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COASTAL RIVERS INVESTIGATION
INFORMATION REPORT 74-6

Spawning Fish Surveys in Coastal
Watersheds, 1973

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Fish Commission of Oregon
Management and Research Division

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Spawning Fish Surveys in Coastal
Watersheds, 1973 1/

GENERAL INFORMATION

Spawning fish on index areas of Oregon coastal rivers and tributaries are annually surveyed by personnel of Coastal Rivers Investigation, Fish Commission of Oregon. Annual peak counts of spawning salmon in the survey areas provide data for computing an index of the escapement into a coast-wide "fish-per-mile" figure for each species. Trends in abundance of spawning salmon are noted by comparing these data over a period of years. This report presents peak counts for 1973-74 and makes comparisons with similar data from previous years.

Spawning fish surveys were first established 27 years ago, and additional areas were added as needed to form a coastwide sampling program. In 1971, the survey project was substantially modified. Surveys that were not representative because of lack of suitable habitat, became inaccessible because of changing road use, or could not be adequately surveyed for physical reasons were eliminated. Statistical analyses and effects of eliminating these surveys were discussed in the 1971 spawning fish survey report (Skeesick, 1972).

Present annual survey distances are 27.5 miles for fall chinook and 39.0 miles for coho. An additional 17.1 miles of stream are surveyed in the Tenmile Lakes system to provide the data base for an annual estimate of the adult population and egg deposition. The spring chinook surveys were suspended because the counts were so low no meaningful trends were evident.

1/ This work was partially supported by PL 89-304 funds.

Information on chum salmon surveys has been transferred to a more comprehensive report that includes information about private aquaculture operations as well as more detailed information about stock characteristics.

Index areas were often surveyed more than once to ensure that counts were made near the peak of the run. Variability in the timing of the spawning migrations between streams, volume and duration of flood flows, and silt load frequently caused aborted surveys that had to be rescheduled and occasionally resulted in inadequate surveys on some standard index areas.

Coastal rivers surveys encompassed 126 miles during the 1973-74 spawning season (Table 1). The surveys represent a net decrease of 3% over the effort of the previous year. Surveys started on November 5, 1973, and continued through January 7, 1974.

Since 1958, survey data have been exchanged with the Oregon Wildlife Commission to avoid duplication. This year Wildlife Commission biologists provided data from two standard surveys on Nehalem River tributaries, one on a Coos River tributary, and one on a tributary of the Coquille River.

Influence of Weather on the 1973-74 Spawning Fish Surveys

Heavy rains coincided with the peak spawning of chinook in the central and north coast. Continued rains prevented surveys on numerous streams until after the chinook had completed spawning. At Newport, for example, 7.75 inches of rain fell between November 11 and 17, and an additional 6.56 in. fell between November 18 and 30. For the months of November and December there were only 5 days with no measurable rain. Total rainfall for the 2-month period was 40.09 in. Several chinook surveys located on larger tributaries were omitted as a consequence of the abnormally heavy and continuous rainfall.

Table 1. Number of Spawning Fish Surveys and Distances Surveyed by Coastal Rivers Staff during the 1973-74 Spawning Season

River System	Fall Chinook		Coho		Total	
	No.	Miles	No.	Miles	No.	Miles
Nehalem	7	6.5	12	10.3	19	16.8
Kilchis	3	3.9			3	3.9
Wilson	3	1.5	6	6.8	9	8.3
Tillamook	2	3.4			2	3.4
Nestucca	7	3.5	12	11.2	19	14.7
Siletz	2	2.0			2	2.0
Yaquina	6	8.0	8	7.7	14	15.7
Beaver Creek			3	2.3	3	2.3
Alsea	2	3.5	7	7.2	9	10.7
Siuslaw	2	1.7			2	1.7
Tenmile			42	27.2	42	27.2
Coos			6	6.3	6	6.3
Coquille	4	1.9	9	11.4	13	13.3
Total	38	35.9	105	90.4	143	126.3

RESULTS

Fall Chinook Salmon

The count of fall chinook in six coastal rivers was 46 fish/mile in 1973, which was 10 fish/mile above the 21-year average from 1952-72 (Table 2). The number of fish/mile among river systems in 1973 ranged from 26 on the Yaquina River to 97 on tributaries of Tillamook Bay. An outstandingly high count of 234 chinook was observed in a 0.4-mile survey on Lower North Fork of Wilson River. Other surveys with exceptionally high counts included Humbug Creek (Nehalem River) with 167 fish/mile and Salmon Creek (Yaquina River) with 112 fish/mile. All the rivers except the Siletz had fish/mile counts equal to or higher than their long-term averages. The Alsea figure is only an estimate because three of the five surveys were missed entirely, and the Lobster Creek count was made before peak spawning occurred.

Table 2. Summary of Peak Fish/Mile Counts of Fall Chinook in Standard and Auxiliary Survey Areas of Coastal Rivers Since 1952 ^{1/}

Year	Standard						Weighted Average Fish Per Mile	Auxiliary	
	Nehalem	Tillamook Bay Tributaries	Nestucca	Siletz	Yaquina	Alsea		Siuslaw	Coquille
1952	36(3)	63(18)	194(10)	65(2)	63(16)	19(3)	53(8)		
1953	27(7)	13(4)	10(2)	11(2)	12(1)	10(1)	14(2)		
1954	16(4)	12(4)	20(2)	14(1)	21(2)	10(2)	15(2)		
1955	26(13)	4(2)	35(5)	27(17)	30(9)	16(9)	22(9)		
1956	25(1)	9(4)	11(1)	20(5)	13(6)	--	15(4)	10(2)	
1957	58(16)	66(22)	118(33)	43(5)	26(7)	20(5)	43(11)	12(4)	17(6)
1958	35(3)	60(11)	73(4)	77(10)	40(3)	--	52(6)	43(18)	21(6)
1959	41(4)	60(5)	55(0)	29(1)	23(1)	16(1)	31(2)	25(4)	11(2)
1960	67(34)	59(21)	131(34)	30(13)	16(6)	16(8)	39(15)	--	--
1961	70(5)	76(13)	100(16)	35(6)	24(2)	22(3)	43(6)	25(12)	--
1962	46(7)	64(9)	80(16)	66(13)	26(9)	16(5)	40(9)	32(8)	6(2)
1963	59(14)	88(3)	91(8)	49(7)	32(6)	28(6)	43(8)	28(2)	16(1)
1964	55(6)	67(11)	57(10)	50(15)	26(5)	24(7)	40(8)	131(21)	16(5)
1965	59(15)	54(12)	190(11)	32(5)	24(10)	29(5)	48(9)	32(7)	112(34)
1966	47(4)	86(17)	125(14)	36(3)	31(5)	35(6)	49(8)	22(10)	85(12)
1967	34(2)	110(14)	102(18)	29(3)	19(5)	20(5)	41(7)	69(16)	42(3)
1968	23(2)	67(12)	57(3)	15(3)	22(5)	12(4)	27(5)	45(17)	33(13)
1969	12(1)	28(4)	24(4)	11(3)	33(6)	24(4)	24(4)	96(26)	18(4)
1970	36(2)	75(13)	68(7)	42(5)	44(8)	55(10)	52(8)	167(40)	68(28)
1971	45(3)	29(6)	55(5)	27(3)	26(6)	26(4)	31(5)	33(6)	26(8)
1972	41(15)	49(13)	46(6)	37(10)	9(1)	21(6)	28(8)	63(24)	21(8)
1973	65(10)	97(4)	54(3)	31(1)	26(3)	36(3)	46(4)	--	--
1952-72 Average	41(8)	54(11)	78(10)	35(6)	26(6)	22(5)	36(7)	58(14)	35(9)
Departure of 1973 +24 from Avg.		+43	-24	-4	0	+14	+10		
Miles Surveyed	3.5	3.5	2.3	3.0	7.5	7.7		2.4	1.6

^{1/} Figures in parentheses indicate numbers of jacks included in the totals.

The trend counts indicated a rise in escapement level after cessation of commercial fishing in the rivers in 1956 followed by about a 10-year period of stability (Figure 1). Although the counts were below average for 4 of the last 6 years, the fluctuations were within expected ranges.

The counts in the auxiliary survey areas were not usable this year. Two key surveys were omitted because of continual high water, and those surveys completed were either before peak spawning or long after peak spawning. Consequently, the data are not adequate to support a meaningful estimate of the peak counts.

Peak counts for each survey area are tabulated in Appendix Tables 1-8.

Coho Salmon

The peak count of coho salmon in eight coastal drainages was 16 fish/mile, which was a continuation of the low level of abundance of the previous year. The average count was only 52% of the 23-year average. Counts ranged from 6 fish/mile on Beaver Creek tributaries to 32 fish/mile on the Wilson River (Table 3). With the exception of Wilson River tributaries, all of the standard surveys indicated declines. The decline varied from 29% of the 1950-72 averages on Coos River to 80% on Beaver Creek.

The coastwide average of the peak fish/mile counts is the third lowest that has been observed since the trend counts began (Figure 2), equalling the very poor counts of 1969. The yearly average count has not exceeded the 23-year average of 32 coho/mile since 1965, a continuous period of three generations of coho.

The count of jack coho was only one fish/mile, which is only one-third of the long-term average, and may forecast an equally poor adult return in 1974.

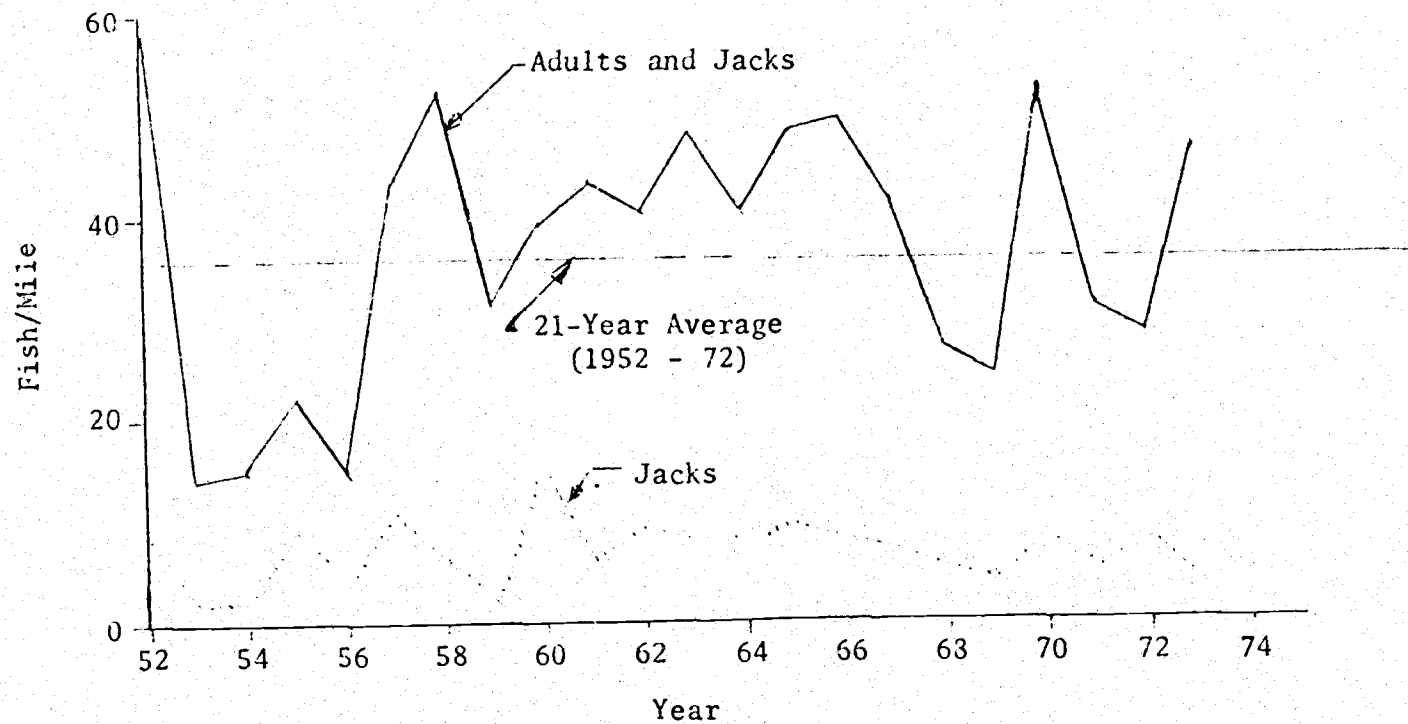


Figure 1. Average Numbers of Fall Chinook/Mile in Standard Survey Areas of Six Coastal Rivers, 1952-73

Table 3. Summary of Peak Fish/Mile Counts of Coho in Standard Survey Areas of Coastal Rivers Since 1950 ^{1/}

Year	River								Weighted Average Fish Per Mile
	Nehalem	Wilson	Nestucca	Yaquina	Alsea	Reaver Creek	Coos	Coquille	
1950	17(1)	11(0)	15(1)	12(0)	11(2)	15(3)	54(7)	43(9)	23(3)
1951	45(3)	39(2)	64(1)	80(3)	58(2)	163(8)	118(24)	65(6)	71(5)
1952	45(2)	28(2)	55(1)	24(1)	43(3)	40(4)	104(13)	164(9)	69(4)
1953	19(1)	19(1)	18(0)	5(1)	13(1)	10(2)	31(7)	37(6)	20(2)
1954	9(1)	7(1)	19(2)	20(1)	37(1)	16(3)	29(12)	36(1)	23(2)
1955	18(1)	11(0)	14(0)	12(0)	34(2)	23(0)	35(0)	24(1)	21(1)
1956	42(1)	6(1)	10(1)	28(3)	46(6)	30(4)	81(28)	60(16)	39(7)
1957	59(2)	16(0)	13(2)	46(2)	30(2)	46(3)	24(3)	66(4)	41(2)
1958	6(0)	5(0)	9(1)	14(2)	12(0)	10(1)	8(2)	21(3)	11(1)
1959	21(1)	26(0)	11(0)	27(1)	28(2)	19(0)	23(2)	53(1)	28(1)
1960	21(6)	31(2)	9(2)	20(3)	23(6)	13(2)	19(12)	14(5)	18(5)
1961	40(2)	46(4)	19(2)	67(3)	48(6)	21(4)	75(40)	38(11)	44(8)
1962	30(4)	43(3)	12(1)	36(5)	22(2)	29(3)	55(19)	50(5)	34(5)
1963	19(1)	33(1)	22(4)	34(5)	40(6)	25(11)	26(7)	12(4)	25(4)
1964	43(3)	42(2)	34(5)	55(5)	64(8)	36(4)	37(5)	59(4)	48(5)
1965	34(2)	17(2)	29(5)	52(8)	31(4)	27(4)	16(2)	54(5)	36(4)
1966	22(2)	14(0)	29(4)	58(5)	42(7)	44(5)	19(3)	26(4)	32(4)
1967	18(1)	45(3)	21(2)	27(5)	29(4)	13(4)	24(5)	22(4)	24(3)
1968	--	23(1)	20(2)	35(4)	26(2)	29(2)	15(2)	12(1)	22(2)
1969	17(1)	19(3)	3(0)	16(3)	9(1)	14(3)	19(4)	25(4)	16(2)
1970	23(1)	55(2)	22(3)	43(2)	12(2)	29(3)	17(2)	16(2)	26(2)
1971	38(1)	35(2)	13(1)	58(2)	32(0)	29(2)	23(2)	21(2)	32(2)
1972	17(2)	14(1)	10(1)	11(2)	5(1)	12(3)	27(13)	22(4)	15(3)
1973	15(1)	32(1)	13(1)	20(2)	14(1)	6(0)	27(9)	15(0)	16(1)
1950-72 Average	27(2)	25(1)	20(2)	34(3)	30(3)	30(3)	38(9)	41(5)	31(3)
Departure of 1973 from Avg.	-12	+7	-7	-14	-16	-24	-11	-26	-15
Miles Surveyed	6.7	3.4	5.0	5.6	5.1	2.3	3.3	7.6	

^{1/} Figures in parentheses indicate numbers of jacks included in the totals.

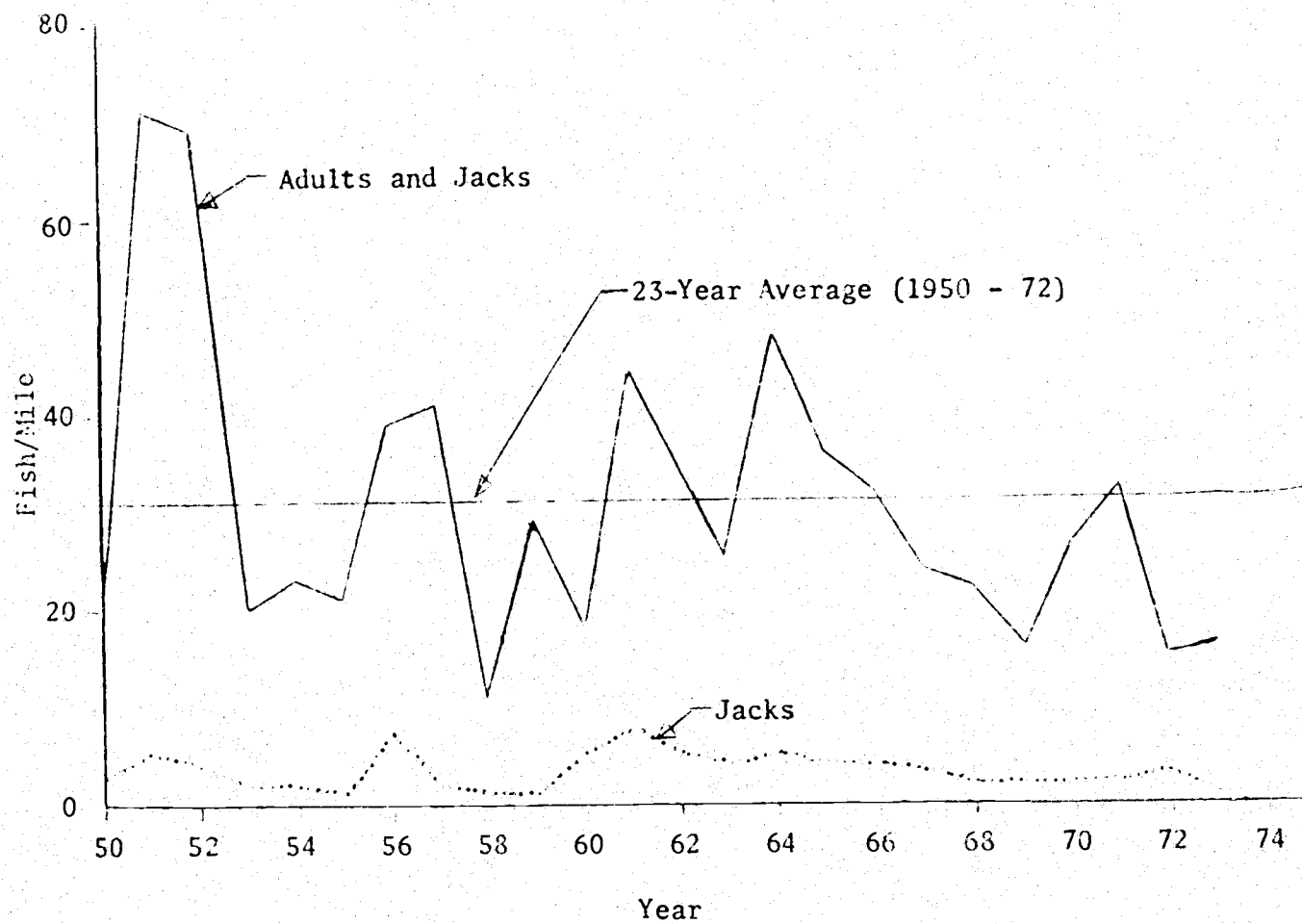


Figure 2. Average Number of Coho/Mile in Standard Survey Areas of Eight Coastal Rivers, 1950-73

The peak counts of coho in the standard and auxiliary survey areas in tributaries of Tenmile Lake were 199 and 147 fish/mile, respectively (Table 4). These counts were 83% and 60% of the average of the standard and auxiliary counts, respectively. The data can be used to estimate total escapement, based upon a population estimate completed in 1955-56 (Morgan and Henry, 1959). The resulting estimates indicate a fairly static escapement level between 1960 and 1967 with a sharp decline in 1968 and again in 1972 with only a very modest increase in 1973 (Figure 3). Since the lake was chemically treated by the Wildlife Commission in 1968 to remove populations of warm-water fish, drastic changes have occurred in the coho population.

The 3,500 jacks that returned in 1972 and the 13,000 adults that returned in 1973 were the progeny of natural spawning 1970-brood stock. The proportionately large return of adults is unusual compared to returns from other brood years. Normally, the estimated jack escapement exceeds the estimated adult escapement of a given brood year. More adults than jacks has only occurred three times in 18 years, and never to the degree that occurred this year.

The adult escapement produced an estimated deposition of 23.8 million eggs which was 71% of the 1955-72 average (Table 5).

Peak counts for each survey area are tabulated in Appendix Tables 9-13.

SUMMARY

The fall chinook index of abundance was 128% of the long-term average, and presumably would have been even higher had survey conditions in the central and north coast not been so difficult. Five of the large stream surveys in the central coast area were impossible to survey because of continued high water.

Table 4. Summary of Peak Fish/Mile Counts of Coho in
Standard and Auxiliary Survey Areas of Tenmile
Lakes Tributaries Since 1950 ^{1/}

Year	Standard Tenmile Lakes	Auxiliary Survey Tenmile Lakes
1950	145 (45)	
1951	435 (0)	
1952	493 (99)	
1953	170 (79)	
1954	260 (111)	
1955	519 (215)	526 (171)
1956	570 (236)	503 (244)
1957	388 (121)	409 (138)
1958	170 (95)	184 (76)
1959	114 (48)	88 (21)
1960	168 (118)	177 (128)
1961	224 (94)	229 (92)
1962	219 (96)	255 (97)
1963	236 (190)	239 (144)
1964	268 (143)	285 (117)
1965	199 (106)	164 (56)
1966	180 (75)	181 (67)
1967	106 (63)	201 (101)
1968	57 (30)	88 (23)
1969	132 (81)	134 (80)
1970	383 (134)	408 (270)
1971	71 (10)	287 (49)
1972	30 (7)	83 (17)
1973	199 (50)	147 (37)
1950-72 Average	241 (95)	247 (105)
Departure from Average	-42	-100
Miles Surveyed	0.8	17.1

^{1/} Figures in parentheses indicate numbers of jacks included in the totals.

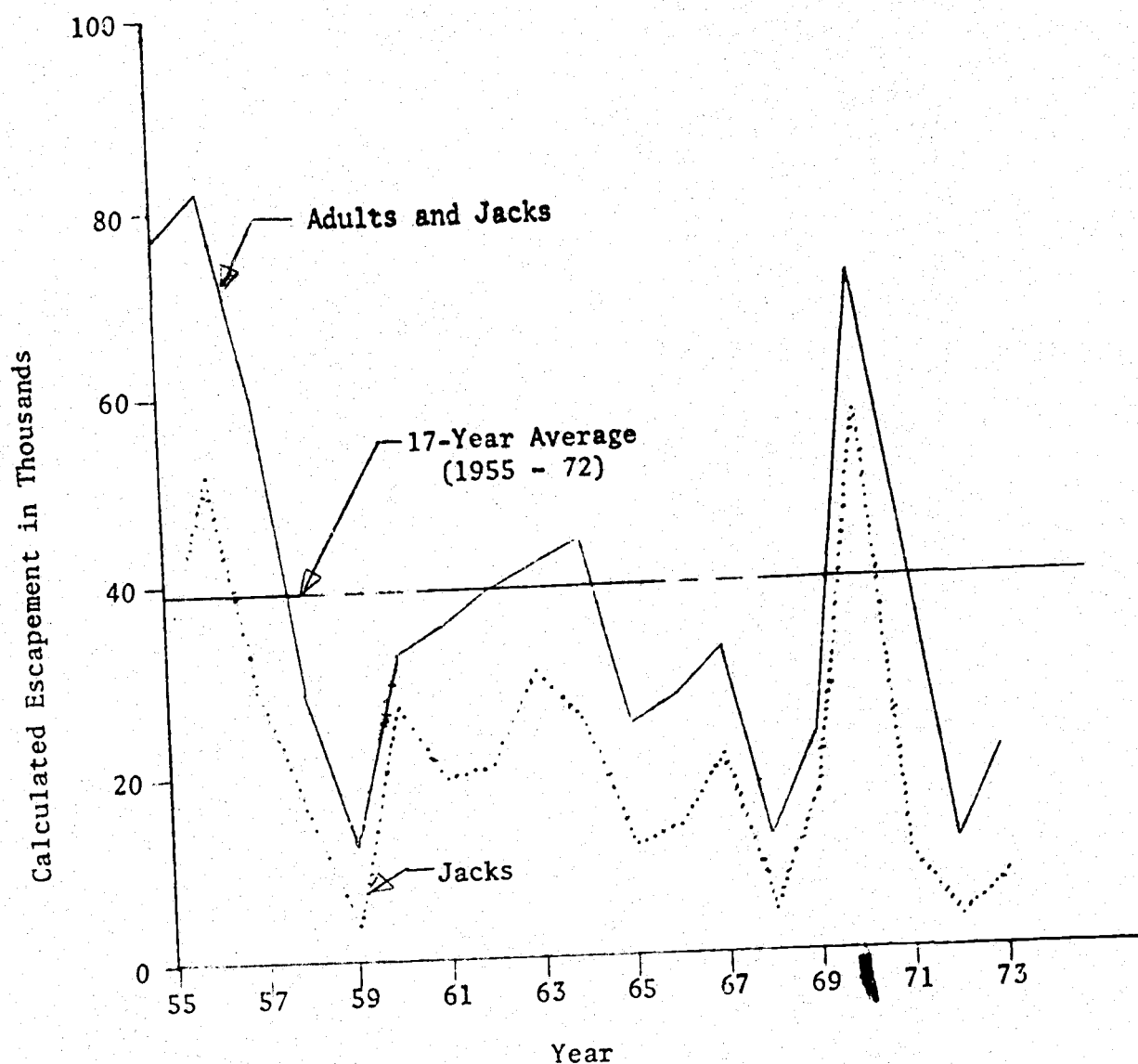


Figure 3. Calculated Coho Escapement into Tenmile Lakes, 1955-73

Table 5. Calculated Escapement and Egg Deposition of Coho in Tenmile Lakes, 1955-73

Year	Adults	Calculated Escapement			Potential Egg Deposition in Millions ^{2/}
		Percentage Females	Jacks	Total	
1955	41,500	66.5 ^{1/}	36,000	77,500	82.8
1956	30,500	66.5 ^{1/}	51,500	82,000	60.9
1957	31,500	65.2	29,000	60,500	61.5
1958	12,500	62.9	16,000	28,500	23.7
1959	8,000	66.5 ^{1/}	4,500	12,500	15.9
1960	5,500	66.8	27,000	32,500	11.1
1961	16,000	66.2	19,500	35,500	31.8
1962	18,500	67.0	20,500	39,000	37.2
1963	11,000	71.6	30,500	41,500	33.7
1964	19,500	66.1	24,500	44,000	38.7
1965	12,500	71.3	12,000	24,500	26.7
1966	13,500	56.8	14,000	27,500	23.1
1967	11,500	60.9	21,000	32,500	21.6
1968	7,500	60.9	5,000	12,500	15.0
1969	6,500	61.8	17,000	23,500	12.0
1970	14,900 ^{3/}	65.4	57,000	71,900	29.1
1971	33,500	60.8	10,500	44,000	61.2
1972	8,000	65.4	3,500	11,500	15.7
1973	13,000	61.5	3,000	21,000	23.8
1955-72 Average	16,800		22,200	39,000	33.7

^{1/} Estimated from the average female-to-male ratio of 1957-64.

^{2/} Based on fecundity of 3,000 eggs per female.

^{3/} Confidence limits (95%) were $\underline{N} = 11,800$ and $\overline{N} = 18,400$.

The coho index of abundance was only 52% of its long-term average, indicating a generally inadequate spawning density. Counts of coho were down in every major stream except Wilson River and also at all the Oregon coastal hatcheries indicating the general decline was real and widespread. The estimated return of adults to Tenmile Lakes was only 77% of the average, and the jack escapement was only 36% of the average, suggesting another poor adult return in 1974.

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APPENDIX TABLES

The tables in this appendix are presented by species and within species by watershed from north to south. The peak counts and fish/mile figures may not agree precisely with reports from years prior to 1971 because of a reduction in the number of surveys, and deletion of spring chinook surveys entirely.

Within the tables, the figures in parentheses are the jack salmon counts and these figures are included in the totals. In some instances, the standard survey could not be made. In those cases the numbers of fish were estimated. Estimates were made by determining the ratio of total fish which were seen in that particular survey during the preceding 2 years to the total fish seen in all the other streams in that system during the same period. That ratio was applied to the total of the other surveys in the drainage for the year in question and the resulting figure was assumed as the number of fish which should have been seen in the survey area. That figure was then entered into the calculations as if the survey had been completed.

The supplemental surveys are included for reference. Data from these surveys are not used in computing fish/mile values because, in most cases, the supplemental surveys were started at a later date. The Tenmile Lake auxiliary survey provides the data for the actual population estimate.

Table 1. Peak Counts on Nehalem River Spawning Fish Surveys for Fall Chinook Since 1950

Year	Standard Surveys				Total	Fish per Mile
	Buchanan Creek	Cronin Creek 1/	East Humbug Creek	Humbug Creek		
1950	6	8	27(1)	13	54(1)	15.4
1951	2	5	14	34(8)	55(8)	15.7
1952	20(4)	55(4)	29	23(2)	127(10)	36.3
1953	5(2)	8(4)	14(3)	66(15)	93(24)	26.6
1954	0	8	7	41(15)	56(15)	16.0
1955	16(5)	12(4)	33(18)	29(18)	90(45)	25.7
1956	4	16	25	42(3)	87(3)	24.9
1957	39(9)	34(8)	57(16)	74(24)	204(57)	58.3
1958	9	21	24	69(11)	123(11)	35.1
1959	22(4)	44(3)	10	68(6)	144(13)	41.1
1960	36(9)	20(1)	46(30)	134(80)	236(120)	67.4
1961	73(5)	32(3)	35(3)	104(8)	244(19)	69.7
1962	24(9)	16(1)	44(7)	78(9)	162(26)	46.3
1963	20(2)	18	36(9)	133(37)	207(48)	59.1
1964	39(5)	10	17(3)	126(14)	192(22)	54.9
1965	40(8)	10(1)	13(2)	143(43)	206(54)	58.9
1966	23	31(6)	6	103(8)	163(14)	46.6
1967	26(1)	10(2)	16(1)	66(2)	118(6)	33.7
1968	12(1)	12(3)	10	46(2)	80(6)	22.9
1969	8(1)	3(0)	0	31(2)	42(3)	12.0
1970	25(1)	13(2) 2/	32(1)	57(3)	127(7)	36.3
1971	30(0)	6(0)	27(2)	94(10)	157(12)	44.9
1972	21(1)	2(0)	5(4)	117(46)	145(51)	41.4
1973	30(5)	6(1)	23(0)	167(28)	226(34)	64.6

Miles 0.5 1.0 1.0 1.0 3.5

1/ Surveys made by Oregon Wildlife Commission since 1958.

2/ Estimated--surveys not done.

Table 2. Peak Counts on Tillamook Bay Spawning Fish Surveys
for Fall Chinook Since 1950

Year	Standard Surveys			Total	Fish per Mile
	Kilchis River Sam Down Creek	Tillamook River	Lower N. Fk. Wilson River		
1950	-	-	52(1)	52(1)	
1951	-	-	25(1)	25(1)	
1952	7(2)	115	99(24)	221(26)	63.1
1953	0	34(13)	30(2)	64(15)	18.3
1954	4(3)	22(9)	17(1)	43(13)	12.3
1955	0	7(4)	7(2)	14(6)	4.0
1956	3(1)	12(7)	15(5)	30(13)	8.6
1957	37(15)	36(13)	157(48)	230(76)	65.7
1958	64(22)	83(12)	62(6)	209(40)	59.7
1959	62(3)	104(14)	43(1)	209(18)	59.7
1960	65(24)	100(47)	43(3)	208(74)	59.4
1961	71(7)	166(36)	29(4)	266(47)	76.0
1962	54(4)	117(22)	52(4)	223(30)	63.7
1963	70(3)	150(22)	87(2)	307(27)	87.7
1964	55(8)	163(29)	17	235(37)	67.1
1965	36(2)	111(18)	43(21)	190(41)	54.3
1966	104(20)	110(25)	87(15)	301(60)	86.0
1967	93(2)	158(41)	133(7)	384(50)	109.7
1968	66(6)	110(29)	57(6)	233(41)	66.6
1969	6(0)	54(13)	37(1)	97(14)	27.7
1970	32(5)	168(29)	64(13)	264(47)	75.4
1971	19(3)	39(4)	43(15)	101(22)	28.9
1972	23(4)	66(12)	81(31)	170(47)	48.6
1973	22(5)	85(1)	234(7)	341(13)	97.4

Miles

1.3

1.7

0.5

3.5

Table 3. Peak Counts on Nestucca River Spawning Fish Surveys for Fall Chinook Since 1950

Year	Standard Surveys				Fish per Mile
	East Beaver Creek	Moon Creek	Niagara Creek	Total	
1950	17	33 (3)	5 (1)	55 (4)	23.9
1951	15 (1)	10	11	36 (1)	15.7
1952	130 (9)	178 (12)	137 (2)	445 (23)	193.5
1953	7	10 (3)	7	24 (3)	10.4
1954	19 (2)	11 (3)	15	45 (5)	19.6
1955	17 (2)	21 (2)	42 (7)	80 (11)	34.8
1956	4	10 (2)	11	25 (2)	10.9
1957	30 (5)	137 (52)	104 (19)	271 (76)	117.8
1958	59 (3)	57 (5)	51 (2)	167 (10)	72.6
1959	63 (1)	27	36	126 (1)	54.8
1960	60 (7)	145 (42)	97 (29)	302 (78)	131.3
1961	34 (6)	126 (27)	69 (4)	229 (37)	99.6
1962	69 (11)	68 (18)	47 (8)	184 (37)	80.0
1963	53 (5)	66 (12)	90 (2)	209 (19)	90.9
1964	42 (7)	35 (8)	53 (8)	130 (23)	56.5
1965	68 (6)	244 (17)	125 (2)	437 (25)	190.0
1966	48 (7)	159 (19)	80 (7)	287 (33)	124.8
1967	64 (2)	109 (33)	61 (6)	234 (41)	101.7
1968	32 (1)	57 (4)	43 (2)	132 (7)	57.4
1969	16 (1)	4 (0)	36 (8)	56 (9)	24.3
1970	47 (3)	63 (4)	47 (8)	157 (15)	68.3
1971	27 (2)	64 (9)	36 (1)	127 (12)	55.2
1972	1 (0)	13 (1)	92 (10)	106 (13)	46.1
1973	28 (2)	32 (1)	65 (4)	125 (7)	54.3

Miles	1.5	0.4	0.4	2.3
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Table 4. Peak Counts on Siletz River Spawning Fish Surveys
for Fall Chinook Since 1952

Year	Standard Surveys			Total	Fish Per Mile
	Euchre Creek	N.Fk. Rock Creek	Sunshine Creek		
1952	35(7)	108	51	194(7)	64.6
1953	3	13(4)	17(2)	33(6)	11.0
1954	4(1)	27(1)	12	43(2)	14.3
1955	2	78(51)	1	81(51)	27.0
1956	18(8)	33(7)	8	59(15)	19.6
1957	37(7)	42(6)	51(2)	130(15)	43.3
1958	40(12)	59(5)	131(12)	230(29)	76.6
1959	23(1)	28	37(1)	88(2)	29.3
1960	16(1)	33(16)	46(21)	89(38)	29.6
1961	11(1)	31(5)	63(11)	105(17)	35.0
1962	20(1)	18(8)	160(29)	198(38)	65.9
1963	28(3)	47(11)	71(8)	146(22)	48.6
1964	34(13)	92(26)	25(7)	151(46)	50.3
1965	29(1)	26(6)	40(8)	95(15)	31.6
1966	32(3)	33(1)	42(6)	107(10)	35.6
1967	31(6)	15(1)	42(3)	88(10)	29.3
1968	14(4)	8(2)	23(4)	45(10)	15.0
1969	16(2)	6(3)	10(3)	32(8)	10.7
1970	18(2)	49(5)	60(9)	127(16)	42.3
1971	28(5)	9(0)	45(5)	82(10)	27.3
1972	33(11)	36(11)	41(14)	110(36)	36.7
1973	29(1) <u>1/</u>	16(1)	47(0)	92(2)	30.7

Miles 1.0 0.8 1.2 3.0

1/ Estimated--no count made.

Table 5. Peak Counts on Yaquina River Spawning Fish Surveys for Fall Chinook Since 1950

Year	Standard Surveys						Fish Per Mile
	Feagles Creek	Grant Creek	Simpson Creek	Salmon Creek	Yaquina River	Total	
1950	15	91(23)	11(1)	-	-	-	
1951	32	105	26	-	-	-	
1952	89(18)	226(46)	71(39)	0	84(22)	470(125)	62.7
1953	5	34	19(1)	3	28(3)	89(4)	11.0
1954	41(4)	56(1)	3(1)	6	52(7)	158(13)	21.1
1955	24(1)	112(46)	36(9)	25(3)	31(9)	228(68)	30.4
1956	9(5)	69(36)	11(2)	4	3(3)	96(46)	12.8
1957	76(18)	97(27)	5(2)	3(2)	14(3)	195(52)	26.0
1958	87(14)	88(6)	25(1)	29(2)	67(2)	296(25)	39.5
1959	43(3)	74(4)	15	24(4)	15	171(11)	22.8
1960	27(14)	31(9)	21(11)	9(6)	30(8)	118(48)	15.7
1961	34(3)	52(1)	47(9)	8	35(1)	176(14)	23.5
1962	38(10)	47(15)	63(34)	16(8)	29(2)	193(69)	25.7
1963	40(4)	80(13)	40(10)	3	74(19)	237(46)	31.6
1964	39(7)	25(3)	50(13)	33(10)	47(4)	194(37)	25.9
1965	35(9)	78(34)	46(23)	3(2)	14(5)	176(73)	23.5
1966	34(4)	82(15)	56(10)	16(7)	44(5)	232(41)	30.3
1967	34(7)	48(13)	41(15)	19(3)	2	144(38)	19.2
1968	29(9)	41(9)	47(9)	16(5)	36(6)	169(38)	22.5
1969	38(13)	88(20)	80(8)	19(4)	25(0)	250(45)	33.3
1970	60(4)	115(10)	113(40)	12(1)	26(4)	326(59)	43.5
1971	44(11)	95(17)	35(9)	10(0)	13(6)	197(43)	26.3
1972	9(1)	48(12)	1(1)	7(2)	3(2)	68(18)	9.1
1973	11(1)	52(4)	55(5)	56(10)	19(1)	193(21)	25.7

Miles	2.0	1.5	1.5	0.5	2.0	7.5
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Table 6. Peak Counts on Alsea River Spawning Fish Surveys
for Fall Chinook Since 1952

Year	Standard Surveys					Total	Fish Per Mile
	Buck Creek	Drift Creek	Fall Creek	Lobster Creek	N.Fk. Alsea River		
1952	69(20)	53	5	18(5)	3(1)	148(26)	19.2
1953	1	38(2)	3(2)	9(5)	25(1)	76(10)	9.9
1954	6	16(4)	21(6)	20(7)	11(2)	74(19)	9.6
1955	24(19)	44(37)	15(8)	13(9)	25	121(73)	15.7
1956	1	34(17)	-	-	-	-	-
1957	33(9)	36(17)	35(5)	11(3)	10(3)	155(37)	20.1
1958	-	67(6)	21(3)	2	4	-	-
1959	5(2)	70(2)	14(1)	11	12	121(5)	15.7
1960	19(8)	75(38)	14(3)	10(6)	11(3)	127(58)	16.5
1961	46(8)	71(8)	31	18(5)	5	171(21)	22.2
1962	13(5)	49(13)	22(7)	29(13)	14(3)	127(41)	16.5
1963	51(12)	60(12)	36(4)	45(12)	20(4)	212(44)	27.6
1964	29(7)	86(31)	29(5)	18(8)	22(4)	184(55)	23.9
1965	45(14)	38(4)	73(9)	33(5)	36(4)	225(36)	29.2
1966	62(20)	64(7)	24(1)	32(8)	85(11)	267(47)	34.7
1967	26(14)	46(15)	14	18(3)	52(4)	156(36)	20.3
1968	30(12)	34(10)	2(1)	0	23(5)	89(28)	11.6
1969	15(2)	71(6)	29(4)	33(10)	35(5)	183(27)	23.8
1970	77(34)	78(10)	64(5)	123(23)	84(4)	426(76)	55.3
1971	46(8)	41(2)	30(3) <u>1/</u>	42(14)	39(6)	198(33)	25.7
1972	5(2)	39(7)	6(2)	73(27)	41(8)	164(46)	21.3
1973	24(4)	--	--	24(4)	--	280(23) <u>1/</u>	36.4

Miles 1.0 1.5 1.2 2.5 1.5 7.7

1/ Estimated

Table 7. Peak Counts on Siuslaw River Spawning Fish
Surveys for Fall Chinook Since 1952

Year	Auxiliary Surveys				Fish Per Mile
	N.F. Siuslaw River	Esmond Creek	Lake Creek	Total	
1952	13(1)	-	-	-	-
1953	-	-	29(10)	-	-
1954	-	-	-	-	-
1955	16(6)	-	-	-	-
1956	13(3)	8	2(1)	23(4)	9.6
1957	0	4(2)	25(8)	29(10)	12.1
1958	35(9)	58(17)	58(16)	151(42)	62.9
1959	4	17(5)	40(5)	61(10)	25.4
1960	-	-	-	-	-
1961	4(2)	7(5)	48(22)	59(29)	24.6
1962	72(14)	5(0)	16(4)	93(18)	38.7
1963	7(1)	32(1)	29(2)	68(4)	28.3
1964	44(13)	23(3)	247(35)	314(51)	130.8
1965	9(1)	28(5)	39(11)	76(17)	31.7
1966	35(13)	41(1)	122(11)	198(25)	82.5
1967	14(4)	11(3)	141(31)	166(38)	69.2
1968	7(2)	17(7)	84(32)	108(41)	45.0
1969	7(0)	31(10)	192(53)	230(63)	95.8
1970	25(12)	39(9)	332(76)	400(97)	166.6
1971	3(0)	17(4)	59(10)	79(14)	32.9
1972	3(0)	4(1)	144(56)	151(57)	62.9
1973	5(2)	2(1)	--	--	--

Miles	0.7	1.0	0.7	2.4
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Table 8. Peak Counts on Coquille River Spawning Fish
Surveys for Fall Chinook Since 1952

Year	Auxiliary Surveys			Total	Fish Per Mile
	N.Fk. Coquille River	Salmon Creek	S.Fk. Coquille R. C		
1952	-	-	10(1)	-	-
1953	-	14(1)	14(1)	-	-
1954	2	-	-	-	-
1955	-	-	-	-	-
1956	-	-	-	-	-
1957	12(7)	13(2)	2	27(9)	16.9
1958	11(2)	16(7)	6	33(9)	20.6
1959	10(4)	7	0	17(4)	10.6
1960	0	-	-	-	-
1961	0	24(14)	0	-	-
1962	7(2)	1	2(1)	10(3)	6.2
1963	13(1)	3	10	26(1)	16.2
1964	13(6)	11(2)	1	25(8)	15.6
1965	19(5)	140(49)	20	179(54)	111.9
1966	10(1)	74(19)	52	136(20)	85.0
1967	9(1)	17	41(4)	67(5)	41.9
1968	27(17)	20(4)	5	52(21)	32.5
1969	16(5)	7(0)	5(1)	28(6)	17.5
1970	39(20)	59(23)	10(2)	108(45)	67.5
1971	15(7)	22(5)	5(0)	42(12)	26.2
1972	20(8)	12(4)	3(1)	33(13)	20.6
1973	--	18(0)	1(0)	--	--

Miles 0.3 0.8 0.5 1.6

Table 9. Peak Counts on Nehalem River Spawning Fish Surveys for Coho Since 1950

Year	Standard Surveys								Total	Fish Per Mile
	Cow Creek	N. Fk. Cronin Creek 1/	Fish-hawk Creek No. 2	Hamilton Creek	West Humbug Creek	N. Fk. Wolf Creek	North-west Creek	Oak Ranch Creek		
1950	8	11	36	6(1)	9	8	4	29(3)	111(4)	16.6
1951	24(3)	29(3)	36(2)	30	63(5)	55(3)	24(1)	40(3)	301(20)	44.9
1952	20	27(3)	93(2)	45(3)	15(1)	76(3)	27(3)	0	303(15)	45.2
1953	7(2)	20(2)	45	8	29	7	1	11	128(1)	19.1
1954	8(3)	12(2)	9(1)	4(1)	10	5(1)	1	10	59(3)	8.8
1955	11	23(1)	12	8	7	12	39(3)	5	117(1)	17.5
1956	20	35(3)	27	27	56	60(2)	22(1)	36	283(6)	42.3
1957	24	7	71	24	80	106	37(7)	45(4)	394(11)	58.8
1958	2(1)	14	2	0	11	6(1)	6(1)	0	41(3)	6.1
1959	2	10(1)	3(1)	4	23(1)	44	20(1)	28	139(4)	20.8
1960	11(3)	10(2)	15(2)	34(13)	5	38(13)	9(1)	18(3)	140(37)	20.9
1961	28(3)	8(2)	48(4)	16	28	70(4)	27	41(1)	266(14)	39.7
1962	12(3)	10	17(1)	17(4)	49(7)	26(3)	11(1)	57(3)	199(27)	29.7
1963	12(1)	3(1)	17(2)	6	34	32	7(2)	16(2)	127(8)	19.0
1964	18(3)	19(2)	38(2)	26	48(1)	75(5)	9	52(7)	285(21)	42.6
1965	18(2)	2	43(4)	16	56(2)	86(3)	5	4	230(11)	34.3
1966	8	7(1)	4	12(1)	24(2)	33(2)	5(4)	54(1)	147(11)	21.9
1967	1	13(3)	18(1)	17	18(1)	45(1)	5	5(1)	122(7)	18.2
1968	-	-	-	-	-	-	-	-	-	-
1969	0	8(1)	14	3	34(4)	30	24(5)	1	114(10)	17.0
1970	4(0)	22(1) 2/	12(0)	10(0)	12(0)	65(6)	17(0)	10(0)	152(7)	22.7
1971	3(0)	7(0)	39(1)	7(0)	70(9)	71(3)	26(1)	28(1)	251(6)	37.5
1972	6(0)	1(0)	27(2)	4(0)	8(0)	15(0)	42(9)	11(0)	114(11)	17.0
1973	0	1(1)	19(0)	6(1)	21(0)	11(1)	16(1)	29(1)	103(5)	15.4
Miles	0.5	0.5	1.0	1.0	1.1	1.1	0.5	1.0	6.7	

1/ Surveys made by Oregon Wildlife Commission since 1958.

2/ Estimated.

Table 10. Peak Counts on Wilson River Spawning Fish Surveys
for Coho Since 1950

Year	Standard Surveys				Fish Per Mile
	Cedar Creek	Devils Lake Fork Wilson River		Total	
		Lower	Upper		
1950	27	4	5	36	10.6
1951	118(8)	8	6	132(8)	38.8
1952	75(3)	19(4)	1	95(7)	27.9
1953	49(3)	16(2)	0	65(5)	19.1
1954	14(3)	7	2(1)	23(4)	6.8
1955	27	9	2	38(0)	11.2
1956	18(1)	3(1)	0	21(2)	6.2
1957	9	47	0	56(0)	16.5
1958	8	10	0	18(0)	5.3
1959	26	62	0	88(0)	25.9
1960	38(4)	63(3)	4(1)	105(8)	30.9
1961	77(7)	66(4)	14(2)	157(13)	46.2
1962	88(4)	44(6)	13(1)	145(11)	42.6
1963	45(4)	49	17	111(4)	32.6
1964	47(1)	56(2)	39(5)	142(8)	41.8
1965	51(7)	2	6	59(7)	17.4
1966	11(1)	15	20	46(1)	13.5
1967	122(8)	12(1)	18(1)	152(10)	44.7
1968	54(4)	10	14	78(4)	22.9
1969	42(7)	20(4)	2	64(11)	18.8
1970	116(8)	60	11	187(8)	55.0
1971	71(2)	26(2)	22(3)	119(7)	35.0
1972	29(2)	11(0)	8(1)	48(3)	14.1
1973	75(3)	8(0)	24(0)	107(3)	31.5

Miles	2.9	0.3	0.2	3.4
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Table 11. Peak Counts on Nestucca River Spawning Fish Surveys
for Coho Since 1950

Year	Standard Surveys					Total	Fish Per Mile
	Bear Creek	Clear Creek	East Creek	Noon Creek Upper	Niagara Creek		
1950	5 (1)	19 (5)	25	10	18	77 (6)	15.4
1951	45 (1)	46 (5)	132	62	33	318 (6)	63.6
1952	22 (1)	50 (4)	25 (1)	131	47 (1)	275 (7)	55.0
1953	21	7 (1)	32	16	13 (1)	89 (2)	17.8
1954	1	16 (3)	49 (1)	21 (4)	9	96 (8)	19.2
1955	14	5 (1)	40	0	9	68 (1)	13.6
1956	11 (1)	4 (1)	11 (1)	6	16 (2)	48 (5)	9.6
1957	11 (2)	23 (5)	13 (1)	3	15 (1)	65 (9)	13.0
1958	5 (1)	11 (4)	16 (1)	4 (1)	10	46 (7)	9.2
1959	2	6	20	14 (1)	13	55 (1)	11.0
1960	0	18 (8)	13	10	4 (1)	45 (9)	9.0
1961	5 (1)	23 (6)	38 (1)	13 (1)	16 (2)	95 (11)	19.0
1962	4	7 (1)	28 (1)	16 (3)	3	58 (5)	11.6
1963	13 (3)	20 (7)	37 (4)	25 (4)	15 (1)	110 (19)	22.0
1964	16 (3)	31 (3)	42 (1)	61 (16)	19 (2)	169 (25)	33.8
1965	14 (2)	29 (15)	56 (5)	36 (4)	9	144 (26)	28.8
1966	17 (5)	14 (7)	63 (6)	33 (2)	16	143 (20)	28.6
1967	19 (2)	11 (1)	15 (1)	21 (4)	39 (2)	105 (10)	21.0
1968	6 (3)	9 (4)	50 (5)	24	12	101 (12)	20.2
1969	1	5 (1)	3 (1)	4	3	16 (2)	3.2
1970	39 (6)	24 (7)	5 (1)	13 (2)	28 (1)	109 (17)	21.8
1971	20 (1)	13 (0)	1 (0)	19 (1)	13 (2)	66 (4)	13.2
1972	14 (2)	3 (0)	8 (1)	20 (2)	5 (0)	50 (5)	10.0
1973	16 (2)	12 (1)	25 (0)	8 (0)	6 (0)	67 (3)	13.4
Miles	1.5	0.8	1.5	0.8	0.4	5.0	

Table 12. Peak Counts on Yaquina River Spawning Fish Surveys
for Coho Since 1950

Year	Standard Surveys						Fish Per Mile
	Feagles Trib.	Grant Creek	Salmon Creek	Simpson Creek	Yaquina River	Total	
1950	4	2	6	17(3)	36(2)	65	11.6
1951	27	135(3)	43	54(14)	190(4)	449(19)	80.2
1952	9	51	14(3)	15(1)	45(1)	134(5)	23.9
1953	5	15(1)	4(2)	0	5	29(3)	5.2
1954	6	32(1)	25(3)	5(1)	43(3)	111(8)	19.6
1955	10(1)	10(1)	9	4	35	68(2)	12.1
1956	15(3)	24(3)	30(4)	9(3)	79(6)	157(19)	28.0
1957	3	49	58(7)	28(6)	117	255(13)	45.5
1958	0	11	12(3)	8(2)	46(7)	77(12)	13.8
1959	11	12(2)	27	12(1)	87(1)	149(4)	26.6
1960	5(2)	19(10)	20(9)	3(1)	62(21)	106(43)	19.5
1961	15(2)	35(2)	48(5)	9(5)	269(4)	376(18)	67.2
1962	7(1)	30(5)	25(12)	11(1)	128(11)	201(30)	35.9
1963	3(1)	56(9)	18(5)	42(12)	72(4)	181(31)	34.1
1964	46(5)	57(2)	6(1)	26(2)	171(20)	306(30)	54.7
1965	31(5)	35(3)	29(4)	42(19)	153(16)	290(47)	51.8
1966	24(3)	27(3)	9	54(7)	212(17)	326(30)	58.2
1967	21(3)	25(3)	12(3)	10(4)	82(16)	150(29)	26.3
1968	37(7)	20(3)	8(1)	19(5)	113(4)	197(20)	35.2
1969	11(2)	8	4	5	59(13)	87(15)	15.5
1970	12(1)	28(1)	7(0)	42(5)	154(4)	243(11)	43.4
1971	25(1)	26(0)	11(1)	13(0)	251(10)	326(12)	53.2
1972	15(1)	4(0)	4(1)	2(1)	36(10)	61(13)	10.9
1973	22(4)	11(0)	7(1)	11(2)	58(4)	109(11)	19.5
Miles	0.1	1.5	0.5	1.5	2.0	5.6	

Table 13. Peak Counts on Alsea River Spawning Fish Surveys
for Coho Since 1950

Year	Standard Surveys						Fish Per Mile
	Bummer Creek	Cherry Creek	Horse Creek	Lobster Creek	Wilson Creek	Total	
1950	15(3)	6	23(5)	4(1)	10(1)	58(10)	11.4
1951	76	62	58(4)	56(3)	46(4)	298(11)	58.4
1952	57(3)	23(5)	49(4)	44(1)	46(4)	219(17)	42.3
1953	17(1)	8	12(3)	14	14(1)	65(5)	12.7
1954	40(2)	14(1)	56(1)	44(1)	36	190(5)	37.3
1955	23	18	34	65	34(9)	174(9)	34.1
1956	41(3)	20(6)	18(2)	89(12)	65(7)	233(30)	45.7
1957	3	12(2)	14	85(3)	40(4)	154(9)	30.2
1958	9(1)	1	10	35	6	61(1)	12.0
1959	4(3)	19(1)	9(1)	75(4)	36(2)	143(11)	28.0
1960	14(3)	17(5)	17(3)	50(12)	17(7)	115(30)	22.6
1961	54(10)	26(6)	61(4)	72(5)	30(8)	243(33)	47.7
1962	33(4)	13(4)	21(1)	24(1)	19	110(10)	21.6
1963	10(3)	22(4)	38(2)	73(5)	60(18)	203(32)	39.8
1964	75(17)	40(12)	34	116(3)	59(9)	324(41)	63.5
1965	25	26(4)	34(4)	37(4)	36(8)	158(20)	31.0
1966	40(7)	55(16)	33(1)	40(6)	46(6)	214(36)	42.0
1967	24(8)	24(3)	46(7)	30(1)	24(3)	148(22)	29.0
1968	37(5)	25(3)	29	17	25	133(8)	26.1
1969	17(2)	7(3)	4	14	6(2)	48(7)	9.4
1970	12(0)	8(1)	10(2)	15(2)	16(3)	61(8)	12.0
1971	32(1)	15(0)	27(1)	82(0)	9(0)	165(2)	32.4
1972	3(2)	2(0)	5(2)	13(0)	4(1)	27(5)	5.3
1973	6(0)	12(1)	10(0)	18(0)	24(2)	70(3)	13.7
Miles	1.0	0.8	1.0	1.0	1.3	5.1	

Table 14. Peak Counts on Beaver Creek Spawning
Fish Surveys for Coho Since 1950

Year	Standard Surveys			Total	Fish per Mile
	N. Fk. Beaver Creek	N. Fk. of Beaver Creek	S. Fk. of N. Fk. Beaver Creek		
1950	12(2)	5(2)	17(4)	34(8)	14.8
1951	179	80(8)	115(11)	374(19)	162.6
1952	47(4)	25(4)	20(1)	92(9)	40.0
1953	11(2)	2	9(2)	22(4)	9.6
1954	11	13(3)	13(3)	37(6)	16.1
1955	24	20(3)	8(2)	52(5)	22.6
1956	24(4)	18(4)	27(1)	69(9)	30.0
1957	52(2)	22(3)	32(2)	106(7)	46.1
1958	15(2)	0	9(1)	24(3)	10.4
1959	32(1)	5	6	43(1)	18.7
1960	29(4)	0	1	30(4)	13.0
1961	23(5)	5(1)	21(4)	49(10)	21.3
1962	37(3)	9(1)	20(3)	66(7)	28.7
1963	25(10)	18(11)	15(4)	58(25)	25.2
1964	20(0)	17(5)	45(3)	82(8)	35.7
1965	26(5)	25(5)	12	63(10)	27.4
1966	40(1)	42(11)	18	100(12)	43.5
1967	15(5)	14(5)	2	31(10)	13.5
1968	39(3)	21(1)	6	66(4)	28.7
1969	17(3)	6(2)	9(3)	32(8)	13.9
1970	46(5)	15(2)	5(0)	66(7)	28.7
1971	52(3)	12(1)	3(0)	67(4)	29.1
1972	8(1)	17(5)	2(0)	27(6)	11.7
1973	12(1)	2(0)	1(0)	15(1)	6.5

Miles	1.0	0.5	0.8	2.3
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Table 15. Peak Counts on Tenmile Lakes Standard
Spawning Fish Surveys for Coho Since 1950

Year	Hatchery Creek & Left Fork	Right Fork Hatchery Creek	Total	Fish per Mile
1950	79(25)	37(11)	116(36)	145.0
1951	279	69(38)	348	435.0
1952	315(52)	79(27)	394(79)	492.5
1953	126(61)	10(2)	136(63)	170.0
1954	166(71)	42(18)	208(89)	260.0
1955	341(144)	74(28)	415(172)	512.7
1956	384(176)	72(13)	456(189)	570.0
1957	248(77)	62(20)	310(97)	387.5
1958	110(58)	26(18)	136(76)	170.0
1959	81(32)	10(6)	91(38)	113.7
1960	121(83)	13(11)	134(94)	167.5
1961	173(72)	6(3)	179(75)	227.7
1962	162(73)	13(4)	175(77)	218.7
1963	185(151)	4(1)	189(152)	236.2
1964	87(47)	127(67)	214(114)	267.5
1965	79(48)	80(37)	159(85)	198.7
1966	95(39)	49(21)	144(60)	180.0
1967	53(27)	32(23)	85(50)	106.2
1968	32(22)	14(6)	46(28)	57.5
1969	83(54)	23(11)	106(65)	132.5
1970	241(111)	65(23)	306(134)	382.5
1971	46(6)	11(2)	57(8)	71.2
1972	16(4)	5(1)	21(5)	26.2
1973	96(24)	43(11)	139(35)	198.6

Miles

0.7

0.1

0.8

Table 16. Peak Counts on Tenmile Lakes Auxiliary Spawning
Fish Surveys for Coho Since 1955

Year	Adams Creek	Benson Creek	Big Creek	Johnson Creek	Murphy Creek	Shutters Creek	Wilkins Creek	Total	Fish per Mile
1955	1,014(221)	517(247)	2,222(304)	4,214(1,032)	437(235)	340(187)	255(108)	8,999(2,925)	526.3
1956	1,712(851)	471(198)	2,035(874)	3,548(1,933)	430(213)	254(70)	161(41)	8,611(4,180)	503.6
1957	1,179(380)	289(106)	1,596(659)	2,969(850)	557(227)	281(98)	123(46)	6,994(2,366)	409.0
1958	292(123)	107(28)	905(293)	1,348(684)	334(99)	64(27)	87(44)	3,137(1,258)	183.5
1959	160(38)	76(12)	336(64)	655(218)	191(22)	55(7)	32(6)	1,407(367)	88.1
1960	200(160)	168(143)	1,030(786)	1,339(891)	165(125)	51(35)	76(55)	3,029(2,195)	177.1
1961	236(100)	122(48)	1,575(627)	1,323(439)	490(259)	44(20)	126(43)	3,916(1,575)	229.0
1962	150(61)	131(41)	1,773(628)	1,596(629)	624(275)	46(22)	51(8)	4,371(1,664)	255.6
1963	395(279)	129(67)	1,160(709)	1,878(1,088)	370(227)	78(47)	70(45)	4,080(2,462)	238.6
1964	443(145)	88(26)	1,720(802)	2,007(817)	442(188)	83(9)	102(21)	4,885(2,008)	285.7
1965	317(146)	117(49)	949(297)	1,015(378)	284(42)	51(23)	63(20)	2,796(955)	163.5
1966	173(87)	164(66)	1,065(408)	1,339(454)	280(108)	23(7)	63(24)	3,107(1,154)	181.7
1967	461(254)	148(103)	966(462)	1,414(702)	313(155)	73(23)	73(34)	3,442(1,733)	201.6
1968	206(54)	80(26)	464(79)	560(182)	146(40)	46(18)	3(1)	1,505(402)	88.0
1969	224(156)	88(53)	617(347)	1,102(654)	111(41)	84(64)	67(45)	2,293(1,360)	134.1
1970	1,382(1,077)	293(159)	1,728(1,289)	2,579(1,492)	193(144)	497(280)	312(174)	6,984(4,615)	408.4
1971	1,003(56)	139(18)	1,730(484)	1,563(216)	155(27)	180(15)	136(27)	4,906(843)	286.9
1972	139(25)	30(7)	595(45)	612(200)	17(3)	18(4)	15(1)	1,426(285)	83.4
1973	220(70)	83(17) ^{1/}	485(96)	1,520(412)	106(17)	55(12)	43(11)	2,512(636)	146.9
Miles	2.6	0.9	3.0	6.0	1.1	2.5	1.0	17.1	

^{1/} Estimated--no count made.

Table 17. Peak Counts on Coos River Spawning Fish Surveys
for Coho Since 1950

Year	Standard Surveys			Total	Fish per Mile
	Larson Creek	Morgan Creek	Marlow Creek		
1950	158(21)	6(1)	15	179(22)	54.2
1951	327(77)	28(3)	33	388(80)	117.6
1952	254(26)	68(12)	20(6)	342(44)	103.6
1953	65(19)	18(2)	18(3)	101(24)	30.6
1954	67(33)	15	15(3)	97(39)	29.4
1955	96(18)	17	1	114(18)	34.5
1956	195(72)	40(19)	32(2)	267(93)	80.9
1957	49(6)	11(2)	19(2)	79(10)	23.9
1958	24(6)	2	0	26(6)	7.9
1959	63(7)	10	3	76(7)	23.0
1960	47(30)	10(3)	7(7)	64(40)	19.4
1961	192(116)	8(4)	46(12)	246(132)	74.5
1962	129(31)	25(12)	27(19)	181(62)	54.8
1963	53(17)	26(4)	7(1)	86(22)	26.1
1964	52(11)	26(3)	43(3)	121(17)	36.7
1965	28(2)	7	16(4)	51(6)	15.5
1966	50(10)	7	6	63(10)	19.1
1967	53(11)	21(5)	6(1)	80(17)	24.2
1968	26(3)	16(2)	6	48(5)	14.5
1969	45(7)	16(5)	3(1)	64(13)	19.4
1970	35(5)	16(2)	4(1)	55(8)	16.7
1971	18(2)	25(5)	33(1)	76(8)	23.0
1972	53(29)	18(10)	19(5)	90(44)	27.3
1973	58(16)	6(1)	24(12)	88(29)	26.7

Miles	1.3	1.0	1.0	3.3
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Table 18. Peak Counts on Coquille River Spawning Fish Surveys
for Coho Since 1950

Year	Standard Surveys							Fish Per Mile
	N.Fk.Coquille River			E.Fk.Coquille River	M.Fk.Coquille River 1/	S.Fk.Coquille River 1/	Total	
	Cherry Creek	Middle Creek	North Fork	Steel Creek	Big Creek	Salmon Creek		
1950	57(16)	94(18)	61	2	77(23)	39(11)	330(68)	43.4
1951	57(13)	144(22)	86	7(1)	145(12)	54	493(48)	64.9
1952	383(15)	316(20)	232(14)	5	191(15)	117(3)	1,244(67)	163.7
1953	22(2)	65(6)	36(4)	32(7)	50(9)	65(17)	279(45)	36.7
1954	24	55	91(2)	5	56(2)	44(7)	275(11)	36.2
1955	50	50	33	14(1)	14(2)	23(2)	184(5)	24.2
1956	76(24)	110(18)	77(18)	31(8)	96(17)	69(35)	459(120)	60.4
1957	121(7)	96(5)	143(13)	11	63	71(6)	505(31)	66.5
1958	38(9)	26(6)	31(2)	9(2)	25(3)	28(4)	157(26)	20.7
1959	79(3)	45(3)	184(4)	5	55	35(1)	403(11)	53.0
1960	21(1)	20(12)	29(18)	15(7)	11(1)	11(2)	107(41)	14.1
1961	67(21)	78(23)	52(12)	49(18)	38(9)	1	285(83)	37.5
1962	38(3)	100(7)	62(4)	43(12)	73(4)	67(11)	383(41)	50.4
1963	20(9)	7	43(12)	10(1)	11(5)	2(1)	93(28)	12.2
1964	113(5)	33(3)	63(3)	114(13)	95(5)	27(4)	445(33)	58.6
1965	35(2)	36(1)	95(4)	148(25)	77(2)	16(1)	407(35)	53.6
1966	29(1)	5(1)	22(1)	44(19)	60(2)	36(17)	175(32)	25.7
1967	19(2)	11(3)	1	50(15)	51(3)	33(6)	165(29)	21.7
1968	6	5	1	46(7)	32	5(1)	95(8)	12.5
1969	55(9)	40(5)	12(2)	68(14)	9(0)	4(0)	188(30)	24.7
1970	46(5)	15(4)	21(0)	20(4)	7(0)	15(3)	124(16)	16.3
1971	28(4)	17(0)	18(3)	56(4)	22(1)	20(3)	161(15)	21.2
1972	43(13)	43(4)	20(1)	40(9)	3(0)	17(3)	166(30)	21.8
1973	24(1)	9(0)	7(0)	12(0)	0	14(1)	66(2)	15.2
Miles	1.8	1.0	1.0	1.0	1.5	1.3	7.6	

1/ Counts made by Oregon Wildlife Commission since 1959.