,037	.62
1978	403,740	259,769	22,844	24	.70
1979	341,770	180,834	20,902	607	.59
1980	362,015	325,843	19,014	24	.95
1981	350,937	199,812	29,173	1,589	.66

^{a/} Odd year average

350,937 angler trips, compared to 362,015 trips in 1980 and the 1971-75 average of 345,829. The peak effort for the ocean recreational fishery usually occurs in July. In 1981, there were 123,601 angler trips in this month or 35 percent of the total effort (Table 20). This compares to 1980, when there were 147,050 trips or 41 percent of the total angler trips in July (Table 21). Brookings and Newport were the busiest ports in 1981 with 73,615 and 67,253 angler trips, respectively. Brookings had nearly 14,000 more trips in 1981 compared to 1980. Winchester Bay and Pacific City, however, experienced much lower effort in 1981 than 1980 with 11,000 and 5,500 fewer angler trips, respectively. Overall, the Astoria and Coos Bay management areas were below the 1974-75 average for angler trips in 1981, but the Brookings area was 20,000 trips above this average effort level (Table 22).

Separate catch and effort statistics for ocean salmon and bottomfish trips were calculated for each port. The sampling design was revised in 1979 to improve the survey estimates used to compare actual salmon catch and effort data for all ocean trips off Oregon. Samplers collected trip-type information from angler interviews and charterboat records to derive these estimates. For the ten ports surveyed in 1981, 311,205 anglers or 89% of the total ocean angler trips targeted on salmon for all or part of their trip. This compares to 297,942 salmon trips or 91% of the ocean anglers in 1980, and 261,388 trips or 87% of the ocean anglers for 1979. This means 38,632 ocean trips during the 1981 salmon season were actually spent fishing for bottomfish species only. This effort is above the 30,572 bottomfish trips in 1980, which was an excellent salmon catch year, but slightly below the 40,427 ocean angler trips for bottomfish in 1979.

Table 20. Oregon Ocean Recreational Effort (Angler Trips) by Port by Month, 1981^{a/}.

Port	Month							Total
	May	June	July	August	Sept.	Oct.	Nov.	
Columbia R.	1,121	4,886	14,119	20,088	4,625	-	-	44,839
Garibaldi	1,754	2,325	11,762	16,706	6,923	-	-	39,470
Pacific City	371	1,181	2,065	1,208	995	-	-	5,820
Depoe Bay	1,183	2,889	9,793	9,857	3,095	-	-	26,817
Newport	4,067	8,126	22,795	24,444	7,821	-	-	67,253
Florence	180	608	6,424	4,506	1,478	-	-	13,196
Winchester Bay	4,053	6,733	20,116	11,746	2,204	-	-	44,852
Coos Bay	2,638	7,122	9,850	7,180	2,374	-	-	29,164
Gold Beach	69	251	1,957	3,188	446	-	-	5,911
Brookings	3,956	17,477	24,720	18,473	5,579	2,965	445	73,615
Total	19,392	51,598	123,601	117,396	35,540	2,965	445	350,937

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

Table 21. Oregon Ocean Recreational Effort (Angler Trips) by Port by Month, 1980^{a/}.

Port	Month							Total
	May	June	July	August	Sept.	Oct.	Nov.	
Columbia R.	1,262	7,807	13,715	19,706	3,845	-	-	46,335
Nehalem	51	498	1,132	1,401	286	-	-	3,368
Garibaldi	584	5,597	12,679	15,713	3,211	-	-	37,784
Netarts	1	8	19	23	5	-	-	56
Pacific City	108	3,425	4,893	2,296	660	-	-	11,382
Salmon River	4	35	82	51	10	-	-	182
Siletz River	5	47	109	69	13	-	-	243
Depoe Bay	640	5,529	12,875	8,101	1,585	-	-	28,730
Newport	3,059	15,391	28,234	18,241	4,197	-	-	69,122
Waldport	7	37	68	44	10	-	-	166
Florence	0	3,095	5,936	2,575	750	-	-	12,356
Winchester Bay	995	18,323	26,907	8,034	1,308	-	-	55,567
Coos Bay	1,735	10,906	13,487	4,203	873	-	-	31,204
Bandon	10	63	78	24	5	-	-	180
Port Orford	3	50	84	72	5	-	-	214
Gold Beach	80	1,230	2,054	1,753	125	-	-	5,242
Brookings	2,445	13,497	24,698	10,088	5,844	2,900	412	59,884
Total	10,989	85,538	147,050	92,394	22,732	2,900	412	362,015

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

Table 22. Oregon Ocean Recreational Effort (Angler Trips) by Management Area, 1974 to 1981.

Management Area (Ports Included)	Effort (Angler Trips)							
	1974 (Mean)	1975	1976	1977	1978	1979	1980	1981
2 (Astoria)	71,326 (75,891)	80,457	107,500	62,200	63,409	43,368	46,335	44,839
3 (Garibaldi Pacific City)	35,729 (40,936)	46,143	56,650	59,400	31,740	36,323	52,590	45,290
4 (Depoe Bay Newport)	86,611 (91,339)	96,066	136,950	91,300	115,556	88,341	98,443	94,070
5 (Florence Winchester Bay Coos Bay Bandon)	80,911 (104,299)	127,687	148,450	110,400	104,441	97,717	99,307	87,212
6 (Port Orford Gold Beach Brookings)	61,272 (59,209)	57,145	88,850	81,200	88,594	76,021	65,340	79,526
Total	335,849 (371,674)	407,498	538,400	404,500	403,740	341,770	362,015	350,937

Catch Statistics

Final ocean recreational salmon catch statistics were estimated from angler creel surveys at ten ports in 1981. Catch estimates for 1980 were derived from surveys at 8 ports supplemented by salmon-steelhead tag return data. Ocean recreational salmon catch statistics for Oregon (1966-81) are shown in Figure 2. The sampling survey estimates represent the total chinook and coho catch figures for Oregon's ocean fishery in 1981 (Tables 23 and 24). There were small landings at other minor ports, but these will not be included since they represent less than one percent of the total catch off Oregon. The eight survey estimates in 1980 represented 94% of the final ocean salmon catch estimates for all ports in Oregon (Tables 25 and 26).

The 1981 total salmon catch for the ocean recreational fishery was well below the 1980 landings. The total estimate for 1981 was 230,574 salmon, which is 114,307 fish below the 1980 catch of 344,881 and only 28,231 fish above the lowest previous catch in 1979 of 202,343 salmon. The highest total salmon catch of 580,672 fish for Oregon's ocean recreational fishery occurred in 1976.

Chinook Catch

The ocean recreational chinook catch was 29,173 in 1981. This was above recent years' catches, but still well below the 1971-75 average (Table 19). The 1981 landings were 53% above the 19,014 chinook caught in 1980, but 41% below the 1971-75 average of 49,426 fish. In 1981, all of the management areas except Coos Bay had chinook landings above 1980 but all area catches were below the 1974-75 averages (Table 27). The 1974-75 average chinook catch for Astoria was 32,607 compared to 11,516 fish in 1981 and 5,503 in 1980. These recent lower landings at Astoria are due mainly to the 24" minimum size limit implemented in 1976, compared to a 20" size limit in

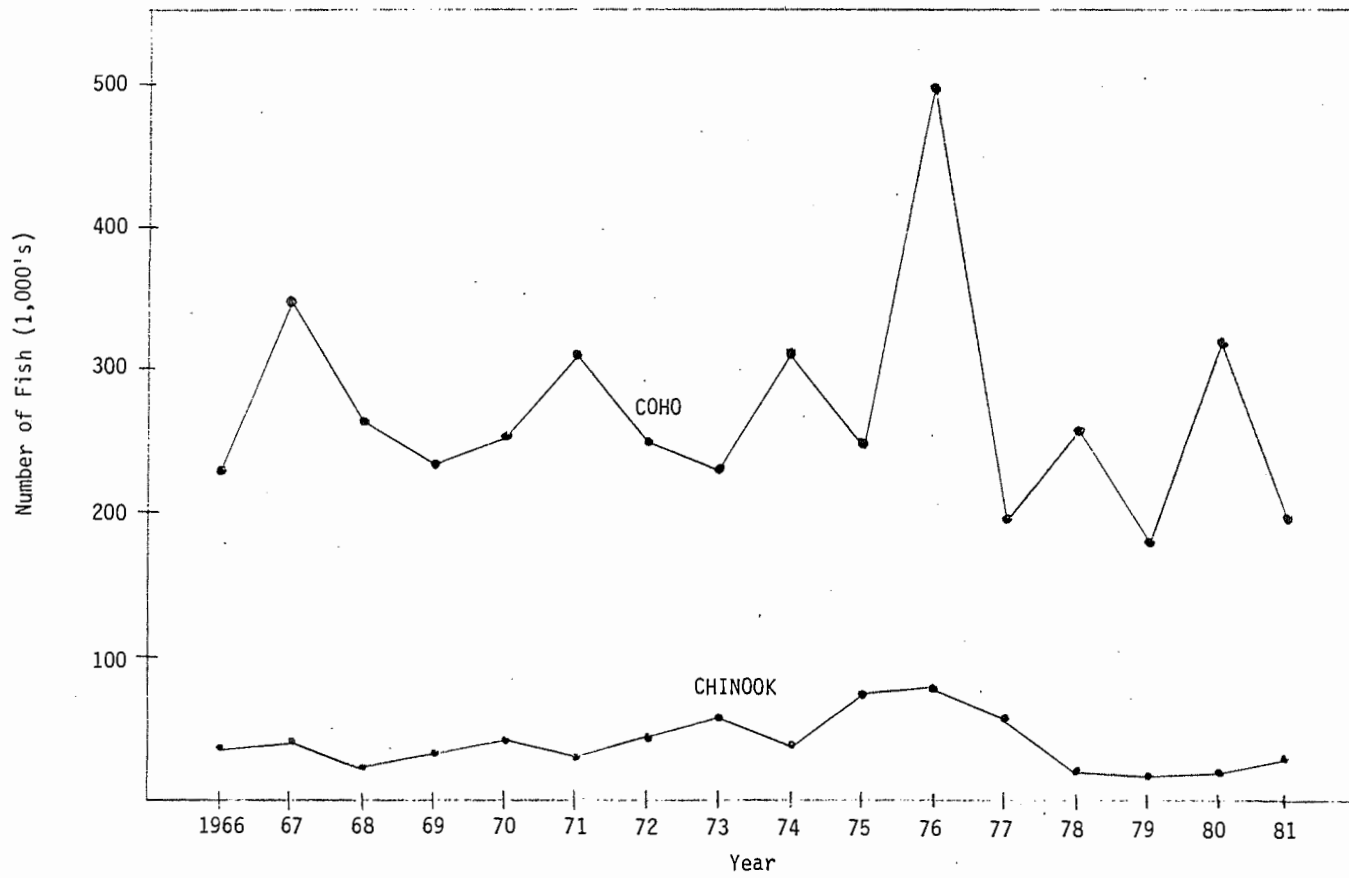


Figure 2. Oregon Ocean Recreational Salmon Catch 1966-81.

Table 23. Oregon Ocean Recreational Chinook Catch by Port by Month, 1981^{a/}.

Port	Month							Total
	May	June	July	August	Sept.	Oct.	Nov.	
Columbia R.	29	390	3,161	6,706	1,230	-	-	11,516
Garibaldi	26	37	503	873	339	-	-	1,778
Pacific City	10	9	48	27	23	-	-	117
Depoe Bay	1	17	402	276	85	-	-	781
Newport	35	68	704	689	135	-	-	1,631
Florence	6	4	488	222	44	-	-	764
Winchester Bay	89	188	1,232	889	161	-	-	2,559
Coos Bay	47	230	585	159	111	-	-	1,132
Gold Beach	0	4	164	724	12	-	-	904
Brookings	457	2,201	3,022	1,906	108	287	10	7,991
Total	700	3,148	10,309	12,471	2,248	287	10	29,173

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

Table 24. Oregon Ocean Recreational Coho Catch by Port by Month, 1981^{a/}.

Port	Month					Total
	May	June	July	August	Sept.	
Columbia R.	1,699	8,289	18,106	20,239	5,961	54,294
Garibaldi	215	334	4,519	8,847	1,013	14,928
Pacific City	51	681	1,067	716	1,013	14,928
Depoe Bay	201	1,937	7,398	8,092	1,154	18,782
Newport	177	4,324	13,272	22,455	2,843	43,071
Florence	8	60	3,214	3,501	268	7,051
Winchester Bay	3,823	1,858	15,372	8,800	690	30,543
Coos Bay	2,487	6,199	6,468	4,181	719	20,054
Gold Beach	34	109	83	665	0	891
Brookings	486	2,540	1,279	3,120	8	7,433
Total	9,181	26,331	70,778	80,616	12,906	199,812

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

Table 25. Oregon Ocean Recreational Chinook Catch by Port by Month, 1980^{a/}.

Port	Month							Total
	May	June	July	Aug.	Sept.	Oct.	Nov.	
Columbia R.	98	1,153	1,374	2,479	399	-	-	5,503
Nehalem	32	91	116	217	35	-	-	4 1
Tillamook	7	106	138	447	99	-	-	797
Netarts	0	4	11	0	0	-	-	15
Pacific City	0	46	53	147	25	-	-	271
Salmon River	0	4	4	7	4	-	-	19
Siletz River	0	4	11	7	14	-	-	36
Depoe Bay	3	94	95	182	46	-	-	420
Newport	107	462	485	185	107	-	-	1,346
Waldport	0	0	4	0	4	-	-	8
Florence	0	221	203	112	46	-	-	582
Winchester Bay	9	982	1,970	411	128	-	-	3,500
Coos Bay	15	227	762	179	27	-	-	1,210
Bandon	0	4	11	0	0	-	-	15
Port Orford	4	0	4	4	0	-	-	12
Gold Beach	26	39	178	163	13	-	-	419
Brookings	12	1,217	1,493	864	402	319	63	4,370
Total	313	4,654	6,912	5,404	1,349	319	63	19,014

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

Table 26. Oregon Ocean Recreational Coho Catch by Port by Month, 1980^{a/}.

Port	Month					Total
	May	June	July	August	Sept.	
Columbia R.	1,801	17,259	19,839	15,550	1,198	55,647
Nehalem Bay	14	266	494	508	28	1,310
Garibaldi	103	3,760	6,388	8,702	454	19,407
Netarts Bay	0	0	4	11	0	15
Pacific City	14	3,105	3,904	1,093	74	8,190
Salmon River	0	18	35	49	35	137
Siletz River	0	32	95	42	4	173
Depoe Bay	84	6,214	14,061	3,763	138	24,260
Newport	149	12,164	27,241	6,968	1,182	47,704
Waldport	0	39	53	11	7	110
Florence	11	2,436	5,842	1,290	196	9,775
Winchester Bay	1,964	31,265	46,824	3,879	464	84,396
Coos Bay	1,805	19,852	17,789	1,905	123	41,474
Bandon	4	32	182	14	0	232
Port Orford	14	4	32	4	0	54
Gold Beach	6	418	750	20	0	1,194
Brookings	66	17,301	12,582	1,327	489	31,765
Total	6,035	114,165	156,115	45,136	4,392	325,843

^{a/} Monthly totals are the sum of statistical weeks estimate with closest fit to calendar month.

Table 27. Oregon Ocean Recreational Chinook Landings by Management Area, 1974 to 1981.

Management Area (Ports Included)	Chinook Catch							
	1974 (Mean)	1975	1976	1977	1978	1979	1980	1981
2 (Astoria)	17,268 (32,607)	47,947	44,578	22,630	7,939	7,542	5,503	11,516
3 (Garibaldi Pacific City)	2,238 (1,978)	1,718	2,323	1,541	833	981	1,574	1,895
4 (Depoe Bay Newport)	3,579 (4,317)	5,054	4,570	2,626	2,068	1,431	1,829	2,412
5 (Florence Winchester Bay Coos Bay Bandon)	3,128 (6,761)	10,393	14,613	22,727	4,751	4,537	5,307	4,455
6 (Port Orford Gold Beach Brookings)	10,516 (10,561)	10,607	13,232	11,840	7,253	6,411	4,801	8,895
Total	36,729 (56,224)	75,719	79,316	61,364	22,844	20,902	19,014	29,173

prior years.

Ocean recreational salmon landings by month show the 1981 chinook catch peaked in July and August (Tables 23 and 28). These two months' cumulative landings in 1981 represented 78% of the total 1981 chinook catch. Chinook landings in July were 49% above 1980, but 48% below the 1974-75 average catch. In August the 1981 chinook catch was 130% above the 1980 landings, but still 37% below the 1974-75 average.

Coho Catch

The ocean recreational coho catch was 199,812 fish in 1981. This catch was well below the 1980 and 1971-75 average landings (Table 19). The 1981 coho catch was 39% below the 1980 catch of 325,843 fish, and 26% below the 1971-75 average of 271,776 coho. The 1981 landings were only 18,978 coho above the record low catch in 1979. All management catch areas in 1981 were below their respective landings in 1980 and the 1974-75 average (Table 29). The coho catches were especially poor on the south coast as the Coos Bay area landings of 57,648 were 78,229 fish below 1980, and 32,429 below the 1974-75 average catch.

Ocean recreational salmon landings by month show the 1981 coho catch peaked in July and August (Tables 24 and 28). The coho catch in June was 87,834 fish below the 1980 June landings, but only 10,179 coho below the 1974-75 average catch for that month. July landings in 1981 were also well below the 1980 and 1974-75 average catches. There were only 70,778 fish caught in July in 1981, compared to 156,115 coho in 1980, and the 1974-75 average of 102,519. The 1981 August coho catch was 80,616, which was the largest catch in that month since 1976. The August 1981 catch was 79% above the 1980 August catch of 45,136 coho, but 22% below the 1974-75 average of 103,028.

Table 28. Oregon Ocean Recreational Effort (Angler Trips) by Month, 1974-75 Average, 1978-81 and Salmon Catch in Numbers of Fish by Species by Month, 1974-75 Average, and 1976-81.

		April ^{a/}	May	June	July	August	Sept.	October	Nov.	Season
E F F O R T (Angler Trips)										
1974-75 ^{b/} Average	Monthly	1,757	9,788	39,348	124,660	129,779	61,275	5,067	0	
	Cumulative	1,757	11,545	50,893	175,553	305,332	366,607	371,674	371,674	371,674
1978	Monthly	-	12,278	78,669	144,534	115,855	37,582	13,294	1,528	
	Cumulative	-	12,278	90,947	235,481	351,336	388,918	402,212	403,740	403,740
1979	Monthly	-	15,290	53,371	112,650	143,167	11,332	4,791	1,169	
	Cumulative	-	15,290	68,661	181,311	324,478	335,810	340,601	341,770	341,770
1980	Monthly	-	10,989	85,538	147,050	92,394	22,732	2,900	412	
	Cumulative	-	10,989	96,527	243,577	335,971	358,703	361,603	362,015	362,015
1981	Monthly	-	19,392	51,598	123,601	117,396	35,540	2,965	445	
	Cumulative	-	19,392	70,990	194,591	311,987	347,527	350,492	350,937	350,937
C H I N O O K										
1974-75 ^{b/} Average	Monthly	165	899	4,789	19,678	19,732	9,193	1,768	0	
	Cumulative	165	1,064	5,853	25,531	45,263	54,456	56,224	56,224	56,224
1976	Monthly	59	1,930	12,540	19,616	35,317	8,826	904	124	
	Cumulative	59	1,989	14,529	34,145	69,462	78,288	79,192	79,316	79,316
1977	Monthly	90	1,370	8,994	17,199	25,610	6,331	1,670	100	
	Cumulative	90	1,460	10,454	27,653	53,263	59,594	61,264	61,364	61,364
1978	Monthly	130	869	4,708	4,963	9,573	1,611	911	79	
	Cumulative	130	999	5,707	10,670	20,243	21,854	22,765	22,844	22,844
1979	Monthly	-	823	4,740	5,115	9,365	202	582	75	
	Cumulative	-	823	5,563	10,678	20,043	20,245	20,827	20,902	20,902
1980	Monthly	-	313	4,654	6,912	5,404	1,349	319	63	
	Cumulative	-	313	4,967	11,879	17,283	18,632	18,951	19,014	19,014
1981	Monthly	-	700	3,148	10,309	12,471	2,248	287	10	
	Cumulative	-	700	3,848	14,157	26,628	28,876	29,163	29,173	29,173
C O H O										
1974-75 ^{b/} Average	Monthly	779	5,772	36,510	102,519	103,028	33,866	881	0	
	Cumulative	779	6,551	43,061	145,580	248,608	282,474	283,355	283,355	283,355
1976	Monthly	576	18,663	75,711	170,092	192,096	39,564	4,050	554	
	Cumulative	576	19,239	94,950	265,042	457,138	496,702	500,752	501,306	501,306
1977	Monthly	460	15,709	26,672	84,102	58,706	9,169	459	0	
	Cumulative	460	16,169	42,841	126,943	185,649	194,818	195,277	195,277	195,277
1978	Monthly	181	5,130	101,523	71,423	67,810	13,208	494	0	
	Cumulative	181	5,311	106,834	178,257	246,067	259,275	259,769	259,769	259,769
1979	Monthly	-	5,402	35,834	73,799	64,156	1,643	-	-	
	Cumulative	-	5,402	41,236	115,035	179,191	180,834	-	-	180,834
1980	Monthly	-	6,035	114,165	156,115	45,136	4,392	-	-	
	Cumulative	-	6,035	120,200	276,315	321,451	325,843	-	-	325,843
1981	Monthly	-	9,181	26,331	70,778	80,616	12,906	-	-	
	Cumulative	-	9,181	35,512	106,290	186,906	199,812	-	-	199,812

^{a/} April value includes any early season catches

^{b/} Only 1974 and 1975 of the 1971-75 period are available on a monthly basis.

Note: 1979, 1980 and 1981 monthly totals are the sum of statistical weeks estimates with the closest fit to calendar month.

Table 29. Oregon Ocean Recreational Coho Landings by Management Area, 1974 to 1981.

Management Area (Ports Included)	Coho Catch							
	1974 (Mean)	1975	1976	1977	1978	1979	1980	1981
2 (Astoria)	98,587 (70,724)	42,861	116,677	55,297	60,155	38,034	55,647	54,294
3 (Garibaldi Pacific City)	29,928 (27,232)	24,536	50,022	15,594	8,510	9,418	28,922	17,693
4 (Depoe Bay Newport)	68,089 (65,145)	62,202	118,071	34,043	61,210	36,275	72,384	61,853
5 (Florence Winchester Bay Coos Bay Bandon)	77,247 (90,077)	102,906	164,764	76,305	82,784	78,956	135,877	57,648
6 (Port Orford Gold Beach Brookings)	40,650 (30,177)	19,704	51,772	14,038	47,110	18,151	33,013	8,324
Total	314,501 (283,355)	252,209	501,306	195,277	259,769	180,834	325,843	199,812

Evaluation of Minimum Size Limits

In recent years, regulations implemented for the ocean recreational fishing have included more restrictive minimum size limits for salmon. This has resulted in a significant number of fish being released, especially chinook. The number of "shakers" (undersized salmon) were estimated from interview data collected during the ocean sampling surveys.

The chinook minimum size limits for 1979-81 were 24 inches for the area north of Cape Falcon and 22 inches south of Cape Falcon. The estimated number of chinook released by ocean recreational anglers during the 1981 season was 24,424 or 46% of all chinook caught (Table 30). This compares to 12,538 chinook shakers or 42% of the total catch in 1980 (Table 31), and 12,871 undersize chinook or 41% of the total catch in the 1979 survey. At Astoria, 21,664 sublegal chinook were released compared to 11,516 fish landed in 1981. These figures indicate 65% of the chinook caught in the Columbia River area in 1981 were under 24 inches. At other ports in 1981, the shaker rates ranged from 1% at Garibaldi, to 43% at Winchester Bay. These rates have varied from year to year with Coos Bay anglers reporting a 58% shaker rate in 1980 compared to 16% in 1981 with about the same total landings.

Oregon's minimum size limit for coho was 16 inches during 1979-81. Ocean anglers released 4,153 coho in 1981 (Table 32), compared to 4,886 in 1980 (Table 33). These shakers represented only 2% of the total coho catch for Oregon's recreational fishery. Astoria and Winchester Bay anglers released 70% of the shaker coho in 1981, but these undersized fish represented less than 4% of each port's total coho catch.

Extended Recreational Season

A recreational ocean salmon season was again included with the 1981 and 1980 extended troll seasons in November off the mouths of the Elk and

Table 30. Chinook Salmon Released by Ocean Recreational Fishery in 1981 by Port.

	Number of Fish Landed	Number of Fish Released	Total Fish Caught	Percent of Catch Released
Columbia R.	11,516	21,664	33,180	65
Garibaldi	1,778	21	1,799	1
Pacific City	117	2	119	2
Depoe Bay	781	74	855	9
Newport	1,631	54	1,685	3
Florence	764	155	919	17
Winchester Bay	2,559	1,899	4,458	43
Coos Bay	1,132	216	1,348	16
Gold Beach	904	80	984	8
Brookings	7,991	259	8,250	3
Total	29,173	24,424	53,597	46

Table 31. Chinook Salmon Released by Ocean Recreational Fishery in 1980 by Port.

	Number of Fish Landed	Number of Fish Released	Total Fish Caught	Percent of Catch Released
Columbia R.	5,503	7,891	13,394	59
Garibaldi	797	0	797	0
Depoe Bay	420	15	435	3
Newport	1,346	39	1,385	3
Winchester Bay	3,500	1,448	4,948	29
Coos Bay	1,210	1,694	2,904	58
Gold Beach	419	121	540	22
Brookings	3,820	1,330	5,150	26
Total	17,015	12,538	29,553	42

Table 32. Coho Salmon Released by Ocean Recreational Fishery in 1981 by Port.

	Number of Fish Landed	Number of Fish Released	Total Fish Caught	Percent of Catch Released
Columbia R.	54,294	1,643	55,937	3
Garibaldi	14,928	21	14,949	<1
Pacific City	2,765	7	2,772	<1
Depoe Bay	18,782	636	19,418	3
Newport	43,071	223	43,294	1
Florence	7,051	66	7,117	1
Winchester Bay	30,543	1,246	31,789	4
Coos Bay	20,054	258	20,312	1
Gold Beach	891	21	912	2
Brookings	7,433	32	7,465	<1
Total	199,812	4,153	203,965	2

Table 33. Coho Salmon Released by Ocean Recreational Fishery in 1980 by Port.

	Number of Fish Landed	Number of Fish Released	Total Fish Caught	Percent of Catch Released
Columbia R.	55,647	1,905	57,552	3
Garibaldi	19,407	0	19,407	0
Depoe Bay	24,260	282	24,542	1
Newport	47,704	296	48,000	1
Winchester Bay	84,396	1,319	85,715	2
Coos Bay	41,474	1,011	42,485	2
Gold Beach	1,194	4	1,198	<1
Brookings	31,765	69	31,834	<1
Total	305,847	4,886	310,733	2

Chetco rivers in state waters. The season extensions were implemented to allow the harvest of surplus hatchery fall chinook to the rivers. Poor catches were made at Brookings during the 1981 season, as only 10 chinook were estimated caught, compared to 63 fish in 1980 and 75 chinook in 1979.

Effort during November 1981 was similar to 1980 with 445 angler trips and 412 trips, respectively. In both years effort was well below the 1,169 ocean trips estimated for 1979. No catch or effort during November was reported at Port Orford.

Charter/Private Boat Fisheries

During 1980-81, approximately 200 charter boats and an unknown number of private boats participated each year in Oregon's ocean recreational salmon fishery. Catch and effort statistics were compiled by boat type at all ports included in the sampling surveys for 1973-81.

The 1981 charterboat fishery effort was an estimated 11,327 boat trips and 80,950 angler trips, compared to 12,816 boat trips and 91,587 angler trips in 1980 (Tables 34 and 35). Charterboat effort comprised only 23% of the 350,937 total ocean recreational angler trips for 1981, compared to 28% in 1980 and the 1973-79 average of 31% (Figure 3). The number of charter angler trips in 1981 (80,950) was the lowest charter effort during the survey since 1970 and was 19% below the 1973-79 average of 100,032 trips. Charterboat fleets operate out of most major Oregon ports and vary greatly in size and number of vessels. Astoria, Depoe Bay, and Newport each had over 2,000 boat trips and 15,000 angler trips in 1981 and 1980. All ports had similar levels of charterboat effort in 1981 and 1980 except Astoria, where there were only 2,148 boat trips and 15,967 angler trips in 1981, compared to 3,859 boat trips and 26,250 anglers in 1980.

Charterboat anglers landed 64,514 coho and 6,650 chinook in 1981. This

Table 34. Oregon Ocean Recreational Salmon Statistics by Boat-Type, 1981^{a/}.

Port	Charter Boats				Private Boats			
	Boat Trips	Angler Trips	Catch		Boat Trips	Angler Trips	Catch	
			Coho	Chinook			Coho	Chinook
Columbia R.	2,148	15,967	23,679	4,298	8,177	28,872	30,615	7,218
Garibaldi	839	6,484	1,936	177	12,054	32,986	12,992	1,601
Pacific City	64	243	110	9	1,817	5,577	2,655	108
Depoe Bay	2,220	16,659	11,376	382	3,448	10,158	7,406	399
Newport	2,584	18,768	12,000	480	15,680	48,485	31,071	1,151
Florence	3	13	1	0	4,890	13,183	7,050	764
Winchester Bay	1,762	11,256	7,767	523	12,023	33,596	22,776	2,036
Coos Bay	1,093	7,801	6,803	319	7,371	21,363	13,251	813
Gold Beach	285	1,514	247	246	1,831	4,397	644	658
Brookings	329	2,245	595	216	28,493	71,370	6,838	7,775
Totals	11,327	80,950	64,514	6,650	95,784	269,987	135,298	22,523
Combined totals for all Oregon craft	107,111	350,937	199,812	29,173				

^{a/} All ports were sampled the entire ocean salmon season

Table 35. Oregon Ocean Recreational Salmon Statistics by Boat-Type, 1980^{a/}.

Port	Charter Boats				Private Boats			
	Boat Trips	Angler Trips	Catch		Boat Trips	Angler Trips	Catch	
			Coho	Chinook			Coho	Chinook
Columbia R.	3,859	26,250	37,666	3,122	6,378	20,085	17,981	2,381
Garibaldi	945	7,256	3,302	75	11,405	30,528	16,105	722
Depoe Bay	2,275	17,582	15,477	260	3,743	11,148	8,783	160
Newport	2,319	17,097	9,261	288	16,889	52,025	38,443	1,058
Winchester Bay	1,808	11,519	17,882	731	14,556	44,048	66,514	2,769
Coos Bay	1,120	8,907	13,275	349	7,545	22,297	28,199	861
Gold Beach	227	1,190	306	134	1,647	4,052	888	285
Brookings	263	1,786	1,176	134	20,193	52,744	30,589	3,686
Totals	12,816	91,587	98,345	5,093	82,356	236,927	207,502	11,922
Combined totals for all Oregon craft	95,172	328,514	305,847	17,015				

^{a/} All ports were sampled from May 10-September 14, (entire ocean salmon season).

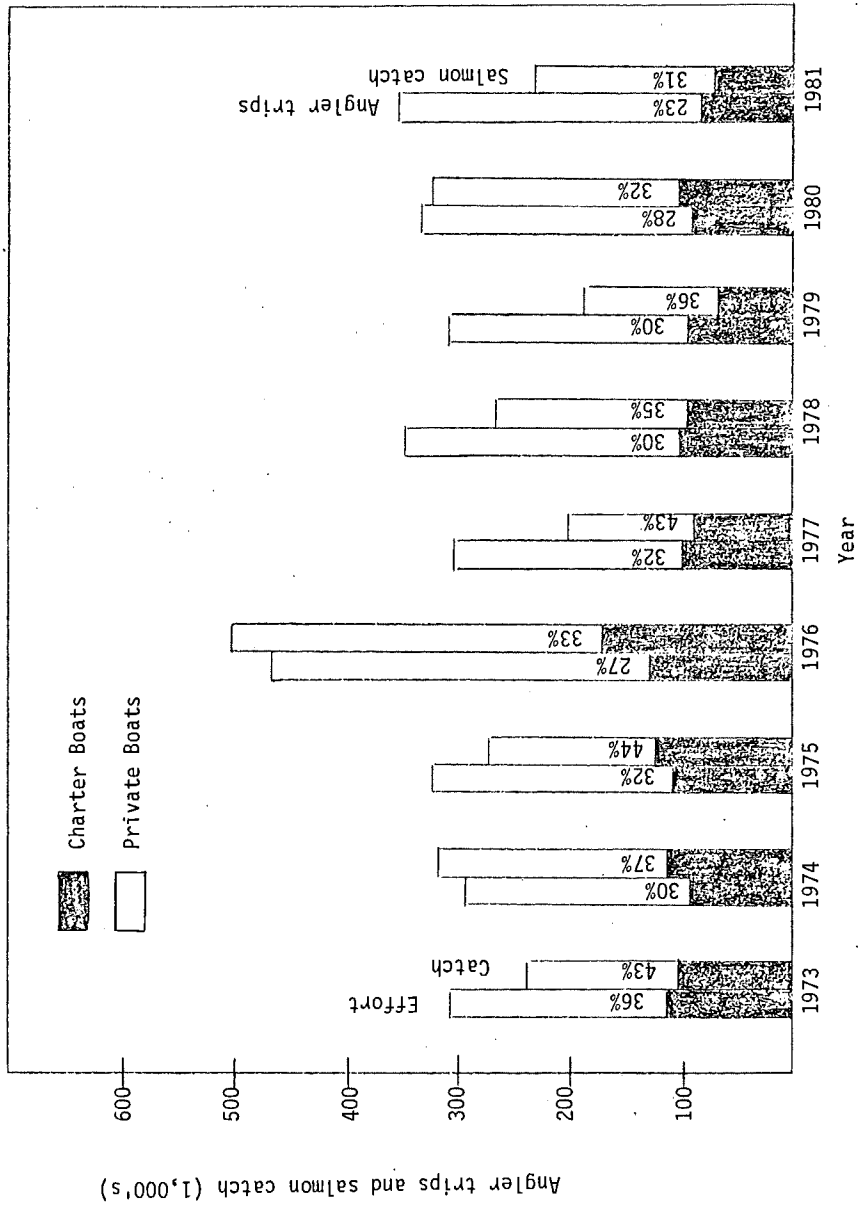


Figure 3. Oregon Ocean Recreational Salmon Fishery Statistics by Boat-Type 1973-1981.

compares to the 1980 charterboat fishery catch of 98,345 coho and 5,093 chinook. The total catch of 71,164 salmon by charterboat anglers in 1981 was below the 1980 catch of 103,438 salmon and the 1973-79 average of 104,687 fish. Charterboats landed 31% of the total recreational salmon catch in 1981 compared to 32% in 1980, and the 1973-79 average of 39% of the total catch. Oregon's largest charterboat fleet operating out of the Columbia River (Astoria, Hammond, Warrenton) landed 27,977 salmon or 39% of the total charterboat catch in 1981, and 40,788 or 41% of the catch in 1980. The average angler success on charterboats in 1981 was 0.9 salmon per angler trip, below the 1980 and the 1973-79 average success rate of 1.1 salmon per charter-angler trip.

In 1981, 9,339 or 82% of the 11,323 total charterboat trips targeted for salmon (Table 36). Also, only 65,411 angler trips or 81% of the total anglers on charterboats actually were salmon fishing during the salmon season. This compares to 79,055 salmon anglers on charterboats in 1980 (Table 37) and 73,718 salmon trips in 1979. All anglers on Astoria charterboats in 1981 and 1980 fished for salmon, compared to Garibaldi's charterboat effort, where only 44% and 51% of the anglers in 1981 and 1980, respectively, targeted for salmon.

The 1981 private boat fishing effort was an estimated 95,784 boat trips and 269,987 angler trips (Table 34). This was below the 1980 effort of 82,356 boat trips and 236,927 angler trips on private pleasure boats (Table 35). This effort represents 77% of the total 1981 angler trips, compared to 72% in 1980 and the 1973-79 average of 69%. The number of private boat angler trips in 1981 was the highest since 1966, except for 1976 when over 315,000 private angler trips were estimated. Brookings was the busiest port with 71,370 and 52,744 private angler trips in 1981 and 1980, respectively.

Table 36. Oregon Ocean Recreational Salmon Catch Statistics by Boat and Trip Type^{1/} from Angler Creel Survey, 1981^{2/}.

Port	Charter						Private					
	Boat Trips		Angler Trips		Salmon Catch		Boat Trips		Angler Trips		Salmon Catch	
	Sal	Bot	Sal	Bot	Sal	Bot	Sal	Bot	Sal	Bot	Sal	Bot
Columbia R.	2,148	0	15,967	0	28,016	0	8,141	36	28,728	144	37,675	231
Garibaldi	431	408	2,862	3,622	2,084	49	11,406	648	30,907	2,079	14,640	28
Pacific City	60	4	230	13	124	0	1,310	507	4,012	1,565	2,802	9
Depoe Bay	1,680	536	12,423	4,200	11,991	14	3,271	172	9,584	564	7,936	2
Newport	1,830	754	13,104	5,664	12,517	139	13,790	1,883	42,231	6,239	32,351	56
Florence	3	0	13	0	1	0	4,889	1	13,179	4	7,820	0
Winchester Bay	1,738	24	11,096	160	8,305	0	11,949	74	33,393	203	24,902	12
Coos Bay	909	184	6,481	1,320	7,255	13	6,846	525	19,738	1,625	14,225	9
Gold Beach	278	7	1,482	32	495	0	1,321	510	3,131	1,266	1,250	52
Brookings	262	67	1,753	492	809	4	24,716	3,777	60,891	10,479	14,634	126
Total	9,339	1,984	65,411	15,503	71,597	219	87,639	8,133	245,794	24,168	158,235	525
Total for all boats:	96,978	10,117	311,205	39,671	229,832	744						

^{1/} Trip-types are separated by boat trips that target for salmon (SAL) and for bottomfish (BOT). Combination salmon and bottomfish trips are included in salmon trip estimates.

^{2/} All ports were sampled the entire ocean salmon season.

Table 37. 1980 Oregon Ocean Recreational Salmon Catch Statistics by Boat and Trip Type^{1/} from Angler Creel Survey^{2/}.

Port	Charter						Private					
	Boat Trips		Angler Trips		Salmon Catch		Boat Trips		Angler Trips		Salmon Catch	
	Sal	Bot	Sal	Bot	Sal	Bot	Sal	Bot	Sal	Bot	Sal	Bot
Columbia R.	3,859	0	26,250	0	40,791	0	6,371	7	20,065	20	20,362	0
Garibaldi	543	402	3,688	3,568	3,239	139	10,980	425	29,347	1,181	16,793	34
Depoe Bay	1,871	404	14,489	3,093	15,433	306	3,464	279	10,251	897	8,892	51
Newport	1,705	614	12,210	4,887	9,485	64	15,068	1,821	46,324	5,701	39,433	71
Win. Bay	1,793	15	11,405	114	18,612	3	14,527	29	43,969	79	69,296	0
Coos Bay	1,039	81	8,241	666	13,616	8	7,179	366	21,254	1,043	29,058	2
Gold Beach	225	2	1,182	8	440	0	1,189	458	2,891	1,161	1,157	16
Brookings	238	25	1,590	196	1,309	1	17,489	2,704	44,786	7,958	34,194	81
Total	11,273	1,543	79,055	12,532	102,925	521	76,267	6,089	218,887	18,040	219,185	255
Total for all boats:	87,540	7,632	297,942	30,572	322,110	776						

^{1/} SAL - Salmon trip estimates include combination and salmon trips that target for salmon during trip.
 BOT - Bottomfish trip estimates include ocean boat trips that target only for bottomfish (salmon was an incidental catch).

^{2/} All ports were sampled from May 10-September 14 (entire ocean salmon season).

Brookings and Newport accounted for 44% of the private boat effort in 1981.

Private boat anglers landed 135,298 coho and 22,523 chinook in 1981. This compares to 207,502 coho and 11,922 chinook caught in 1980 by private boat anglers at the 8 ports surveyed. The total salmon catch of 157,821 in 1981 was 28% below 1980 and 10% below the 1973-79 average of 174,472 salmon landings by the private boat fishery (Figure 3). Anglers on private boats ranging in size from small skiffs to large yachts caught 69% of the total recreational salmon landed in 1981. This compares to 68% of the total catch at the eight ports surveyed in 1980, and the 1973-79 average of 61% of the total landings. Private boat anglers in 1981 caught 37,833 salmon at Astoria compared to 1,302 salmon landed at Gold Beach. In 1980, anglers at Winchester Bay were very successful as they landed 69,283 salmon, compared to 1,173 salmon caught by the Gold Beach private boat fishery. The average angling success on private boats in 1981 was 0.6 salmon per angler, which is below the 1980 and 1973-79 average success for Oregon's private boat fishery of 0.9 and 0.7 salmon per angler, respectively.

Catch and effort estimates for private boats were also calculated by trip-type in 1981 and 1980 (Tables 36 and 37). Effort data by trip-type (salmon or bottomfish) was collected through interviews during the ocean survey for each boat sampled. This data was applied proportionately to the total effort counts for private boats by port and time period. These statistics show 87,639 or 92% of the 95,772 total private boat trips targeted for salmon in 1981, and 76,267 boat trips or 93% of the 82,356 trips in 1980. This effort in 1981 and 1980 accounted for 245,794 and 218,887 angler trips, and 91% and 92%, respectively, of the total ocean effort by private boat anglers. At Astoria, 28,728 trips or over 99% of the private boat anglers fished for salmon in 1981. This compares to the private boat effort

at Brookings that year where 60,891 angler trips were for salmon, but also 10,479 trips or 15% of the total ocean effort targeted for bottomfish only.

Recreational Ocean Salmon Mark Sampling

1981

Samplers at ten ports observed 33% of the chinook and 40% of the coho landed during the 1981 sampling survey.

Chinook - The samplers examined 9,611 chinook and found 251 or 2.6% had an adipose fin clipped (Table 38). They collected 220 heads from these marked fish for coded-wire tag recovery. An additional 14 chinook heads were collected from marked fish that were not sampled in the survey.

Technicians found tags in 195 of the 234 chinook heads. This is an 83% tag recovery ratio. The major contributing agencies of the chinook tags were:

Oregon Department of Fish & Wildlife	- 25%
California Department of Fish & Game	- 23%
U.S. Fish & Wildlife Service	- 20%
Washington Department of Fisheries	- 19%
National Marine Fisheries Service	- 8%

Coho - Samplers examined 79,392 coho and found 3,585 or 4.5% had an adipose fin clipped (Table 39). They collected 3,524 heads from these marked fish for coded-wire tag recovery. An additional 55 coho heads were collected from marked fish that were not sampled in the survey.

Technicians found 3,073 tags in the 3,579 coho heads. This is an 86% tag recovery ratio. The major contributing agencies and hatcheries of coho tags were:

Washington Department of Fisheries	- 47%
Oregon Department of Fish & Wildlife	- 23%
Oregon Aqua-Foods	- 15%
National Marine Fisheries Service	- 5%
Anadromous, Inc.	- 3%

Table 38. Oregon Ocean Recreational Chinook Mark Sampling, 1981.

	May	June	July	August	Sept.	Oct.	Nov.	Total
<u>Columbia R.</u>								
No. Sampled	13	193	1,540	2,205	314			4,265
No. Landed	29	390	3,161	6,706	1,230			11,516
% Sampled	45	49	49	33	26			37
No. Ad Marks	2	6	52	52	6			118
<u>Garibaldi</u>								
No. Sampled	4	18	186	269	130			607
No. Landed	26	37	503	873	339			1,778
% Sampled	15	49	37	31	38			34
No. Ad Marks	2	1	5	3	4			15
<u>Pacific City</u>								
No. Sampled	7	8	39	21	20			95
No. Landed	10	9	48	27	23			117
% Sampled	70	89	81	78	87			81
No. Ad Marks	0	1	1	0	0			2
<u>Depoe Bay</u>								
No. Sampled	1	8	178	106	48			341
No. Landed	1	17	402	276	85			781
% Sampled	100	47	44	38	56			44
No. Ad Marks	0	1	4	3	1			9
<u>Newport</u>								
No. Sampled	13	23	304	284	49			673
No. Landed	35	68	704	689	135			1,631
% Sampled	37	34	43	41	36			41
No. Ad Marks	2	0	8	5	1			16
<u>Florence</u>								
No. Sampled	5	2	180	59	15			261
No. Landed	6	4	488	222	44			764
% Sampled	83	50	37	27	34			34
No. Ad Marks	0	0	0	0	1			1
<u>Winchester Bay</u>								
No. Sampled	14	55	297	215	71			652
No. Landed	89	188	1,232	889	161			2,559
% Sampled	16	29	24	24	44			25
No. Ad Marks	0	2	6	3	2			13
<u>Coos Bay</u>								
No. Sampled	26	133	338	122	69			688
No. Landed	47	230	585	159	111			1,132
% Sampled	55	58	58	77	62			61
No. Ad Marks	2	8	14	4	0			28
<u>Gold Beach</u>								
No. Sampled	0	3	89	315	6			413
No. Landed	0	4	164	724	12			904
% Sampled	-	75	54	44	50			46
No. Ad Marks	0	0	0	3	0			3
<u>Brookings</u>								
No. Sampled	101	364	625	373	47	102	4	1,616
No. Landed	457	2,201	3,022	1,906	108	287	10	7,991
% Sampled	22	17	21	20	44	36	40	20
No. Ad Marks	2	8	15	4	0	14	3	46
<u>Total</u>								
No. Sampled	184	807	3,776	3,969	769	102	4	9,611 ^{1/2}
No. Landed	700	3,148	10,309	12,471	2,248	287	10	29,173
% Sampled	26	26	37	32	34	36	40	33
No. Ad Marks	10	27	105	77	15	14	3	251 ^{1/2}

^{1/2} In addition 14 snouts were taken from Ad-clipped fish not sampled in survey.

Table 39. Oregon Ocean Recreational Coho Mark Sampling, 1981.

	May	June	July	August	Sept.	Total
<u>Columbia R.</u>						
No. Sampled	731	4,302	8,616	6,672	1,584	21,905
No. Landed	1,699	8,289	18,106	20,239	5,961	54,294
% Sampled	43	52	48	33	27	40
No. Ad Marks	31	313	520	265	46	1,175
<u>Garibaldi</u>						
No. Sampled	81	211	1,948	2,708	441	5,389
No. Landed	215	334	4,519	8,847	1,013	14,928
% Sampled	38	63	43	31	44	36
No. Ad Marks	3	6	65	90	19	183
<u>Pacific City</u>						
No. Sampled	35	619	918	508	191	2,271
No. Landed	51	681	1,067	716	250	2,765
% Sampled	69	91	86	71	76	82
No. Ad Marks	3	22	37	21	3	86
<u>Depoe Bay</u>						
No. Sampled	135	1,179	3,518	3,845	713	9,390
No. Landed	201	1,937	7,398	8,092	1,154	18,782
% Sampled	67	61	48	48	62	50
No. Ad Marks	13	65	150	172	32	432
<u>Newport</u>						
No. Sampled	80	1,602	5,824	8,595	922	17,023
No. Landed	177	4,324	13,272	22,455	2,843	43,071
% Sampled	45	37	44	38	32	40
No. Ad Marks	4	58	224	387	46	719
<u>Florence</u>						
No. Sampled	6	35	1,066	914	92	2,113
No. Landed	8	60	3,214	3,501	268	7,051
% Sampled	75	58	33	26	34	30
No. Ad Marks	0	1	25	20	4	50
<u>Winchester Bay</u>						
No. Sampled	772	459	4,157	2,330	250	7,968
No. Landed	3,823	1,858	15,372	8,800	690	30,543
% Sampled	20	25	27	26	36	26
No. Ad Marks	50	20	124	65	5	264
<u>Coos Bay</u>						
No. Sampled	1,117	2,815	4,089	2,824	449	11,294
No. Landed	2,487	6,199	6,468	4,181	719	20,054
% Sampled	45	45	63	68	62	56
No. Ad Marks	69	178	194	106	18	565
<u>Gold Beach</u>						
No. Sampled	31	88	53	282	0	454
No. Landed	34	109	83	665	0	891
% Sampled	91	81	64	42	-	51
No. Ad Marks	1	4	2	10	0	17
<u>Brookings</u>						
No. Sampled	157	452	323	651	2	1,585
No. Landed	486	2,540	1,279	3,120	8	7,433
% Sampled	32	18	25	21	25	21
No. Ad Marks	15	25	8	45	1	94
<u>Total</u>						
No. Sampled	3,145	11,762	30,512	29,329	4,644	79,392 ^{1/}
No. Landed	9,181	26,331	70,778	80,616	12,906	199,812
% Sampled	34	45	43	36	36	40
No. Ad Marks	189	692	1,349	1,181	174	3,585 ^{1/}

^{1/} In addition, 55 snouts were taken from Ad-clipped fish not sampled in survey.

1980

Samplers at eight ports observed 29% of the chinook and 34% of the coho landed during the 1980 sampling survey. This survey resulted in mark sampling rates for the whole coast of 26% for chinook and 32% for coho landed in the Oregon recreational fishery.

Chinook - The samplers examined 4,877 chinook and found 157 or 3.2% had an adipose fin clipped (Table 40). They collected 156 heads from these marked fish for coded-wire tag recovery. An additional 6 heads were collected from marked fish that were not sampled in the survey.

Technicians found tags in 144 of the 162 chinook heads. This is an 89% tag recovery ratio. The major contributing agencies of the chinook tags were:

California Department of Fish & Game	- 33%
Washington Department of Fisheries	- 31%
Oregon Department of Fish & Wildlife	- 18%
U.S. Fish and Wildlife Service	- 13%

Coho - Samplers examined 103,523 coho and found 3,307 or 3.2% had an adipose fin clipped (Table 41). They collected 3,265 heads from these marked fish for coded-wire tag recovery. An additional 63 coho heads were collected from marked fish that were not sampled in the survey.

Technicians found 2,889 in the 3,328 coho heads. This is an 87% tag recovery ratio. The major contributing agencies and hatcheries of coho tags were:

Oregon Department of Fish & Wildlife	- 44%
Washington Department of Fisheries	- 40%
Oregon Aqua-Foods	- 10%
Anadromous, Inc.	- 3%

ACKNOWLEDGMENTS

The dedicated efforts of Donna Lamb, who assisted with the preparation

Table 40. Oregon Ocean Recreational Chinook Mark Sampling, 1980.

	May	June	July	August	September	Total
<u>Columbia R.</u>						
No. Sampled	31	282	278	378	74	1,043
No. Landed	98	1,153	1,374	2,479	399	5,503
% Sampled	32	24	20	15	19	19
No. Ad Marks	2	24	24	13	0	63
<u>Garibaldi</u>						
No. Sampled	2	39	62	123	20	246
No. Landed	7	106	138	447	99	797
% Sampled	29	37	45	28	20	31
No. Ad Marks	0	1	2	7	1	11
<u>Depoe Bay</u>						
No. Sampled	2	53	35	83	19	192
No. Landed	3	94	95	182	46	420
% Sampled	67	56	37	46	41	46
No. Ad Marks	1	1	1	3	0	6
<u>Newport</u>						
No. Sampled	33	140	196	80	35	484
No. Landed	107	462	485	185	107	1,346
% Sampled	31	30	40	43	33	36
No. Ad Marks	1	1	3	2	0	7
<u>Winchester Bay</u>						
No. Sampled	3	307	642	154	50	1,156
No. Landed	9	982	1,970	411	128	3,500
% Sampled	33	31	33	37	39	33
No. Ad Marks	0	1	11	11	1	24
<u>Coos Bay</u>						
No. Sampled	7	104	391	111	7	620
No. Landed	15	227	762	179	27	1,210
% Sampled	47	46	51	62	26	51
No. Ad Marks	0	0	10	7	0	17
<u>Gold Beach</u>						
No. Sampled	16	20	89	108	10	243
No. Landed	26	39	178	163	13	419
% Sampled	62	51	50	66	77	58
No. Ad Marks	0	0	0	0	0	0
<u>Brookings</u>						
No. Sampled	5	292	269	258	69	893
No. Landed	12	1,217	1,493	864	234	3,820
% Sampled	42	24	18	30	29	23
No. Ad Marks	1	8	9	5	6	29
<u>Total</u>						
No. Sampled	99	1,237	1,962	1,295	284	4,877 ^{1/}
No. Landed	277	4,280	6,495	4,910	1,053	17,015
% Sampled	36	29	30	26	27	29
No. Ad Marks	5	36	60	48	8	157 ^{1/}

^{1/} In addition 6 snouts were taken from Ad-clipped fish not sampled in survey.

Table 41. Oregon Ocean Recreational Coho Mark Sampling, 1980.

	May	June	July	August	September	Total
<u>Columbia R.</u>						
No. Sampled	522	4,144	3,948	2,232	208	11,054
No. Landed	1,801	17,259	19,839	15,550	1,198	55,647
% Sampled	29	24	20	14	17	20
No. Ad Marks	18	155	149	50	2	374
<u>Garibaldi</u>						
No. Sampled	47	1,869	2,730	2,967	109	7,722
No. Landed	103	3,760	6,388	8,702	454	19,407
% Sampled	46	50	43	34	24	40
No. Ad Marks	3	63	84	88	4	242
<u>Depoe Bay</u>						
No. Sampled	49	3,341	5,577	1,781	62	10,810
No. Landed	84	6,214	14,061	3,763	138	24,260
% Sampled	58	54	40	47	45	45
No. Ad Marks	3	112	195	63	0	373
<u>Newport</u>						
No. Sampled	51	4,055	11,096	2,916	422	18,540
No. Landed	149	12,164	27,241	6,968	1,182	47,704
% Sampled	34	33	41	42	36	39
No. Ad Marks	6	96	349	128	7	586
<u>Winchester Bay</u>						
No. Sampled	811	9,504	15,656	1,352	178	27,501
No. Landed	1,964	31,265	46,824	3,879	464	84,396
% Sampled	41	30	33	35	38	33
No. Ad Marks	25	279	488	44	3	839
<u>Coos Bay</u>						
No. Sampled	828	8,996	9,300	1,166	45	20,335
No. Landed	1,805	19,852	17,789	1,905	123	41,474
% Sampled	46	45	52	61	37	49
No. Ad Marks	18	311	350	32	1	712
<u>Gold Beach</u>						
No. Sampled	3	295	276	16	0	590
No. Landed	6	418	750	20	0	1,194
% Sampled	50	71	37	80	-	49
No. Ad Marks	0	6	6	1	0	13
<u>Brookings</u>						
No. Sampled	22	4,169	2,323	319	138	6,971
No. Landed	66	17,301	12,582	1,327	489	31,765
% Sampled	33	24	18	24	28	22
No. Ad Marks	4	79	65	13	7	168
<u>Total</u>						
No. Sampled	2,333	36,373	50,906	12,749	1,162	103,523 ^{1/}
No. Landed	5,978	108,233	145,474	42,114	4,048	305,847
% Sampled	39	34	35	30	29	34
No. Ad Marks	77	1,101	1,686	419	24	3,307 ^{1/}

^{1/} In addition 63 snouts were taken from Ad-clipped fish not sampled in survey.

of the tables and figures in the report, as well as that of all port samplers is greatly appreciated.

REFERENCES

McQueen, R.K. and D.W. Loomis. 1980. Management of the Ocean Salmon Fishery, October 1, 1978 to September 1979.

McQueen, R.K., D.W. Loomis and S.L. Lewis. 1981. The 1979 Oregon Ocean Salmon Fisheries.



Post Office Box 3503
Portland, Oregon 97208