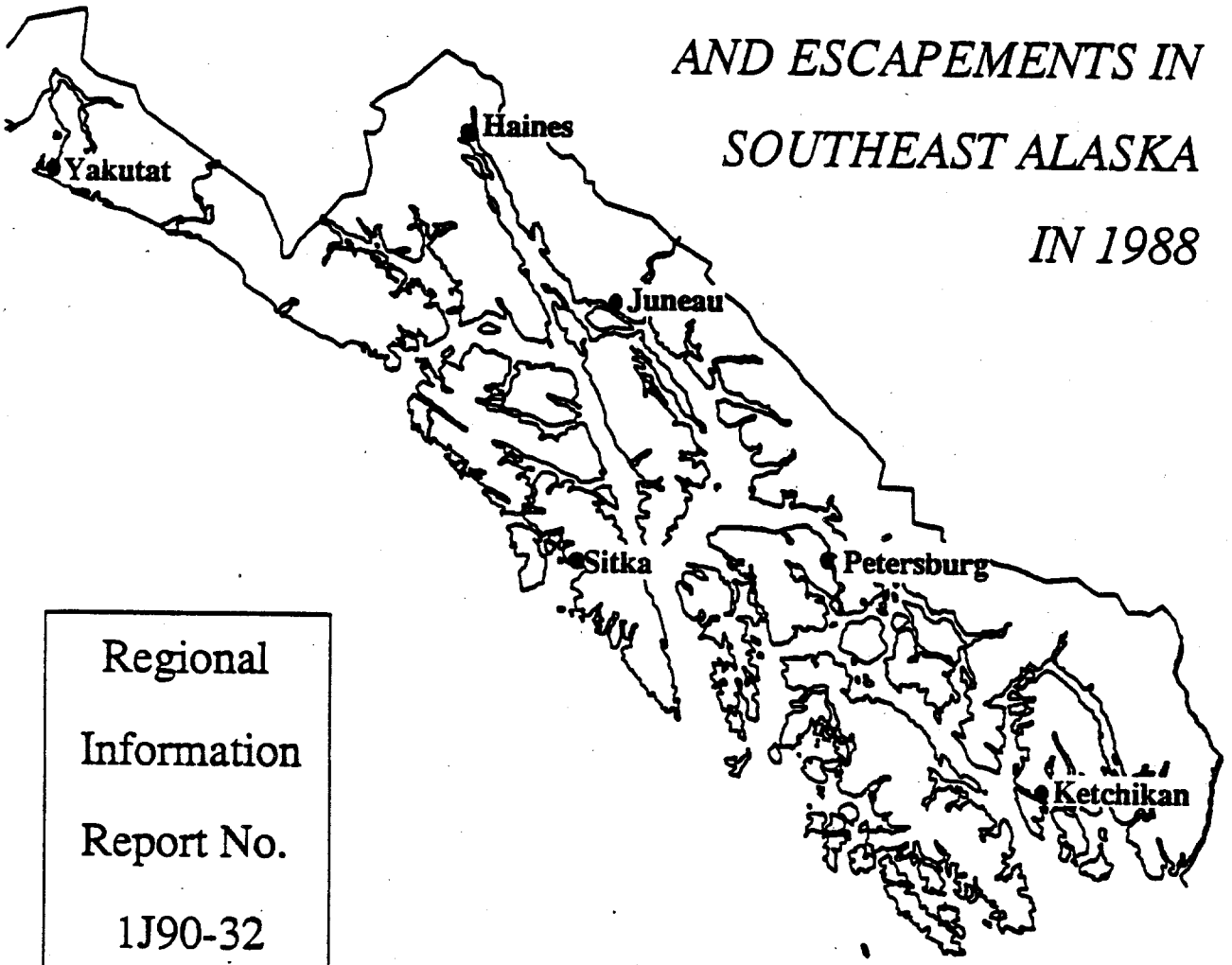
Alaska Department of Fish & Game

Commercial Fisheries Division -- Southeast Region

DATA: ABUNDANCE, AGE, SEX, AND SIZE OF SOCKEYE SALMON CATCHES AND ESCAPEMENTS IN SOUTHEAST ALASKA IN 1988



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DATA: ABUNDANCE, AGE, SEX, AND SIZE OF SOCKEYE SALMON CATCHES AND ESCAPEMENTS IN SOUTHEAST ALASKA IN 1988

By

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INTRODUCTION

Commercial harvesting of sockeye salmon (*Oncorhynchus nerka*) began in Southeast Alaska during the 1880's. Catches, excluding Yakutat, peaked early in the history of the fishery, averaging 2.4 million sockeye salmon annually between 1910 and 1919 (Eggers and Dean 1987). Several periods of sharp declines in catches in the region were experienced over the next 60 years (see Figure 1). From 1970 through 1979 catches averaged only 642,000 fish annually. Catches have sharply increased from that level during the 1980's, averaging over 1.2 million fish.

Estimation of basic population attributes are essential to sound management. Age composition provides the basic data for stock contribution estimates, brood year returns, and exploitation rates. Size data can be used to monitor growth parameters, environmental variability, and gear selectivity. Age and size data together can be used for forecasting future returns. Migratory timing data can be used to identify interannual shifts in run timing. A comprehensive sampling program to estimate population attributes of sockeye salmon in Southeast Alaska has been operated since 1982 (McGregor 1983; McGregor et al. 1984; McGregor and McPherson 1986; McPherson and McGregor 1986; McPherson et al. 1988a, 1988b, 1988c, 1988d). The feasibility of such a program was tested in 1981 for selected fisheries and escapements and is reported in McGregor and Van Alen (1987).

The purpose of this report is to document the detailed age, length, and weir data collected from sockeye salmon in Southeast Alaska in 1988. This data supports concurrent studies and provides a database for future use by fishery researchers and managers. Summaries of the data presented in this report and summaries of catch and timing data are reported in McPherson, Olsen, and Rowse (1990), to which this is a companion report.

STUDY AREA AND DESCRIPTION OF FISHERIES

The study area consists of outside coastal waters of Southeast Alaska extending south from Cape Suckling to Cape Fairweather and both inside and outside waters extending south from Cape Fairweather to Dixon Entrance (shown in Figure 2). The area is divided into 16 coastal districts (101 through 116) and 7 offshore districts (152, 154, 156, 157, 181, 189, and 191). Inshore district net fisheries and escapements in the Yakutat Management Area are not presented in this report.

Sockeye salmon are taken by both U.S. and Canadian fishermen. Canadian fishermen harvest fish in the waters of two transboundary rivers (rivers originating in Canada and emptying into saltwater in the U.S.) within the study area: the Taku River which flows from Canada into District 111 and the Stikine River which flows into District 108. Stocks in these rivers are managed separately by each government under a jointly agreed to allocation for each country and an overall escapement goal. More than 100 exclusively U.S. systems (rivers or streams and associated lakes) are also known to produce sockeye salmon in Southeast Alaska.

Commercial, sport, and subsistence fisheries operate throughout the region. In 1988 U.S. commercial gill net harvests of salmon occurred in Districts 101, 102, 106, 107, 108, 111, and 115. Canadian gill net fisheries operated in the lower Canadian portions of the Taku and Stikine Rivers and in the upper Stikine River. Purse seine fisheries are operated only in U.S. waters; they harvested sockeye salmon in Districts 101 - 105, 109, 110, and 112-114 in 1988. The troll fleet operated in U.S. waters throughout the region. The Metlakatla Indian Community operated gill net, purse seine, and troll fisheries within 3,000 ft of the Annette Island shoreline in District 101 (Subdistricts 24, 26, 28, and 42), as well as a small floating fish trap fishery in Subdistrict 101-28. Sport fishing occurred throughout Southeast Alaska, primarily near population centers. Subsistence fishing was allowed at many sites in Southeast Alaska, primarily near the mouths of rivers and streams.

Of the six types of gear used to harvest sockeye salmon in Southeast Alaska, commercial purse seine and gill net fleets currently account for the vast majority of the harvest. Lesser numbers of fish are harvested commercially with troll gear and fish traps. Without exception, these fisheries harvest mixed sockeye stocks as well as other species. Subsistence and sport fisheries in Southeast Alaska, although minor compared to commercial harvests, exploit some sockeye stocks at high rates.

SOCKEYE SALMON LIFE HISTORY

An understanding of the two types of sockeye salmon life cycles is essential in interpreting some the age composition data presented. Most sockeye salmon in Southeast Alaska spawn in lakes or streams which flow into lakes. The eggs are deposited in the gravel from July through December and develop into alevins over the winter, emerging the following spring. Shortly thereafter they begin rearing in the main body of the lake and spend most of the rest of their freshwater life there. Lake rearing most often lasts 1-2 years, but may extend to 4 years. After their final spring in the lake the fry gradually navigate downriver before undergoing smoltification, which is usually in May. At this time the juvenile salmon adjust to salt water in their estuarine habitat from which they migrate to marine waters. These sockeye salmon juveniles spend from 1 to 4 years in the eastern North Pacific Ocean before returning to spawn. This is the "lake-type" life cycle.

An lesser-known alternative life cycle has been observed in the Pacific Rim (Soviet Union, British Columbia, and Alaska) for a small number of sockeye salmon stocks (Bugaev 1987; Birtwell et al. 1987; Wood et al. 1987; McPherson 1988d). These sockeye salmon display a life cycle that does not spawn or rear in a lake. Spawning instead occurs in large rivers, typically in areas where groundwater upwells through deep gravel beds left behind after glaciers receded. The fry rear in areas along the river, including sloughs, pools and tributaries. These fry are unique because some of them migrate to sea after only rearing for a few months, i.e., they outmigrate at age 0. or the same year as emergence (popularly referred to as "zero-checks"). Almost all of remaining fry migrate to sea at age 1. after rearing in the river habitat for 1 year (popularly referred to as "one-checks"). The marine residence for river-type progeny is similar to that of lake-type.

The average life cycle for river-type fish is shorter because freshwater residence is usually a year shorter. The upwelling groundwater is warmer than inlet-stream water and emergence is probably earlier in these areas, meaning the fry hatch and begin feeding earlier than other sockeye fry. Secondly, zero-check fry rear in river delta areas much more extensively than their age-1. siblings and lake-type fry (Birtwell et al. 1987). These areas are warmer, food rich, and even somewhat saline. These two factors allow these fish to grow enough in one spring to outmigrate at age 0. Outmigration timing for zero-check fish was reported by both Birtwell et al. (1987) for the Fraser River and Murphy et al. (1989) for the Taku River to be about 1 month later than age-1. and -2. fish.

River-type sockeye salmon are important contributors to fisheries in some areas of Southeast Alaska. River-type spawning stocks have been well documented at various locations in the Stikine and Taku Rivers (McGregor and Jones 1989), as well as for the Chilkat, Lace, and Gilkey Rivers which flow into Lynn Canal (McPherson et al. 1988d; McPherson and Jones 1986). All of these rivers are glacial. The river-type stocks in the Taku and Stikine Rivers comprise over 50% of the total inriver runs in some years (PSC *in press*). The river-type stocks in Lynn Canal comprise 3-7% of the catch in District 115.

METHODS

Abundance Data

Catch

Alaskan commercial catch data presented in this report were compiled by the Division of Commercial Fisheries, Alaska Department of Fish and Game (ADF&G), and originated from individual fish tickets (sales receipts between fishermen and buyers) tabulated as of 15 March, 1989. Catch data were edited for data entry and recording errors. Because embedded errors or additions are sometimes found at a later date, data file listings in the future may show minor differences from those given in this report. Catch data for Canadian commercial and subsistence fisheries on the upper Taku and Stikine Rivers were obtained from the Canadian Department of Fisheries and Oceans (PSC *in press*). Catches were assigned to a statistical week, which begins at 00:01 AM each Sunday and ends the following Saturday at midnight; statistical weeks are numbered sequentially beginning with the week encompassing the first Sunday in January. Inclusive dates for 1988 statistical weeks are shown in Appendix A.1.

Escapement

Several methods were used to estimate total escapements to Southeast Alaska systems in 1988. Weirs were operated at 13 Alaskan and 4 Canadian sites, providing total counts of sockeye salmon to these systems. A mark-recapture tagging program was used to estimate the total Taku River escapement (McGregor and Clark 1989). Sockeye salmon were captured in fish wheels at Canyon Island (5 km from the Canadian border) and tagged. Tagged fish were recovered in the Canadian commercial and test gill net fisheries, and tagged to untagged ratios were used to derive an escapement estimate [Chapman and Junge (1956) and Darroch (1961)]. An estimate of escapement for McDonald Lake was provided by Zadina (Alaska Department of Fish and Game, F.R.E.D. Division, Ketchikan, personal communication). Foot survey counts were expanded to a total estimate based on correlations between stream life, foot survey data, and final weir counts in previous years. The estimated escapement to the Stikine River was made by applying migratory time densities (Mundy 1979) from inriver test fishery CPUE data to commercial catch stock composition estimates generated by scale pattern analyses (Jensen and Frank 1989). Aerial, foot, and boat surveys provided the maximum daily escapement counts for most of the other important sockeye salmon systems in the region; these counts should only be considered partial or relative indicators of escapement magnitude as they do not represent total escapements.

Age, Sex, and Size Data

Sockeye salmon were sampled for scales, sex, and length. Scales were taken from the 'preferred area' of the fish (INPFC 1963). Scales were mounted on gummed cards and impressions made in cellulose acetate (Clutter and Whitesel 1956).

Examination of scales provided age information for individual fish. Scales were magnified to 70X on a microfiche reader and ages were recorded in European notation (numerals preceding the decimal refer to the numbers of freshwater annuli, numerals following the decimal are the numbers of marine annuli, and the total age is the sum of these two numbers plus one). Ageing criteria followed from those described by Mosher (1968). Sex

determination was based on examination of either gonads or external morphological features such as kipe development, belly shape, trunk depth, and jaw shape. Accuracy of sex determination was evaluated in 1987 by examining 4,923 sockeye salmon from commercial catches throughout the region and season (K. Pahlke, Alaska Department of Fish and Game, Commercial Fisheries Division, Douglas, personal communication). Fish were first sexed by examining external morphological characteristics. Gonads were then examined by slitting open the belly cavity. Accuracy was 94% for the entire sample. It is believed that the accuracy of sex determination at weirs or on the spawning grounds is even higher because of further development of secondary maturation characteristics at these locations compared to commercial catches.

Fish length was measured from the middle of the eye to the fork of the tail and was recorded to the nearest 5 mm, except that post-orbit to hypural plate measurements were taken for escapements to the Little Trapper Lake, Little Tatsamenie Lake, and the Hackett River in the Taku River drainage; and to Tahltan Lake in the Stikine River drainage. Length measurements from the Taku River fish were converted to middle of the eye to fork of the tail (MEF) measurements according to the following equation developed from lengths taken from 341 sockeye salmon caught in the Canadian commercial fishery in the Taku River in 1988:

$$MEF = 1.088 * (POH) + 19.945 \text{ mm} \qquad (1)$$

where: MEF = mid-eye to fork of tail and
POH = post-orbit to hypural plate.

Length measurements from Stikine River fish were converted to MEF measurements according to equation (2) which is one of seven length relationships developed from 820 sockeye salmon commercially caught in Southeast Alaska in 1985 (Pahlke 1988).

$$MEF = 1.103696 * (POH) + 19.50277 \qquad (2)$$

All districts in which gill net catches occurred were sampled except Districts 102, 107, and the Annette Island portion of District 101. Purse seine catches were sampled in all districts that recorded catches, except in the Annette Island subdistricts of District 101. Fish trap, sport fish, and subsistence harvests were not sampled because of the small magnitude of the harvests and the logistic difficulties involved in obtaining samples. Escapement samples were collected either in weir traps or using dip nets, beach seining and carcass sampling. Fish wheels were used to collect Taku River escapement samples at Canyon Island. The variety of collection methods used to sample escapements may have introduced some bias into age composition estimates.

Age and sex compositions of salmon in the catches were computed for each fishery sampled. Sampling goals were to collect sufficient samples to estimate the proportion of each age class to within ± 5 percentage points 90% of the time in each stratum based on the standard binomial formulae (Cochran 1977; Appendix A.2). A general goal of 700 fish per week (of which 560 were expected to be ageable) was met each week in most of the major districts. Sampling was structured by subdistricts in Districts 106 and 113 because catches were made in widely separated geographic areas and at different times of the season.

Age and sex compositions of the salmon were also computed for each escapement area that was sampled. Most escapement locations were sampled over short periods of time, and these data were pooled into a single stratum. Some escapement areas had large enough numbers of fish (e.g., Hugh Smith Lake) to facilitate stratification by time to reflect more than one sampling period. This enabled us to analyze temporal trends in age composition.

Totals from each sample period were summed to represent the age and sex composition over the entire season for each fishery and each escapement having accurate abundance data. When only partial escapement counts were

available, a percentage breakdown of each sample by age and sex was tabulated. Standard errors of the age class proportions were calculated by standard binomial formulae and standard errors for estimates expanded to abundance data were calculated to reflect finite population size (Cochran 1977) as follows:

$$SE_{ij} = \sqrt{\left[\frac{(\hat{P}_{ij})\,(1-\hat{P}_{ij})}{n_j - 1}\right] \cdot \left[1 - \frac{n_j}{C_j}\right]}$$

where: i = age class,
j = stratum,
P_{ij} = proportion of fish of age i in stratum j, and
n_j = sample size for stratum j.

The standard errors for the total season commercial catch or escapement were estimated by weighting the standard error for each sampling period by the total commercial catch (or escapement) during the same sample period as follows:

$$SE_{i.} = \sqrt{\frac{\sum_{1}^{j} (SE_{ij})^2 \; C_j^2}{C_.^2}}$$

where: C_j = catch or escapement in stratum j, and
$C_.$ = total-season catch or escapement.

Changes in age composition among strata were tested for significance using a test to compare two proportions described in Zar (1984).

For each fishery and escapement from which we collected fish length data, mean lengths and their standard errors were calculated for each sex and age class within sampling periods. Sampling goals from the catch were to collect sufficient numbers from each stratum in order to estimate the average length of each major (greater than 10% of the catch) age class to within ±5 percentage points 90% of the time. A general sampling goal of 180 lengths per week was established for all districts, except in the District 111 and 115 gill net fisheries where stock-specific length composition estimates were desired and 300 lengths were taken. Weighted mean length and standard error for the entire season was calculated for each age class. A Z-test was used to identify significant changes in average length among strata. All escapement samples included length measurements to assist us in ageing.

Average weight data was obtained from the ADF&G fish ticket reporting system and was calculated by dividing the total pounds reported by the total number of fish reported.

Migratory Timing

Migratory timing (abundance as a function of time) is the driving force behind management decisions which selectively regulate time and areas open to fishing. Sockeye salmon migratory timing statistics for weired escapements and major net fisheries provided an index of relative timing.

The means and standard deviations of migratory timing, and associated migratory time density functions of sockeye salmon for weired escapements and net fisheries were derived using methodology described by Mundy (1979, 1982). The empirical migratory time density is defined as the time series of daily or weekly proportions, P_t:

$$P_t = n_t / N$$

where: n_t = abundance during time interval t, and

N = total annual abundance.

For a migration over a space of m days, the mean of t is estimated by

$$\bar{t} = \sum_{t=1}^{m} t P_t$$

and its standard deviation is estimated by

$$S_t^2 = \sum_{t=1}^{m} (t-\bar{t})^2 P_t$$

The mean time of arrival (t) for weired escapements is expressed in days (central day).

RESULTS

Detailed age and length compositions of sockeye salmon and tests for significant changes among strata in age and length compositions in gill net fisheries are presented in Appendices B.1 through B.30. Organization is by ascending fishing district number.

Detailed age and length compositions of sockeye salmon and tests for significant changes among strata in age and length compositions in purse seine fisheries are presented in Appendices C.1 through C.33. Organization is by ascending fishing district number.

Detailed age and length compositions of sockeye salmon and tests for significant changes among strata in age and length compositions in test fisheries conducted in District 108 and on the Stikine River are presented in Appendices D.1 through D.10. Organization is by ascending fishing district number.

Detailed age and length compositions of sockeye salmon, daily weir counts, and tests for significant changes among strata in age and length compositions in escapements are presented in Appendices E.1 through E.144. Organization is by ascending stream number.

Summaries of catches, escapements, age, sex, size, and migratory timing data are presented in McPherson, Olsen, and Rowse (1990).

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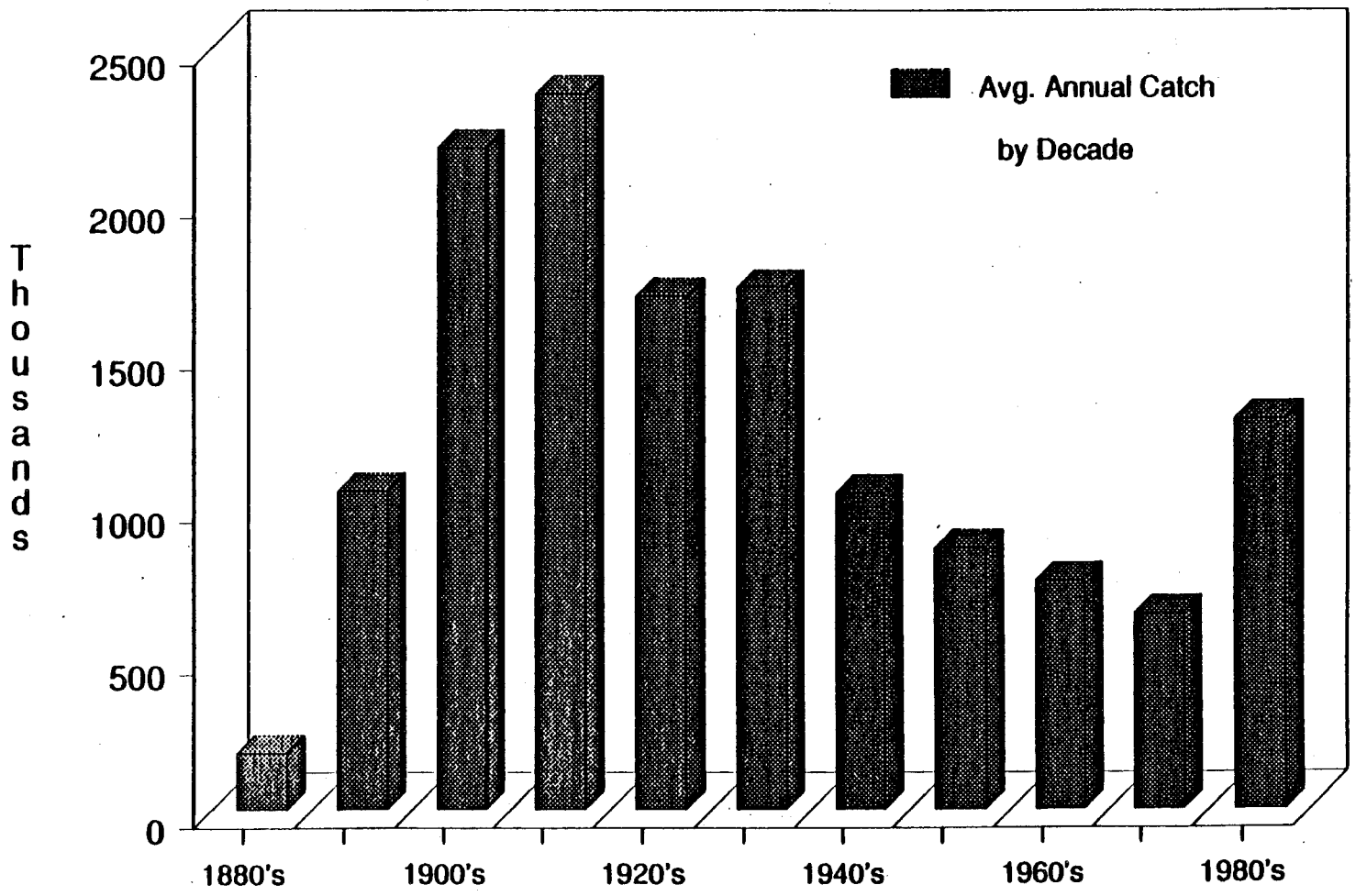

Figure 1. Average annual decade sockeye catch in Southeast Alaska, 1880-1988.

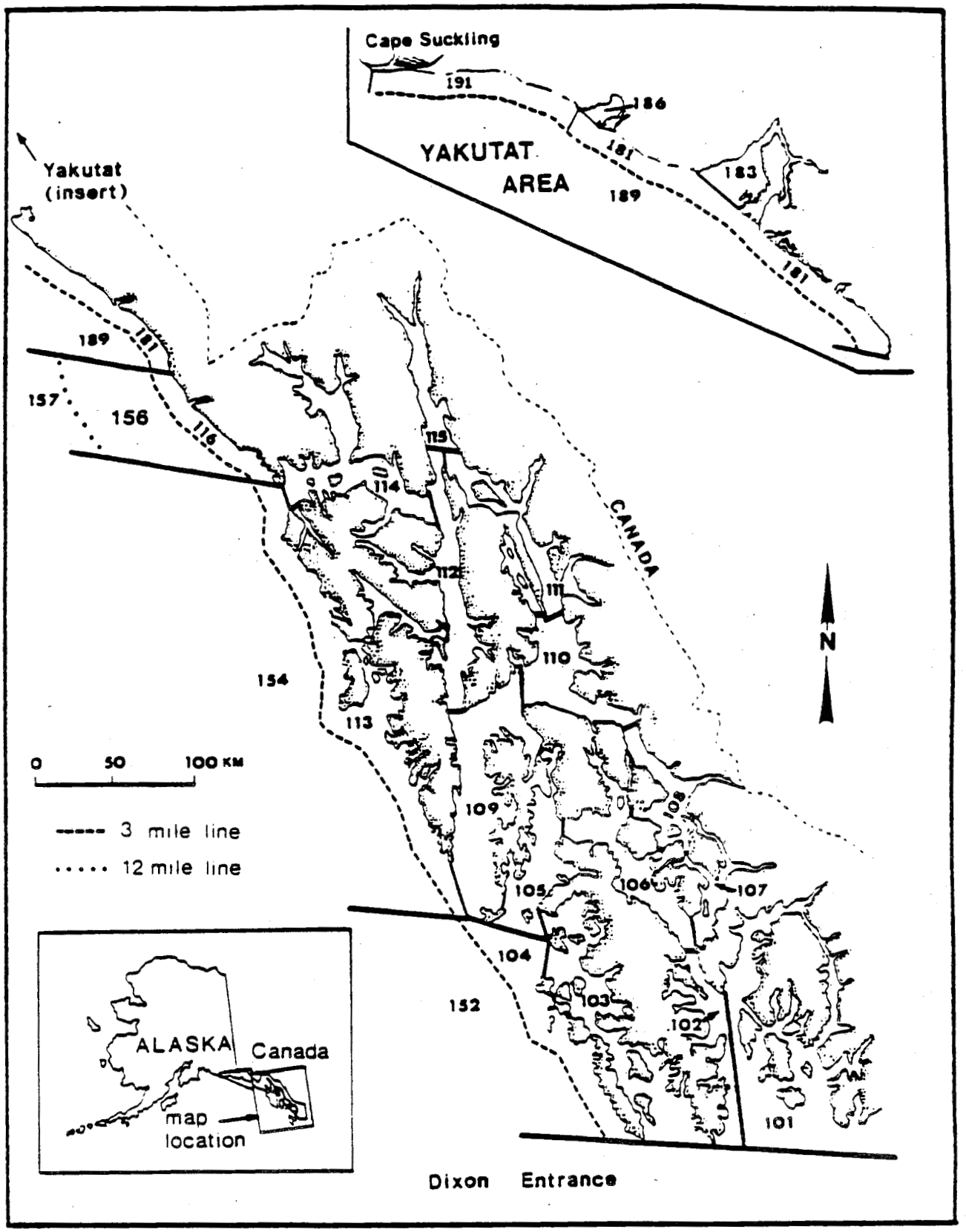

Figure 2. Map of Southeast Alaska showing the statistical fishing districts.

APPENDICES

Appendix A.1 Numbered calendar weeks (i.e., Stat Weeks) used to report commercial catches, 1988.

Week Number	From	To	Week Number	From	To
1	Jan 1	Jan 2	28	Jul 3	Jul 9
2	Jan 3	Jan 9	29	Jul 10	Jul 16
3	Jan 10	Jan 16	30	Jul 17	Jul 23
4	Jan 17	Jan 23	31	Jul 24	Jul 30
5	Jan 24	Jan 30	32	Jul 31	Aug 6
6	Jan 31	Feb 6	33	Aug 7	Aug 13
7	Feb 7	Feb 13	34	Aug 14	Aug 20
8	Feb 14	Feb 20	35	Aug 21	Aug 27
9	Feb 21	Feb 27	36	Aug 28	Sep 3
10	Feb 28	Mar 5	37	Sep 4	Sep 10
11	Mar 6	Mar 12	38	Sep 11	Sep 17
12	Mar 13	Mar 19	39	Sep 18	Sep 24
13	Mar 20	Mar 26	40	Sep 25	Oct 1
14	Mar 27	Apr 2	41	Oct 2	Oct 8
15	Apr 3	Apr 9	42	Oct 9	Oct 15
16	Apr 10	Apr 16	43	Oct 16	Oct 22
17	Apr 17	Apr 23	44	Oct 23	Oct 29
18	Apr 24	Apr 30	45	Oct 30	Nov 5
19	May 1	May 7	46	Nov 6	Nov 12
20	May 8	May 14	47	Nov 13	Nov 19
21	May 15	May 21	48	Nov 20	Nov 26
22	May 22	May 28	49	Nov 27	Dec 3
23	May 29	Jun 4	50	Dec 4	Dec 10
24	Jun 5	Jun 11	51	Dec 11	Dec 17
25	Jun 12	Jun 18	52	Dec 18	Dec 24
26	Jun 19	Jun 25	53	Dec 25	Dec 31
27	Jun 26	Jul 2			

Appendix A.2. Sample size needed to describe the age composition of a two-, three-, four-, five-, six-, or seven-age-class population of increasing size with a precision of ± 5% and a probability of 0.10.

	Sample Size Needed With The Following Number of Groups[a]					
Population Size	2	3	4	5	6	7
500	218	238	251	261	267	273
1,000	278	312	334	352	364	376
1,500	307	349	376	399	414	429
2,000	323	370	401	427	445	462
2,500	334	384	418	446	466	485
3,000	341	394	430	460	481	501
3,500	347	402	439	470	492	513
4,000	351	408	446	478	501	523
4,500	355	412	452	485	508	530
5,000	358	416	456	490	513	537
6,000	362	422	463	498	522	546
7,000	365	426	468	504	529	554
8,000	367	430	472	509	534	559
9,000	369	432	476	512	538	563
10,000	371	434	478	515	541	567
15,000	375	441	486	524	551	578
20,000	378	444	490	529	556	583
25,000	379	446	492	531	559	587
30,000	380	447	494	533	561	589
35,000	381	448	495	535	563	591
40,000	381	449	496	536	564	592
45,000	382	449	496	537	565	593
50,000	382	450	497	537	566	594
60,000	383	451	498	538	567	595
70,000	383	451	498	539	567	596
80,000	383	451	499	539	568	597
90,000	383	452	499	540	568	597
100,000	384	452	499	540	569	597
infinite	385	454	502	543	572	601

[a] Based on Cochran (1977) using the following formula:

$$n' = \frac{n_o}{1 + \frac{(n_o - 1)}{N}}$$

Where: n' = adjusted sample size
n_o = sample size needed for an infinitely large population
N = population size

Appendix B.1. Age composition of sockeye salmon in the District 101 gill net catch by sex, age class, and fishing period, 1988.

	Brood Year and Age Class										
	1985	1984			1983			1982		1981	
	0.2	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	2.4	Total
Statistical Week 26 (June 19 - 25)												
Male												
Sample Size	5	26	24			122	74	1	43			295
Percent	0.9	4.4	4.1			20.9	12.6	0.2	7.4			50.4
Std. Error	0.4	0.8	0.8			1.6	1.3	0.2	1.1			2.0
Number	102	533	492			2498	1516	20	881			6042
Female												
Sample Size		21	23			117	95		33		1	290
Percent		3.6	3.9			20.0	16.2		5.6		0.2	49.6
Std. Error		0.8	0.8			1.6	1.5		0.9		0.2	2.0
Number		430	471			2397	1946		676		20	5940
All Fish												
Sample Size	5	48	48			244	171	1	77		1	595
Percent	0.8	8.1	8.1			41.0	28.7	0.2	12.9		0.2	100.0
Std. Error	0.4	1.1	1.1			2.0	1.8	0.2	1.3		0.2	
Number	102	983	983			5000	3502	20	1577		20	12187
Statistical Week 27 (June 26 - July 2)												
Male												
Sample Size	1	6	56	1		116	138		41			359
Percent	0.1	0.8	7.5	0.1		15.4	18.4		5.5			47.8
Std. Error	0.1	0.3	0.9	0.1		1.3	1.4		0.8			1.8
Number	42	252	2352	42		4872	5796		1722			15078
Female												
Sample Size		4	75		1	145	153		14			392
Percent		0.5	10.0		0.1	19.3	20.4		1.9			52.2
Std. Error		0.3	1.1		0.1	1.4	1.5		0.5			1.8
Number		168	3150		42	6090	6426		588			16464
All Fish												
Sample Size	1	10	131	1	1	261	291		55			751
Percent	0.1	1.3	17.4	0.1	0.1	34.8	38.7		7.3			100.0
Std. Error	0.1	0.4	1.4	0.1	0.1	1.7	1.8		0.9			
Number	42	420	5502	42	42	10962	12222		2310			31542
Statistical Week 28 (July 3 - 9)												
Male												
Sample Size		1	28			37	76		13			155
Percent		0.2	4.6			6.0	12.4		2.1			25.2
Std. Error		0.2	0.8			0.9	1.3		0.6			1.7
Number		38	1065			1408	2892		495			5898
Female												
Sample Size		3	90			133	211		21	1		459
Percent		0.5	14.7			21.7	34.4		3.4	0.2		74.8
Std. Error		0.3	1.4			1.6	1.9		0.7	0.2		1.7
Number		114	3425			5061	8029		799	38		17466
All Fish												
Sample Size		4	118			170	287		34	1		614
Percent		0.7	19.2			27.7	46.7		5.5	0.2		100.0
Std. Error		0.3	1.6			1.8	2.0		0.9	0.2		
Number		152	4490			6469	10921		1294	38		23364
Statistical Week 29 (July 10 - 16)												
Male												
Sample Size		1	80			41	108	1	16		1	248
Percent		0.2	12.5			6.4	16.8	0.2	2.5		0.2	38.6
Std. Error		0.2	1.3			0.9	1.4	0.2	0.6		0.2	1.9
Number		24	1892			970	2553	24	378		24	5865
Female												
Sample Size			119			94	152		29			394
Percent			18.5			14.6	23.7		4.5			61.4
Std. Error			1.5			1.4	1.6		0.8			1.9
Number			2814			2223	3595		686			9318
All Fish												
Sample Size		1	199			135	260	1	45		1	642
Percent		0.2	31.0			21.0	40.5	0.2	7.0		0.2	100.0
Std. Error		0.2	1.8			1.6	1.9	0.2	1.0		0.2	
Number		24	4706			3193	6148	24	1064		24	15183
Statistical Week 30 (July 17 - 23)												
Male												
Sample Size		1	54			17	51		11			134
Percent		0.2	8.5			2.7	8.1		1.7			21.2
Std. Error		0.2	1.1			0.6	1.0		0.5			1.6
Number		14	769			242	726		157			1908
Female												
Sample Size		2	200			87	171		39			499
Percent		0.3	31.6			13.7	27.0		6.2			78.8
Std. Error		0.2	1.8			1.3	1.7		0.9			1.6
Number		29	2848			1239	2435		555			7106
All Fish												
Sample Size		3	254			104	222		50			633
Percent		0.5	40.1			16.4	35.1		7.9			100.0
Std. Error		0.3	1.9			1.4	1.8		1.0			
Number		43	3617			1481	3161		712			9014

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	Brood Year and Age Class											
	1985	1984			1983			1982			1981	
	0.2	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	2.4	Total
Statistical Week 31 (July 24 - 30)												
Male												
Sample Size		1	114			47	44		16			222
Percent		0.2	18.9			7.8	7.3		2.7			36.9
Std. Error		0.2	1.5			1.0	1.0		0.6			1.8
Number		9	970			400	374		136			1889
Female												
Sample Size		1	198			100	58		23			380
Percent		0.2	32.9			16.6	9.6		3.8			63.1
Std. Error		0.2	1.8			1.4	1.1		0.7			1.8
Number		8	1685			851	494		196			3234
All Fish												
Sample Size		2	312			147	102		39			602
Percent		0.3	51.8			24.4	16.9		6.5			100.0
Std. Error		0.2	1.9			1.6	1.4		0.9			
Number		17	2655			1251	868		332			5123
Statistical Week 32 (July 31 - August 6)												
Male												
Sample Size			138			44	52		11			245
Percent			23.6			7.5	8.9		1.9			41.9
Std. Error			1.7			1.1	1.2		0.6			2.0
Number			3239			1033	1220		258			5750
Female												
Sample Size			184			77	59		20			340
Percent			31.5			13.2	10.1		3.4			58.1
Std. Error			1.9			1.4	1.2		0.7			2.0
Number			4319			1807	1385		469			7980
All Fish												
Sample Size			329			123	113		31			596
Percent			55.2			20.6	19.0		5.2			100.0
Std. Error			2.0			1.6	1.6		0.9			
Number			7721			2887	2652		728			13988
Statistical Weeks 33 - 39 (August 7 - September 24)												
Male												
Sample Size			61			22	60		13			156
Percent			19.6			7.1	19.3		4.2			50.2
Std. Error			2.2			1.4	2.2		1.1			2.8
Number			1143			412	1124		243			2922
Female												
Sample Size			69			33	45		8			155
Percent			22.2			10.6	14.5		2.6			49.8
Std. Error			2.3			1.7	1.9		0.9			2.8
Number			1292			618	843		150			2903
All Fish												
Sample Size			130			55	106		21			312
Percent			41.7			17.6	34.0		6.7			100.0
Std. Error			2.7			2.1	2.6		1.4			
Number			2436			1030	1985		393			5844
Combined Periods (Percentages are weighted by period catches)												
Male												
Sample Size	6	36	555	1		446	603	2	164		1	1814
Percent	0.1	0.8	10.3	<0.1		10.2	14.0	<0.1	3.7		<0.1	39.2
Std. Error	0.1	0.1	0.4	<0.1		0.5	0.6	<0.1	0.3		<0.1	0.8
Number	144	870	11922	42		11835	16201	44	4270		24	45352
Female												
Sample Size		31	958		1	786	944		187	1	1	2909
Percent		0.6	17.3		<0.1	17.5	21.7		3.6	<0.1	<0.1	60.8
Std. Error		0.1	0.5		<0.1	0.6	0.6		0.3	<0.1	<0.1	0.8
Number		749	20004		42	20286	25153		4119	38	20	70411
All Fish												
Sample Size	6	68	1521	1	1	1239	1552	2	352	1	2	4745
Percent	0.1	1.4	27.6	<0.1	<0.1	27.8	35.7	<0.1	7.2	<0.1	<0.1	100.0
Std. Error	0.1	0.2	0.6	<0.1	<0.1	0.7	0.7	<0.1	0.4	<0.1	<0.1	
Number	144	1639	32110	42	42	32273	41459	44	8410	38	44	116245

Appendix B.2. Test for significant changes among periods in the age composition of sockeye salmon in the District 101 gill net catch by age class, 1988.

	Brood Year and Age Class										
	1985	1984			1983			1982			1981
	0.2	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	2.4
Periods Compared											
1 , 2		S**	S**			S*	S**		S**		
1 , 3	S	S**	S**			S**	S**		S**		
1 , 4	S	S**	S**			S**	S**		S**		
1 , 5	S	S**	S**			S**	S*		S**		
1 , 6	S	S**	S**			S**	S**		S**		
1 , 7	S	S**	S**			S**	S**		S**		
1 , 8		S**	S**			S**			S**		
2 , 3						S**	S**				
2 , 4		S*	S**			S**					
2 , 5			S**			S**					
2 , 6		S	S**			S**	S**				
2 , 7		S**	S**			S**	S**				
2 , 8		S	S**			S**					
3 , 4			S**			S**	S*				
3 , 5			S**			S**	S**				
3 , 6			S**				S**				
3 , 7			S**			S**	S**				
3 , 8			S**			S**	S**				
4 , 5			S**			S*	S				
4 , 6			S**				S**				
4 , 7			S**				S**				
4 , 8			S**				S				
5 , 6			S**			S**	S**				
5 , 7			S**			S	S**		S		
5 , 8											
6 , 7											
6 , 8			S**			S*	S**				
7 , 8			S**				S**				

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix B.3. Length composition of sockeye salmon in the District 101 gill net catch by sex, age class, and fishing period, 1988.

		Brood Year and Age Class								
		1985	1984		1983			1982		
		0.2	0.3	1.2	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 26 (June 19 - 25)										
Male	Avg. Length	545	573	537		600	568	615	615	587
	Std. Error		5.5	14.4		3.6	4.1		8.2	3.1
	Sample Size	1	9	6		48	27	1	13	105
Female	Avg. Length		547	532		587	549		608	572
	Std. Error		7.4	5.7		2.9	3.4		7.0	2.9
	Sample Size		9	8		54	40		17	128
All Fish	Avg. Length	545	558	536		592	556	615	611	578
	Std. Error		5.6	6.5		2.3	2.8		5.1	2.1
	Sample Size	1	19	15		107	69	1	31	243
Statistical Week 27 (June 26 - July 2)										
Male	Avg. Length		580	538		599	552		606	570
	Std. Error		7.6	5.7		7.1	3.6		7.6	3.6
	Sample Size		3	21		39	55		15	133
Female	Avg. Length		560	533	554	578	546		550	555
	Std. Error			4.7		3.6	2.5		17.2	2.4
	Sample Size		1	24	1	47	55		5	133
All Fish	Avg. Length		575	535	554	587	549		592	563
	Std. Error		7.4	3.6		3.9	2.2		8.8	2.2
	Sample Size		4	45	1	86	110		20	266
Statistical Week 28 (July 3 - 9)										
Male	Avg. Length			555		599	565		617	582
	Std. Error			13.7		11.4	6.0		17.1	6.5
	Sample Size			5		9	13		6	33
Female	Avg. Length		565	551		577	552		588	561
	Std. Error		10.0	6.0		4.7	4.5		16.4	3.1
	Sample Size		2	14		25	40		3	84
All Fish	Avg. Length		565	552		583	555		607	567
	Std. Error		10.0	5.5		4.8	3.8		12.9	3.0
	Sample Size		2	19		34	53		9	117
Statistical Week 29 (July 10 - 16)										
Male	Avg. Length		610	547		583	559		594	562
	Std. Error			6.9		7.5	4.9		14.4	4.1
	Sample Size		1	12		4	27		5	49
Female	Avg. Length			534		585	549		600	560
	Std. Error			7.1		7.6	4.5		21.2	4.7
	Sample Size			13		16	21		4	54
All Fish	Avg. Length		610	540		585	554		597	561
	Std. Error			5.0		6.2	3.4		11.5	3.1
	Sample Size		1	25		20	48		9	103
Statistical Week 30 (July 17 - 23)										
Male	Avg. Length			550		563	559		558	555
	Std. Error			7.8		24.9	9.1		2.5	5.3
	Sample Size			15		3	10		2	30
Female	Avg. Length			525		576	540		596	543
	Std. Error			3.9		6.2	4.5		15.1	3.7
	Sample Size			41		12	26		8	87
All Fish	Avg. Length			532		573	545		588	546
	Std. Error			3.8		6.6	4.3		12.9	3.1
	Sample Size			56		15	36		10	117

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		Brood Year and Age Class								
		1985	1984			1983		1982		
		0.2	0.3	1.2	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 31 (July 24 - 30)										
Male	Avg. Length			555		603	590		625	577
	Std. Error			3.1		7.4	23.0		23.1	5.2
	Sample Size			25		14	5		3	47
Female	Avg. Length			545		585	567		588	561
	Std. Error			3.5		5.8	6.9		14.9	3.4
	Sample Size			44		21	11		4	80
All Fish	Avg. Length			549		592	574		604	567
	Std. Error			2.6		4.7	8.6		14.0	3.0
	Sample Size			69		35	16		7	127
Statistical Week 32 (July 31 - August 6)										
Male	Avg. Length			553		603	563		605	562
	Std. Error			4.5		6.7	8.5			4.2
	Sample Size			34		6	12		1	53
Female	Avg. Length			534		595	572		631	566
	Std. Error			5.0		5.8	5.8		18.5	5.3
	Sample Size			28		16	12		5	61
All Fish	Avg. Length			545		597	568		627	564
	Std. Error			3.5		4.5	5.1		15.7	3.4
	Sample Size			62		22	24		6	114
Statistical Weeks 33 - 39 (August 7 - September 24)										
Male	Avg. Length			547		594	577		620	568
	Std. Error			3.2		8.5	5.4		10.9	3.4
	Sample Size			54		14	42		8	118
Female	Avg. Length			544		591	557		586	559
	Std. Error			3.1		5.2	5.1		7.0	2.9
	Sample Size			58		23	28		7	116
All Fish	Avg. Length			545		592	568		604	563
	Std. Error			2.2		4.5	4.0		7.9	2.2
	Sample Size			112		37	71		15	235
Combined Periods (Lengths weighted by period catches)										
Male	Avg. Length	545	586	546		595	562	615	605	571
	Std. Error		4.9	1.9		2.8	2.2		4.4	1.5
	Sample Size	1	13	172		137	191	1	53	568
Female	Avg. Length		559	537	554	582	552		587	559
	Std. Error		6.0	1.6		1.7	1.6		5.1	1.2
	Sample Size		12	230	1	214	233		53	743
All Fish	Avg. Length	545	576	541	554	587	556	615	603	564
	Std. Error		4.8	1.3		1.5	1.3		3.4	1.0
	Sample Size	1	26	403	1	356	427	1	107	1322

Appendix B.4. Test for significant changes among periods in the length composition of sockeye salmon in the District 101 gill net catch by age class, 1988.

	Brood Year and Age Class							
	1985	1984		1983			1982	
	0.2	0.3	1.2	0.4	1.3	2.2	1.4	2.3
Periods Compared								
1 . 2		S				S*		S
1 . 3			S		S			
1 . 4								
1 . 5					S**	S*		S
1 . 6			S			S*		
1 . 7						S*		
1 . 8						S**		
2 . 3			S**					
2 . 4								
2 . 5					S			
2 . 6			S**			S**		
2 . 7			S*		S	S**		S
2 . 8			S**			S**		
3 . 4								
3 . 5			S**			S		
3 . 6						S*		
3 . 7					S*	S*		
3 . 8						S**		
4 . 5								
4 . 6						S*		
4 . 7						S*		
4 . 8						S**		
5 . 6			S**		S**	S**		
5 . 7			S**		S**	S**		S
5 . 8			S**		S**	S**		
6 . 7								
6 . 8								
7 . 8								

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix B.5. Age composition of sockeye salmon in the District 106-30 (upper Clarence Strait) gill net catch by sex, age class, and fishing period, 1988.

	Brood Year and Age Class												
	1985		1984			1983		1982			1981		
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Statistical Weeks 26 - 27 (June 19 - July 2)													
Male													
Sample Size	1			75		190	50	2	25				343
Percent	0.2			13.5		34.1	9.0	0.4	4.5				61.6
Std. Error	0.2			1.3		1.8	1.1	0.2	0.8				1.9
Number	6			446		1131	297	12	149				2041
Female													
Sample Size			2	34		131	25	1	21				214
Percent			0.4	6.1		23.5	4.5	0.2	3.8				38.4
Std. Error			0.2	0.9		1.6	0.8	0.2	0.7				1.9
Number			12	202		779	149	6	125				1273
All Fish													
Sample Size	1		2	109		321	76	3	46				558
Percent	0.2		0.4	19.5		57.5	13.6	0.5	8.2				100.0
Std. Error	0.2		0.2	1.5		1.9	1.3	0.3	1.1				
Number	6		12	649		1909	452	18	274				3320
Statistical Week 28 (July 3 - 9)													
Male													
Sample Size			2	34		55	25	1	16				133
Percent			0.7	12.1		19.6	8.9	0.4	5.7				47.3
Std. Error			0.5	1.9		2.3	1.6	0.3	1.3				2.8
Number			21	352		569	259	10	166				1377
Female													
Sample Size				23		80	19		26				148
Percent				8.2		28.5	6.8		9.3				52.7
Std. Error				1.6		2.6	1.4		1.6				2.8
Number				238		828	197		269				1532
All Fish													
Sample Size			2	57		135	44	1	42				281
Percent			0.7	20.3		48.0	15.7	0.4	14.9				100.0
Std. Error			0.5	2.3		2.8	2.1	0.3	2.0				
Number			21	590		1397	456	10	435				2909
Statistical Week 29 (July 10 - 16)													
Male													
Sample Size	1		3	67		153	41		38				303
Percent	0.2		0.5	11.0		25.2	6.8		6.3				49.9
Std. Error	0.2		0.3	1.2		1.7	1.0		1.0				2.0
Number	16		48	1079		2466	661		612				4882
Female													
Sample Size			1	26		202	32		43				304
Percent			0.2	4.3		33.3	5.3		7.1				50.1
Std. Error			0.2	0.8		1.9	0.9		1.0				2.0
Number			16	419		3254	516		693				4898
All Fish													
Sample Size	1		4	93		356	73		81				608
Percent	0.2		0.7	15.3		58.6	12.0		13.3				100.0
Std. Error	0.2		0.3	1.4		1.9	1.3		1.3				
Number	16		64	1498		5737	1176		1305				9796
Statistical Week 30 (July 17 - 23)													
Male													
Sample Size				64		125	29	1	26				245
Percent				11.0		21.5	5.0	0.2	4.5				42.2
Std. Error				1.3		1.6	0.9	0.2	0.8				2.0
Number				866		1691	392	14	352				3315
Female													
Sample Size			4	49		209	32		42				336
Percent			0.7	8.4		36.0	5.5		7.2				57.8
Std. Error			0.3	1.1		1.9	0.9		1.0				2.0
Number			54	663		2828	433		568				4546
All Fish													
Sample Size			4	113		335	61	1	68				582
Percent			0.7	19.4		57.6	10.5	0.2	11.7				100.0
Std. Error			0.3	1.6		2.0	1.2	0.2	1.3				
Number			54	1529		4533	825	14	920				7875

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	Brood Year and Age Class												
	1985		1984			1983		1982			1981		
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Statistical Week 31 (July 24 - 30)													
Male													
Sample Size	1		1	145		188	59	1	27				422
Percent	0.1		0.1	18.1		23.4	7.4	0.1	3.4				52.6
Std. Error	0.1		0.1	1.2		1.3	0.8	0.1	0.6				1.5
Number	4		4	566		735	230	4	105				1648
Female													
Sample Size		1	2	53		241	25		56		1	1	380
Percent		0.1	0.2	6.6		30.0	3.1		7.0		0.1	0.1	47.4
Std. Error		0.1	0.2	0.8		1.4	0.5		0.8		0.1	0.1	1.5
Number		4	8	207		940	98		219		4	4	1484
All Fish													
Sample Size	1	1	3	199		433	84	1	83		1	1	807
Percent	0.1	0.1	0.4	24.7		53.7	10.4	0.1	10.3		0.1	0.1	100.0
Std. Error	0.1	0.1	0.2	1.3		1.5	0.9	0.1	0.9		0.1	0.1	
Number	4	4	12	777		1691	328	4	324		4	4	3152
Statistical Week 32 (July 31 - August 6)													
Male													
Sample Size				139	2	142	48		28	1			360
Percent				19.6	0.3	20.1	6.8		4.0	0.1			50.8
Std. Error				1.4	0.2	1.4	0.9		0.7	0.1			1.8
Number				1058	15	1081	365		213	8			2740
Female													
Sample Size			2	86		190	27		43				348
Percent			0.3	12.1		26.8	3.8		6.1				49.2
Std. Error			0.2	1.1		1.6	0.7		0.8				1.8
Number			15	655		1446	206		327				2649
All Fish													
Sample Size			2	225	2	333	76		71	1			710
Percent			0.3	31.7	0.3	46.9	10.7		10.0	0.1			100.0
Std. Error			0.2	1.6	0.2	1.7	1.1		1.1	0.1			
Number			15	1713	15	2535	578		540	8			5404
Statistical Weeks 33 - 36 (August 7 - September 3)													
Male													
Sample Size			1	156	3	73	60		21				314
Percent			0.2	26.0	0.5	12.1	10.0		3.5				52.2
Std. Error			0.1	1.6	0.3	1.2	1.1		0.7				1.8
Number			5	710	14	332	273		95				1429
Female													
Sample Size				126		87	47		25		2		287
Percent				21.0		14.5	7.8		4.2		0.3		47.8
Std. Error				1.5		1.3	1.0		0.7		0.2		1.8
Number				574		396	214		114		9		1307
All Fish													
Sample Size			1	282	3	160	107		46		2		601
Percent			0.2	46.9	0.5	26.6	17.8		7.7		0.3		100.0
Std. Error			0.1	1.8	0.3	1.6	1.4		1.0		0.2		
Number			5	1284	14	728	487		209		9		2736
Combined Periods (Percentages are weighted by period catches)													
Male													
Sample Size	3		7	680	5	926	312	5	181	1			2120
Percent	0.1		0.2	14.5	0.1	22.8	7.1	0.1	4.8	<0.1			49.6
Std. Error	<0.1		0.1	0.6	<0.1	0.7	0.4	0.1	0.4	<0.1			0.8
Number	26		78	5077	29	8005	2477	40	1692	8			17432
Female													
Sample Size		1	11	397		1140	207	1	256		3	1	2017
Percent		<0.1	0.3	8.4		29.8	5.2	<0.1	6.6		<0.1	<0.1	50.4
Std. Error		<0.1	0.1	0.4		0.8	0.4	<0.1	0.4		<0.1	<0.1	0.8
Number		4	105	2958		10471	1813	6	2315		13	4	17689
All Fish													
Sample Size	3	1	18	1078	5	2073	521	6	437	1	3	1	4147
Percent	0.1	<0.1	0.5	22.8	0.1	52.7	12.2	0.1	11.4	<0.1	<0.1	<0.1	100.0
Std. Error	<0.1	<0.1	0.1	0.7	<0.1	0.8	0.5	0.1	0.5	<0.1	<0.1	<0.1	
Number	26	4	183	8040	29	18530	4302	46	4007	8	13	4	35192

Appendix B.6. Test for significant changes among periods in the age composition of sockeye salmon in the District 106-30 (upper Clarence Strait) gill net catch by age class, 1988.

	Brood Year and Age Class											
	1985		1984			1983		1982			1981	
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3
Periods Compared												
1 . 2						S**			S**			
1 . 3				S					S**			
1 . 4									S			
1 . 5				S*			S					
1 . 6				S**		S**						
1 . 7				S**		S**	S					
2 . 3				S		S**						
2 . 4						S**	S*					
2 . 5							S*		S*			
2 . 6				S**			S*		S*			
2 . 7				S**		S**			S**			
3 . 4				S								
3 . 5				S**		S			S			
3 . 6				S**		S**			S			
3 . 7				S**		S**	S**		S**			
4 . 5				S*								
4 . 6				S**		S**						
4 . 7				S**		S**	S**		S*			
5 . 6				S**		S**						
5 . 7				S**		S**	S**					
6 . 7				S**		S**	S**					

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix B.7. Length composition of sockeye salmon in the District 106-30 (upper Clarence Strait) gill net catch by sex, age class, and fishing period, 1988.

		Brood Year and Age Class								
		1985	1984		1983		1982		1981	
		0.2	0.3	1.2	1.3	2.2	1.4	2.3	2.4	Total
Statistical Weeks 26 - 27 (June 19 - July 2)										
Male	Avg. Length			531	587	529	600	584		565
	Std. Error			4.5	3.3	4.0	49.0	10.0		3.2
	Sample Size			32	82	28	2	15		159
Female	Avg. Length		564	524	570	538	587	572		560
	Std. Error		0.5	4.0	3.0	6.6		6.6		2.7
	Sample Size		2	21	76	11	1	13		124
All Fish	Avg. Length		564	528	579	531	596	578		563
	Std. Error		0.5	3.2	2.3	3.4	28.6	6.2		2.1
	Sample Size		2	53	158	39	3	28		283
Statistical Week 28 (July 3 - 9)										
Male	Avg. Length			501	600	516	620	621		581
	Std. Error			19.5	8.3	4.0		21.0		12.2
	Sample Size			2	9	2	1	2		16
Female	Avg. Length			525	587	548		574		570
	Std. Error			5.9	10.0	11.9		9.7		7.8
	Sample Size			4	14	3		3		24
All Fish	Avg. Length			517	592	535	620	593		574
	Std. Error			8.2	6.9	10.2		14.2		6.7
	Sample Size			6	23	5	1	5		40
Statistical Week 29 (July 10 - 16)										
Male	Avg. Length	490	607	532	600	527		613		576
	Std. Error		3.0	6.0	4.6	5.6		7.4		4.8
	Sample Size	1	2	17	44	12		9		85
Female	Avg. Length		587	538	584	544		595		576
	Std. Error			15.1	3.6	9.0		10.8		3.7
	Sample Size		1	4	49	12		7		73
All Fish	Avg. Length	490	600	533	592	536		605		576
	Std. Error		6.9	5.5	3.0	5.5		6.5		3.1
	Sample Size	1	3	21	93	24		16		158
Statistical Week 30 (July 17 - 23)										
Male	Avg. Length			550	626	561		605		596
	Std. Error			14.0	5.1	12.3		10.0		7.3
	Sample Size			13	25	5		2		45
Female	Avg. Length		553	538	606	555		616		591
	Std. Error			5.2	3.5	4.7		6.4		4.3
	Sample Size		1	9	39	7		8		64
All Fish	Avg. Length		553	545	614	557		614		594
	Std. Error			8.5	3.1	5.5		5.5		3.9
	Sample Size		1	22	65	12		10		110
Statistical Week 31 (July 24 - 30)										
Male	Avg. Length			548	605	547		603		585
	Std. Error			5.0	3.9	7.6		5.4		4.0
	Sample Size			20	47	8		7		82
Female	Avg. Length			553	599	537		583	615	592
	Std. Error			4.9	2.8	10.8		16.3		3.3
	Sample Size			4	58	4		3	1	70
All Fish	Avg. Length			549	601	544		597	615	588
	Std. Error			4.2	2.3	6.1		6.4		2.6
	Sample Size			24	105	12		10	1	152

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		Brood Year and Age Class								
		1985	1984		1983		1982		1981	
		0.2	0.3	1.2	1.3	2.2	1.4	2.3	2.4	Total
Statistical Week 32 (July 31 - August 6)										
Male	Avg. Length			550	604	543		607		575
	Std. Error			4.0	3.5	7.4		12.9		3.8
	Sample Size			40	39	15		9		103
Female	Avg. Length			538	586	539		600		571
	Std. Error			5.3	4.5	11.3		7.9		4.2
	Sample Size			21	37	4		8		70
All Fish	Avg. Length			546	595	542		603		573
	Std. Error			3.3	3.0	6.2		7.6		2.8
	Sample Size			61	76	19		17		173
Statistical Weeks 33 - 36 (August 7 - September 3)										
Male	Avg. Length			546	586	535		606		559
	Std. Error			3.6	7.9	5.5		4.6		3.4
	Sample Size			60	31	31		13		135
Female	Avg. Length			536	580	543		596	594	560
	Std. Error			3.5	3.7	8.5		7.3		3.2
	Sample Size			47	45	15		14	1	122
All Fish	Avg. Length			542	582	538		601	594	559
	Std. Error			2.6	3.9	4.6		4.4		2.3
	Sample Size			107	76	46		27	1	257
Combined Periods (Lengths weighted by period catches)										
Male	Avg. Length	490	607	539	605	539	609	607		579
	Std. Error		3.0	2.2	1.9	2.6	29.1	3.9		1.7
	Sample Size	1	2	184	277	101	3	57		625
Female	Avg. Length		571	537	589	545	587	596	605	577
	Std. Error		7.2	2.1	1.6	3.5		3.7	10.5	1.5
	Sample Size		4	110	318	56	1	56	2	547
All Fish	Avg. Length	490	577	538	596	542	607	602	605	578
	Std. Error		9.7	1.6	1.2	2.1	21.1	2.7	10.5	1.1
	Sample Size	1	6	294	596	157	4	113	2	1173

Appendix B.8. Test for significant changes among periods in the length composition of sockeye salmon in the District 106-30 (upper Clarence Strait) gill net catch by age class, 1988.

	Brood Year and Age Class							
	1985	1984		1983		1982		1981
	0.2	0.3	1.2	1.3	2.2	1.4	2.3	2.4
Periods Compared								
1 , 2				S				
1 , 3		S**		S**			S**	
1 , 4			S	S**	S**		S**	
1 , 5			S**	S**	S		S*	
1 , 6			S**	S**			S**	
1 , 7			S**				S**	
2 , 3								
2 , 4			S**	S**	S			
2 , 5			S**					
2 , 6			S**					
2 , 7			S**					
3 , 4				S**	S**			
3 , 5			S*	S**				
3 , 6			S*					
3 , 7				S*				
4 , 5				S**			S*	
4 , 6				S**	S			
4 , 7				S**	S**		S	
5 , 6								
5 , 7				S**				
6 , 7				S**				

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix B.9. Age composition of sockeye salmon in the District 106-41 (Sumner Strait) gill net catch by sex, age class, and fishing period, 1988.

	Brood Year and Age Class											
	1985		1984			1983		1982			1981	
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	3.3	Total
Statistical Week 26 (June 19 - 25)												
Male												
Sample Size			1	71		188	24		25		1	310
Percent			0.2	12.3		32.5	4.1		4.3		0.2	53.5
Std. Error			0.1	1.1		1.6	0.7		0.7		0.1	1.7
Number			3	207		550	70		73		3	906
Female												
Sample Size			1	30		186	15		36		1	269
Percent			0.2	5.2		32.1	2.6		6.2		0.2	46.5
Std. Error			0.1	0.7		1.6	0.5		0.8		0.1	1.7
Number			3	88		544	44		105		3	787
All Fish												
Sample Size			2	101		374	39		61		2	579
Percent			0.3	17.4		64.6	6.7		10.5		0.3	100.0
Std. Error			0.2	1.3		1.6	0.8		1.0		0.2	
Number			6	295		1094	114		178		6	1693
Statistical Week 27 (June 26 - July 2)												
Male												
Sample Size	1	1	2	85		167	32	1	13			302
Percent	0.2	0.2	0.3	13.8		27.2	5.2	0.2	2.1			49.1
Std. Error	0.2	0.2	0.2	1.3		1.7	0.8	0.2	0.5			1.9
Number	9	9	19	794		1562	299	9	121			2822
Female												
Sample Size	1		8	40		219	31	2	12			313
Percent	0.2		1.3	6.5		35.6	5.0	0.3	2.0			50.9
Std. Error	0.2		0.4	0.9		1.8	0.8	0.2	0.5			1.9
Number	9		75	374		2046	290	19	112			2925
All Fish												
Sample Size	2	1	10	126		386	63	3	25			616
Percent	0.3	0.2	1.6	20.5		62.7	10.2	0.5	4.1			100.0
Std. Error	0.2	0.2	0.5	1.5		1.8	1.2	0.3	0.8			
Number	19	9	93	1177		3607	589	28	234			5756
Statistical Week 28 (July 3 - 9)												
Male												
Sample Size			6	76	1	123	39	1	29			275
Percent			1.0	12.2	0.2	19.7	6.3	0.2	4.7			44.1
Std. Error			0.4	1.2	0.2	1.5	0.9	0.2	0.8			1.9
Number			57	717	9	1161	368	9	274			2595
Female												
Sample Size			3	48		217	40	4	36			348
Percent			0.5	7.7		34.8	6.4	0.6	5.8			55.9
Std. Error			0.3	1.0		1.8	0.9	0.3	0.9			1.9
Number			28	453		2048	377	38	340			3284
All Fish												
Sample Size			9	124	1	340	79	5	65			623
Percent			1.4	19.9	0.2	54.6	12.7	0.8	10.4			100.0
Std. Error			0.5	1.5	0.2	1.9	1.3	0.3	1.2			
Number			85	1170	9	3209	745	47	614			5879
Statistical Week 29 (July 10 - 16)												
Male												
Sample Size	1		4	74		122	29	1	18		2	251
Percent	0.2		0.7	12.6		20.7	4.9	0.2	3.1		0.3	42.6
Std. Error	0.2		0.3	1.3		1.6	0.9	0.2	0.7		0.2	2.0
Number	25		101	1865		3076	731	25	454		50	6327
Female												
Sample Size			3	58		228	22	1	26			338
Percent			0.5	9.8		38.7	3.7	0.2	4.4			57.4
Std. Error			0.3	1.2		2.0	0.8	0.2	0.8			2.0
Number			76	1462		5747	555	25	655			8520
All Fish												
Sample Size	1		7	132		353	51	2	44		2	592
Percent	0.2		1.2	22.3		59.6	8.6	0.3	7.4		0.3	100.0
Std. Error	0.2		0.4	1.7		2.0	1.1	0.2	1.1		0.2	
Number	25		176	3327		8899	1286	50	1109		50	14922

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	Brood Year and Age Class											
	1985		1984			1983		1982			1981	
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	3.3	Total
Statistical Week 30 (July 17 - 23)												
Male												
Sample Size	1		4	48		139	11		33			236
Percent	0.2		0.7	8.1		23.5	1.9		5.6			39.9
Std. Error	0.2		0.3	1.1		1.7	0.5		0.9			2.0
Number	17		70	836		2420	191		574			4108
Female												
Sample Size	1		6	49	1	221	25	1	52			356
Percent	0.2		1.0	8.3	0.2	37.3	4.2	0.2	8.8			60.1
Std. Error	0.2		0.4	1.1	0.2	1.9	0.8	0.2	1.1			2.0
Number	17		104	853	17	3849	435	17	905			6197
All Fish												
Sample Size	2		10	97	1	360	37	1	86			594
Percent	0.3		1.7	16.3	0.2	60.6	6.2	0.2	14.5			100.0
Std. Error	0.2		0.5	1.5	0.2	1.9	1.0	0.2	1.4			
Number	35		174	1689	17	6267	644	17	1497			10340
Statistical Week 31 (July 24 - 30)												
Male												
Sample Size	1		1	82		132	37	3	15			271
Percent	0.2		0.2	13.2		21.2	5.9	0.5	2.4			43.6
Std. Error	0.2		0.2	1.3		1.6	0.9	0.3	0.6			1.9
Number	14		14	1172		1887	529	43	214			3873
Female												
Sample Size			1	57		226	30	3	34			351
Percent			0.2	9.2		36.3	4.8	0.5	5.5			56.4
Std. Error			0.2	1.1		1.9	0.8	0.3	0.9			1.9
Number			14	815		3230	429	43	486			5017
All Fish												
Sample Size	1		2	139		358	67	6	49			622
Percent	0.2		0.3	22.3		57.6	10.8	1.0	7.9			100.0
Std. Error	0.2		0.2	1.6		1.9	1.2	0.4	1.0			
Number	14		28	1987		5117	958	86	700			8890
Statistical Week 32 (July 31 - August 6)												
Male												
Sample Size	1			117		106	35	1	22			282
Percent	0.2			19.0		17.2	5.7	0.2	3.6			45.9
Std. Error	0.2			1.5		1.5	0.9	0.2	0.7			1.9
Number	11			1329		1203	397	11	250			3201
Female												
Sample Size				109		150	26	1	46	1		333
Percent				17.7		24.4	4.2	0.2	7.5	0.2		54.1
Std. Error				1.5		1.7	0.8	0.2	1.0	0.2		1.9
Number				1237		1704	295	11	522	11		3780
All Fish												
Sample Size	1			227		257	61	2	68	1		617
Percent	0.2			36.8		41.7	9.9	0.3	11.0	0.2		100.0
Std. Error	0.2			1.9		1.9	1.1	0.2	1.2	0.2		
Number	11			2577		2918	692	23	772	11		7004
Statistical Weeks 33 - 35 (August 7 - August 27)												
Male												
Sample Size				175	1	62	37	1	27	1		304
Percent				26.8	0.2	9.5	5.7	0.2	4.1	0.2		46.6
Std. Error				1.5	0.1	1.0	0.8	0.1	0.7	0.1		1.7
Number				765	4	271	162	4	118	4		1328
Female												
Sample Size				178		106	33		30	1		348
Percent				27.3		16.3	5.1		4.6	0.2		53.4
Std. Error				1.5		1.3	0.8		0.7	0.1		1.7
Number				778		463	144		131	4		1520
All Fish												
Sample Size				353	1	169	70	1	57	2		653
Percent				54.1	0.2	25.9	10.7	0.2	8.7	0.3		100.0
Std. Error				1.7	0.1	1.5	1.1	0.1	1.0	0.2		
Number				1543	4	738	306	4	249	9		2853

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	Brood Year and Age Class											
	1985		1984			1983		1982			1981	
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	3.3	Total
Combined Periods (Percentages are weighted by period catches)												
Male												
Sample Size	5	1	18	728	2	1039	244	8	182	1	3	2231
Percent	0.1	<0.1	0.5	13.4	<0.1	21.2	4.8	0.2	3.6	<0.1	0.1	44.0
Std. Error	0.1	<0.1	0.1	0.5	<0.1	0.7	0.3	0.1	0.3	<0.1	0.1	0.8
Number	76	9	264	7685	13	12130	2747	101	2078	4	53	25160
Female												
Sample Size	2		22	569	1	1553	222	12	272	2	1	2656
Percent	<0.1		0.5	10.6	<0.1	34.3	4.5	0.3	5.7	<0.1	<0.1	56.0
Std. Error	<0.1		0.1	0.5	<0.1	0.8	0.3	0.1	0.4	<0.1	<0.1	0.8
Number	26		300	6060	17	19631	2569	153	3256	15	3	32030
All Fish												
Sample Size	7	1	40	1299	3	2597	467	20	455	3	4	4896
Percent	0.2	<0.1	1.0	24.0	0.1	55.5	9.3	0.4	9.3	<0.1	0.1	100.0
Std. Error	0.1	<0.1	0.2	0.7	<0.1	0.8	0.5	0.1	0.5	<0.1	0.1	
Number	104	9	562	13765	30	31849	5334	255	5353	20	56	57337

Appendix B.10. Test for significant changes among periods in the age composition of sockeye salmon in the District 106-41 (Sumner Strait) gill net catch by age class, 1988.

	Brood Year and Age Class										
	1985		1984			1983		1982			1981
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	3.3
Periods Compared											
1 . 2			S				S*		S**		
1 . 3			S			S**	S**	S			
1 . 4				S*		S			S		
1 . 5			S*						S		
1 . 6				S*		S**	S**	S			
1 . 7				S**		S**	S				
1 . 8				S**		S**	S**				
2 . 3						S**			S**		
2 . 4									S**		
2 . 5				S			S**		S**		
2 . 6			S*			S			S**		
2 . 7			S**	S**		S**			S**		
2 . 8			S**	S**		S**			S**		
3 . 4						S	S*		S		
3 . 5						S*	S**		S*		
3 . 6			S								
3 . 7			S**	S**		S**					
3 . 8			S**	S**		S**					
4 . 5				S**					S**		
4 . 6											
4 . 7			S**	S**		S**			S*		
4 . 8			S**	S**		S**					
5 . 6			S*	S**			S**		S**		
5 . 7			S**	S**		S**	S*		S		
5 . 8			S**	S**		S**	S**		S**		
6 . 7				S**		S**			S		
6 . 8				S**		S**					
7 . 8				S**		S**					

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix B.11. Length composition of sockeye salmon in the District 106-41 (Sumner Strait) gill net catch by sex, age class, and fishing period, 1988.

		Brood Year and Age Class									
		1985	1984			1983		1982			
		0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 26 (June 19 - 25)											
Male	Avg. Length			516		584	517		590		561
	Std. Error			5.2		2.8	6.8		12.0		3.8
	Sample Size			26		67	13		6		112
Female	Avg. Length			519		581	512		571		572
	Std. Error			5.0		2.7	5.4		8.3		3.2
	Sample Size			7		69	4		14		94
All Fish	Avg. Length			517		583	515		577		566
	Std. Error			4.2		1.9	5.3		6.9		2.6
	Sample Size			33		136	17		20		206
Statistical Week 27 (June 26 - July 2)											
Male	Avg. Length			530		584	540	577	571		563
	Std. Error			4.4		4.8	9.4		15.4		4.2
	Sample Size			23		39	7	1	5		75
Female	Avg. Length		554	532		566	538		563		559
	Std. Error		10.0	6.5		2.5	6.1		5.6		2.5
	Sample Size		2	7		53	7		4		73
All Fish	Avg. Length		554	531		574	539	577	568		561
	Std. Error		10.0	3.7		2.7	5.4		8.6		2.5
	Sample Size		2	30		92	14	1	9		148
Statistical Week 28 (July 3 - 9)											
Male	Avg. Length		569	529	312	590	530	589	587		564
	Std. Error		11.6	6.1		4.0	8.4		7.5		5.1
	Sample Size		3	20	1	39	10	1	9		83
Female	Avg. Length		592	522		576	559	592	562		567
	Std. Error			5.0		2.7	11.6	13.0	9.2		3.0
	Sample Size		1	12		66	11	2	9		101
All Fish	Avg. Length		575	526	312	582	545	591	575		566
	Std. Error		10.0	4.2		2.3	7.8	7.6	6.5		2.8
	Sample Size		4	32	1	105	21	3	18		184
Statistical Week 29 (July 10 - 16)											
Male	Avg. Length	507	588	520		593	512		592		562
	Std. Error			7.0		4.5	15.1		7.9		5.1
	Sample Size	1	1	36		48	4		9		99
Female	Avg. Length		546	517		576	518		584		561
	Std. Error			4.3		2.5	5.9		4.3		3.1
	Sample Size		1	19		71	12		11		114
All Fish	Avg. Length	507	567	519		583	516		588		561
	Std. Error		21.0	4.8		2.5	5.6		4.3		2.9
	Sample Size	1	2	55		119	16		20		213
Statistical Week 30 (July 17 - 23)											
Male	Avg. Length	521		554		611	524		628		597
	Std. Error			12.2		4.0	7.8		8.0		5.1
	Sample Size	1		13		42	3		8		67
Female	Avg. Length			544		594	543		579		583
	Std. Error			5.7		2.7	12.5		12.3		3.4
	Sample Size			9		58	7		9		83
All Fish	Avg. Length	521		550		601	540		602		589
	Std. Error			7.5		2.4	8.7		9.5		3.0
	Sample Size	1		22		100	11		17		151

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		Brood Year and Age Class									
		1985	1984			1983		1982			
		0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 31 (July 24 - 30)											
Male	Avg. Length			529		599	536	598	597		567
	Std. Error			8.5		4.0	9.9	43.5	4.1		5.7
	Sample Size			22		29	8	2	3		64
Female	Avg. Length			527		573	516		587		561
	Std. Error			4.2		3.0	11.8		6.2		3.5
	Sample Size			16		51	8		10		85
All Fish	Avg. Length			528		582	526	598	590		563
	Std. Error			5.2		2.8	7.9	43.5	4.9		3.2
	Sample Size			38		80	16	2	13		149
Statistical Week 32 (July 31 - August 6)											
Male	Avg. Length	568		548		592	543	588	593		573
	Std. Error			5.4		5.1	9.9		12.7		4.1
	Sample Size	1		25		37	9	1	10		83
Female	Avg. Length			523		575	534		576		558
	Std. Error			4.6		4.1	8.2		8.3		3.9
	Sample Size			21		40	6		11		78
All Fish	Avg. Length	568		536		584	539	588	584		566
	Std. Error			4.1		3.3	6.7		7.5		2.9
	Sample Size	1		46		77	15	1	21		161
Statistical Weeks 33 - 35 (August 7 - August 27)											
Male	Avg. Length			525		585	529		625	491	540
	Std. Error			3.1		7.2	8.9		15.6		4.0
	Sample Size			64		18	10		4	1	97
Female	Avg. Length			523		569	532		573		543
	Std. Error			2.5		4.9	7.8		9.5		3.1
	Sample Size			54		35	12		11		112
All Fish	Avg. Length			524		574	531		587	491	542
	Std. Error			2.0		4.1	5.7		10.0		2.5
	Sample Size			118		53	22		15	1	209
Combined Periods (Lengths weighted by period catches)											
Male	Avg. Length	525	583	533	312	595	527	589	598	491	570
	Std. Error	18.4	9.5	2.1		1.6	3.4	14.3	4.4		1.7
	Sample Size	3	4	229	1	319	64	5	54	1	680
Female	Avg. Length		558	526		578	531	592	577		564
	Std. Error		11.1	1.6		1.1	3.7	13.0	3.1		1.2
	Sample Size		4	145		443	67	2	79		740
All Fish	Avg. Length	525	566	530	312	585	531	589	586	491	567
	Std. Error	18.4	7.1	1.5		1.0	2.5	10.3	2.7		1.0
	Sample Size	3	8	374	1	762	132	7	133	1	1421

Appendix B.12. Test for significant changes among periods in the length composition of sockeye salmon in the District 106-41 (Sumner Straight) gill net catch by age class, 1988.

	Brood Year and Age Class								
	1985	1984			1983		1982		
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2
Periods Compared									
1 . 2			S**		S**	S**			
1 . 3						S**			
1 . 4									
1 . 5			S**		S**	S**		S*	
1 . 6			S						
1 . 7			S**			S**			
1 . 8					S*	S*			
2 . 3					S*				
2 . 4			S*		S**	S**		S*	
2 . 5			S*		S**			S**	
2 . 6					S*			S*	
2 . 7					S**				
2 . 8			S						
3 . 4						S**		S	
3 . 5			S**		S**			S**	
3 . 6						S		S	
3 . 7			S						
3 . 8					S				
4 . 5			S**		S**	S*			
4 . 6									
4 . 7			S**			S**			
4 . 8					S	S			
5 . 6			S**		S**				
5 . 7					S**				
5 . 8			S**		S**				
6 . 7									
6 . 8									
7 . 8			S**		S				

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix B.13. Age composition of sockeye salmon in the District 108 gill net catch by sex, age class, and fishing period, 1988.

	Brood Year and Age Class								
	1985	1984		1983			1982		
	0.2	0.3	1.2	0.4	1.3	2.2	1.4	2.3	Total
Statistical Weeks 26 - 28 (June 19 - July 9)									
Male									
Sample Size	1	7	32		61	1		7	109
Percent	0.5	3.2	14.6		27.9	0.5		3.2	49.8
Std. Error	0.4	1.0	2.1		2.6	0.4		1.0	2.9
Number	4	27	125		240	4		27	427
Female									
Sample Size		12	15	1	69	2		11	110
Percent		5.5	6.8	0.5	31.5	0.9		5.0	50.2
Std. Error		1.3	1.5	0.4	2.7	0.6		1.3	2.9
Number		47	59	4	270	8		43	431
All Fish									
Sample Size	1	20	47	1	130	3		18	220
Percent	0.5	9.1	21.4	0.5	59.1	1.4		8.2	100.0
Std. Error	0.4	1.7	2.4	0.4	2.9	0.7		1.6	
Number	4	78	184	4	509	12		70	861
Statistical Week 29 (July 10 - 16)									
Male									
Sample Size	1	16	27	1	71	9	1	3	129
Percent	0.4	7.0	11.7	0.4	30.9	3.9	0.4	1.3	56.1
Std. Error	0.3	1.1	1.3	0.3	1.9	0.8	0.3	0.5	2.1
Number	2	27	45	2	118	15	2	5	216
Female									
Sample Size	2	9	14		66	3		7	101
Percent	0.9	3.9	6.1		28.7	1.3		3.0	43.9
Std. Error	0.4	0.8	1.0		1.9	0.5		0.7	2.1
Number	3	15	23		111	5		12	169
All Fish									
Sample Size	3	25	41	1	137	12	1	10	230
Percent	1.3	10.9	17.8	0.4	59.6	5.2	0.4	4.3	100.0
Std. Error	0.5	1.3	1.6	0.3	2.1	0.9	0.3	0.9	
Number	5	42	68	2	229	20	2	17	385
Combined Periods (Percentages are weighted by period catches)									
Male									
Sample Size	2	23	59	1	132	10	1	10	238
Percent	0.4	4.4	13.7	0.1	28.8	1.5	0.1	2.6	51.7
Std. Error	0.3	0.8	1.5	0.1	1.9	0.4	0.1	0.7	2.1
Number	6	54	170	2	358	19	2	32	643
Female									
Sample Size	2	21	29	1	135	5		18	211
Percent	0.3	5.0	6.6	0.3	30.6	1.0		4.4	48.3
Std. Error	0.1	1.0	1.1	0.3	2.0	0.4		0.9	2.1
Number	3	62	82	4	381	13		55	600
All Fish									
Sample Size	4	45	88	2	267	15	1	28	450
Percent	0.7	9.6	20.3	0.4	59.2	2.6	0.1	7.0	100.0
Std. Error	0.3	1.2	1.7	0.3	2.1	0.5	0.1	1.1	
Number	9	120	252	6	738	32	2	87	1246

Appendix B.14. Test for significant changes among periods in the age composition of sockeye salmon in the District 108 gill net catch by age class, 1988.

	Brood Year and Age Class							
	1985	1984		1983			1982	
	0.2	0.3	1.2	0.4	1.3	2.2	1.4	2.3
Periods Compared								
1 , 2						S*		

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix B.15. Length composition of sockeye salmon in the District 108 gill net catch by sex, age class, and fishing period, 1988.

		Brood Year and Age Class								
		1985	1984		1983			1982		
		0.2	0.3	1.2	0.4	1.3	2.2	1.4	2.3	Total
Statistical Weeks 26 - 28 (June 19 - July 9)										
Male	Avg. Length	470	553	501		594	520		591	564
	Std. Error		20.9	5.4		3.7			9.9	5.1
	Sample Size	1	7	28		60	1		6	103
Female	Avg. Length		585	509	602	577	504		568	567
	Std. Error		13.0	6.0		1.9	8.5		15.6	3.6
	Sample Size		12	13	1	63	2		11	102
All Fish	Avg. Length	470	573	504	602	585	509		576	565
	Std. Error		11.5	4.2		2.2	7.4		10.8	3.1
	Sample Size	1	19	41	1	123	3		17	205
Statistical Week 29 (July 10 - 16)										
Male	Avg. Length	483	600	517		601	524	611	605	578
	Std. Error		5.9	6.6		3.6	12.9			4.9
	Sample Size	1	11	18		48	4	1	1	84
Female	Avg. Length	524	563	529		584	503		585	568
	Std. Error	1.0	19.9	7.8		2.5	1.5		3.5	4.1
	Sample Size	2	4	10		38	2		3	59
All Fish	Avg. Length	510	590	521		593	517	611	590	574
	Std. Error	13.7	7.7	5.1		2.5	9.3		5.6	3.4
	Sample Size	3	15	28		86	6	1	4	143
Combined Periods (Lengths weighted by period catches)										
Male	Avg. Length	474	567	506		596	521	611	595	568
	Std. Error	6.5	10.2	4.3		2.6	10.0		8.6	3.6
	Sample Size	2	18	46		108	5	1	7	187
Female	Avg. Length	524	578	515	602	579	503		573	567
	Std. Error	1.0	10.9	5.1		1.5	3.5		12.3	2.7
	Sample Size	2	16	23	1	101	4		14	161
All Fish	Avg. Length	482	578	509	602	588	511	611	580	568
	Std. Error	14.0	7.3	3.4		1.7	6.5		8.8	2.3
	Sample Size	4	34	69	1	209	9	1	21	348

Appendix B.16. Test for significant changes among periods in the length composition of sockeye salmon in the District 108 gill net catch by age class, 1988.

	Brood Year and Age Class							
	1985	1984		1983			1982	
	0.2	0.3	1.2	0.4	1.3	2.2	1.4	2.3
Periods Compared								
1 . 2			S**		S**		.	

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix B.17. Age composition of sockeye salmon in the Canadian commercial gill net catch in the lower Stikine River by sex, age class, and fishing period, 1988.

	Brood Year and Age Class											
	1986	1985	1984			1983			1982			
	0.1	0.2	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 27 (June 26 - July 2)												
Male												
Sample Size			4	20			42	3	1	10		80
Percent			2.3	11.6			24.3	1.7	0.6	5.8		46.2
Std. Error			0.9	1.8			2.4	0.7	0.4	1.3		2.8
Number			6	29			61	4	1	14		115
Female												
Sample Size			2	16			60	6		9		93
Percent			1.2	9.2			34.7	3.5		5.2		53.8
Std. Error			0.6	1.7			2.7	1.0		1.3		2.8
Number			3	23			86	9		13		134
All Fish												
Sample Size		2	10	52			158	16	1	34		273
Percent		0.7	3.7	19.0			57.9	5.9	0.4	12.5		100.0
Std. Error		0.3	0.6	1.3			1.6	0.8	0.2	1.1		
Number		3	14	75			227	23	1	49		392
Statistical Week 28 (July 3 - 9)												
Male												
Sample Size		3	4	28			64	4		3		106
Percent		1.4	1.9	13.0			29.6	1.9		1.4		49.1
Std. Error		0.6	0.7	1.8			2.5	0.7		0.6		2.7
Number		6	8	58			132	8		6		218
Female												
Sample Size		1	9	27			59	7		7		110
Percent		0.5	4.2	12.5			27.3	3.2		3.2		50.9
Std. Error		0.4	1.1	1.8			2.4	1.0		1.0		2.7
Number		2	19	56			121	14		14		226
All Fish												
Sample Size		5	14	72			158	14		13		276
Percent		1.8	5.1	26.1			57.2	5.1		4.7		100.0
Std. Error		0.6	0.9	1.9			2.1	0.9		0.9		
Number		10	29	148			325	29		27		568
Statistical Week 29 (July 10 - 16)												
Male												
Sample Size		2	8	46		1	46	6	1	6		116
Percent		0.8	3.4	19.3		0.4	19.3	2.5	0.4	2.5		48.7
Std. Error		0.4	0.9	1.9		0.3	1.9	0.7	0.3	0.7		2.4
Number		4	18	101		2	100	13	2	13		253
Female												
Sample Size		2	12	30			65	3		10		122
Percent		0.8	5.0	12.6			27.3	1.3		4.2		51.3
Std. Error		0.4	1.0	1.6			2.1	0.5		1.0		2.4
Number		4	26	65			142	7		22		266
All Fish												
Sample Size		4	20	76		1	111	9	1	16		238
Percent		1.7	8.4	31.9		0.4	46.6	3.8	0.4	6.7		100.0
Std. Error		0.6	1.3	2.2		0.3	2.4	0.9	0.3	1.2		
Number		8	44	166		2	242	20	2	35		519
Statistical Week 30 (July 17 - 23)												
Male												
Sample Size		8	10	91			91	14	1	9		224
Percent		1.9	2.3	21.3			21.3	3.3	0.2	2.1		52.5
Std. Error		0.6	0.7	1.8			1.8	0.8	0.2	0.6		2.2
Number		40	50	456			457	70	5	45		1123
Female												
Sample Size			15	59			100	15		14		203
Percent			3.5	13.8			23.4	3.5		3.3		47.5
Std. Error			0.8	1.5			1.8	0.8		0.8		2.2
Number			75	296			502	75		70		1018
All Fish												
Sample Size	1	9	25	150			192	29	1	23		430
Percent	0.2	2.1	5.8	34.9			44.7	6.7	0.2	5.3		100.0
Std. Error	0.2	0.6	1.0	2.1			2.1	1.1	0.2	1.0		
Number	5	45	125	752			964	145	5	115		2156

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	Brood Year and Age Class											
	1986	1985	1984			1983			1982			
	0.1	0.2	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 31 (July 24 - 30)												
Male												
Sample Size	1	17	17	136			171	20		7		369
Percent	0.1	2.4	2.4	18.8			23.7	2.8		1.0		51.0
Std. Error	0.1	0.5	0.5	1.2			1.4	0.5		0.3		1.6
Number	4	64	64	512			643	75		26		1388
Female												
Sample Size	1	2	40	57	1	1	225	13		14		354
Percent	0.1	0.3	5.5	7.9	0.1	0.1	31.1	1.8		1.9		49.0
Std. Error	0.1	0.2	0.7	0.9	0.1	0.1	1.5	0.4		0.4		1.6
Number	4	8	150	214	4	4	845	49		53		1331
All Fish												
Sample Size	2	19	57	193	1	1	397	33		21		724
Percent	0.3	2.6	7.9	26.7	0.1	0.1	54.8	4.6		2.9		100.0
Std. Error	0.2	0.5	0.9	1.4	0.1	0.1	1.6	0.7		0.5		
Number	8	71	214	726	4	4	1493	124		79		2723
Statistical Week 32 (July 31 - August 6)												
Male												
Sample Size		7	6	33			24	6		1		77
Percent		4.0	3.5	19.1			13.9	3.5		0.6		44.5
Std. Error		1.5	1.4	2.9			2.6	1.4		0.6		3.7
Number		162	139	766			558	139		23		1787
Female												
Sample Size			5	11			72	3		5		96
Percent			2.9	6.4			41.6	1.7		2.9		55.5
Std. Error			1.2	1.8			3.7	1.0		1.2		3.7
Number			116	255			1672	70		116		2229
All Fish												
Sample Size		7	11	44			96	9		6		173
Percent		4.0	6.4	25.4			55.5	5.2		3.5		100.0
Std. Error		1.5	1.8	3.2			3.7	1.7		1.4		
Number		162	255	1021			2230	209		139		4016
Statistical Week 33 (August 7 - 13)												
Male												
Sample Size		5	5	51			50	5		2		118
Percent		1.8	1.8	18.2			17.9	1.8		0.7		42.1
Std. Error		0.7	0.7	2.1			2.1	0.7		0.5		2.7
Number		30	30	303			296	30		12		701
Female												
Sample Size		1	18	42			90	6		4	1	162
Percent		0.4	6.4	15.0			32.1	2.1		1.4	0.4	57.9
Std. Error		0.3	1.3	1.9			2.5	0.8		0.6	0.3	2.7
Number		6	107	249			535	35		24	6	962
All Fish												
Sample Size		6	23	93			140	11		6	1	280
Percent		2.1	8.2	33.2			50.0	3.9		2.1	0.4	100.0
Std. Error		0.8	1.5	2.6			2.7	1.1		0.8	0.3	
Number		36	137	552			831	65		36	6	1663
Statistical Weeks 34 - 37 (August 14 - September 10)												
Male												
Sample Size		7	2	45			27	6		3	1	91
Percent		3.4	1.0	21.6			13.0	2.9		1.4	0.5	43.8
Std. Error		1.1	0.6	2.4			2.0	1.0		0.7	0.4	2.9
Number		24	7	158			94	21		10	3	317
Female												
Sample Size		1	6	34			70	4		2		117
Percent		0.5	2.9	16.3			33.7	1.9		1.0		56.3
Std. Error		0.4	1.0	2.2			2.8	0.8		0.6		2.9
Number		3	21	119			244	14		7		408
All Fish												
Sample Size		8	8	79			97	10		6	1	209
Percent		3.8	3.8	37.8			46.4	4.8		2.9	0.5	100.0
Std. Error		1.1	1.1	2.8			2.9	1.2		1.0	0.4	
Number		28	28	276			338	35		21	3	729

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Combined Periods (Percentages are weighted by period catches)

Male												
Sample Size	1	49	56	450		1	515	64	3	41	1	1181
Percent	<0.1	2.7	2.6	19.1		<0.1	18.8	2.9	0.1	1.2	<0.1	47.3
Std. Error	<0.1	0.5	0.5	1.1		<0.1	1.0	0.5	<0.1	0.2	<0.1	1.3
Number	4	330	322	2383		2	2341	360	8	149	3	5902
Female												
Sample Size	1	7	107	276	1	1	741	57		65	1	1257
Percent	<0.1	0.2	4.1	10.2	<0.1	<0.1	33.2	2.2		2.6	<0.1	52.7
Std. Error	<0.1	0.1	0.5	0.7	<0.1	<0.1	1.3	0.4		0.4	<0.1	1.3
Number	4	23	517	1277	4	4	4147	273		319	6	6574
All Fish												
Sample Size	3	60	168	759	1	2	1349	131	3	125	2	2603
Percent	0.1	2.9	6.6	29.1	<0.1	<0.1	52.1	5.1	0.1	3.9	0.1	100.0
Std. Error	0.1	0.5	0.7	1.2	<0.1	<0.1	1.3	0.6	<0.1	0.5	<0.1	
Number	13	363	846	3716	4	6	6650	650	8	501	9	12766

Appendix B.18. Test for significant changes among periods in the age composition of sockeye salmon in the Canadian commercial gill net catch in the lower Stikine River by age class, 1988.

	Brood Year and Age Class										
	1986	1985	1984			1983			1982		
	0.1	0.2	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2
Periods Compared											
1 . 2				S						S**	
1 . 3			S*	S**			S**			S*	
1 . 4				S**			S**			S**	
1 . 5			S*	S**						S**	
1 . 6		S*								S**	
1 . 7			S*	S**			S			S**	
1 . 8		S*		S**			S**			S**	
2 . 3							S*				
2 . 4				S**			S**				
2 . 5											
2 . 6											
2 . 7				S							
2 . 8				S**			S*				
3 . 4											
3 . 5							S*			S**	
3 . 6							S				
3 . 7										S**	
3 . 8			S							S	
4 . 5				S**			S**			S	
4 . 6				S*			S*				
4 . 7										S	
4 . 8											
5 . 6											
5 . 7				S*							
5 . 8			S	S**			S*				
6 . 7				S							
6 . 8				S**			S				
7 . 8			S								

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix B.19. Age composition of sockeye salmon in the District 111 gill net catch by sex, age class, and fishing period, 1988.

	Brood Year and Age Class											
	1985		1984		1983			1982			1981	
	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	Total
Statistical Week 26 (June 19 - 25)												
Male												
Sample Size			1	39		91	7	1	3			142
Percent			0.3	13.2		30.7	2.4	0.3	1.0			48.0
Std. Error			0.3	1.9		2.5	0.8	0.3	0.6			2.7
Number			9	361		842	65	9	28			1314
Female												
Sample Size			3	43		95	2		11			154
Percent			1.0	14.5		32.1	0.7		3.7			52.0
Std. Error			0.6	1.9		2.6	0.5		1.0			2.7
Number			28	398		878	19		102			1425
All Fish												
Sample Size			4	82		187	9	1	14			297
Percent			1.3	27.6		63.0	3.0	0.3	4.7			100.0
Std. Error			0.6	2.5		2.7	0.9	0.3	1.2			
Number			37	759		1731	83	9	130			2749
Statistical Week 27 (June 26 - July 2)												
Male												
Sample Size	4		13	99		138	7	1	9			271
Percent	0.7		2.3	17.7		24.7	1.3	0.2	1.6			48.5
Std. Error	0.3		0.6	1.5		1.7	0.4	0.2	0.5			2.0
Number	35		113	859		1197	61	9	78			2352
Female												
Sample Size			9	95		160	9	1	14			288
Percent			1.6	17.0		28.6	1.6	0.2	2.5			51.5
Std. Error			0.5	1.5		1.8	0.5	0.2	0.6			2.0
Number			78	825		1388	78	9	122			2500
All Fish												
Sample Size	4		22	194		299	16	2	23			560
Percent	0.7		3.9	34.6		53.4	2.9	0.4	4.1			100.0
Std. Error	0.3		0.8	1.9		2.0	0.7	0.2	0.8			
Number	35		191	1684		2595	139	17	200			4861
Statistical Week 28 (July 3 - 9)												
Male												
Sample Size	4		13	41		154	18	1	13		1	245
Percent	0.8		2.7	8.6		32.4	3.8	0.2	2.7		0.2	51.6
Std. Error	0.4		0.7	1.2		2.0	0.8	0.2	0.7		0.2	2.2
Number	33		106	335		1257	147	8	106		8	2000
Female												
Sample Size			13	30		172	6		9			230
Percent			2.7	6.3		36.2	1.3		1.9			48.4
Std. Error			0.7	1.0		2.1	0.5		0.6			2.2
Number			106	245		1405	49		73			1878
All Fish												
Sample Size	4		26	72		332	24	1	23		1	483
Percent	0.8		5.4	14.9		68.7	5.0	0.2	4.8		0.2	100.0
Std. Error	0.4		1.0	1.5		2.0	0.9	0.2	0.9		0.2	
Number	33		212	588		2710	196	8	188		8	3943

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	Brood Year and Age Class											
	1985		1984		1983			1982			1981	
	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	Total
Statistical Week 29 (July 10 - 16)												
Male												
Sample Size	5		50	97		290	23	7	31			503
Percent	0.5		5.2	10.1		30.1	2.4	0.7	3.2			52.2
Std. Error	0.2		0.7	0.9		1.4	0.5	0.3	0.5			1.5
Number	32		317	614		1836	146	44	196			3185
Female												
Sample Size			34	18	1	355	10	7	35			460
Percent			3.5	1.9	0.1	36.9	1.0	0.7	3.6			47.8
Std. Error			0.5	0.4	0.1	1.4	0.3	0.3	0.6			1.5
Number			215	114	6	2248	63	44	222			2912
All Fish												
Sample Size	5		84	115	1	645	33	14	66			963
Percent	0.5		8.7	11.9	0.1	67.0	3.4	1.5	6.9			100.0
Std. Error	0.2		0.8	1.0	0.1	1.4	0.5	0.4	0.7			
Number	32		532	728	6	4084	209	88	418			6097
Statistical Week 30 (July 17 - 23)												
Male												
Sample Size	9		50	47		208	9	4	11			338
Percent	1.2		6.4	6.0		26.7	1.2	0.5	1.4			43.4
Std. Error	0.4		0.8	0.8		1.5	0.4	0.2	0.4			1.7
Number	108		599	563		2492	108	48	132			4050
Female												
Sample Size	6		49	17		340	6	2	20			440
Percent	0.8		6.3	2.2		43.7	0.8	0.3	2.6			56.6
Std. Error	0.3		0.8	0.5		1.7	0.3	0.2	0.5			1.7
Number	72		587	204		4074	72	24	239			5272
All Fish												
Sample Size	15		99	64		548	15	6	31			778
Percent	1.9		12.7	8.2		70.4	1.9	0.8	4.0			100.0
Std. Error	0.5		1.1	0.9		1.6	0.5	0.3	0.7			
Number	180		1186	767		6566	180	72	371			9322
Statistical Week 31 (July 24 - 30)												
Male												
Sample Size	4		63	67		142	18	1	24			319
Percent	0.6		9.1	9.7		20.5	2.6	0.1	3.5			46.0
Std. Error	0.3		1.0	1.0		1.4	0.6	0.1	0.6			1.7
Number	25		387	411		872	111	6	147			1959
Female												
Sample Size			65	26		239	11	4	29			374
Percent			9.4	3.8		34.5	1.6	0.6	4.2			54.0
Std. Error			1.0	0.7		1.7	0.4	0.3	0.7			1.7
Number			399	160		1468	67	25	178			2297
All Fish												
Sample Size	4		128	93		381	29	5	53			693
Percent	0.6		18.5	13.4		55.0	4.2	0.7	7.6			100.0
Std. Error	0.3		1.3	1.2		1.7	0.7	0.3	0.9			
Number	25		786	571		2340	178	31	325			4256
Statistical Week 32 (July 31 - August 6)												
Male												
Sample Size	4		37	51		92	19		13			216
Percent	0.7		6.5	8.9		16.1	3.3		2.3			37.8
Std. Error	0.3		0.9	1.1		1.4	0.7		0.6			1.8
Number	20		181	250		450	93		64			1058
Female												
Sample Size	1		50	21	2	220	21	6	34	1		356
Percent	0.2		8.7	3.7	0.3	38.5	3.7	1.0	5.9	0.2		62.2
Std. Error	0.2		1.1	0.7	0.2	1.8	0.7	0.4	0.9	0.2		1.8
Number	5		245	103	10	1077	103	29	166	5		1743
All Fish												
Sample Size	5		87	73	2	312	40	6	47	1		573
Percent	0.9		15.2	12.7	0.3	54.5	7.0	1.0	8.2	0.2		100.0
Std. Error	0.3		1.3	1.2	0.2	1.9	1.0	0.4	1.0	0.2		
Number	24		426	357	10	1529	196	29	230	5		2806

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	Brood Year and Age Class											
	1985		1984		1983			1982			1981	
	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	Total
Statistical Week 33 (August 7 - 13)												
Male												
Sample Size	2	7	26	77		132	28	1	37			310
Percent	0.3	1.0	3.7	11.0		18.8	4.0	0.1	5.3			44.2
Std. Error	0.2	0.3	0.6	1.0		1.2	0.6	0.1	0.7			1.5
Number	6	21	77	228		391	83	3	110			919
Female												
Sample Size			38	59		215	25	3	52			392
Percent			5.4	8.4		30.6	3.6	0.4	7.4			55.8
Std. Error			0.7	0.9		1.4	0.6	0.2	0.8			1.5
Number			113	175		638	74	9	154			1163
All Fish												
Sample Size	2	7	64	136		348	53	4	89			703
Percent	0.3	1.0	9.1	19.3		49.5	7.5	0.6	12.7			100.0
Std. Error	0.2	0.3	0.9	1.2		1.5	0.8	0.2	1.0			
Number	6	21	190	403		1032	157	12	264			2085
Statistical Weeks 34 - 38 (August 14 - September 17)												
Male												
Sample Size			4	19	1	42	15	1	10	1		93
Percent			1.8	8.7	0.5	19.2	6.8	0.5	4.6	0.5		42.5
Std. Error			0.9	1.8	0.4	2.6	1.6	0.4	1.4	0.4		3.2
Number			52	247	13	544	195	13	130	13		1207
Female												
Sample Size			14	16	1	63	12		20			126
Percent			6.4	7.3	0.5	28.8	5.5		9.1			57.5
Std. Error			1.6	1.7	0.4	3.0	1.5		1.9			3.2
Number			182	208	13	817	156		259			1635
All Fish												
Sample Size			20	41	2	113	27	1	30	1		235
Percent			8.5	17.4	0.9	48.1	11.5	0.4	12.8	0.4		100.0
Std. Error			1.8	2.4	0.6	3.1	2.0	0.4	2.1	0.4		
Number			259	532	26	1467	350	13	389	13		3049
Combined Periods (Percentages are weighted by period catches)												
Male												
Sample Size	32	7	257	537	1	1289	144	17	151	1	1	2437
Percent	0.7	0.1	4.7	10.0	<0.1	25.4	2.6	0.4	2.5	<0.1	<0.1	46.4
Std. Error	0.1	<0.1	0.3	0.4	<0.1	0.6	0.2	0.1	0.2	<0.1	<0.1	0.7
Number	259	21	1841	3868	13	9881	1009	140	991	13	8	18044
Female												
Sample Size	7		275	325	4	1859	102	23	224	1		2820
Percent	0.2		5.0	6.3	0.1	36.0	1.8	0.4	3.9	<0.1		53.6
Std. Error	0.1		0.3	0.3	<0.1	0.7	0.2	0.1	0.3	<0.1		0.7
Number	77		1953	2432	29	13993	681	140	1515	5		20825
All Fish												
Sample Size	39	7	534	870	5	3165	246	40	376	2	1	5285
Percent	0.9	0.1	9.8	16.3	0.1	61.4	4.3	0.7	6.4	<0.1	<0.1	100.0
Std. Error	0.1	<0.1	0.4	0.5	<0.1	0.7	0.3	0.1	0.3	<0.1	<0.1	
Number	335	21	3819	6389	42	24054	1688	279	2515	18	8	39168

Appendix B.20. Test for significant changes among periods in the age composition of sockeye salmon in the District 111 gill net catch by age class, 1988.

	Brood Year and Age Class										
	1985		1984		1983			1982			1981
	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4
Periods Compared											
1 . 2			S	S*		S**					
1 . 3			S**	S**							
1 . 4			S**	S**							
1 . 5	S*		S**	S**		S*					
1 . 6			S**	S**		S*					
1 . 7			S**	S**		S**	S*		S		
1 . 8			S**	S**		S**	S**		S**		
1 . 9			S**	S**		S**	S**		S**		
2 . 3				S**		S**					
2 . 4			S**	S**		S**		S	S*		
2 . 5			S**	S**		S**					
2 . 6			S**	S**					S**		
2 . 7			S**	S**			S**		S**		
2 . 8		S*	S**	S**			S**		S**		
2 . 9			S**	S**			S**		S**		
3 . 4			S*					S			
3 . 5			S**	S**			S**				
3 . 6			S**			S**			S		
3 . 7			S**			S**			S*		
3 . 8		S	S*	S		S**	S		S**		
3 . 9						S**	S**		S**		
4 . 5	S**		S**	S**			S		S**		
4 . 6			S**			S**					
4 . 7			S**			S**	S**				
4 . 8		S**		S**		S**	S**		S**		
4 . 9				S*		S**	S**		S**		
5 . 6	S*		S**	S**		S**	S**		S**		
5 . 7				S**		S**	S**		S**		
5 . 8	S**	S**	S*	S**		S**	S**		S**		
5 . 9	S			S**	S	S**	S**		S**		
6 . 7							S*				
6 . 8		S*	S**	S**		S*	S**		S**		
6 . 9			S**			S	S**		S*		
7 . 8		S*	S**	S**		S			S**		
7 . 9			S**				S*		S		
8 . 9							S				

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix B.21. Length composition of sockeye salmon in the District 111 gill net catch by sex, age class, and fishing period, 1988.

		Brood Year and Age Class									
		1985		1984		1983			1982		
		0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 26 (June 19 - 25)											
Male	Avg. Length			580	522		577	525		594	558
	Std. Error				9.6		8.9				7.8
	Sample Size			1	9		16	1		1	28
Female	Avg. Length				504		573				561
	Std. Error				7.8		3.8				5.8
	Sample Size				6		27				33
All Fish	Avg. Length			580	515		575	525		594	560
	Std. Error				6.8		4.0				4.7
	Sample Size			1	15		43	1		1	61
Statistical Week 27 (June 26 - July 2)											
Male	Avg. Length	466			523		595			624	559
	Std. Error				3.6		5.9				6.8
	Sample Size	1			21		22			1	45
Female	Avg. Length			562	524		582	495		550	560
	Std. Error			22.5	2.5		2.9	23.0		12.3	4.6
	Sample Size			2	13		29	2		3	49
All Fish	Avg. Length	466		562	523		588	495		569	560
	Std. Error			22.5	2.4		3.1	23.0		20.4	4.0
	Sample Size	1		2	34		52	2		4	95
Statistical Week 28 (July 3 - 9)											
Male	Avg. Length			606	497		594	487	614	624	571
	Std. Error			9.9	10.1		3.4	10.0		10.5	6.5
	Sample Size			6	9		38	7	1	2	63
Female	Avg. Length			572	503		577	538		582	571
	Std. Error			8.2	5.8		2.4	1.5		14.5	3.1
	Sample Size			6	4		53	2		2	67
All Fish	Avg. Length			589	499		584	498	614	603	571
	Std. Error			8.0	7.1		2.2	10.7		14.2	3.5
	Sample Size			12	13		91	9	1	4	130
Statistical Week 29 (July 10 - 16)											
Male	Avg. Length			613	512		600	568	589	559	583
	Std. Error			4.2	10.7		3.1	38.6		14.9	4.7
	Sample Size			6	15		62	4	1	5	93
Female	Avg. Length			580	525	640	581	553	587	583	578
	Std. Error			11.3	7.7		2.9	41.5		5.5	3.0
	Sample Size			8	6	1	84	3	1	4	107
All Fish	Avg. Length			594	516	640	589	561	588	570	580
	Std. Error			7.9	7.9		2.3	26.1	1.0	9.3	2.7
	Sample Size			14	21	1	146	7	2	9	200
Statistical Week 30 (July 17 - 23)											
Male	Avg. Length	476		607	474		610	467	592	601	568
	Std. Error	16.3		7.1	5.2		4.5	6.1		4.2	7.8
	Sample Size	6		19	12		29	4	1	3	74
Female	Avg. Length	463		592	536		579	502	600	562	576
	Std. Error			6.2	20.9		3.2	3.0			3.4
	Sample Size	1		11	3		70	2	1	1	89
All Fish	Avg. Length	474		601	487		588	478	596	591	572
	Std. Error	13.9		5.1	8.5		2.9	8.4	4.0	10.2	4.0
	Sample Size	7		30	15		99	6	2	4	163

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		Brood Year and Age Class									
		1985		1984		1983			1982		
		0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 31 (July 24 - 30)											
Male	Avg. Length			615	493		591	490		604	576
	Std. Error			6.1	8.2		5.8	44.5		14.0	8.3
	Sample Size			11	7		18	2		2	40
Female	Avg. Length			575	517		578	494		596	572
	Std. Error			6.9	3.3		3.4	14.0		9.5	4.0
	Sample Size			9	3		36	2		3	53
All Fish	Avg. Length			597	500		583	492		599	574
	Std. Error			6.4	6.7		3.1	19.1		7.1	4.2
	Sample Size			20	10		54	4		5	93
Statistical Week 32 (July 31 - August 6)											
Male	Avg. Length	423		611	504		589	523		608	567
	Std. Error			6.7	13.8		4.8	24.5		22.8	7.4
	Sample Size	1		10	12		26	5		3	57
Female	Avg. Length			576	539		585	540		584	579
	Std. Error			6.9	18.0		2.7	10.3		11.5	2.9
	Sample Size			12	4		55	5		10	86
All Fish	Avg. Length	423		592	512		586	531		589	574
	Std. Error			6.1	11.6		2.4	12.8		10.3	3.5
	Sample Size	1		22	16		81	10		13	143
Statistical Week 33 (August 7 - 13)											
Male	Avg. Length	440	338	608	486		595	536		612	565
	Std. Error		9.3	7.5	9.8		4.6	16.1		8.3	7.2
	Sample Size	1	3	8	18		45	7		15	97
Female	Avg. Length			587	510		579	538	590	594	567
	Std. Error			5.8	6.6		2.4	10.4		6.6	3.3
	Sample Size			13	23		68	9	1	18	132
All Fish	Avg. Length	440	338	595	499		585	537	590	602	566
	Std. Error		9.3	5.0	5.9		2.4	8.8		5.4	3.6
	Sample Size	1	3	21	41		113	16	1	33	229
Statistical Weeks 34 - 38 (August 14 - September 17)											
Male	Avg. Length				499		606	522		585	575
	Std. Error						16.3			26.4	17.4
	Sample Size				1		3	1		4	9
Female	Avg. Length			585	562		582	562		592	583
	Std. Error			6.0			8.2	23.0		8.4	5.4
	Sample Size			2	1		4	2		7	16
All Fish	Avg. Length			585	531		592	549		590	580
	Std. Error			6.0	31.5		9.0	18.8		10.2	7.0
	Sample Size			2	2		7	3		11	25
Combined Periods (Lengths weighted by period catches)											
Male	Avg. Length	461	338	607	499		598	508	596	599	570
	Std. Error	12.4	9.3	3.0	3.5		1.7	9.3	7.9	6.0	2.5
	Sample Size	9	3	61	104		259	31	3	36	506
Female	Avg. Length	463		579	526	640	580	523	594	576	573
	Std. Error			2.9	3.3		1.1	7.0	3.9	4.0	1.3
	Sample Size	1		63	63	1	426	27	3	48	632
All Fish	Avg. Length	461	338	590	506	640	586	512	596	588	572
	Std. Error	11.1	9.3	2.5	2.6		1.0	6.0	4.2	3.5	1.3
	Sample Size	10	3	124	167	1	686	58	6	84	1139

Appendix B.22. Test for significant changes among periods in the length composition of sockeye salmon in the District 111 gill net catch by age class, 1988.

	Brood Year and Age Class								
	1985		1984		1983			1982	
	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3
Periods Compared									
1 . 2						S**			
1 . 3						S*			
1 . 4						S**			
1 . 5				S**		S**			
1 . 6									
1 . 7						S**			
1 . 8				S		S*			
1 . 9						S			
2 . 3				S**					
2 . 4							S		
2 . 5			S	S**					
2 . 6				S**					
2 . 7									
2 . 8				S**			S		
2 . 9							S		
3 . 4							S*		S
3 . 5									
3 . 6									
3 . 7							S*		
3 . 8							S**		
3 . 9							S**		
4 . 5				S**			S**	S	
4 . 6							S*		S**
4 . 7									
4 . 8				S					S**
4 . 9									
5 . 6									
5 . 7				S			S**		
5 . 8							S**		
5 . 9			S*				S**		
6 . 7							S		
6 . 8							S*		
6 . 9							S*		
7 . 8									
7 . 9									
8 . 9									

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix B.23. Age composition of sockeye salmon in the Canadian commercial gill net catch in the Taku River by sex, age class, and fishing period, 1988.

	Brood Year and Age Class										
	1986	1985		1984		1983			1982		
	0.1	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 27 (June 26 - July 2)											
Male											
Sample Size				1	35		28	2		3	69
Percent				0.7	23.0		18.4	1.3		2.0	45.4
Std. Error				0.6	3.3		3.0	0.9		1.1	3.9
Number				12	405		323	23		35	798
Female											
Sample Size					32		43	3		5	83
Percent					21.1		28.3	2.0		3.3	54.6
Std. Error					3.2		3.5	1.1		1.4	3.9
Number					370		497	35		58	960
All Fish											
Sample Size				1	67		71	5		8	152
Percent				0.7	44.1		46.7	3.3		5.3	100.0
Std. Error				0.6	3.9		3.9	1.4		1.7	
Number				12	775		820	58		93	1758
Statistical Week 28 (July 3 - 9)											
Male											
Sample Size		1		2	22		25	3	1	3	57
Percent		0.9		1.8	19.8		22.5	2.7	0.9	2.7	51.4
Std. Error		0.8		1.2	3.5		3.7	1.4	0.8	1.4	4.4
Number		6		13	143		164	19	6	19	370
Female											
Sample Size				4	10		31	3		6	54
Percent				3.6	9.0		27.9	2.7		5.4	48.6
Std. Error				1.6	2.5		3.9	1.4		2.0	4.4
Number				26	65		202	19		39	351
All Fish											
Sample Size		1		6	32		56	6	1	9	111
Percent		0.9		5.4	28.8		50.5	5.4	0.9	8.1	100.0
Std. Error		0.8		2.0	4.0		4.4	2.0	0.8	2.4	
Number		6		39	208		365	39	6	58	721
Statistical Week 29 (July 10 - 16)											
Male											
Sample Size				4	13		25	1		6	49
Percent				3.6	11.6		22.3	0.9		5.4	43.8
Std. Error				1.7	3.0		3.9	0.9		2.1	4.6
Number				94	307		590	24		142	1157
Female											
Sample Size				4	10		41	1	1	6	63
Percent				3.6	8.9		36.6	0.9	0.9	5.4	56.3
Std. Error				1.7	2.6		4.5	0.9	0.9	2.1	4.6
Number				94	236		968	24	24	142	1488
All Fish											
Sample Size				8	23		66	2	1	12	112
Percent				7.1	20.5		58.9	1.8	0.9	10.7	100.0
Std. Error				2.4	3.8		4.6	1.2	0.9	2.9	
Number				188	543		1558	48	24	284	2645

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	Brood Year and Age Class										
	1986	1985		1984		1983			1982		
	0.1	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 30 (July 17 - 23)											
Male											
Sample Size		4		10	16		30	3		4	67
Percent		3.0		7.4	11.9		22.2	2.2		3.0	49.6
Std. Error		1.4		2.2	2.7		3.5	1.2		1.4	4.2
Number		62		156	249		467	47		62	1043
Female											
Sample Size		2		6	6	1	51	1		1	68
Percent		1.5		4.4	4.4	0.7	37.8	0.7		0.7	50.4
Std. Error		1.0		1.7	1.7	0.7	4.1	0.7		0.7	4.2
Number		31		93	93	16	794	16		16	1059
All Fish											
Sample Size		6		16	23	1	84	4		5	139
Percent		4.3		11.5	16.5	0.7	60.4	2.9		3.6	100.0
Std. Error		1.7		2.6	3.1	0.7	4.0	1.4		1.5	
Number		93		249	358	16	1308	62		78	2164
Statistical Week 31 (July 24 - 30)											
Male											
Sample Size		2		7	11		22	2	1	3	48
Percent		1.9		6.5	10.2		20.4	1.9	0.9	2.8	44.4
Std. Error		1.3		2.3	2.8		3.8	1.3	0.9	1.5	4.7
Number		32		114	178		356	32	16	49	777
Female											
Sample Size				11	9		34		1	5	60
Percent				10.2	8.3		31.5		0.9	4.6	55.6
Std. Error				2.8	2.6		4.3		0.9	2.0	4.7
Number				178	146		551		16	81	972
All Fish											
Sample Size		2		18	20		56	2	2	8	108
Percent		1.9		16.7	18.5		51.9	1.9	1.9	7.4	100.0
Std. Error		1.3		3.5	3.6		4.7	1.3	1.3	2.5	
Number		32		292	324		907	32	32	130	1749
Statistical Week 32 (July 31 - August 6)											
Male											
Sample Size		7		11	10		24	2			54
Percent		6.7		10.6	9.6		23.1	1.9			51.9
Std. Error		2.3		2.8	2.7		3.9	1.3			4.6
Number		57		90	82		197	16			442
Female											
Sample Size			1	16	6		26			1	50
Percent			1.0	15.4	5.8		25.0			1.0	48.1
Std. Error			0.9	3.3	2.2		4.0			0.9	4.6
Number			8	131	49		213			8	409
All Fish											
Sample Size		7	1	27	16		51	2		1	105
Percent		6.7	1.0	25.7	15.2		48.6	1.9		1.0	100.0
Std. Error		2.3	0.9	4.0	3.3		4.6	1.3		0.9	
Number		57	8	221	131		418	16		8	859

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	Brood Year and Age Class										
	1986	1985		1984		1983			1982		
	0.1	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 33 (August 7 - 13)											
Male											
Sample Size	1	5		14	17		16			1	54
Percent	0.9	4.6		12.8	15.6		14.7			0.9	49.5
Std. Error	0.9	1.9		3.0	3.3		3.2			0.9	4.5
Number	8	40		111	134		127			8	428
Female											
Sample Size		1		17	9		25	1		2	55
Percent		0.9		15.6	8.3		22.9	0.9		1.8	50.5
Std. Error		0.9		3.3	2.5		3.8	0.9		1.2	4.5
Number		8		135	71		198	8		16	436
All Fish											
Sample Size	1	6		31	26		41	1		3	109
Percent	0.9	5.5		28.4	23.9		37.6	0.9		2.8	100.0
Std. Error	0.9	2.1		4.1	3.8		4.4	0.9		1.5	
Number	8	48		246	205		325	8		24	864
Statistical Weeks 34 - 36 (August 14 - September 03)											
Male											
Sample Size		4	3	18	17		18				60
Percent		2.6	2.0	11.9	11.3		11.9				39.7
Std. Error		1.2	1.1	2.5	2.4		2.5				3.7
Number		33	25	149	140		148				495
Female											
Sample Size				23	11		53	1		3	91
Percent				15.2	7.3		35.1	0.7		2.0	60.3
Std. Error				2.8	2.0		3.7	0.6		1.1	3.7
Number				190	91		437	8		25	751
All Fish											
Sample Size		4	3	41	29		71	1		3	152
Percent		2.6	2.0	27.0	19.1		46.7	0.7		2.0	100.0
Std. Error		1.2	1.1	3.4	3.0		3.8	0.6		1.1	
Number		33	25	338	239		586	8		25	1254
Combined Periods (Percentages are weighted by period catches)											
Male											
Sample Size	1	23	3	67	141		188	13	2	20	458
Percent	0.1	1.9	0.2	6.2	13.7		19.9	1.4	0.2	2.6	46.2
Std. Error	0.1	0.4	0.1	0.8	1.1		1.4	0.4	0.1	0.6	1.7
Number	8	230	25	739	1638		2372	161	22	315	5510
Female											
Sample Size		3	1	81	93	1	304	10	2	29	524
Percent		0.3	0.1	7.1	9.4	0.1	32.3	0.9	0.3	3.2	53.8
Std. Error		0.2	0.1	0.8	1.0	0.1	1.6	0.3	0.2	0.6	1.7
Number		39	8	847	1121	16	3860	110	40	385	6426
All Fish											
Sample Size	1	26	4	148	236	1	496	23	4	49	988
Percent	0.1	2.2	0.3	13.2	23.2	0.1	52.3	2.3	0.5	5.8	100.0
Std. Error	0.1	0.4	0.1	1.0	1.4	0.1	1.7	0.5	0.3	0.8	
Number	8	269	33	1585	2783	16	6287	271	62	700	12014

Appendix B.24. Test for significant changes among periods in the age composition of sockeye salmon in the Canadian commercial gill net catch in the Taku River by age class, 1988.

	Brood Year and Age Class									
	1986	1985		1984		1983			1982	
	0.1	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3
Periods Compared										
1 . 2				S*	S**					
1 . 3				S**	S**		S			
1 . 4		S*		S**	S**		S*			
1 . 5				S**	S**					
1 . 6		S**		S**	S**					
1 . 7		S**		S**	S**					
1 . 8				S**	S**					
2 . 3										
2 . 4					S*					
2 . 5				S**						
2 . 6		S		S**	S*					S*
2 . 7				S**			S			
2 . 8				S**	S			S*		S*
3 . 4		S								S*
3 . 5				S*						
3 . 6		S**		S**						S**
3 . 7		S*		S**			S**			S*
3 . 8				S**			S			S**
4 . 5										
4 . 6				S**			S			
4 . 7				S**			S**			
4 . 8				S**			S*			
5 . 6										S*
5 . 7				S			S*			
5 . 8				S						S
6 . 7										
6 . 8										
7 . 8										

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix B.25. Length composition of sockeye salmon in the Canadian commercial gill net catch in the Taku River by sex, age class, and fishing period, 1988.

		Brood Year and Age Class										
		1986	1985		1984		1983			1982		
		0.1	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 27 (June 26 - July 2)												
Male	Avg. Length				574	527		589	490		578	554
	Std. Error					2.6		3.6	14.0		3.7	4.3
	Sample Size				1	35		28	2		3	69
Female	Avg. Length					505		570	506		565	542
	Std. Error					5.0		2.9	7.8		6.5	4.3
	Sample Size					32		43	3		5	83
All Fish	Avg. Length				574	516		577	499		570	547
	Std. Error					3.1		2.5	7.3		4.7	3.1
	Sample Size				1	67		71	5		8	152
Statistical Week 28 (July 3 - 9)												
Male	Avg. Length		444		602	542		586	527	639	603	566
	Std. Error				32.5	8.3		7.3	31.7		9.7	6.3
	Sample Size		1		2	22		25	3	1	3	57
Female	Avg. Length				577	534		572	483		578	561
	Std. Error				16.8	10.9		5.0	13.2		3.1	5.0
	Sample Size				4	10		31	3		6	54
All Fish	Avg. Length		444		585	539		578	505	639	586	563
	Std. Error				14.5	6.6		4.3	18.2		5.4	4.0
	Sample Size		1		6	32		56	6	1	9	111
Statistical Week 29 (July 10 - 16)												
Male	Avg. Length				606	495		593	536		596	567
	Std. Error				7.2	10.7		4.1			5.3	7.3
	Sample Size				4	13		25	1		6	49
Female	Avg. Length				560	517		574	482	623	588	564
	Std. Error				6.4	6.8		2.4			7.0	3.8
	Sample Size				4	10		41	1	1	6	63
All Fish	Avg. Length				583	504		581	509	623	592	566
	Std. Error				9.8	7.0		2.4	27.0		4.3	3.8
	Sample Size				8	23		66	2	1	12	112
Statistical Week 30 (July 17 - 23)												
Male	Avg. Length		467		572	480		594	453		600	550
	Std. Error		18.6		11.3	8.2		6.4	12.5		8.1	7.9
	Sample Size		4		10	16		30	3		4	67
Female	Avg. Length		477		580	516	618	575	552		585	568
	Std. Error		32.5		7.7	16.0		2.8				4.0
	Sample Size		2		6	6	1	51	1		1	68
All Fish	Avg. Length		470		575	489	618	583	478		597	559
	Std. Error		14.6		7.5	7.7		3.1	26.4		7.0	4.4
	Sample Size		6		16	23	1	84	4		5	139
Statistical Week 31 (July 24 - 30)												
Male	Avg. Length		450		598	484		599	444	596	567	557
	Std. Error		5.5		7.3	14.5		8.2	11.0		15.6	9.8
	Sample Size		2		7	11		22	2	1	3	48
Female	Avg. Length				570	503		576		596	587	565
	Std. Error				8.2	12.4		3.1			10.7	4.6
	Sample Size				11	9		34		1	5	60
All Fish	Avg. Length		450		581	492		585	444	596	580	562
	Std. Error		5.5		6.5	9.7		4.0	11.0		9.0	5.0
	Sample Size		2		18	20		56	2	2	8	108

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		Brood Year and Age Class										
		1986	1985		1984		1983			1982		
		0.1	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 32 (July 31 - August 6)												
Male	Avg. Length		452		598	475		598	447			551
	Std. Error		5.0		7.0	7.5		2.8	8.5			9.2
	Sample Size		7		11	10		24	2			54
Female	Avg. Length			335	572	509		574			591	561
	Std. Error				3.1	10.7		5.1				6.3
	Sample Size			1	16	6		26			1	50
All Fish	Avg. Length		452	335	583	488		586	447		591	556
	Std. Error		5.0		4.1	7.3		3.4	8.5			5.6
	Sample Size		7	1	27	16		51	2		1	105
Statistical Week 33 (August 7 - 13)												
Male	Avg. Length	433	451		583	489		596			607	543
	Std. Error		12.8		7.1	10.4		6.7				8.9
	Sample Size	1	5		14	17		16			1	54
Female	Avg. Length		509		581	520		575	531		583	566
	Std. Error				4.3	6.7		5.4			2.5	4.3
	Sample Size		1		17	9		25	1		2	55
All Fish	Avg. Length	433	461		582	500		583	531		591	555
	Std. Error		14.2		3.9	7.7		4.5			8.3	5.0
	Sample Size	1	6		31	26		41	1		3	109
Statistical Weeks 34 - 36 (August 14 - September 3)												
Male	Avg. Length		453	346	588	490		593				541
	Std. Error		4.5	12.7	5.6	12.3		4.7				9.7
	Sample Size		4	3	18	17		18				60
Female	Avg. Length				566	503		570	509		563	560
	Std. Error				3.7	8.9		3.9			24.7	3.6
	Sample Size				23	11		53	1		3	91
All Fish	Avg. Length		453	346	576	495		576	509		563	552
	Std. Error		4.5	12.7	3.6	7.9		3.4			24.7	4.5
	Sample Size		4	3	41	29		71	1		3	152
Combined Periods (Lengths weighted by period catches)												
Male	Avg. Length	433	455	346	590	496		594	485	609	590	555
	Std. Error		4.4	12.7	3.3	3.6		2.0	12.6	21.5	4.3	2.8
	Sample Size	1	23	3	67	141		188	13	2	20	458
Female	Avg. Length		486	335	570	512	618	573	511	612	581	561
	Std. Error		21.7		2.2	3.1		1.3	8.3	13.5	3.7	1.6
	Sample Size		3	1	81	93	1	304	10	2	29	524
All Fish	Avg. Length	433	457	342	579	501	618	581	489	616	584	558
	Std. Error		4.9	9.4	2.0	2.5		1.2	8.2	10.6	2.9	1.6
	Sample Size	1	26	4	148	236	1	496	23	4	49	988

Appendix B.26. Test for significant changes among periods in the length composition of sockeye salmon in the Canadian commercial gill net catch in the Taku River by age class, 1988.

	Brood Year and Age Class									
	1986	1985		1984		1983			1982	
	0.1	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3
Periods Compared										
1 , 2					S**					S*
1 , 3										S**
1 , 4					S**					S**
1 , 5					S**		S	S**		
1 , 6					S**		S*	S**		
1 , 7					S					S*
1 , 8					S**					
2 , 3					S**					
2 , 4					S**					
2 , 5					S**			S**		
2 , 6					S**			S**		
2 , 7					S**					
2 , 8					S**					
3 , 4										
3 , 5								S*		
3 , 6								S*		
3 , 7										
3 , 8										
4 , 5										
4 , 6										
4 , 7										
4 , 8										
5 , 6										
5 , 7										
5 , 8							S			
6 , 7										
6 , 8							S*			
7 , 8										

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix B.27. Age composition of sockeye salmon in the District 115 gill net catch by sex, age class, and fishing period, 1988.

	Brood Year and Age Class												
	1985	1984			1983			1982			1981		
	0.2	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Statistical Week 26 (June 19 - 25)													
Male													
Sample Size		7	7		1	259	9	3	30				316
Percent		1.0	1.0		0.1	38.4	1.3	0.4	4.5				46.9
Std. Error		0.4	0.4		0.1	1.8	0.4	0.2	0.8				1.8
Number		82	82		12	3052	106	35	353				3722
Female													
Sample Size		6	2		1	315	5	1	28				358
Percent		0.9	0.3		0.1	46.7	0.7	0.1	4.2				53.1
Std. Error		0.3	0.2		0.1	1.8	0.3	0.1	0.7				1.8
Number		71	24		12	3708	59	12	330				4216
All Fish													
Sample Size		13	9		2	574	14	4	58				674
Percent		1.9	1.3		0.3	85.2	2.1	0.6	8.6				100.0
Std. Error		0.5	0.4		0.2	1.3	0.5	0.3	1.0				
Number		153	106		24	6760	165	47	683				7938
Statistical Week 27 (June 26 - July 2)													
Male													
Sample Size		20	18		2	306	14	2	21		1		384
Percent		2.7	2.4		0.3	41.0	1.9	0.3	2.8		0.1		51.4
Std. Error		0.6	0.5		0.2	1.8	0.5	0.2	0.6		0.1		1.8
Number		429	386		43	6559	300	43	450		21		8231
Female													
Sample Size		27	6	1		290	9	1	29				363
Percent		3.6	0.8	0.1		38.8	1.2	0.1	3.9				48.6
Std. Error		0.7	0.3	0.1		1.7	0.4	0.1	0.7				1.8
Number		579	129	21		6216	193	21	622				7781
All Fish													
Sample Size		47	24	1	2	597	23	4	50		1		749
Percent		6.3	3.2	0.1	0.3	79.7	3.1	0.5	6.7		0.1		100.0
Std. Error		0.9	0.6	0.1	0.2	1.4	0.6	0.3	0.9		0.1		
Number		1007	514	21	43	12797	493	86	1072		21		16054
Statistical Week 28 (July 3 - 9)													
Male													
Sample Size		24	38		1	323	18	5	27				436
Percent		2.7	4.3		0.1	36.8	2.1	0.6	3.1				49.7
Std. Error		0.5	0.7		0.1	1.6	0.5	0.2	0.6				1.7
Number		670	1060		28	9013	502	140	753				12166
Female													
Sample Size		18	13			358	16		36				441
Percent		2.1	1.5			40.8	1.8		4.1				50.3
Std. Error		0.5	0.4			1.6	0.4		0.7				1.7
Number		502	363			9989	446		1005				12305
All Fish													
Sample Size		42	51		1	681	34	5	63				877
Percent		4.8	5.8		0.1	77.7	3.9	0.6	7.2				100.0
Std. Error		0.7	0.8		0.1	1.4	0.6	0.2	0.9				
Number		1172	1423		28	19002	948	140	1758				24471
Statistical Week 29 (July 10 - 16)													
Male													
Sample Size	1	21	44			314	14	2	37				433
Percent	0.1	2.4	5.0			35.5	1.6	0.2	4.2				48.9
Std. Error	0.1	0.5	0.7			1.6	0.4	0.2	0.7				1.7
Number	43	893	1872			13356	596	85	1574				18419
Female													
Sample Size		8	19			377	3		45				452
Percent		0.9	2.1			42.6	0.3		5.1				51.1
Std. Error		0.3	0.5			1.6	0.2		0.7				1.7
Number		340	808			16037	128		1914				19227
All Fish													
Sample Size	1	29	63			696	17	2	82				890
Percent	0.1	3.3	7.1			78.2	1.9	0.2	9.2				100.0
Std. Error	0.1	0.6	0.8			1.4	0.5	0.2	1.0				
Number	43	1234	2680			29606	723	85	3488				37859

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	Brood Year and Age Class												
	1985	1984			1983			1982			1981		
	0.2	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Statistical Week 30 (July 17 - 23)													
Male													
Sample Size	1	1	50			340	15	2	31				440
Percent	0.1	0.1	5.7			39.0	1.7	0.2	3.6				50.5
Std. Error	0.1	0.1	0.8			1.6	0.4	0.2	0.6				1.7
Number	27	27	1334			9070	400	53	827				11738
Female													
Sample Size		5	10			365	4	1	46				431
Percent		0.6	1.1			41.9	0.5	0.1	5.3				49.5
Std. Error		0.3	0.4			1.6	0.2	0.1	0.7				1.7
Number		133	267			9736	107	27	1227				11497
All Fish													
Sample Size	1	10	69			820	25	3	91				1019
Percent	0.1	1.0	6.8			80.5	2.5	0.3	8.9				100.0
Std. Error	0.1	0.3	0.8			1.2	0.5	0.2	0.9				
Number	27	267	1841			21873	667	80	2428				27183
Statistical Week 31 (July 24 - 30)													
Male													
Sample Size		6	54			336	25	2	45				468
Percent		0.6	5.3			33.2	2.5	0.2	4.4				46.2
Std. Error		0.2	0.7			1.5	0.5	0.1	0.6				1.6
Number		347	3125			19447	1447	116	2604				27086
Female													
Sample Size		7	23			412	20	2	80		1		545
Percent		0.7	2.3			40.7	2.0	0.2	7.9		0.1		53.8
Std. Error		0.3	0.5			1.5	0.4	0.1	0.8		0.1		1.6
Number		405	1331			23844	1158	116	4630		58		31542
All Fish													
Sample Size		13	77			749	45	4	126		1		1015
Percent		1.3	7.6			73.8	4.4	0.4	12.4		0.1		100.0
Std. Error		0.4	0.8			1.4	0.6	0.2	1.0		0.1		
Number		752	4456			43350	2604	232	7292		58		58744
Statistical Week 32 (July 31 - August 6)													
Male													
Sample Size		3	65			301	28	1	62		2		462
Percent		0.3	6.7			31.0	2.9	0.1	6.4		0.2		47.5
Std. Error		0.2	0.8			1.5	0.5	0.1	0.8		0.1		1.6
Number		147	3184			14741	1371	49	3036		98		22626
Female													
Sample Size		5	25			383	13	1	82			1	510
Percent		0.5	2.6			39.4	1.3	0.1	8.4			0.1	52.5
Std. Error		0.2	0.5			1.6	0.4	0.1	0.9			0.1	1.6
Number		245	1224			18757	637	49	4016			49	24977
All Fish													
Sample Size		8	90			684	41	2	144		2	1	972
Percent		0.8	9.3			70.4	4.2	0.2	14.8		0.2	0.1	100.0
Std. Error		0.3	0.9			1.5	0.6	0.1	1.1		0.1	0.1	
Number		392	4408			33498	2008	98	7052		98	49	47603
Statistical Week 33 (August 7 - 13)													
Male													
Sample Size		1	55			283	49	1	111			1	501
Percent		0.1	5.7			29.6	5.1	0.1	11.6			0.1	52.4
Std. Error		0.1	0.7			1.5	0.7	0.1	1.0			0.1	1.6
Number		60	3317			17066	2955	61	6694			60	30213
Female													
Sample Size		3	13			308	31	1	99		1		456
Percent		0.3	1.4			32.2	3.2	0.1	10.3		0.1		47.5
Std. Error		0.2	0.4			1.5	0.6	0.1	1.0		0.1		1.6
Number		181	784			18574	1869	61	5970		60		27499
All Fish													
Sample Size		4	68			591	80	2	210		1	1	957
Percent		0.4	7.1			61.8	8.4	0.2	21.9		0.1	0.1	100.0
Std. Error		0.2	0.8			1.6	0.9	0.1	1.3		0.1	0.1	
Number		241	4101			35640	4824	122	12664		60	60	57712

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	Brood Year and Age Class												
	1985	1984			1983			1982			1981		
	0.2	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Statistical Week 34 (August 14 - 20)													
Male													
Sample Size			18	1		136	38	2	89	1	3		288
Percent			2.9	0.2		21.7	6.1	0.3	14.2	0.2	0.5		45.9
Std. Error			0.7	0.2		1.6	0.9	0.2	1.4	0.2	0.3		2.0
Number			604	34		4567	1276	67	2987	34	101		9670
Female													
Sample Size		3	6			182	44	1	103				339
Percent		0.5	1.0			29.0	7.0	0.2	16.4				54.1
Std. Error		0.3	0.4			1.8	1.0	0.2	1.5				2.0
Number		101	202			6111	1477	34	3458				11383
All Fish													
Sample Size		3	24	1		318	82	3	192	1	3		627
Percent		0.5	3.8	0.2		50.7	13.1	0.5	30.6	0.2	0.5		100.0
Std. Error		0.3	0.8	0.2		2.0	1.3	0.3	1.8	0.2	0.3		
Number		101	806	34		10678	2753	101	6445	34	101		21053
Statistical Week 35 (August 21 - 27)													
Male													
Sample Size		1	26			278	56	1	173		1		536
Percent		0.1	2.3			24.5	4.9	0.1	15.2		0.1		47.1
Std. Error		0.1	0.4			1.2	0.6	0.1	1.0		0.1		1.5
Number		25	653			6984	1407	25	4346		25		13465
Female													
Sample Size		3	22			374	32	1	164	4		1	601
Percent		0.3	1.9			32.9	2.8	0.1	14.4	0.4		0.1	52.9
Std. Error		0.1	0.4			1.4	0.5	0.1	1.0	0.2		0.1	1.5
Number		75	553			9395	804	25	4120	100		25	15097
All Fish													
Sample Size		4	48			652	88	2	337	4	1	1	1137
Percent		0.4	4.2			57.3	7.7	0.2	29.6	0.4	0.1	0.1	100.0
Std. Error		0.2	0.6			1.4	0.8	0.1	1.3	0.2	0.1	0.1	
Number		100	1206			16379	2211	50	8466	100	25	25	28562
Statistical Week 36 (August 28 - September 3)													
Male													
Sample Size			23			139	70		158	1		1	392
Percent			2.8			17.2	8.7		19.5	0.1		0.1	48.5
Std. Error			0.6			1.3	1.0		1.4	0.1		0.1	1.7
Number			446			2696	1358		3065	19		19	7603
Female													
Sample Size			4			180	43	1	188			1	417
Percent			0.5			22.2	5.3	0.1	23.2			0.1	51.5
Std. Error			0.2			1.4	0.8	0.1	1.4			0.1	1.7
Number			78			3491	834	19	3647			19	8088
All Fish													
Sample Size			27			319	114	1	346	1		2	810
Percent			3.3			39.4	14.1	0.1	42.7	0.1		0.2	100.0
Std. Error			0.6			1.7	1.2	0.1	1.7	0.1		0.2	
Number			524			6187	2211	19	6711	19		39	15710
Statistical Week 37 (September 4 - 10)													
Male													
Sample Size		1	17			100	87	3	261	3	4	1	477
Percent		0.1	2.2			12.8	11.1	0.4	33.4	0.4	0.5	0.1	61.1
Std. Error		0.1	0.5			1.1	1.0	0.2	1.6	0.2	0.2	0.1	1.6
Number		7	119			700	610	21	1829	21	28	7	3342
Female													
Sample Size			1			88	22	2	187	2	2		304
Percent			0.1			11.3	2.8	0.3	23.9	0.3	0.3		38.9
Std. Error			0.1			1.0	0.5	0.2	1.4	0.2	0.2		1.6
Number			7			617	154	14	1310	14	14		2130
All Fish													
Sample Size		1	18			188	109	5	448	5	6	1	781
Percent		0.1	2.3			24.1	14.0	0.6	57.4	0.6	0.8	0.1	100.0
Std. Error		0.1	0.5			1.4	1.1	0.3	1.6	0.3	0.3	0.1	
Number		7	126			1317	764	35	3139	35	42	7	5472

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	Brood Year and Age Class												
	1985	1984			1983			1982			1981		
	0.2	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Statistical Weeks 38 - 41 (September 11 - October 8)													
Male													
Sample Size		2	3			39	59	1	208		1	2	315
Percent		0.4	0.6			7.5	11.4	0.2	40.2		0.2	0.4	60.8
Std. Error		0.2	0.3			1.1	1.3	0.2	2.0		0.2	0.2	2.0
Number		12	17			225	340	6	1196		6	12	1814
Female													
Sample Size						24	24		151	2		2	203
Percent						4.6	4.6		29.2	0.4		0.4	39.2
Std. Error						0.8	0.8		1.8	0.2		0.2	2.0
Number						138	138		869	12		12	1169
All Fish													
Sample Size		2	3			66	92	1	383	2	1	4	554
Percent		0.4	0.5			11.9	16.6	0.2	69.1	0.4	0.2	0.7	100.0
Std. Error		0.2	0.3			1.3	1.4	0.2	1.8	0.2	0.2	0.3	
Number		12	17			380	530	6	2204	12	6	23	3190
Combined Periods (Percentages are weighted by period catches)													
Male													
Sample Size	2	87	418	1	4	3154	482	25	1253	5	12	5	5448
Percent	<0.1	0.8	4.7	<0.1	<0.1	31.0	3.7	0.2	8.6	<0.1	0.1	<0.1	49.0
Std. Error	<0.1	0.1	0.2	<0.1	<0.1	0.5	0.2	<0.1	0.3	<0.1	<0.1	<0.1	0.5
Number	70	2699	16199	34	83	107476	12668	701	29714	74	279	98	170095
Female													
Sample Size		85	144	1	1	3656	266	12	1238	8	4	5	5420
Percent		0.8	1.7	<0.1	<0.1	36.5	2.3	0.1	9.5	<0.1	<0.1	<0.1	51.0
Std. Error		0.1	0.1	<0.1	<0.1	0.5	0.2	<0.1	0.3	<0.1	<0.1	<0.1	0.5
Number		2632	5770	21	12	126613	8004	378	33118	126	132	105	176911
All Fish													
Sample Size	2	176	571	2	5	6935	764	38	2530	13	16	10	11062
Percent	<0.1	1.5	6.3	<0.1	<0.1	67.5	5.9	0.3	18.0	0.1	0.1	0.1	100.0
Std. Error	<0.1	0.1	0.3	<0.1	<0.1	0.5	0.2	0.1	0.4	<0.1	<0.1	<0.1	
Number	70	5438	22208	55	95	237467	20901	1101	63402	200	411	203	351551

Appendix B.28. Test for significant changes among periods in the age composition of sockeye salmon in the District 115 gill net catch by age class, 1988.

	Brood Year and Age Class											
	1985	1984			1983			1982			1981	
	0.2	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3
Periods Compared												
1 . 2		S**	S*			S**						
1 . 3		S**	S**			S**	S					
1 . 4			S**			S**						
1 . 5			S**			S**						
1 . 6			S**			S**	S**		S**			
1 . 7		S	S**			S**	S*		S**			
1 . 8		S**	S**			S**	S**		S**			
1 . 9		S*	S**			S**	S**		S**			
1 . 10		S**	S**			S**	S**		S**			
1 . 11		S**	S*			S**	S**		S**			
1 . 12		S**				S**	S**		S**		S	
1 . 13		S*				S**	S**		S**			S
2 . 3			S**									
2 . 4		S**	S**						S			
2 . 5		S**	S**									
2 . 6		S**	S**			S**			S**			
2 . 7		S**	S**			S**			S**			
2 . 8		S**	S**			S**	S**		S**			
2 . 9		S**				S**	S**		S**			
2 . 10		S**				S**	S**		S**			
2 . 11		S**				S**	S**		S**			
2 . 12		S**				S**	S**		S**	S		
2 . 13		S**	S**			S**	S**		S**			S
3 . 4							S**					
3 . 5		S**					S					
3 . 6		S**				S			S**			
3 . 7		S**	S**			S**			S**			
3 . 8		S**				S**	S**		S**			
3 . 9		S**				S**	S**		S**			
3 . 10		S**				S**	S**		S**			
3 . 11		S**	S*			S**	S**		S**			
3 . 12		S**	S**			S**	S**		S**	S	S*	
3 . 13		S**	S**			S**	S**		S**			S*
4 . 5		S**										
4 . 6		S**				S*	S**		S*			
4 . 7		S**				S**	S**		S**			
4 . 8		S**				S**	S**		S**			
4 . 9		S**	S**			S**	S**		S**			
4 . 10		S**	S**			S**	S**		S**			
4 . 11		S**	S**			S**	S**		S**			
4 . 12		S**	S**			S**	S**		S**	S	S*	
4 . 13		S**	S**			S**	S**		S**			S*
5 . 6						S**	S**		S**			
5 . 7			S*			S**	S*		S**			
5 . 8						S**	S**		S**			
5 . 9			S**			S**	S**		S**			
5 . 10			S**			S**	S**		S**			
5 . 11		S**	S**			S**	S**		S**			
5 . 12		S*	S**			S**	S**		S**	S*	S**	
5 . 13			S**			S**	S**		S**			S*
6 . 7						S						
6 . 8		S				S**	S**		S**			
6 . 9			S**			S**	S**		S**			
6 . 10		S*	S**			S**	S**		S**			
6 . 11		S**	S**			S**	S**		S**			
6 . 12		S**	S**			S**	S**		S**	S*	S	
6 . 13			S**			S**	S**		S**			S*
7 . 8						S**	S**		S**			
7 . 9			S**			S**	S**		S**			
7 . 10			S**			S**	S**		S**			
7 . 11		S*	S**			S**	S**		S**			
7 . 12		S	S**			S**	S**		S**	S*		
7 . 13			S**			S**	S**		S**			
8 . 9			S**			S**	S**		S**			
8 . 10			S**			S*			S**			
8 . 11			S**			S**	S**		S**			
8 . 12			S**			S**	S**		S**	S*	S	
8 . 13			S**			S**	S**		S**			
9 . 10						S**	S**					
9 . 11						S**			S**			
9 . 12						S**			S**			
9 . 13			S**			S**			S**			
10 . 11						S**	S**		S**			
10 . 12			S*			S**	S**		S**		S*	
10 . 13			S**			S**	S**		S**			S
11 . 12						S**			S**		S*	
11 . 13			S**			S**			S**			
12 . 13			S**			S**			S**			

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix B.29. Length composition of sockeye salmon in the District 115 gill net catch by sex, age class, and fishing period, 1988.

		Brood Year and Age Class										
		1984		1983			1982			1981		
		0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Statistical Week 26 (June 19 - 25)												
Male	Avg. Length	590	518		593	527	608	581				590
	Std. Error	10.3	12.5		2.2	18.7	19.2	8.4				2.3
	Sample Size	6	2		145	4	3	17				177
Female	Avg. Length	555	545	610	580	514	615	587				579
	Std. Error	12.4			1.5	20.0		6.7				1.7
	Sample Size	4	1	1	174	5	1	15				201
All Fish	Avg. Length	576	527	610	586	520	610	584				584
	Std. Error	9.5	11.7		1.3	13.2	13.7	5.4				1.4
	Sample Size	10	3	1	319	9	4	32				378
Statistical Week 27 (June 26 - July 2)												
Male	Avg. Length	572	539		589	534	600	598				585
	Std. Error	10.2	11.9		2.5	11.6		6.8				2.5
	Sample Size	9	7		108	4	1	9				138
Female	Avg. Length	586	497		574	546		582				574
	Std. Error	7.8			2.2	29.0		7.0				2.2
	Sample Size	8	1		107	2		12				130
All Fish	Avg. Length	579	534		582	538	600	589				580
	Std. Error	6.6	11.6		1.7	10.8		5.1				1.7
	Sample Size	17	8		215	6	1	21				268
Statistical Week 28 (July 3 - 9)												
Male	Avg. Length	588	516	615	590	516	575	589				585
	Std. Error	9.8	9.2		2.5	16.7		9.4				2.7
	Sample Size	7	5	1	112	5	1	9				140
Female	Avg. Length	584	502		576	507		583				572
	Std. Error	8.1	16.1		2.0	13.7		5.4				2.4
	Sample Size	5	3		128	8		13				157
All Fish	Avg. Length	586	511	615	583	510	575	586				578
	Std. Error	6.4	8.0		1.6	10.2		4.9				1.8
	Sample Size	12	8	1	240	13	1	22				297
Statistical Week 29 (July 10 - 16)												
Male	Avg. Length	594	514		594	524	660	581				585
	Std. Error	12.4	5.6		2.2	13.4		10.9				2.8
	Sample Size	6	13		130	5	1	14				169
Female	Avg. Length	579	483		578	551		585				575
	Std. Error	5.9	16.1		1.8			4.9				2.2
	Sample Size	4	6		136	1		19				166
All Fish	Avg. Length	588	504		586	528	660	583				580
	Std. Error	7.9	7.0		1.5	11.9		5.3				1.8
	Sample Size	10	19		270	6	1	33				339
Statistical Week 30 (July 17 - 23)												
Male	Avg. Length		508		591	508	610	584				575
	Std. Error		10.5		2.4	18.0		13.5				4.1
	Sample Size		14		76	5	1	7				103
Female	Avg. Length		495		571	485		578				569
	Std. Error		30.0		2.3			4.9				2.6
	Sample Size		2		86	1		6				95
All Fish	Avg. Length		506		580	504	610	581				572
	Std. Error		9.6		1.8	15.2		7.4				2.4
	Sample Size		16		162	6	1	13				198

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		Brood Year and Age Class										
		1984		1983			1982			1981		
		0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Statistical Week 31 - (July 24 - 30)												
Male	Avg. Length	592	508		599	525		581				587
	Std. Error	10.2	15.2		2.6	8.3		12.1				3.6
	Sample Size	3	10		90	4		11				118
Female	Avg. Length	579	521		578	510		590		605		573
	Std. Error	8.5	7.6		1.7	17.5		4.1				2.2
	Sample Size	2	11		136	8		23		1		181
All Fish	Avg. Length	587	515		586	515		587		605		578
	Std. Error	7.0	8.2		1.6	11.8		4.6				2.0
	Sample Size	5	21		226	12		35		1		300
Statistical Week 32 (July 31 - August 6)												
Male	Avg. Length	605	510		597	512		606				581
	Std. Error		4.8		1.7	11.1		5.6				2.8
	Sample Size	1	28		159	15		22				225
Female	Avg. Length	603	489		579	528		581			530	572
	Std. Error	12.5	8.8		1.6	11.0		3.5				2.1
	Sample Size	2	17		178	7		42			1	247
All Fish	Avg. Length	603	502		588	517		590			530	576
	Std. Error	7.3	4.7		1.3	8.3		3.3				1.8
	Sample Size	3	45		337	22		64			1	472
Statistical Week 33 (August 7 - 13)												
Male	Avg. Length	610	530		599	544	545	616				590
	Std. Error		11.0		1.7	9.7		5.8				3.2
	Sample Size	1	13		84	19	1	34				152
Female	Avg. Length		502		584	539	605	599		545		580
	Std. Error		9.4		2.3	4.7		4.3				2.6
	Sample Size		4		88	13	1	32		1		139
All Fish	Avg. Length	610	524		591	542	575	608		545		585
	Std. Error		9.1		1.6	6.0	30.0	3.8				2.1
	Sample Size	1	17		172	32	2	66		1		291
Statistical Week 34 (August 14 - 20)												
Male	Avg. Length		539		608	554		628		573		597
	Std. Error		12.2		4.3	11.0		5.6		47.5		4.7
	Sample Size		10		37	11		23		2		83
Female	Avg. Length				589	548	660	600				589
	Std. Error				3.0	7.5		6.0				3.2
	Sample Size				49	9	1	26				85
All Fish	Avg. Length		539		598	551	660	613		573		593
	Std. Error		12.2		2.7	6.8		4.6		47.5		2.8
	Sample Size		10		86	20	1	49		2		168
Statistical Week 35 (August 21 - 27)												
Male	Avg. Length		542		604	561		618				603
	Std. Error		13.2		1.8	7.9		2.4				2.0
	Sample Size		12		122	27		114				275
Female	Avg. Length	578	502		593	551	580	601	583		610	591
	Std. Error	2.5	10.3		1.4	9.7		2.3	12.5			1.6
	Sample Size	2	8		188	15	1	99	2		1	316
All Fish	Avg. Length	578	526		597	558	580	610	583		610	597
	Std. Error	2.5	9.8		1.2	6.1		1.8	12.5			1.3
	Sample Size	2	20		310	42	1	213	2		1	591
Statistical Week 36 (August 28 - Sept. 3)												
Male	Avg. Length		553		604	570		622	565		625	603
	Std. Error		20.2		2.8	7.5		3.3				2.9
	Sample Size		11		66	29		73	1		1	181
Female	Avg. Length		558		594	532	590	605			565	593
	Std. Error		37.1		2.1	6.9		2.5				2.2
	Sample Size		3		85	16	1	86			1	192
All Fish	Avg. Length		554		599	557	590	613	565		595	598
	Std. Error		17.1		1.8	5.9		2.1			30.0	1.8
	Sample Size		14		151	46	1	159	1		2	374

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		Brood Year and Age Class										
		1984		1983			1982			1981		
		0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Statistical Week 37 (Sept. 4 - 10)												
Male	Avg. Length	590	586		609	584		622	570	635		612
	Std. Error		11.6		3.2	8.6		2.3				2.3
	Sample Size	1	3		37	26		95	1	1		164
Female	Avg. Length				591	527		606	580			594
	Std. Error				3.4	17.0		3.5	1.5			3.4
	Sample Size				33	9		66	2			110
All Fish	Avg. Length	590	586		600	569		615	576	635		605
	Std. Error		11.6		2.6	8.7		2.1	3.3			2.0
	Sample Size	1	3		70	35		161	3	1		274
Statistical Weeks 38 - 41 (Sept. 11 - October 8)												
Male	Avg. Length	620	590		620	589		626			620	619
	Std. Error				4.7	7.4		2.4				2.4
	Sample Size	1	1		14	19		95			1	131
Female	Avg. Length				597	593		613				609
	Std. Error				5.3	9.5		2.8				2.6
	Sample Size				8	9		71				88
All Fish	Avg. Length	620	590		612	591		620			620	615
	Std. Error				4.2	5.8		1.9				1.8
	Sample Size	1	1		22	28		166			1	219
Combined Periods (Lengths weighted by period catches)												
Male	Avg. Length	597	523	615	598	533	593	600	566	585	624	589
	Std. Error	4.5	3.6		0.7	3.5	13.2	1.3	2.5	34.4	2.5	0.8
	Sample Size	35	129	1	1180	173	8	523	2	3	2	2056
Female	Avg. Length	584	504	610	581	529	607	591	582	575	561	578
	Std. Error	4.0	4.9		0.6	3.9	13.9	1.1	5.2	30.0	23.2	0.7
	Sample Size	27	56	1	1396	103	5	510	4	2	3	2107
All Fish	Avg. Length	593	519	614	589	530	605	595	576	577	568	583
	Std. Error	3.1	3.0	2.5	0.5	2.7	9.4	0.9	4.4	21.6	18.4	0.5
	Sample Size	62	185	2	2580	277	13	1034	6	5	5	4169

Appendix 8.30. Test for significant changes among periods in the length composition of sockeye salmon in the District 115 gill net catch by age class, 1988.

	Brood Year and Age Class									
	1984		1983			1982			1981	
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3
Periods Compared										
1 . 2				S						
1 . 3										
1 . 4		S								
1 . 5				S**						
1 . 6										
1 . 7	S*	S*								
1 . 8				S**			S**			
1 . 9				S**	S*		S**			
1 . 10				S**	S**		S**			
1 . 11				S**	S**		S**			
1 . 12		S**		S**	S**		S**			
1 . 13				S**	S**		S**			
2 . 3					S					
2 . 4		S*		S						
2 . 5		S			S					
2 . 6				S						
2 . 7	S**	S**		S**						
2 . 8				S**			S**			
2 . 9				S**			S**			
2 . 10				S**			S**			
2 . 11				S**			S**			
2 . 12		S**		S**	S*		S**			
2 . 13				S**	S**		S**			
3 . 4										
3 . 5										
3 . 6										
3 . 7	S			S**						
3 . 8				S**	S**		S**			
3 . 9		S		S**	S**		S**			
3 . 10				S**	S**		S**			
3 . 11		S*		S**	S**		S**			
3 . 12		S**		S**	S**		S**			
3 . 13				S**	S**		S**			
4 . 5				S**						
4 . 6										
4 . 7										
4 . 8		S		S**			S**			
4 . 9		S**		S**	S		S**			
4 . 10		S		S**	S*		S**			
4 . 11		S**		S**	S*		S**			
4 . 12		S**		S**	S**		S**			
4 . 13				S**	S**		S**			
5 . 6				S**						
5 . 7				S**						
5 . 8				S**	S**		S**			
5 . 9		S*		S**	S**		S**			
5 . 10				S**	S**		S**			
5 . 11		S**		S**	S**		S**			
5 . 12		S**		S**	S**		S**			
5 . 13				S**	S**		S**			
6 . 7										
6 . 8				S*	S*		S**			
6 . 9				S**	S**		S**			
6 . 10				S**	S**		S**			
6 . 11		S*		S**	S**		S**			
6 . 12		S**		S**	S**		S**			
6 . 13				S**	S**		S**			
7 . 8		S*			S**		S**			
7 . 9		S**		S**	S**		S**			
7 . 10	S**	S*		S**	S**		S**			
7 . 11		S**		S**	S**		S**			
7 . 12		S**		S**	S**		S**			
7 . 13				S**	S**		S**			
8 . 9				S*						
8 . 10				S**	S					
8 . 11				S**	S					
8 . 12		S**		S**	S**					
8 . 13				S**	S**		S**			
9 . 10										
9 . 11										
9 . 12		S**								
9 . 13				S**	S**					
10 . 11										
10 . 12		S**					S			
10 . 13				S**	S**		S**			
11 . 12										
11 . 13				S**	S**		S**			
12 . 13				S**	S*		S			

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix C.1. Age composition of sockeye salmon in the District 101 purse seine catch by sex, age class, and fishing period, 1988.

	Brood Year and Age Class										
	1985			1984		1983		1982			
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 28 (July 3 - 9)											
Male											
Sample Size	1	1		45	2	35	45	1	6		136
Percent	0.4	0.4		16.3	0.7	12.7	16.3	0.4	2.2		49.3
Std. Error	0.3	0.3		1.9	0.4	1.7	1.9	0.3	0.7		2.5
Number	3	3		157	7	125	157	3	21		476
Female											
Sample Size			1	38		49	47		5		140
Percent			0.4	13.8		17.8	17.0		1.8		50.7
Std. Error			0.3	1.8		1.9	1.9		0.7		2.5
Number			3	133		171	165		17		489
All Fish											
Sample Size	1	1	1	83	2	84	92	1	11		276
Percent	0.4	0.4	0.4	30.1	0.7	30.4	33.3	0.4	4.0		100.0
Std. Error	0.3	0.3	0.3	2.3	0.4	2.3	2.4	0.3	1.0		
Number	3	3	3	290	7	296	322	3	38		965
Statistical Week 29 (July 10 - 16)											
Male											
Sample Size	2			99	1	67	41	2	16		228
Percent	0.4			21.9	0.2	14.8	9.1	0.4	3.5		50.3
Std. Error	0.3			1.9	0.2	1.6	1.3	0.3	0.8		2.2
Number	23			1124	11	760	465	23	182		2588
Female											
Sample Size	1	1	2	82	1	86	37	1	14		225
Percent	0.2	0.2	0.4	18.1	0.2	19.0	8.2	0.2	3.1		49.7
Std. Error	0.2	0.2	0.3	1.7	0.2	1.8	1.2	0.2	0.8		2.2
Number	11	11	23	931	11	977	420	11	159		2554
All Fish											
Sample Size	3	1	2	181	2	153	78	3	30		453
Percent	0.7	0.2	0.4	40.0	0.4	33.8	17.2	0.7	6.6		100.0
Std. Error	0.4	0.2	0.3	2.2	0.3	2.1	1.7	0.4	1.1		
Number	34	11	23	2055	22	1737	885	34	341		5142
Statistical Week 30 (July 17 - 23)											
Male											
Sample Size				43		33	19	2	2		99
Percent				16.0		12.3	7.1	0.7	0.7		36.8
Std. Error				2.1		1.9	1.5	0.5	0.5		2.8
Number				456		349	201	21	21		1048
Female											
Sample Size				84		52	27	1	6		170
Percent				31.2		19.3	10.0	0.4	2.2		63.2
Std. Error				2.7		2.3	1.7	0.4	0.9		2.8
Number				888		550	286	11	64		1799
All Fish											
Sample Size				127		85	46	3	8		269
Percent				47.2		31.6	17.1	1.1	3.0		100.0
Std. Error				2.9		2.7	2.2	0.6	1.0		
Number				1344		899	487	32	85		2847

-continued-

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	Brood Year and Age Class										
	1985		1984			1983		1982			
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 31 (July 24 - 30)											
Male											
Sample Size				63	1	24	24	1	7		120
Percent				17.9	0.3	6.8	6.8	0.3	2.0		34.2
Std. Error				2.0	0.3	1.3	1.3	0.3	0.7		2.5
Number				999	16	381	381	16	111		1904
Female											
Sample Size	1			123		43	45		18	1	231
Percent	0.3			35.0		12.3	12.8		5.1	0.3	65.8
Std. Error	0.3			2.5		1.7	1.7		1.1	0.3	2.5
Number	16			1952		682	714		286	16	3666
All Fish											
Sample Size	1			191	1	69	72	1	25	1	361
Percent	0.3			52.9	0.3	19.1	19.9	0.3	6.9	0.3	100.0
Std. Error	0.3			2.5	0.3	2.0	2.0	0.3	1.3	0.3	
Number	16			3030	16	1095	1143	16	397	16	5729
Statistical Weeks 32 - 38 (July 31 - September 17)											
Male											
Sample Size		3		119	4	35	46	1	7		215
Percent		0.4		16.5	0.6	4.9	6.4	0.1	1.0		29.9
Std. Error		0.2		1.4	0.3	0.8	0.9	0.1	0.4		1.7
Number		75		2974	100	875	1149	25	175		5373
Female											
Sample Size		1		328	2	80	70	1	23		505
Percent		0.1		45.6	0.3	11.1	9.7	0.1	3.2		70.1
Std. Error		0.1		1.8	0.2	1.1	1.1	0.1	0.6		1.7
Number		25		8196	50	1999	1749	25	575		12619
All Fish											
Sample Size		4		447	6	115	116	2	30		720
Percent		0.6		62.1	0.8	16.0	16.1	0.3	4.2		100.0
Std. Error		0.3		1.8	0.3	1.3	1.3	0.2	0.7		
Number		100		11170	150	2874	2898	50	750		17992
Combined Periods (Percentages are weighted by period catches)											
Male											
Sample Size	3	4		369	8	194	175	7	38		798
Percent	0.1	0.2		17.6	0.4	7.7	7.2	0.3	1.6		35.0
Std. Error	<0.1	0.1		0.9	0.2	0.6	0.6	0.1	0.3		1.1
Number	26	78		5710	134	2490	2353	88	510		11389
Female											
Sample Size	2	2	3	655	3	310	226	3	66	1	1271
Percent	0.1	0.1	0.1	37.2	0.2	13.5	10.3	0.1	3.4	<0.1	65.0
Std. Error	0.1	0.1	<0.1	1.2	0.1	0.8	0.7	0.1	0.4	<0.1	1.1
Number	27	36	26	12100	61	4379	3334	47	1101	16	21127
All Fish											
Sample Size	5	6	3	1029	11	506	404	10	104	1	2079
Percent	0.2	0.4	0.1	54.8	0.6	21.1	17.6	0.4	4.9	<0.1	100.0
Std. Error	0.1	0.2	<0.1	1.2	0.2	0.9	0.9	0.1	0.5	<0.1	
Number	53	114	26	17889	195	6901	5735	135	1611	16	32675

Appendix C.2. Test for significant changes among periods in the age composition of sockeye salmon in the District 101 purse seine catch by age class, 1988.

	Brood Year and Age Class									
	1985		1984			1983		1982		
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2
Periods Compared										
1 , 2				S**			S**			
1 , 3				S**			S**			
1 , 4				S**		S**	S**			
1 , 5				S**		S**	S**			
2 , 3				S					S	
2 , 4				S**		S**				
2 , 5				S**		S**			S	
3 , 4						S**			S*	
3 , 5				S**		S**				
4 , 5				S**					S	

S = significant at alpha = 0.10

S* = significant at alpha = 0.05

S** = significant at alpha = 0.01

Appendix C.3. Length composition of sockeye salmon in the District 101 purse seine catch by sex, age class, and fishing period, 1988.

		Brood Year and Age Class									
		1985		1984		1983		1982			
		0.2	1.1	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 28 (July 3 - 9)											
Male	Avg. Length		340	511	410	600	548		620		547
	Std. Error			8.4		6.6	8.0				7.7
	Sample Size		1	18	1	17	20		1		58
Female	Avg. Length			511		575	538				542
	Std. Error			8.3		4.7	5.6				4.9
	Sample Size			17		18	21				56
All Fish	Avg. Length		340	511	410	587	543		620		545
	Std. Error			5.8		4.5	4.8				4.6
	Sample Size		1	35	1	35	41		1		114
Statistical Week 29 (July 10 - 16)											
Male	Avg. Length	480		523		589	518		591		542
	Std. Error			7.2		9.7	14.1		24.1		6.5
	Sample Size	1		32		15	10		4		62
Female	Avg. Length			511	515	573	533		590		543
	Std. Error			6.1		7.6	13.9		7.6		5.7
	Sample Size			27	1	27	8		3		66
All Fish	Avg. Length	480		517	515	579	524		591		542
	Std. Error			4.8		6.0	9.9		13.2		4.3
	Sample Size	1		59	1	42	18		7		128
Statistical Week 30 (July 17 - 23)											
Male	Avg. Length			515		592	561	645	640		558
	Std. Error			14.0		8.8	22.0				9.9
	Sample Size			15		13	9	1	1		39
Female	Avg. Length			514		575	526	585	580		537
	Std. Error			7.1		8.5	11.9				6.0
	Sample Size			37		21	6	1	1		66
All Fish	Avg. Length			514		582	547	615	610		544
	Std. Error			6.4		6.3	14.4	30.0	30.0		5.4
	Sample Size			52		34	15	2	2		105
Statistical Week 31 (July 24 - 30)											
Male	Avg. Length			528	400	564	500		603		532
	Std. Error			9.4		28.8			2.5		9.7
	Sample Size			23	1	4	1		2		31
Female	Avg. Length			520		569	547		588	465	538
	Std. Error			5.1		7.7	14.2		14.1		4.8
	Sample Size			48		16	10		7	1	82
All Fish	Avg. Length			522	400	568	542		591	465	536
	Std. Error			4.6		8.0	13.6		11.0		4.4
	Sample Size			71	1	20	11		9	1	113
Statistical Weeks 32 - 38 (July 31 - September 17)											
Male	Avg. Length		430	528	378	597	551		625		545
	Std. Error			6.3	12.5	8.0	10.9		8.9		6.6
	Sample Size		1	37	2	13	17		4		74
Female	Avg. Length			523	408	571	532		576		533
	Std. Error			2.7	2.5	4.8	11.7		10.7		3.3
	Sample Size			81	2	26	17		4		130
All Fish	Avg. Length		430	524	393	580	542		601		538
	Std. Error			2.7	10.1	4.6	8.1		11.2		3.2
	Sample Size		1	118	4	39	34		8		204
Combined Periods (Lengths weighted by period catches)											
Male	Avg. Length	480	425	526	384	590	538	645	617		544
	Std. Error		45.0	3.7	9.7	4.2	6.2		9.3		3.5
	Sample Size	1	2	125	4	62	57	1	12		264
Female	Avg. Length			519	431	571	534	585	581	465	536
	Std. Error			2.2	35.9	3.1	4.8		7.1		2.1
	Sample Size			210	3	108	62	1	15	1	400
All Fish	Avg. Length	480	425	522	416	578	539	615	599	465	539
	Std. Error		45.0	2.0	17.9	2.6	3.9	30.0	6.1		1.9
	Sample Size	1	2	335	7	170	119	2	27	1	664

Appendix C.4. Test for significant changes among periods in the length composition of sockeye salmon in the District 101 purse seine catch by age class, 1988.

	Brood Year and Age Class								
	1985		1984		1983		1982		
	0.2	1.1	1.2	2.1	1.3	2.2	1.4	2.3	3.2
Periods Compared									
1 , 2						S			
1 , 3									
1 , 4					S*				
1 , 5			S*						
2 , 3									
2 , 4									
2 , 5									
3 , 4									
3 , 5									
4 , 5									

S - significant at alpha = 0.10
S* - significant at alpha = 0.05
S** - significant at alpha = 0.01

Appendix C.5. Age composition of sockeye salmon in the District 102 purse seine catch by sex, age class, and fishing period, 1988.

	Brood Year and Age Class								
	1985	1984			1983		1982	1981	
	1.1	0.3	1.2	2.1	1.3	2.2	2.3	4.2	Total
Statistical Weeks 29 - 32 (July 10 - August 6)									
Male									
Sample Size			49		41	24	5		119
Percent			18.4		15.4	9.0	1.9		44.6
Std. Error			2.3		2.2	1.7	0.8		3.0
Number			1397		1170	685	143		3395
Female									
Sample Size		2	72	1	48	19	6		148
Percent		0.7	27.0	0.4	18.0	7.1	2.2		55.4
Std. Error		0.5	2.7	0.4	2.3	1.6	0.9		3.0
Number		57	2054	29	1369	542	171		4222
All Fish									
Sample Size		2	134	1	104	46	13		300
Percent		0.7	44.7	0.3	34.7	15.3	4.3		100.0
Std. Error		0.5	2.8	0.3	2.7	2.0	1.2		
Number		57	3822	29	2967	1312	371		8558
Statistical Weeks 33 - 41 (August 7 - October 8)									
Male									
Sample Size	1	2	73	2	17	16	6		117
Percent	0.3	0.5	19.6	0.5	4.6	4.3	1.6		31.5
Std. Error	0.3	0.4	2.0	0.4	1.1	1.0	0.6		2.3
Number	14	28	1019	28	237	223	84		1633
Female									
Sample Size	2		158		45	35	14	1	255
Percent	0.5		42.5		12.1	9.4	3.8	0.3	68.5
Std. Error	0.4		2.5		1.6	1.5	1.0	0.3	2.3
Number	28		2206		628	489	195	14	3560
All Fish									
Sample Size	3	2	278	2	77	58	26	1	447
Percent	0.7	0.4	62.2	0.4	17.2	13.0	5.8	0.2	100.0
Std. Error	0.4	0.3	2.2	0.3	1.7	1.5	1.1	0.2	
Number	42	28	3880	28	1075	810	363	14	6240
Combined Periods (Percentages are weighted by period catches)									
Male									
Sample Size	1	2	122	2	58	40	11		236
Percent	0.1	0.2	18.9	0.2	11.0	7.1	1.8		39.3
Std. Error	0.1	0.2	1.6	0.2	1.3	1.1	0.5		2.0
Number	14	28	2416	28	1407	908	227		5028
Female									
Sample Size	2	2	230	1	93	54	20	1	403
Percent	0.2	0.4	33.3	0.2	15.6	8.0	2.9	0.1	60.7
Std. Error	0.2	0.3	1.9	0.2	1.5	1.1	0.7	0.1	2.0
Number	28	57	4260	29	1997	1031	366	14	7782
All Fish									
Sample Size	3	4	412	3	181	104	39	1	747
Percent	0.3	0.6	52.1	0.4	27.3	14.3	5.0	0.1	100.0
Std. Error	0.2	0.3	1.9	0.2	1.7	1.3	0.8	0.1	
Number	42	85	7702	57	4042	2122	734	14	14798

Appendix C.6. Test for significant changes among periods in the age composition of sockeye salmon in the District 102 purse seine catch by age class, 1988.

	Brood Year and Age Class							
	1985	1984			1983		1982	1981
	1.1	0.3	1.2	2.1	1.3	2.2	2.3	4.2
Periods Compared								
1 , 2			S**		S**			

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix C.7. Length composition of sockeye salmon in the District 102 purse seine catch by sex, age class, and fishing period, 1988.

		Brood Year and Age Class								
		1985	1984			1983		1982	1981	
		1.1	0.3	1.2	2.1	1.3	2.2	2.3	4.2	Total
Statistical Weeks 29 - 32 (July 10 - August 6)										
Male	Avg. Length			518		590	528	555		540
	Std. Error			4.9		4.8	7.3	50.0		4.9
	Sample Size			33		18	18	2		71
Female	Avg. Length		545	512		575	498	600		535
	Std. Error		65.0	3.2		4.9	8.1			4.4
	Sample Size		2	41		35	15	1		94
All Fish	Avg. Length		545	512		579	516	581		538
	Std. Error		65.0	2.7		3.4	5.6	20.9		3.0
	Sample Size		2	87		68	36	5		198
Statistical Weeks 33 - 41 (August 7 - October 8)										
Male	Avg. Length	385	588	526	413	581	525	540		529
	Std. Error		37.5	5.9	37.5	7.0	17.0			6.3
	Sample Size	1	2	42	2	8	11	1		67
Female	Avg. Length	400		515		568	514	571	500	525
	Std. Error			3.1		6.1	5.7	6.6		3.0
	Sample Size	1		100		24	28	8	1	162
All Fish	Avg. Length	393	588	518	413	571	517	567	500	526
	Std. Error	7.5	37.5	2.8	37.5	4.9	6.2	6.8		2.8
	Sample Size	2	2	143	2	32	39	9	1	230
Combined Periods (Lengths weighted by period catches)										
Male	Avg. Length	385	588	521	413	586	527	549		535
	Std. Error		37.5	4.0	37.5	3.9	7.7	29.3		4.0
	Sample Size	1	2	75	2	26	29	3		138
Female	Avg. Length	400	545	513		572	505	588	500	531
	Std. Error		65.0	2.4		3.8	4.7	6.7		2.5
	Sample Size	1	2	141		59	43	9	1	256
All Fish	Avg. Length	393	563	515	413	576	517	575	500	533
	Std. Error	7.5	33.0	2.0	37.5	2.8	4.2	8.3		2.1
	Sample Size	2	4	230	2	100	75	14	1	428

Appendix C.8. Test for significant changes among periods in the length composition of sockeye salmon in the District 102 purse seine catch by age class, 1988.

	Brood Year and Age Class							
	1985	1984			1983		1982	1981
	1.1	0.3	1.2	2.1	1.3	2.2	2.3	4.2
Periods Compared								
1 , 2								

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix C.9. Age composition of sockeye salmon in the District 103 purse seine catch by sex and age class, 1988.

	Brood Year and Age Class							
	1985	1984		1983		1982		
	0.2	1.2	2.1	1.3	2.2	2.3	3.2	Total
Statistical Weeks 34 - 38 (August 14 - September 17)								
Male								
Sample Size	1	75	2	18	10	3		109
Percent	0.3	23.7	0.6	5.7	3.2	0.9		34.4
Std. Error	0.3	2.2	0.4	1.2	0.9	0.5		2.5
Number	8	564	15	135	75	22		819
Female								
Sample Size		145	1	36	18	7	1	208
Percent		45.7	0.3	11.4	5.7	2.2	0.3	65.6
Std. Error		2.6	0.3	1.7	1.2	0.8	0.3	2.5
Number		1090	8	271	135	52	8	1564
All Fish								
Sample Size	1	220	3	54	28	10	1	317
Percent	0.3	69.4	0.9	17.0	8.8	3.2	0.3	100.0
Std. Error	0.3	2.4	0.5	2.0	1.5	0.9	0.3	
Number	8	1654	23	406	210	74	8	2383

Appendix C.10. Length composition of sockeye salmon in the District 103 purse seine catch by sex and age class, 1988.

		Brood Year and Age Class						
		1984		1983		1982		
		1.2	2.1	1.3	2.2	2.3	3.2	Total
Statistical Weeks 34 - 38 (August 14 - Sept. 17)								
Male	Avg. Length	536	405	585	554	568		543
	Std. Error	4.7	15.0	10.1	19.0	33.2		5.1
	Sample Size	59	2	12	7	3		83
Female	Avg. Length	522	395	577	511	589	490	533
	Std. Error	2.8		6.9	14.0	4.7		3.4
	Sample Size	101	1	27	12	7	1	149
All Fish	Avg. Length	527	402	579	527	583	490	536
	Std. Error	2.5	9.3	5.7	12.0	9.7		2.8
	Sample Size	160	3	39	19	10	1	232

Appendix C.11. Age composition of sockeye salmon in northern District 104 [a] purse seine catch by sex, age class, and fishing period, 1988.

	Brood Year and Age Class										
	1985		1984			1983		1982			
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Statistical Weeks 28 - 29 (July 3 - 16)											
Male											
Sample Size		1	2	142	1	106	32		12	1	297
Percent		0.2	0.4	30.1	0.2	22.5	6.8		2.5	0.2	62.9
Std. Error		0.2	0.3	2.1	0.2	1.9	1.2		0.7	0.2	2.2
Number		166	333	23624	166	17634	5323		1996	166	49408
Female											
Sample Size			2	87		68	13	1	4		175
Percent			0.4	18.4		14.4	2.8	0.2	0.8		37.1
Std. Error			0.3	1.8		1.6	0.8	0.2	0.4		2.2
Number			333	14473		11312	2163	166	665		29112
All Fish											
Sample Size		1	4	229	1	176	45	1	16	1	474
Percent		0.2	0.8	48.3	0.2	37.1	9.5	0.2	3.4	0.2	100.0
Std. Error		0.2	0.4	2.3	0.2	2.2	1.3	0.2	0.8	0.2	
Number		166	665	38097	166	29279	7486	166	2662	166	78853
Statistical Week 30 (July 17 - 23)											
Male											
Sample Size	1		2	286	4	125	29		21		468
Percent	0.1		0.2	28.3	0.4	12.4	2.9		2.1		46.3
Std. Error	0.1		0.1	1.4	0.2	1.0	0.5		0.4		1.6
Number	44		88	12636	177	5523	1281		928		20677
Female											
Sample Size				377		127	28		10		542
Percent				37.3		12.6	2.8		1.0		53.7
Std. Error				1.5		1.0	0.5		0.3		1.6
Number				16656		5611	1237		442		23946
All Fish											
Sample Size	1		2	663	4	252	57		31		1010
Percent	0.1		0.2	65.6	0.4	25.0	5.6		3.1		100.0
Std. Error	0.1		0.1	1.5	0.2	1.3	0.7		0.5		
Number	44		88	29292	177	11134	2518		1370		44623
Statistical Week 31 (July 24 - 30)											
Male											
Sample Size			5	232		51	25		11		324
Percent			0.7	30.7		6.8	3.3		1.5		42.9
Std. Error			0.3	1.6		0.9	0.6		0.4		1.7
Number			81	3736		822	403		177		5219
Female											
Sample Size				341		65	17		8		431
Percent				45.2		8.6	2.3		1.1		57.1
Std. Error				1.8		1.0	0.5		0.4		1.7
Number				5493		1047	274		129		6943
All Fish											
Sample Size			5	575		117	42		19		758
Percent			0.7	75.9		15.4	5.5		2.5		100.0
Std. Error			0.3	1.5		1.3	0.8		0.6		
Number			81	9262		1885	677		306		12211

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	Brood Year and Age Class										
	1985		1984			1983		1982			
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 32 (July 31 - August 6)											
Male											
Sample Size		7		276	1	50	25		9		368
Percent		0.8		30.9	0.1	5.6	2.8		1.0		41.2
Std. Error		0.3		1.5	0.1	0.8	0.6		0.3		1.6
Number		1364		53785	195	9744	4872		1754		71714
Female											
Sample Size		1	1	427	1	76	18		1		525
Percent		0.1	0.1	47.8	0.1	8.5	2.0		0.1		58.8
Std. Error		0.1	0.1	1.7	0.1	0.9	0.5		0.1		1.6
Number		195	195	83211	195	14810	3508		195		102309
All Fish											
Sample Size		8	1	703	2	127	43		10		894
Percent		0.9	0.1	78.6	0.2	14.2	4.8		1.1		100.0
Std. Error		0.3	0.1	1.4	0.2	1.2	0.7		0.4		
Number		1559	195	136996	390	24749	8380		1949		174218
Statistical Week 33 (August 7 - 13)											
Male											
Sample Size	1	7	1	254	4	53	25		4		349
Percent	0.2	1.1	0.2	39.6	0.6	8.3	3.9		0.6		54.4
Std. Error	0.2	0.4	0.2	1.9	0.3	1.1	0.8		0.3		2.0
Number	79	551	79	20006	315	4175	1969		315		27489
Female											
Sample Size		4		244	2	26	14		3		293
Percent		0.6		38.0	0.3	4.0	2.2		0.5		45.6
Std. Error		0.3		1.9	0.2	0.8	0.6		0.3		2.0
Number		315		19218	158	2048	1103		236		23078
All Fish											
Sample Size	1	11	1	499	6	79	39		7		643
Percent	0.2	1.7	0.2	77.6	0.9	12.3	6.1		1.1		100.0
Std. Error	0.2	0.5	0.2	1.6	0.4	1.3	0.9		0.4		
Number	79	866	79	39304	473	6222	3072		551		50646
Statistical Week 34 (August 14 - 20)											
Male											
Sample Size		11		141	8	44	20		8		232
Percent		1.4		18.1	1.0	5.7	2.6		1.0		29.9
Std. Error		0.4		1.3	0.3	0.8	0.5		0.3		1.6
Number		110		1408	80	439	200		80		2317
Female											
Sample Size		1		406	4	86	34		14		545
Percent		0.1		52.3	0.5	11.1	4.4		1.8		70.1
Std. Error		0.1		1.7	0.2	1.1	0.7		0.5		1.6
Number		10		4055	40	859	340		140		5444
All Fish											
Sample Size		12		547	12	130	54		22		777
Percent		1.5		70.4	1.5	16.7	6.9		2.8		100.0
Std. Error		0.4		1.6	0.4	1.3	0.9		0.6		
Number		120		5463	120	1298	540		220		7761

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	Brood Year and Age Class										
	1985		1984			1983		1982			
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Statistical Weeks 35 - 36 (August 21 - September 3)											
Male											
Sample Size		15		115	6	21	14		2		173
Percent		3.4		26.0	1.4	4.8	3.2		0.5		39.1
Std. Error		0.8		2.0	0.5	1.0	0.8		0.3		2.3
Number		350		2685	140	490	327		46		4038
Female											
Sample Size		1		205	1	42	15		5		269
Percent		0.2		46.4	0.2	9.5	3.4		1.1		60.9
Std. Error		0.2		2.3	0.2	1.4	0.8		0.5		2.3
Number		24		4785	23	981	350		117		6280
All Fish											
Sample Size		16		320	7	63	29		7		442
Percent		3.6		72.4	1.6	14.3	6.6		1.6		100.0
Std. Error		0.9		2.1	0.6	1.6	1.2		0.6		
Number		374		7470	163	1471	677		163		10318
Combined Periods (Percentages are weighted by period catches)											
Male											
Sample Size	2	41	10	1446	24	450	170		67	1	2211
Percent	<0.1	0.7	0.2	31.2	0.3	10.3	3.8		1.4	<0.1	47.9
Std. Error	<0.1	0.2	0.1	0.9	0.1	0.6	0.4		0.2	<0.1	0.9
Number	123	2541	581	117880	1073	38827	14375		5296	166	180862
Female											
Sample Size		7	3	2087	8	490	139	1	45		2780
Percent		0.1	0.1	39.1	0.1	9.7	2.4	<0.1	0.5		52.1
Std. Error		0.1	0.1	0.9	0.1	0.6	0.3	<0.1	0.1		0.9
Number		544	528	147891	416	36668	8975	166	1924		197112
All Fish											
Sample Size	2	48	13	3536	32	944	309	1	112	1	4998
Percent	<0.1	0.8	0.3	70.2	0.4	20.1	6.2	<0.1	1.9	<0.1	100.0
Std. Error	<0.1	0.2	0.1	0.8	0.1	0.7	0.5	<0.1	0.3	<0.1	
Number	123	3085	1108	265884	1489	76038	23350	166	7221	166	378630

[a] Includes catches from Subdistricts 35, 40, 50, and 1/2 of the catch from Subdistrict 30.

Appendix C.12. Test for significant changes in the age composition among periods of sockeye salmon in northern District 104 [a] purse seine catch by age class, 1988.

	Brood Year and Age Class									
	1985		1984			1983		1982		
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2
Periods Compared										
1 . 2				S**		S**	S**			
1 . 3				S**		S**	S**			
1 . 4			S	S**		S**	S**		S**	
1 . 5		S*		S**		S**	S*		S**	
1 . 6		S*	S*	S**	S*	S**				
1 . 7		S**		S**	S	S**				
2 . 3				S**		S**				
2 . 4		S**		S**		S**			S**	
2 . 5		S**		S**		S**			S**	
2 . 6		S**		S*	S*	S**				
2 . 7		S**		S**	S*	S**				
3 . 4		S*							S	
3 . 5		S**			S*				S	
3 . 6		S**	S	S**	S**					
3 . 7		S**			S**					
4 . 5										
4 . 6				S**	S**		S		S**	
4 . 7		S**		S**	S**					
5 . 6				S**		S*			S*	
5 . 7		S		S						
6 . 7		S*								

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

[a] Includes catches in Subdistricts 35, 40, 50, and 1/2 of the catch in Subdistrict 30.

Appendix C.13. Length composition of sockeye salmon in the northern District 104 ᵃ purse seine catch by sex, age class, and fishing period, 1988.

		Brood Year and Age Class									
		1985		1984			1983		1982		
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Statistical Weeks 28 - 29 (July 3 - 16)											
Male	Avg. Length		330	445	509		581	533		594	540
	Std. Error				3.8		3.3	5.7		10.0	3.6
	Sample Size		1	1	89		69	21		8	189
Female	Avg. Length			564	507		570	520	615	608	533
	Std. Error			1.0	3.6		4.4	7.6		25.0	3.8
	Sample Size			2	66		42	10	1	3	124
All Fish	Avg. Length		330	524	508		577	529	615	598	538
	Std. Error			39.7	2.7		2.7	4.6		9.4	2.7
	Sample Size		1	3	155		112	31	1	11	314
Statistical Week 30 (July 17 - 23)											
Male	Avg. Length	425		580	508	375	582	548		620	536
	Std. Error				4.3	10.4	4.4	8.4		10.0	4.6
	Sample Size	1		1	84	3	42	11		9	151
Female	Avg. Length				515		570	525		585	536
	Std. Error				3.5		3.8	9.6		16.2	3.3
	Sample Size				90		54	12		4	160
All Fish	Avg. Length	425		580	512	375	575	536		609	536
	Std. Error				2.8	10.4	2.9	6.7		9.4	2.8
	Sample Size	1		1	174	3	96	23		13	311
Statistical Week 31 (July 24 - 30)											
Male	Avg. Length			600	515		588	549		589	536
	Std. Error				3.0		4.7	4.9		9.1	3.1
	Sample Size			1	135		39	18		9	202
Female	Avg. Length				509		567	515		584	520
	Std. Error				1.6		3.7	6.4		9.4	1.9
	Sample Size				252		56	11		5	324
All Fish	Avg. Length			600	511		575	536		587	526
	Std. Error				1.5		3.1	4.9		6.6	1.7
	Sample Size			1	387		95	29		14	526
Statistical Week 32 (July 31 - August 6)											
Male	Avg. Length		343		525	376	585	541		614	532
	Std. Error		3.6		2.5		5.7	11.4		23.7	3.2
	Sample Size		6		201	1	39	19		7	273
Female	Avg. Length		530	535	521	398	572	552		606	528
	Std. Error				1.5		4.6	23.2			1.8
	Sample Size		1	1	309	1	50	8		1	371
All Fish	Avg. Length		370	535	522	387	577	544		613	530
	Std. Error		26.9		1.3	11.0	3.6	10.4		20.6	1.7
	Sample Size		7	1	510	2	89	27		8	644
Statistical Week 33 (August 7 - 13)											
Male	Avg. Length	485	376	603	527	430	596	562		638	538
	Std. Error		20.8		2.0	5.0	3.7	7.0		31.1	2.7
	Sample Size	1	7	1	231	2	50	23		3	318
Female	Avg. Length		419		520	451	580	532		573	523
	Std. Error		19.4		1.7	72.0	4.4	9.7		1.0	2.1
	Sample Size		4		215	2	20	11		2	254
All Fish	Avg. Length	485	391	603	524	441	591	552		612	531
	Std. Error		15.8		1.3	30.1	3.0	6.1		23.4	1.8
	Sample Size	1	11	1	446	4	70	34		5	572

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		Brood Year and Age Class									
		1985		1984			1983		1982		
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Statistical Week 34 (August 14 - 20)											
Male	Avg. Length		362		534	467	602	545		586	537
	Std. Error		20.0		4.4	119.5	10.3	8.3		21.9	6.9
	Sample Size		5		52	2	15	9		3	86
Female	Avg. Length				518		581	537		610	531
	Std. Error				2.5		5.0	9.3			2.9
	Sample Size				124		29	9		1	163
All Fish	Avg. Length		362		523	467	588	541		592	533
	Std. Error		20.0		2.3	119.5	5.0	6.1		16.6	3.1
	Sample Size		5		176	2	44	18		4	249
Statistical Weeks 35 - 36 (August 21 - September 3)											
Male	Avg. Length		390		532	432	599	555		610	524
	Std. Error		10.1		4.0	40.3	9.1	18.4			6.0
	Sample Size		14		86	5	18	9		1	133
Female	Avg. Length		427		524	520	583	532		585	533
	Std. Error				2.5		8.1	8.2		70.0	2.9
	Sample Size		1		142	1	28	10		2	184
All Fish	Avg. Length		393		527	446	589	543		593	530
	Std. Error		9.7		2.2	36.0	6.1	9.8		41.3	3.0
	Sample Size		15		228	6	46	19		3	317
Combined Periods (Lengths weighted by period catches)											
Male	Avg. Length	457	347	530	520	390	586	544		612	535
	Std. Error	30.0	7.4	37.7	1.2	21.9	1.9	3.4		6.3	1.5
	Sample Size	2	33	4	878	13	272	110		40	1352
Female	Avg. Length		502	544	517	415	572	537	615	598	529
	Std. Error		22.0	9.7	0.8	38.6	1.8	4.1		8.3	0.9
	Sample Size		6	3	1198	4	279	71	1	18	1580
All Fish	Avg. Length	457	364	550	518	399	579	541	615	608	532
	Std. Error	30.0	8.0	20.5	0.7	18.9	1.3	2.7		5.1	0.8
	Sample Size	2	39	7	2076	17	552	181	1	58	2933

[a] Includes catches in Subdistricts 35, 40, 50, and 1/2 of the catch in Subdistrict 30.

Appendix C.14. Test for significant changes in the length composition among periods of sockeye salmon in northern District 104 [a] purse seine catch by age class, 1988.

	Brood Year and Age Class								
	1985		1984			1983		1982	
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3
Periods Compared									
1 , 2									
1 , 3									
1 , 4				S**					
1 , 5				S**		S**	S**		
1 , 6				S**		S			
1 , 7				S**		S			
2 , 3									S
2 , 4				S**					
2 , 5				S**	S*	S**	S		
2 , 6				S**		S*			
2 , 7				S**	S	S*			
3 , 4				S**					
3 , 5				S**		S**	S*		
3 , 6				S**		S*			
3 , 7				S**		S*			
4 , 5					S	S**			
4 , 6						S			
4 , 7				S		S			
5 , 6									
5 , 7									
6 , 7									

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

[a] Includes catches from Subdistricts 35, 40, 50, and 1/2 of the catch from Subdistrict 30.

Appendix C.15. Age composition of sockeye salmon in southern District 104 [a] purse seine catch by sex, age class, and fishing period, 1988.

	Brood Year and Age Class										
	1985		1984			1983			1982		
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 28 (July 3 - 9)											
Male											
Sample Size			1	145	1	1	116	68		18	350
Percent			0.1	15.7	0.1	0.1	12.6	7.4		2.0	38.0
Std. Error			0.1	1.1	0.1	0.1	1.0	0.8		0.4	1.5
Number			11	1603	11	11	1283	752		199	3870
Female											
Sample Size			1	222			234	98		17	572
Percent			0.1	24.1			25.4	10.6		1.8	62.0
Std. Error			0.1	1.3			1.4	1.0		0.4	1.5
Number			11	2455			2587	1084		188	6325
All Fish											
Sample Size			2	367	1	1	350	166		35	922
Percent			0.2	39.8	0.1	0.1	38.0	18.0		3.8	100.0
Std. Error			0.1	1.5	0.1	0.1	1.5	1.2		0.6	
Number			22	4058	11	11	3870	1836		387	10195
Statistical Week 29 (July 10 - 16)											
Male											
Sample Size			1	64	1		51	18	1	7	143
Percent			0.3	17.1	0.3		13.6	4.8	0.3	1.9	38.2
Std. Error			0.3	1.9	0.3		1.8	1.1	0.3	0.7	2.5
Number			141	9035	141		7199	2541	141	988	20186
Female											
Sample Size		3	2	97			102	18		9	231
Percent		0.8	0.5	25.9			27.3	4.8		2.4	61.8
Std. Error		0.5	0.4	2.3			2.3	1.1		0.8	2.5
Number		423	282	13693			14399	2541		1270	32608
All Fish											
Sample Size	1	3	4	172	1		172	41	1	17	412
Percent	0.2	0.7	1.0	41.7	0.2		41.7	10.0	0.2	4.1	100.0
Std. Error	0.2	0.4	0.5	2.4	0.2		2.4	1.5	0.2	1.0	
Number	141	423	565	24279	141		24280	5788	141	2400	58158
Statistical Week 30 (July 17 - 23)											
Male											
Sample Size				70			23	7		6	106
Percent				18.7			6.1	1.9		1.6	28.3
Std. Error				2.0			1.2	0.7		0.6	2.3
Number				10633			3494	1063		911	16101
Female											
Sample Size			1	195			58	10		5	269
Percent			0.3	52.0			15.5	2.7		1.3	71.7
Std. Error			0.3	2.6			1.9	0.8		0.6	2.3
Number			152	29620			8810	1519		759	40860
All Fish											
Sample Size			1	265			81	17		11	375
Percent			0.3	70.7			21.6	4.5		2.9	100.0
Std. Error			0.3	2.3			2.1	1.1		0.9	
Number			152	40253			12304	2582		1670	56961
Statistical Week 31 (July 24 - 30)											
Male											
Sample Size		1		59			19	8		9	96
Percent		0.3		17.5			5.6	2.4		2.7	28.5
Std. Error		0.3		2.1			1.2	0.8		0.9	2.4
Number		53		3110			1002	422		475	5062
Female											
Sample Size				189			41	10		1	241
Percent				56.1			12.2	3.0		0.3	71.5
Std. Error				2.7			1.8	0.9		0.3	2.4
Number				9965			2162	527		53	12707
All Fish											
Sample Size		1		252			61	18		10	342
Percent		0.3		73.7			17.8	5.3		2.9	100.0
Std. Error		0.3		2.4			2.1	1.2		0.9	
Number		53		13288			3216	949		527	18033

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	Brood Year and Age Class										
	1985		1984			1983			1982		
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 32 (July 31 - August 6)											
Male											
Sample Size	1	3		173	2		61	26		7	273
Percent	0.1	0.3		19.7	0.2		6.9	3.0		0.8	31.1
Std. Error	0.1	0.2		1.3	0.2		0.8	0.6		0.3	1.5
Number	42	126		7255	84		2558	1090		294	11449
Female											
Sample Size		1		489	2		77	29		8	606
Percent		0.1		55.6	0.2		8.8	3.3		0.9	68.9
Std. Error		0.1		1.7	0.2		0.9	0.6		0.3	1.5
Number		42		20508	84		3229	1216		336	25415
All Fish											
Sample Size	1	4		662	4		138	55		15	879
Percent	0.1	0.5		75.3	0.5		15.7	6.3		1.7	100.0
Std. Error	0.1	0.2		1.4	0.2		1.2	0.8		0.4	
Number	42	168		27763	168		5787	2306		630	36864
Statistical Week 33 (August 7 - 13)											
Male											
Sample Size				23			6	5			34
Percent				15.3			4.0	3.3			22.7
Std. Error				2.9			1.6	1.5			3.4
Number				2661			694	579			3934
Female											
Sample Size				95			16	3		2	116
Percent				63.3			10.7	2.0		1.3	77.3
Std. Error				3.9			2.5	1.1		0.9	3.4
Number				10994			1852	347		231	13424
All Fish											
Sample Size				118			22	8		2	150
Percent				78.7			14.7	5.3		1.3	100.0
Std. Error				3.3			2.9	1.8		0.9	
Number				13655			2546	926		231	17358
Statistical Week 34 (August 14 - 20)											
Male											
Sample Size		2		74			22	16			114
Percent		0.7		24.3			7.2	5.2			37.4
Std. Error		0.5		2.4			1.5	1.3			2.7
Number		45		1674			498	362			2579
Female											
Sample Size				142			32	17			191
Percent				46.6			10.5	5.6			62.6
Std. Error				2.8			1.7	1.3			2.7
Number				3212			724	385			4321
All Fish											
Sample Size		2		216			54	33			305
Percent		0.7		70.8			17.7	10.8			100.0
Std. Error		0.5		2.5			2.1	1.7			
Number		45		4886			1222	747			6900
Statistical Week 35 (August 21 - 27)											
Male											
Sample Size		1		49			11	7		3	71
Percent		0.4		17.6			3.9	2.5		1.1	25.4
Std. Error		0.4		2.2			1.1	0.9		0.6	2.6
Number		23		1115			250	159		68	1615
Female											
Sample Size				161			28	14		5	208
Percent				57.7			10.0	5.0		1.8	74.6
Std. Error				2.9			1.8	1.3		0.8	2.6
Number				3661			637	318		114	4730
All Fish											
Sample Size		1		210			39	21		8	279
Percent		0.4		75.3			14.0	7.5		2.9	100.0
Std. Error		0.4		2.5			2.0	1.5		1.0	
Number		23		4776			887	477		182	6345

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	Brood Year and Age Class										
	1985		1984			1983			1982		
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 36 (August 28 - September 3)											
Male											
Sample Size		1		33			8	2		1	45
Percent		0.6		21.0			5.1	1.3		0.6	28.7
Std. Error		0.6		3.1			1.7	0.9		0.6	3.5
Number		10		323			78	20		10	441
Female											
Sample Size		1		89			16	5		1	112
Percent		0.6		56.7			10.2	3.2		0.6	71.3
Std. Error		0.6		3.8			2.3	1.3		0.6	3.5
Number		10		871			157	49		10	1097
All Fish											
Sample Size		2		145			28	9		4	188
Percent		1.1		77.1			14.9	4.8		2.1	100.0
Std. Error		0.7		2.9			2.5	1.5		1.0	
Number		20		1420			274	88		39	1841
Combined Periods (Percentages are weighted by period catches)											
Male											
Sample Size	1	8	2	690	4	1	317	157	1	51	1232
Percent	<0.1	0.1	0.1	18.1	0.1	<0.1	8.3	3.4	0.1	1.4	31.6
Std. Error	<0.1	<0.1	0.1	0.9	0.1	<0.1	0.6	0.4	0.1	0.3	1.0
Number	42	257	152	37409	236	11	17056	6988	141	2945	65237
Female											
Sample Size		5	4	1679	2		604	204		48	2546
Percent		0.2	0.2	45.9	<0.1		16.7	3.9		1.4	68.4
Std. Error		0.1	0.1	1.1	<0.1		0.9	0.4		0.3	1.0
Number		475	445	94979	84		34557	7986		2961	141487
All Fish											
Sample Size	2	13	7	2407	6	1	945	368	1	102	3852
Percent	0.1	0.3	0.3	63.2	0.2	<0.1	25.6	7.4	0.1	2.9	100.0
Std. Error	0.1	0.1	0.1	1.0	0.1	<0.1	1.0	0.6	0.1	0.4	
Number	183	732	739	134378	320	11	54386	15699	141	6066	212655

[a] Includes catches in Subdistricts 10, 20, and 1/2 of the catch in Subdistrict 30.

Appendix C.16. Test for significant changes in the age composition among periods of sockeye salmon in southern District 104 [a] purse seine catch by age class, 1988.

	Brood Year and Age Class									
	1985		1984			1983			1982	
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3
Periods Compared										
1 , 2		S*						S**		
1 , 3				S**			S**	S**		
1 , 4				S**			S**	S**		
1 , 5				S**			S**	S**		S**
1 , 6				S**			S**	S**		
1 , 7				S**			S**	S**		S**
1 , 8				S**			S**	S**		
1 , 9		S*		S**			S**	S**		
2 , 3				S**			S**	S**		
2 , 4				S**			S**	S*		
2 , 5			S**	S**			S**	S*		S**
2 , 6				S**			S**			
2 , 7				S**			S**			S**
2 , 8				S**			S**			
2 , 9				S**			S**	S*		
3 , 4										
3 , 5				S			S**			
3 , 6				S			S			
3 , 7								S**		S**
3 , 8							S**			
3 , 9							S			
4 , 5										
4 , 6										
4 , 7								S**		S**
4 , 8										
4 , 9										
5 , 6										
5 , 7								S**		S*
5 , 8										
5 , 9										
6 , 7				S				S		
6 , 8										
6 , 9										
7 , 8										S**
7 , 9								S*		S*
8 , 9										

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

[a] Includes catches from Subdistricts 10, 20, and 1/2 of the catch from Subdistrict 30.

Appendix C.17. Length composition of sockeye salmon in the southern District 104 ' purse seine catch by sex, age class, and fishing period, 1988.

		Brood Year and Age Class										
		1985		1984			1983			1982		
		0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 28 (July 3 - 9)												
Male	Avg. Length			565	499	410	580	570	543		576	534
	Std. Error				3.8			3.1	4.4		11.4	3.0
	Sample Size			1	101	1	1	78	50		11	243
Female	Avg. Length			560	517			559	529		571	540
	Std. Error				3.6			2.8	4.6		11.6	2.4
	Sample Size			1	93			117	34		7	252
All Fish	Avg. Length			563	507	410	580	563	538		574	537
	Std. Error			2.5	2.7			2.1	3.3		8.1	1.9
	Sample Size			2	194	1	1	195	84		18	495
Statistical Week 29 (July 10 - 16)												
Male	Avg. Length				508	410		587	539	625	611	544
	Std. Error				5.2			8.0	11.2		17.3	5.7
	Sample Size				45	1		34	14	1	5	100
Female	Avg. Length		333	588	518			580	535		579	548
	Std. Error		7.5	2.5	5.4			3.7	10.2		10.0	4.4
	Sample Size		2	2	56			65	11		6	142
All Fish	Avg. Length	570	333	585	516	410		578	535	625	593	547
	Std. Error		7.5	2.9	3.8			3.6	6.6		9.5	3.2
	Sample Size	1	2	3	112	1		118	30	1	12	280
Statistical Week 30 (July 17 - 23)												
Male	Avg. Length				523			625	555		640	567
	Std. Error				11.2			16.5	11.1		20.0	11.5
	Sample Size				11			6	6		3	26
Female	Avg. Length			540	507			569	522		605	525
	Std. Error				3.4			4.6	10.4		22.9	3.4
	Sample Size			1	125			43	6		3	178
All Fish	Avg. Length			540	509			576	538		623	530
	Std. Error				3.3			5.2	8.8		15.7	3.5
	Sample Size			1	136			49	12		6	204
Statistical Week 31 (July 24 - 30)												
Male	Avg. Length				528			612	579		633	563
	Std. Error				8.5			12.5	13.8		15.4	8.2
	Sample Size				30			11	6		6	53
Female	Avg. Length				522			584	561		620	536
	Std. Error				2.7			5.2	10.2			3.2
	Sample Size				111			27	6		1	145
All Fish	Avg. Length				524			592	570		631	543
	Std. Error				2.8			5.5	8.6		13.1	3.3
	Sample Size				141			38	12		7	198
Statistical Week 32 (July 31 - August 6)												
Male	Avg. Length		440		527	415		577	534		610	539
	Std. Error		95.0		3.6			6.7	10.1		14.3	3.7
	Sample Size		2		107	1		33	11		6	160
Female	Avg. Length		585		514	425		562	509		588	521
	Std. Error				1.9			6.4	11.1		7.8	2.2
	Sample Size		1		244	1		48	21		4	319
All Fish	Avg. Length		488		518	420		568	517		601	527
	Std. Error		73.1		1.7	5.0		4.7	8.2		9.4	2.0
	Sample Size		3		351	2		81	32		10	479

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		Brood Year and Age Class										
		1985		1984			1983			1982		
		0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Statistical Week 33 (August 7 - 13)												
Male	Avg. Length				530			597	559			546
	Std. Error				7.1			19.9	14.1			7.5
	Sample Size				23			6	5			34
Female	Avg. Length				521			578	540		565	531
	Std. Error				2.4			5.9	25.7		5.0	2.9
	Sample Size				95			16	3		2	116
All Fish	Avg. Length				523			583	552		565	534
	Std. Error				2.4			6.9	12.4		5.0	2.8
	Sample Size				118			22	8		2	150
Statistical Week 34 (August 14 - 20)												
Male	Avg. Length		396		523			598	574			543
	Std. Error		14.5		4.3			6.8	7.4			4.7
	Sample Size		2		74			22	16			114
Female	Avg. Length				525			590	535			536
	Std. Error				2.3			4.7	7.2			2.6
	Sample Size				142			32	17			191
All Fish	Avg. Length		396		524			593	554			539
	Std. Error		14.5		2.1			3.9	6.1			2.4
	Sample Size		2		216			54	33			305
Statistical Week 35 (August 21 - 27)												
Male	Avg. Length		413		530			601	568		587	544
	Std. Error				6.7			13.2	20.8		9.0	6.8
	Sample Size		1		40			7	6		3	57
Female	Avg. Length				522			569	539		576	531
	Std. Error				2.1			7.6	7.0		11.6	2.4
	Sample Size				137			25	10		5	177
All Fish	Avg. Length		413		524			576	550		580	534
	Std. Error				2.2			6.9	9.2		7.8	2.5
	Sample Size		1		177			32	16		8	234
Statistical Week 36 (August 28 - Sept. 3)												
Male	Avg. Length		580		546			603	525		615	557
	Std. Error				5.5			10.6	35.0			5.8
	Sample Size		1		33			8	2		1	45
Female	Avg. Length		430		526			556	534		555	530
	Std. Error				3.1			8.2	3.3			3.0
	Sample Size		1		89			16	5		1	112
All Fish	Avg. Length		505		531			576	534		610	540
	Std. Error		75.0		2.6			7.4	8.8		19.9	2.8
	Sample Size		2		145			28	9		4	188
Combined Periods (Lengths weighted by period catches)												
Male	Avg. Length		436	565	520	412	580	598	549	625	619	551
	Std. Error		37.7		1.9	1.7		2.7	3.3		6.8	1.8
	Sample Size		6	1	464	3	1	205	116	1	35	832
Female	Avg. Length		430	564	515	425		573	529		589	533
	Std. Error		59.7	11.6	0.9			1.7	3.2		5.0	1.0
	Sample Size		4	4	1092	1		389	113		29	1632
All Fish	Avg. Length	570	396	563	516	414	580	577	538	625	602	537
	Std. Error		31.1	7.6	0.9	3.5		1.5	2.4		4.5	0.9
	Sample Size	1	10	6	1590	4	1	617	236	1	67	2533

* Includes catches from Subdistricts 10, 20, and 1/2 of the catch from Subdistrict 30.

Appendix C.1B. Test for significant changes in the length composition among periods of sockeye salmon in southern District 104 [a] purse seine catch by age class, 1988.

	Brood Year and Age Class									
	1985		1984			1983			1982	
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3
Periods Compared										
1 . 2			S**	S			S**			
1 . 3							S*			S**
1 . 4				S**			S**	S**		S**
1 . 5				S**				S**		S*
1 . 6				S**			S**			
1 . 7				S**			S**	S*		
1 . 8				S**			S			
1 . 9				S**			S			S
2 . 3										
2 . 4				S			S*	S**		S**
2 . 5		S*					S	S		
2 . 6										S**
2 . 7		S**		S			S**	S*		
2 . 8				S						
2 . 9		S*		S**						
3 . 4				S**			S*	S**		
3 . 5				S**				S		
3 . 6				S**						S**
3 . 7				S**			S**			
3 . 8				S**						S**
3 . 9				S**						
4 . 5				S			S**	S**		S
4 . 6										S**
4 . 7										
4 . 8							S			S**
4 . 9				S			S	S**		
5 . 6				S			S	S**		S**
5 . 7				S*			S**	S**		
5 . 8				S*				S**		S
5 . 9				S**						
6 . 7										
6 . 8										
6 . 9				S*						S*
7 . 8							S*			
7 . 9				S*			S*	S		
8 . 9				S*						

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

[a] Includes catches from Subdistricts 10, 20, and 1/2 of the catch from Subdistrict 30.

Appendix C.19. Age composition of sockeye salmon in the District 105 purse seine catch by sex and age class, 1988.

	Brood Year and Age Class				
	1985	1984	1983		
	1.1	1.2	1.3	2.2	Total
Statistical Weeks	31 - 36 (July 24 - September 3)				
Male					
Sample Size	1	17	5	1	24
Percent	1.4	23.9	7.0	1.4	33.8
Std. Error	1.2	4.3	2.6	1.2	4.8
Number	4	61	18	3	86
Female					
Sample Size		40	6	1	47
Percent		56.3	8.5	1.4	66.2
Std. Error		5.0	2.8	1.2	4.8
Number		144	22	3	169
All Fish					
Sample Size	1	57	11	2	71
Percent	1.4	80.3	15.5	2.8	100.0
Std. Error	1.2	4.0	3.7	1.7	
Number	4	205	40	6	255

Appendix C.20. Length composition of sockeye salmon in the District 105 purse seine catch by sex and age class, 1988.

		Brood Year and Age Class				
		1985	1984	1983		
		1.1	1.2	1.3	2.2	Total
Statistical Weeks 31 - 36 (July 24 - September 3)						
Male	Avg. Length	400	520	595	608	535
	Std. Error		7.9	21.5		11.4
	Sample Size	1	17	5	1	24
Female	Avg. Length		518	582	561	527
	Std. Error		4.1	9.7		4.9
	Sample Size		40	6	1	47
All Fish	Avg. Length	400	519	588	585	530
	Std. Error		3.7	10.7	23.5	5.0
	Sample Size	1	57	11	2	71

Appendix C.21. Age composition of sockeye salmon in the District 109 purse seine catch by sex, age class, and fishing period, 1988.

	Brood Year and Age Class														
	1986	1985			1984		1983			1982			1981		
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	3.3	4.2	Total
Statistical Weeks 29 - 30 (July 10 - 23)															
Male															
Sample Size			1		201	2	25	11			7				247
Percent			0.2		44.4	0.4	5.5	2.4			1.5				54.5
Std. Error			0.2		2.2	0.3	1.0	0.7			0.5				2.2
Number			10		1971	19	245	108			69				2422
Female															
Sample Size					110	1	69	11			15				206
Percent					24.3	0.2	15.2	2.4			3.3				45.5
Std. Error					1.9	0.2	1.6	0.7			0.8				2.2
Number					1079	9	677	108			147				2020
All Fish															
Sample Size			1		311	3	94	22			22				453
Percent			0.2		68.7	0.7	20.8	4.9			4.9				100.0
Std. Error			0.2		2.1	0.4	1.8	1.0			1.0				
Number			10		3050	28	922	216			216				4442
Statistical Weeks 31 - 32 (July 24 - August 6)															
Male															
Sample Size		1	1	2	36	4	38	23			14	10			129
Percent		0.4	0.4	0.8	13.8	1.5	14.6	8.8			5.4	3.8			49.4
Std. Error		0.3	0.3	0.5	1.8	0.7	1.9	1.5			1.2	1.0			2.6
Number		3	4	7	133	15	140	85			52	37			476
Female															
Sample Size		1		2	24		63	18		1	12	9	2		132
Percent		0.4		0.8	9.2		24.1	6.9		0.4	4.6	3.4	0.8		50.6
Std. Error		0.3		0.5	1.5		2.3	1.3		0.3	1.1	1.0	0.5		2.6
Number		4		8	89		233	66		4	44	33	7		488
All Fish															
Sample Size		2	1	4	60	4	101	41		1	26	19	2		261
Percent		0.8	0.4	1.5	23.0	1.5	38.7	15.7		0.4	10.0	7.3	0.8		100.0
Std. Error		0.5	0.3	0.7	2.2	0.7	2.6	1.9		0.3	1.6	1.4	0.5		
Number		7	4	15	222	15	373	151		4	96	70	7		964
Statistical Week 33 (August 7 - 13)															
Male															
Sample Size	1		4	3	77	7	50	39	1		32	10	2		226
Percent	0.2		0.9	0.7	17.7	1.6	11.5	8.9	0.2		7.3	2.3	0.5		51.8
Std. Error	0.2		0.4	0.3	1.4	0.5	1.2	1.1	0.2		1.0	0.6	0.3		1.9
Number	3		10	7	201	18	131	102	3		84	26	5		590
Female															
Sample Size			2	6	78		46	40			28	9		1	210
Percent			0.5	1.4	17.9		10.6	9.2			6.4	2.1		0.2	48.2
Std. Error			0.3	0.4	1.4		1.2	1.1			0.9	0.5		0.2	1.9
Number			5	16	204		120	104			73	23		3	548
All Fish															
Sample Size	1		6	9	155	7	96	79	1		60	19	2	1	436
Percent	0.2		1.4	2.1	35.6	1.6	22.0	18.1	0.2		13.8	4.4	0.5	0.2	100.0
Std. Error	0.2		0.4	0.5	1.8	0.5	1.6	1.5	0.2		1.3	0.8	0.3	0.2	
Number	3		15	23	405	18	251	206	3		157	49	5	3	1138
Statistical Weeks 34 - 37 (August 14 - September 10)															
Male															
Sample Size					12	1	5	12		1	4	4			39
Percent					11.9	1.0	5.0	11.9		1.0	4.0	4.0			38.6
Std. Error					2.9	0.9	1.9	2.9		0.9	1.7	1.7			4.4
Number					60	5	25	60		5	20	20			195
Female															
Sample Size			1		20		12	17			4	8			62
Percent			1.0		19.8		11.9	16.8			4.0	7.9			61.4
Std. Error			0.9		3.6		2.9	3.3			1.7	2.4			4.4
Number			5		100		60	85			20	40			310
All Fish															
Sample Size			1		32	1	17	29		1	8	12			101
Percent			1.0		31.7	1.0	16.8	28.7		1.0	7.9	11.9			100.0
Std. Error			0.9		4.2	0.9	3.3	4.0		0.9	2.4	2.9			
Number			5		160	5	85	145		5	40	60			505
Combined Periods (Percentages are weighted by period catches)															
Male															
Sample Size	1	1	6	5	326	14	118	85	1	1	57	24	2		641
Percent	<0.1	0.1	0.3	0.2	33.5	0.8	7.7	5.0	<0.1	0.1	3.2	1.2	0.1		52.3
Std. Error	<0.1	<0.1	0.2	0.1	1.5	0.2	0.7	0.5	<0.1	0.1	0.4	0.2	<0.1		1.5
Number	3	3	24	14	2365	57	541	355	3	5	225	83	5		3683
Female															
Sample Size		1	3	8	232	1	190	86		1	59	26	2	1	610
Percent		0.1	0.1	0.3	20.9	0.1	15.5	5.2		0.1	4.0	1.4	0.1	<0.1	47.7
Std. Error		<0.1	0.1	0.1	1.3	0.1	1.1	0.6		<0.1	0.6	0.2	0.1	<0.1	1.5
Number		4	10	24	1472	9	1090	363		4	284	96	7	3	3366
All Fish															
Sample Size	1	2	9	13	558	15	308	171	1	2	116	50	4	1	1251
Percent	<0.1	0.1	0.5	0.5	54.4	1.0	23.1	10.2	<0.1	0.1	7.2	2.6	0.2	<0.1	100.0
Std. Error	<0.1	0.1	0.2	0.1	1.4	0.3	1.2	0.8	<0.1	0.1	0.7	0.3	0.1	<0.1	
Number	3	7	34	38	3837	66	1631	718	3	9	509	179	12	3	7049

Appendix C.22. Test for significant changes in the age composition among periods of sockeye salmon in the District 109 purse seine catch by age class, 1988.

	Brood Year and Age Class													
	1986	1985		1984			1983			1982			1981	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	3.3	4.2
Periods Compared														
1 , 2				S*	S**		S**	S**			S**	S**		
1 , 3				S**	S**			S**			S**	S**		
1 , 4					S**			S**				S**		
2 , 3					S**		S**							
2 , 4							S**	S**						
3 , 4								S*				S**		

S = significant at alpha = 0.10

S* = significant at alpha = 0.05

S** = significant at alpha = 0.01

Appendix C.23. Length composition of sockeye salmon in the District 109 purse seine catch by sex, age class, and fishing period, 1988.

		Brood Year and Age Class													
		1986	1985		1984			1983		1982			1981		
		0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	3.3	4.2	Total
Statistical Weeks 29 - 30 (July 10 - 23)															
Male	Avg. Length					479	535	517	491		578				488
	Std. Error					4.0		20.0	18.3		16.1				4.6
	Sample Size					80	1	11	3		4				99
Female	Avg. Length					477		537	474		543				508
	Std. Error					4.7		5.0	24.6		2.5				4.9
	Sample Size					30		31	4		6				71
All Fish	Avg. Length					478	535	532	481		557				497
	Std. Error					3.2		6.4	15.3		8.3				3.4
	Sample Size					110	1	42	7		10				170
Statistical Weeks 31 - 32 (July 24 - August 6)															
Male	Avg. Length		450	370	562	481	362	586	490		591	509			524
	Std. Error				9.5	7.4	4.4	4.9	7.3		8.4	10.6			6.0
	Sample Size		1	1	2	36	4	38	23		14	10			129
Female	Avg. Length		490		602	480		570	493	591	568	503	536		538
	Std. Error				4.5	6.8		2.9	8.0		7.0	6.9	12.5		4.2
	Sample Size		1		2	24		63	18	1	12	9	2		132
All Fish	Avg. Length		470	370	582	481	362	576	491	591	580	506	536		531
	Std. Error		20.0		12.3	5.2	4.4	2.7	5.4		5.9	6.3	12.5		3.7
	Sample Size		2	1	4	60	4	101	41	1	26	19	2		261
Statistical Week 33 (August 7 - 13)															
Male	Avg. Length	343		336	582	513	360	583	513		607	510			539
	Std. Error			32.0	20.7	12.2	20.2	5.8	10.5		5.1				8.2
	Sample Size	1		2	3	19	3	22	18		15	1			84
Female	Avg. Length				562	499		568	510		591	513		546	536
	Std. Error				16.5	6.7		8.9	7.5		4.5	1.0			5.4
	Sample Size				3	18		19	22		11	2		1	76
All Fish	Avg. Length	343		336	572	506	360	576	511		600	512		546	537
	Std. Error			32.0	12.7	7.1	20.2	5.2	6.2		3.8	1.2			5.0
	Sample Size	1		2	6	37	3	41	40		26	3		1	160
Statistical Weeks 34 - 37 (August 14 - September 10)															
Male	Avg. Length					510	355	598	543	545	598	490			533
	Std. Error					11.4		17.4	15.4		24.6	20.3			10.3
	Sample Size					12	1	5	10	1	3	4			36
Female	Avg. Length			365		499		578	498		569	511			517
	Std. Error					6.9		7.0	6.8		22.5	18.6			6.6
	Sample Size			1		18		10	16		4	6			55
All Fish	Avg. Length			365		504	355	585	515	545	581	503			523
	Std. Error					6.1		7.5	8.3		16.3	13.5			5.7
	Sample Size			1		30	1	15	26	1	7	10			91
Combined Periods (Lengths weighted by period catches)															
Male	Avg. Length	343	450	352	573	487	470	543	498	545	586	506			504
	Std. Error			21.7	12.8	3.5	20.4	5.1	6.1		4.8	8.8			3.6
	Sample Size	1	1	3	5	147	9	76	54	1	36	15			348
Female	Avg. Length		490	365	580	482		549	484	591	556	509	536	546	518
	Std. Error				13.2	3.2		2.7	4.5		4.8	7.2	12.5		2.6
	Sample Size		1	1	5	90		123	60	1	33	17	2	1	334
All Fish	Avg. Length	343	470	354	577	485	470	549	490	575	569	508	536	546	510
	Std. Error		20.0	15.9	8.7	2.5	20.4	2.6	3.7	23.0	3.7	5.5	12.5		2.2
	Sample Size	1	2	4	10	237	9	199	114	2	69	32	2	1	682

Appendix C.24. Test for significant changes in the length composition among periods of sockeye salmon in the District 109 purse seine catch by age class, 1988.

	Brood Year and Age Class												
	1986	1985		1984			1983		1982			1981	
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	3.3	4.2
Periods Compared													
1 , 2							S**			S*			
1 , 3					S**		S**	S		S**			
1 , 4					S**		S**	S					
2 , 3					S**			S**		S**			
2 , 4					S**			S**					
3 , 4													

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix C.25. Age composition of sockeye salmon in the District 112 purse seine catch by sex, age class, and fishing period, 1988.

	Brood Year and Age Class										
	1985		1984			1983		1982		1981	
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Statistical Weeks 28 - 29 (July 3 - 16)											
Male											
Sample Size			2	30		25	5		2		64
Percent			1.4	21.1		17.6	3.5		1.4		45.1
Std. Error			1.0	3.3		3.1	1.5		1.0		4.0
Number			29	426		355	71		28		909
Female											
Sample Size			1	38		30	7	1	1		78
Percent			0.7	26.8		21.1	4.9	0.7	0.7		54.9
Std. Error			0.7	3.6		3.3	1.8	0.7	0.7		4.0
Number			14	540		426	99	14	15		1108
All Fish											
Sample Size			3	68		55	12	1	3		142
Percent			2.1	47.9		38.7	8.5	0.7	2.1		100.0
Std. Error			1.2	4.1		4.0	2.3	0.7	1.2		
Number			43	966		781	170	14	43		2017
Statistical Weeks 30 - 31 (July 17 - 30)											
Male											
Sample Size			3	16		27	5		1	1	53
Percent			3.0	16.0		27.0	5.0		1.0	1.0	53.0
Std. Error			1.5	3.2		3.9	1.9		0.9	0.9	4.3
Number			12	64		107	20		4	4	211
Female											
Sample Size	2			19		20	5		1		47
Percent	2.0			19.0		20.0	5.0		1.0		47.0
Std. Error	1.2			3.4		3.5	1.9		0.9		4.3
Number	8			76		80	20		4		188
All Fish											
Sample Size	2		3	35		47	10		2	1	100
Percent	2.0		3.0	35.0		47.0	10.0		2.0	1.0	100.0
Std. Error	1.2		1.5	4.1		4.3	2.6		1.2	0.9	
Number	8		12	140		187	40		8	4	399
Statistical Week 33 (August 7 - 13)											
Male											
Sample Size	1	1	2	19		11	14		7		55
Percent	0.7	0.7	1.5	14.0		8.1	10.3		5.1		40.4
Std. Error	0.6	0.6	0.8	2.4		1.9	2.1		1.5		3.4
Number	3	3	6	56		32	41		20		161
Female											
Sample Size		1	5	21	3	22	19		10		81
Percent		0.7	3.7	15.4	2.2	16.2	14.0		7.4		59.6
Std. Error		0.6	1.3	2.5	1.0	2.6	2.4		1.8		3.4
Number		3	15	61	9	64	56		29		237
All Fish											
Sample Size	1	2	7	40	3	33	33		17		136
Percent	0.7	1.5	5.1	29.4	2.2	24.3	24.3		12.5		100.0
Std. Error	0.6	0.8	1.5	3.2	1.0	3.0	3.0		2.3		
Number	3	6	21	117	9	96	97		49		398

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	Brood Year and Age Class										
	1985		1984			1983		1982		1981	
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Statistical Weeks 34 - 36 (August 14 - September 3)											
Male											
Sample Size	1			36		7	10		5		59
Percent	0.7			25.7		5.0	7.1		3.6		42.1
Std. Error	0.7			3.5		1.7	2.0		1.5		3.9
Number	7			269		52	76		37		441
Female											
Sample Size		3		41	1	14	16		6		81
Percent		2.1		29.3	0.7	10.0	11.4		4.3		57.9
Std. Error		1.1		3.6	0.7	2.4	2.5		1.6		3.9
Number		22		307	7	105	120		45		606
All Fish											
Sample Size	1	3		77	1	21	26		11		140
Percent	0.7	2.1		55.0	0.7	15.0	18.6		7.9		100.0
Std. Error	0.7	1.1		3.9	0.7	2.8	3.1		2.1		
Number	7	22		576	7	157	196		82		1047
Combined Periods (Percentages are weighted by period catches)											
Male											
Sample Size	2	1	7	101		70	34		15	1	231
Percent	0.3	0.1	1.2	21.1		14.2	5.4		2.3	0.1	44.6
Std. Error	0.2	0.1	0.5	2.0		1.7	1.0		0.7	0.1	2.4
Number	10	3	47	815		546	208		89	4	1722
Female											
Sample Size	2	4	6	119	4	86	47	1	18		287
Percent	0.2	0.7	0.7	25.5	0.4	17.5	7.6	0.4	2.4		55.4
Std. Error	0.1	0.3	0.4	2.2	0.2	1.9	1.2	0.4	0.6		2.4
Number	8	25	29	984	16	675	295	14	93		2139
All Fish											
Sample Size	4	5	13	220	4	156	81	1	33	1	518
Percent	0.5	0.7	1.9	46.6	0.4	31.7	13.0	0.4	4.7	0.1	100.0
Std. Error	0.2	0.3	0.6	2.4	0.2	2.3	1.5	0.4	0.9	0.1	
Number	18	28	76	1799	16	1221	503	14	182	4	3861

Appendix C.26. Test for significant changes in the age composition among periods of sockeye salmon in the District 112 purse seine catch by age class, 1988.

	Brood Year and Age Class									
	1985		1984			1983		1982		1981
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4
Periods Compared										
1 , 2				S						
1 , 3				S**		S**	S**		S**	
1 , 4						S**	S*		S	
2 , 3						S**	S**		S**	
2 , 4				S**		S**	S		S	
3 , 4			S**	S**		S				

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix C.27. Length composition of sockeye salmon in the District 112 purse seine catch by sex, age class, and fishing period, 1988.

		Brood Year and Age Class									
		1985		1984			1983		1982		
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Statistical Weeks 28 - 29 (July 3 - 16)											
Male	Avg. Length			598	508		581	491		605	541
	Std. Error			12.5	5.0		7.8	13.7		25.0	6.4
	Sample Size			2	30		25	5		2	64
Female	Avg. Length			580	492		559	512	570	575	523
	Std. Error				5.4		3.1	11.3			4.8
	Sample Size			1	37		30	7	1	1	77
All Fish	Avg. Length			592	499		569	503	570	595	531
	Std. Error			9.3	3.8		4.2	8.9		17.6	4.0
	Sample Size			3	67		55	12	1	3	141
Statistical Weeks 30 - 31 (July 17 - 30)											
Male	Avg. Length				491		602				554
	Std. Error				9.3		9.9				12.5
	Sample Size				12		16				28
Female	Avg. Length				490		579	540			540
	Std. Error				9.7		5.2				10.0
	Sample Size				11		14	1			26
All Fish	Avg. Length				490		591	540			547
	Std. Error				6.6		6.0				8.1
	Sample Size				23		30	1			54
Statistical Week 33 (August 7 - 13)											
Male	Avg. Length	455	385	575	508		588	528		614	542
	Std. Error				10.6		11.4	8.5		15.3	8.1
	Sample Size	1	1	2	19		11	14		7	55
Female	Avg. Length		330	562	493	383	582	519		598	534
	Std. Error			8.6	6.7	6.0	5.0	4.9		7.0	6.7
	Sample Size		1	5	21	3	22	19		10	81
All Fish	Avg. Length	455	358	566	500	383	584	523		604	537
	Std. Error		27.5	6.4	6.2	6.0	5.0	4.6		7.5	5.1
	Sample Size	1	2	7	40	3	33	33		17	136
Statistical Weeks 34 - 36 (August 14 - September 3)											
Male	Avg. Length	465			518		559	559		615	538
	Std. Error				7.1		10.5	19.4		7.1	6.9
	Sample Size	1			33		7	10		5	56
Female	Avg. Length		412		495	395	576	509		589	514
	Std. Error		51.7		4.8		9.3	6.9		11.9	6.1
	Sample Size		3		41	1	14	15		6	80
All Fish	Avg. Length	465	412		505	395	570	529		601	524
	Std. Error		51.7		4.3		7.2	9.9		8.0	4.7
	Sample Size	1	3		74	1	21	25		11	136
Combined Periods (Lengths weighted by period catches)											
Male	Avg. Length	462	385	594	509		578	516		609	541
	Std. Error	5.0		8.3	3.9		5.1	9.0		8.2	3.9
	Sample Size	2	1	4	94		59	29		14	203
Female	Avg. Length		389	577	492	392	568	515	570	582	524
	Std. Error		41.9	7.6	3.0	5.2	2.8	3.8		5.8	3.3
	Sample Size		4	6	110	4	80	42	1	17	264
All Fish	Avg. Length	462	397	587	500	392	573	516	570	598	531
	Std. Error	5.0	32.5	6.4	2.5	5.2	2.7	4.4		5.1	2.5
	Sample Size	2	5	10	204	4	139	71	1	31	467

Appendix C.28. Test for significant changes in the length composition among periods of sockeye salmon in the District 112 purse seine catch by age class, 1988.

	Brood Year and Age Class								
	1985		1984			1983		1982	
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3
Periods Compared									
1 , 2						S**			
1 , 3			S*			S*	S*		
1 , 4							S		
2 , 3									
2 , 4				S		S*			
3 , 4									

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix C.29. Age composition of sockeye salmon in the District 113 purse seine catch by sex, age class, and subdistrict, 1988.

	Brood Year and Age Class										
	1984			1983			1982		1981		
	0.3	1.2	2.1	1.3	2.2	3.1	2.3	3.2	3.3	4.2	Total
District 113-51 Statistical Week 29 (July 10 - 16)											
Male											
Sample Size	1	7		5	2						15
Percent	2.3	16.3		11.6	4.7						34.9
Std. Error	1.8	4.3		3.8	2.5						5.6
Number	2	17		12	5						36
Female											
Sample Size		6		19	1		2				28
Percent		14.0		44.2	2.3		4.7				65.1
Std. Error		4.1		5.8	1.8		2.5				5.6
Number		14		46	2		5				67
All Fish											
Sample Size	1	13		24	3		2				43
Percent	2.3	30.2		55.8	7.0		4.7				100.0
Std. Error	1.8	5.4		5.8	3.0		2.5				
Number	2	31		58	7		5				103
District 113-73 Statistical Week 29 (July 10 - 16)											
Male											
Sample Size		6	1	8	1		1				17
Percent		15.8	2.6	21.1	2.6		2.6				44.7
Std. Error		4.8	2.1	5.3	2.1		2.1				6.5
Number		9	1	13	1		1				25
Female											
Sample Size		10		8	1		2				21
Percent		26.3		21.1	2.6		5.3				55.3
Std. Error		5.8		5.3	2.1		2.9				6.5
Number		14		12	1		3				30
All Fish											
Sample Size		27	1	35	6		3				72
Percent		37.5	1.4	48.6	8.3		4.2				100.0
Std. Error		3.2	0.8	3.3	1.8		1.3				
Number		39	1	51	9		4				104
District 113-13 Statistical Week 33 (August 7 - 13)											
Male											
Sample Size			11		103	1	57	47	5	1	225
Percent			2.4		22.4	0.2	12.4	10.2	1.1	0.2	49.0
Std. Error			0.5		1.4	0.2	1.1	1.0	0.3	0.2	1.6
Number			21		197	2	109	90	10	2	431
Female											
Sample Size				1	87		94	38	13	1	234
Percent				0.2	19.0		20.5	8.3	2.8	0.2	51.0
Std. Error				0.2	1.3		1.3	0.9	0.5	0.2	1.6
Number				2	167		179	73	25	2	448
All Fish											
Sample Size			11	1	192	1	151	86	18	2	462
Percent			2.4	0.2	41.6	0.2	32.7	18.6	3.9	0.4	100.0
Std. Error			0.5	0.1	1.6	0.1	1.5	1.3	0.6	0.2	
Number			21	2	368	2	289	165	34	4	885
Combined Subdistricts (Percentages are weighted by subdistrict catches)											
Male											
Sample Size	1	13	12	13	106	1	58	47	5	1	257
Percent	0.2	2.5	2.2	2.3	19.6	0.2	10.7	8.7	0.9	0.2	47.4
Std. Error	0.2	0.6	0.4	0.6	1.1	0.1	0.9	0.8	0.3	0.1	1.5
Number	2	26	22	25	203	2	110	90	10	2	492
Female											
Sample Size		16		28	89		98	38	13	1	283
Percent		2.8		5.7	16.4		18.1	7.0	2.4	0.2	52.6
Std. Error		0.7		0.8	1.1		1.1	0.7	0.4	0.1	1.5
Number		28		60	170		187	73	25	2	545
All Fish											
Sample Size	1	40	12	60	201	1	156	86	18	2	577
Percent	0.2	6.4	2.1	10.1	35.1	0.2	27.3	15.1	3.2	0.4	100.0
Std. Error	0.2	0.6	0.4	0.6	1.3	0.1	1.3	1.0	0.5	0.2	
Number	2	70	22	111	384	2	298	165	34	4	1092

Appendix C.30. Test for significant changes in the age composition among subdistricts of sockeye salmon in the District 113 purse seine catch by age class, 1988.

	Brood Year and Age Class									
	1984			1983			1982		1981	
	0.3	1.2	2.1	1.3	2.2	3.1	2.3	3.2	3.3	4.2
Subdistricts Compared										
1 , 2										
1 , 3		S**		S**	S**		S**	S**		
2 , 3		S**		S**	S**		S**	S**		

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix C.31. Length composition of sockeye salmon in the District 113 purse seine catch by sex, age class, and subdistrict, 1988.

		Brood Year and Age Class									
		1984			1983		1982		1981		
		0.3	1.2	2.1	1.3	2.2	2.3	3.2	3.3	4.2	Total
District 113-51 Statistical Week 29 (July 10 - 16)											
Male	Avg. Length	615	493		555	540					528
	Std. Error		4.5		20.4	10.0					11.9
	Sample Size	1	7		5	2					15
Female	Avg. Length		513		538	525	573				534
	Std. Error		16.4		6.7		7.5				6.3
	Sample Size		6		19	1	2				28
All Fish	Avg. Length	615	502		541	535	573				532
	Std. Error		8.1		6.7	7.6	7.5				5.7
	Sample Size	1	13		24	3	2				43
District 133-73 Statistical Week 29 (July 10 - 16)											
Male	Avg. Length		485	375	567	540					506
	Std. Error		17.4		38.1						24.6
	Sample Size		4	1	3	1					9
Female	Avg. Length		520		555		545				549
	Std. Error				12.0						9.7
	Sample Size		1		5		1				7
All Fish	Avg. Length		492	375	559	540	545				525
	Std. Error		15.2		14.6						15.1
	Sample Size		5	1	8	1	1				16
District 113-13 Statistical Week 33 (August 7 - 13)											
Male	Avg. Length			377		535	592	542	592	546	549
	Std. Error			15.5		4.2	4.9	3.8	5.6		5.1
	Sample Size			2		35	18	14	3	1	73
Female	Avg. Length				561	522	572	532	575	515	545
	Std. Error					4.1	4.0	6.1	7.2		3.5
	Sample Size				1	35	32	12	6	1	87
All Fish	Avg. Length			377	561	528	579	537	581	531	547
	Std. Error			15.5		3.0	3.4	3.6	5.7	15.5	3.0
	Sample Size			2	1	70	50	26	9	2	160
Combined Subdistricts (Lengths weighted by subdistrict catches)											
Male	Avg. Length	615	489	376	561	536	592	542	592	546	543
	Std. Error		6.5	9.0	17.6	3.9	4.9	3.8	5.6		4.9
	Sample Size	1	11	3	8	38	18	14	3	1	97
Female	Avg. Length		516		558	522	569	532	575	515	545
	Std. Error		13.9		5.8	3.9	3.8	6.1	7.2		3.0
	Sample Size		7		25	36	35	12	6	1	122
All Fish	Avg. Length	615	497	376	559	530	575	537	581	531	543
	Std. Error		7.0	9.0	6.1	2.9	3.3	3.6	5.7	15.5	2.7
	Sample Size	1	18	3	33	74	53	26	9	2	219

Appendix C.32. Age composition of sockeye salmon in the District 114 purse seine catch by sex and age class, 1988.

	Brood Year and Age Class										
	1985		1984			1983		1982			
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Statistical Weeks 28 - 38 (July 3 - September 17)											
Male											
Sample Size	1	3	5	27	3	37	16		22	1	115
Percent	0.4	1.2	2.1	11.2	1.2	15.3	6.6		9.1	0.4	47.5
Std. Error	0.4	0.6	0.8	1.8	0.6	2.1	1.4		1.7	0.4	2.9
Number	5	15	26	139	16	190	82		113	5	591
Female											
Sample Size	2		2	37	3	39	21	1	22		127
Percent	0.8		0.8	15.3	1.2	16.1	8.7	0.4	9.1		52.5
Std. Error	0.5		0.5	2.1	0.6	2.1	1.6	0.4	1.7		2.9
Number	10		10	190	15	202	108	5	113		653
All Fish											
Sample Size	3	3	7	64	6	76	37	1	44	1	242
Percent	1.2	1.2	2.9	26.4	2.5	31.4	15.3	0.4	18.2	0.4	100.0
Std. Error	0.6	0.6	1.0	2.5	0.9	2.7	2.1	0.4	2.2	0.4	
Number	15	15	36	329	31	392	190	5	226	5	1244

Appendix C.33. Length composition of sockeye salmon in the District 114 purse seine catch by sex and age class, 1988.

		Brood Year and Age Class									
		1985		1984			1983		1982		
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Statistical Weeks 28 - 38 (July 3 - September 17)											
Male	Avg. Length	445	380	593	508		596	513		594	555
	Std. Error			14.9	7.8		6.0	12.3		11.4	6.9
	Sample Size	1	1	4	21		24	9		13	73
Female	Avg. Length	495		578	498	403	569	527	575	579	534
	Std. Error			22.5	5.3	1.7	4.0	6.0		9.6	5.2
	Sample Size	1		2	33	3	26	12	1	15	93
All Fish	Avg. Length	470	380	588	502	403	582	521	575	586	543
	Std. Error	25.0		11.5	4.5	1.7	4.0	6.3		7.4	4.3
	Sample Size	2	1	6	54	3	50	21	1	28	166

Appendix D.1. Age composition of sockeye salmon in the District 108 test gill net catch by sex, age class, and fishing period, 1988.

	Brood Year and Age Class								
	1985	1984			1983		1982		
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Statistical Weeks 25 - 31 (June 12 - July 30)									
Male									
Sample Size	3	12	23	1	61	12	1	8	121
Percent	1.3	5.1	9.7	0.4	25.8	5.1	0.4	3.4	51.3
Std. Error	0.6	1.1	1.5	0.3	2.3	1.1	0.3	0.9	2.6
Number	8	33	64	3	169	33	3	22	335
Female									
Sample Size	1	17	11		67	8		11	115
Percent	0.4	7.2	4.7		28.4	3.4		4.7	48.7
Std. Error	0.3	1.3	1.1		2.4	0.9		1.1	2.6
Number	3	47	30		185	22		31	318
All Fish									
Sample Size	4	29	34	1	128	20	1	19	236
Percent	1.7	12.3	14.4	0.4	54.2	8.5	0.4	8.1	100.0
Std. Error	0.7	1.7	1.8	0.3	2.6	1.5	0.3	1.4	
Number	11	80	94	3	354	55	3	53	653

Appendix D.2. Length composition of sockeye salmon in the District 108 test gill net catch by sex, age class, and fishing period, 1988.

		Brood Year and Age Class								
		1985	1984			1983		1982		
		0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Statistical Weeks 25 - 31 (June 12 - July 30)										
Male	Avg. Length	450	597	528	385	609	548	659	586	582
	Std. Error		8.1	14.4		3.5	18.3		9.7	6.2
	Sample Size	1	9	12	1	38	8	1	3	73
Female	Avg. Length	543	575	513		580	547		588	577
	Std. Error		5.6			3.1	0.5		22.3	2.9
	Sample Size	1	11	1		44	2		3	62
All Fish	Avg. Length	497	585	527	385	594	547	659	587	580
	Std. Error	46.5	5.2	13.3		2.8	14.4		10.9	3.6
	Sample Size	2	20	13	1	82	10	1	6	135

Appendix D.3. Age composition of sockeye salmon in the Canadian set gill net test catch in the lower Stikine River by sex, age class, and fishing period, 1988.

	Brood Year and Age Class						
	1985	1984		1983		1982	
	0.2	0.3	1.2	1.3	2.2	2.3	Total
Statistical Week 26 (June 19 - 25)							
Male							
Sample Size		1		3		1	5
Percent		5.0		15.0		5.0	25.0
Std. Error		2.5		4.2		2.5	5.1
Number		1		5		1	7
Female							
Sample Size		1		9	1	4	15
Percent		5.0		45.0	5.0	20.0	75.0
Std. Error		2.5		5.8	2.5	4.7	5.1
Number		1		13	1	5	20
All Fish							
Sample Size		2		12	1	5	20
Percent		10.0		60.0	5.0	25.0	100.0
Std. Error		3.5		5.7	2.5	5.1	
Number		2		18	1	6	27
Statistical Week 27 (June 26 - July 2)							
Male							
Sample Size			10	26	2	7	45
Percent			10.3	26.8	2.1	7.2	46.4
Std. Error			1.0	1.4	0.5	0.8	1.6
Number			11	29	2	8	50
Female							
Sample Size		2	2	43	1	4	52
Percent		2.1	2.1	44.3	1.0	4.1	53.6
Std. Error		0.5	0.5	1.6	0.3	0.6	1.6
Number		2	2	49	1	4	58
All Fish							
Sample Size		2	12	69	3	11	97
Percent		2.1	12.4	71.1	3.1	11.3	100.0
Std. Error		0.5	1.1	1.5	0.6	1.0	
Number		2	13	78	3	12	108
Statistical Week 28 (July 3 - 9)							
Male							
Sample Size		6	19	34	4	1	64
Percent		4.1	13.0	23.3	2.7	0.7	43.8
Std. Error		0.6	1.0	1.3	0.5	0.3	1.5
Number		7	22	39	5	1	74
Female							
Sample Size	2	6	10	55	2	7	82
Percent	1.4	4.1	6.8	37.7	1.4	4.8	56.2
Std. Error	0.4	0.6	0.8	1.5	0.4	0.7	1.5
Number	2	7	12	64	2	8	95
All Fish							
Sample Size	2	12	29	89	6	8	146
Percent	1.4	8.2	19.9	61.0	4.1	5.5	100.0
Std. Error	0.4	0.8	1.2	1.5	0.6	0.7	
Number	2	14	34	103	7	9	169

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	Brood Year and Age Class						
	1985	1984		1983		1982	
	0.2	0.3	1.2	1.3	2.2	2.3	Total
Statistical Week 29 (July 10 - 16)							
Male							
Sample Size	1	4	35	39	7	2	88
Percent	0.5	2.2	19.2	21.4	3.8	1.1	48.4
Std. Error	0.2	0.4	1.1	1.1	0.5	0.3	1.4
Number	1	5	41	45	8	2	102
Female							
Sample Size	1	6	13	65	2	7	94
Percent	0.5	3.3	7.1	35.7	1.1	3.8	51.6
Std. Error	0.2	0.5	0.7	1.3	0.3	0.5	1.4
Number	1	7	15	76	2	8	109
All Fish							
Sample Size	2	10	48	104	9	9	182
Percent	1.1	5.5	26.4	57.1	4.9	4.9	100.0
Std. Error	0.3	0.6	1.2	1.4	0.6	0.6	
Number	2	12	56	121	10	10	211
Statistical Week 30 (July 17 - 23)							
Male							
Sample Size	1	4	15	21	4	3	48
Percent	1.3	5.3	20.0	28.0	5.3	4.0	64.0
Std. Error	0.6	1.1	2.0	2.3	1.1	1.0	2.5
Number	1	5	19	26	5	4	60
Female							
Sample Size			6	13	4	4	27
Percent			8.0	17.3	5.3	5.3	36.0
Std. Error			1.4	1.9	1.1	1.1	2.5
Number			7	16	5	5	33
All Fish							
Sample Size	1	4	21	34	8	7	75
Percent	1.3	5.3	28.0	45.3	10.7	9.3	100.0
Std. Error	0.6	1.1	2.3	2.5	1.6	1.5	
Number	1	5	26	42	10	9	93
Statistical Week 31 (July 24 - 30)							
Male							
Sample Size	2	1	17	28	3		51
Percent	2.5	1.3	21.3	35.0	3.8		63.8
Std. Error	0.7	0.5	1.7	2.0	0.8		2.0
Number	2	1	20	33	3		59
Female							
Sample Size	1	1	4	22	1		29
Percent	1.3	1.3	5.0	27.5	1.3		36.3
Std. Error	0.5	0.5	0.9	1.9	0.5		2.0
Number	1	1	5	26	1		34
All Fish							
Sample Size	3	2	21	50	4		80
Percent	3.8	2.5	26.2	62.5	5.0		100.0
Std. Error	0.8	0.7	1.9	2.0	0.9		
Number	3	2	25	59	4		93

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	Brood Year and Age Class						
	1985	1984		1983		1982	
	0.2	0.3	1.2	1.3	2.2	2.3	Total
Statistical Week 32 (July 31 - August 6)							
Male							
Sample Size	1	3	15	18	3	3	43
Percent	1.3	3.8	19.0	22.8	3.8	3.8	54.4
Std. Error	0.6	1.1	2.2	2.4	1.1	1.1	2.8
Number	1	4	20	25	4	4	58
Female							
Sample Size		3	6	22	1	4	36
Percent		3.8	7.6	27.8	1.3	5.1	45.6
Std. Error		1.1	1.5	2.6	0.6	1.3	2.8
Number		4	8	30	1	5	48
All Fish							
Sample Size	1	6	21	40	4	7	79
Percent	1.3	7.6	26.6	50.6	5.1	8.9	100.0
Std. Error	0.6	1.5	2.5	2.9	1.3	1.6	
Number	1	8	28	55	5	9	106
Statistical Week 33 (August 7 - 13)							
Male							
Sample Size	4	1	7	6	3	1	22
Percent	8.2	2.0	14.3	12.2	6.1	2.0	44.9
Std. Error	1.8	0.9	2.2	2.1	1.5	0.9	3.2
Number	4	1	8	7	3	1	24
Female							
Sample Size		4	6	16	1		27
Percent		8.2	12.2	32.7	2.0		55.1
Std. Error		1.8	2.1	3.0	0.9		3.2
Number		4	7	18	1		30
All Fish							
Sample Size	4	5	16	23	5	2	55
Percent	7.3	9.1	29.1	41.8	9.1	3.6	100.0
Std. Error	1.1	1.2	1.9	2.1	1.2	0.8	
Number	4	6	18	25	6	2	61
Statistical Weeks 34 - 35 (August 14 - 27)							
Male							
Sample Size		1	4	6		2	13
Percent		3.2	12.9	19.4		6.5	41.9
Std. Error		2.1	3.9	4.6		2.9	5.8
Number		2	7	10		3	22
Female							
Sample Size			4	13		1	18
Percent			12.9	41.9		3.2	58.1
Std. Error			3.9	5.8		2.1	5.8
Number			7	22		2	31
All Fish							
Sample Size		1	8	19		3	31
Percent		3.2	25.8	61.3		9.7	100.0
Std. Error		2.1	5.1	5.7		3.5	
Number		2	14	32		5	53

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	Brood Year and Age Class						
	1985	1984		1983		1982	
	0.2	0.3	1.2	1.3	2.2	2.3	Total
Combined Periods (Percentages are weighted by period catches)							
Male							
Sample Size	9	21	122	181	26	20	379
Percent	1.1	2.8	16.1	23.8	3.4	2.7	49.9
Std. Error	0.2	0.3	0.6	0.7	0.3	0.3	0.8
Number	9	26	148	219	30	24	456
Female							
Sample Size	4	23	51	258	13	31	380
Percent	0.5	3.0	6.8	33.9	1.7	4.2	50.1
Std. Error	0.1	0.3	0.4	0.7	0.2	0.3	0.8
Number	4	26	63	314	14	37	458
All Fish							
Sample Size	13	44	176	440	40	52	765
Percent	1.6	5.8	23.1	57.4	5.2	7.0	100.0
Std. Error	0.2	0.4	0.6	0.8	0.3	0.4	
Number	13	53	214	533	46	66	921

Appendix D.4. Test for significant changes in the age composition of sockeye salmon in the Canadian set gill net test catch in the lower Stikine River by age class and fishing period, 1988.

	Brood Year and Age Class					
	1985	1984		1983		1982
	0.2	0.3	1.2	1.3	2.2	2.3
Periods Compared						
1 , 2						
1 , 3			S			S**
1 , 4			S**			S**
1 , 5			S**			
1 , 6			S*			S**
1 , 7			S*			
1 , 8			S**			S**
1 , 9			S*			
2 , 3		S				
2 , 4			S**	S*		S
2 , 5			S**	S**	S	
2 , 6			S*			S**
2 , 7			S*	S**		
2 , 8	S*		S**	S**		
2 , 9						
3 , 4						
3 , 5				S*		
3 , 6						S
3 , 7						
3 , 8	S			S*		
3 , 9						
4 , 5						
4 , 6						S
4 , 7						
4 , 8	S*			S		
4 , 9						
5 , 6				S*		S**
5 , 7						
5 , 8						
5 , 9						
6 , 7						S**
6 , 8				S*		
6 , 9						S*
7 , 8						
7 , 9						
8 , 9						

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix D.5. Length composition of sockeye salmon in the Canadian set gill net test catch in the lower Stikine River by sex, age class, and fishing period, 1988 [a].

		Brood Year and Age Class						
		1985	1984	1984	1983	1983	1982	
		0.2	0.3	1.2	1.3	2.2	2.3	Total
Statistical Weeks 26 - 28 (June 19 - July 9)								
Male	Avg. Length		518	453	528	468	530	505
	Std. Error		16.5	8.7	2.6	14.4	9.5	4.3
	Sample Size		7	29	63	6	9	114
Female	Avg. Length	496	515	468	509	452	507	504
	Std. Error	43.5	6.4	9.5	2.0	7.8	5.2	2.2
	Sample Size	2	9	12	106	4	15	148
All Fish	Avg. Length	496	516	458	516	461	516	505
	Std. Error	43.5	7.7	6.8	1.7	9.2	5.3	2.2
	Sample Size	2	16	41	169	10	24	262
Statistical Weeks 29 - 31 (July 10 - 30)								
Male	Avg. Length	466	518	458	526	460	531	495
	Std. Error	9.6	7.9	3.4	2.4	8.0	9.8	3.0
	Sample Size	4	9	67	88	14	5	187
Female	Avg. Length	473	507	452	510	456	502	497
	Std. Error	11.5	8.6	3.6	1.9	2.2	4.8	2.4
	Sample Size	2	7	23	100	7	11	150
All Fish	Avg. Length	468	513	456	517	459	511	496
	Std. Error	6.9	5.8	2.7	1.6	5.3	5.5	2.0
	Sample Size	6	16	90	188	21	16	337
Statistical Weeks 32 - 35 (July 31 - August 27)								
Male	Avg. Length	447	504	444	527	459	538	488
	Std. Error	8.4	19.0	5.0	5.7	12.4	15.7	5.7
	Sample Size	5	5	26	30	6	6	78
Female	Avg. Length		511	454	512	450	500	498
	Std. Error		5.1	4.7	3.4	6.0	6.7	3.6
	Sample Size		7	16	51	2	5	81
All Fish	Avg. Length	447	508	446	518	460	519	493
	Std. Error	8.4	8.0	3.7	3.1	9.0	9.7	3.3
	Sample Size	5	12	45	82	9	12	159
Combined Periods (Lengths weighted by period catches)								
Male	Avg. Length	459	515	453	526	463	533	497
	Std. Error	6.8	7.5	3.0	1.7	5.9	6.5	2.3
	Sample Size	9	21	122	181	26	20	379
Female	Avg. Length	483	510	457	511	453	503	499
	Std. Error	19.5	3.8	3.2	1.3	2.7	3.2	1.5
	Sample Size	4	23	51	257	13	31	379
All Fish	Avg. Length	472	513	454	517	460	514	498
	Std. Error	8.1	4.1	2.3	1.1	4.0	3.7	1.4
	Sample Size	13	44	176	439	40	52	758

[a] Length measurements were taken from post-orbit to hypural plate.

Appendix D.6. Test for significant changes in the length composition of sockeye salmon in the Canadian set gill net test catch in the lower Stikine River by age class and fishing period, 1988.

	Brood Year and Age Class					
	1985	1984		1983		1982
	0.2	0.3	1.2	1.3	2.2	2.3
Periods Compared						
1 , 2						
1 , 3						
2 , 3	S		S*			

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix D.7. Age composition of sockeye salmon in the Canadian drift gill net test catch in the lower Stikine River by sex, age class, and fishing period, 1988.

	Brood Year and Age Class							
	1985	1984		1983		1982	1981	
	0.2	0.3	1.2	1.3	2.2	2.3	3.3	Total
Statistical Week 26 (June 19 - 25)								
Male								
Sample Size		1						1
Percent		20.0						20.0
Std. Error		8.2						8.2
Number		1						1
Female								
Sample Size				4				4
Percent				80.0				80.0
Std. Error				8.2				8.2
Number				5				5
All Fish								
Sample Size		1		4				5
Percent		20.0		80.0				100.0
Std. Error		8.2		8.2				
Number		1		5				6
Statistical Week 27 (June 26 - July 2)								
Male								
Sample Size		1	4	5		1	1	12
Percent		3.3	13.3	16.7		3.3	3.3	40.0
Std. Error		1.4	2.6	2.8		1.4	1.4	3.7
Number		1	5	6		1	1	14
Female								
Sample Size		1	1	13		3		18
Percent		3.3	3.3	43.3		10.0		60.0
Std. Error		1.4	1.4	3.8		2.3		3.7
Number		1	1	16		4		22
All Fish								
Sample Size		2	5	18		4	1	30
Percent		6.7	16.7	60.0		13.3	3.3	100.0
Std. Error		1.9	2.8	3.7		2.6	1.4	
Number		2	6	22		5	1	36
Statistical Week 28 (July 3 - 9)								
Male								
Sample Size		3	5	9				17
Percent		10.7	17.9	32.1				60.7
Std. Error		2.7	3.3	4.0				4.2
Number		4	6	11				21
Female								
Sample Size		1	4	5	1			11
Percent		3.6	14.3	17.9	3.6			39.3
Std. Error		1.6	3.0	3.3	1.6			4.2
Number		1	5	7	1			14
All Fish								
Sample Size		4	9	14	1			28
Percent		14.3	32.1	50.0	3.6			100.0
Std. Error		3.0	4.0	4.3	1.6			
Number		5	11	18	1			35

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	Brood Year and Age Class							
	1985	1984		1983		1982	1981	
	0.2	0.3	1.2	1.3	2.2	2.3	3.3	Total
Statistical Week 29 (July 10 - 16)								
Male								
Sample Size	2	4	12	13		2		33
Percent	3.1	6.3	18.8	20.3		3.1		51.6
Std. Error	0.6	0.8	1.3	1.4		0.6		1.7
Number	2	5	13	14		2		36
Female								
Sample Size		4	2	23		2		31
Percent		6.3	3.1	35.9		3.1		48.4
Std. Error		0.8	0.6	1.6		0.6		1.7
Number		4	2	25		2		33
All Fish								
Sample Size	2	8	14	36		4		64
Percent	3.1	12.5	21.9	56.3		6.3		100.0
Std. Error	0.6	1.1	1.4	1.7		0.8		
Number	2	9	15	39		4		69
Statistical Week 30 (July 17 - 23)								
Male								
Sample Size		2	6	10	3	1		22
Percent		5.4	16.2	27.0	8.1	2.7		59.5
Std. Error		1.7	2.7	3.3	2.0	1.2		3.6
Number		2	8	12	4	1		27
Female								
Sample Size		1	2	11		1		15
Percent		2.7	5.4	29.7		2.7		40.5
Std. Error		1.2	1.7	3.4		1.2		3.6
Number		1	2	15		1		19
All Fish								
Sample Size		3	8	21	3	2		37
Percent		8.1	21.6	56.8	8.1	5.4		100.0
Std. Error		2.0	3.0	3.7	2.0	1.7		
Number		3	10	27	4	2		46
Statistical Week 31 (July 24 - 30)								
Male								
Sample Size	1	3	8	14				26
Percent	2.2	6.7	17.8	31.1				57.8
Std. Error	0.8	1.3	2.0	2.4				2.6
Number	1	3	9	16				29
Female								
Sample Size		3	4	12				19
Percent		6.7	8.9	26.7				42.2
Std. Error		1.3	1.5	2.3				2.6
Number		3	5	14				22
All Fish								
Sample Size	1	6	12	26				45
Percent	2.2	13.3	26.7	57.8				100.0
Std. Error	0.8	1.8	2.3	2.6				
Number	1	6	14	30				51

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	Brood Year and Age Class							
	1985	1984		1983		1982	1981	
	0.2	0.3	1.2	1.3	2.2	2.3	3.3	Total
Statistical Week 32 (July 31 - August 6)								
Male								
Sample Size		2	4	16	1			23
Percent		5.0	10.0	40.0	2.5			57.5
Std. Error		1.1	1.4	2.4	0.8			2.4
Number		2	4	18	1			25
Female								
Sample Size		2	3	11		1		17
Percent		5.0	7.5	27.5		2.5		42.5
Std. Error		1.1	1.3	2.2		0.8		2.4
Number		2	3	13		1		19
All Fish								
Sample Size		4	7	27	1	1		40
Percent		10.0	17.5	67.5	2.5	2.5		100.0
Std. Error		1.4	1.8	2.3	0.8	0.8		
Number		4	7	31	1	1		44
Statistical Week 33 (August 7 - 13)								
Male								
Sample Size	1	1	3	4				9
Percent	5.6	5.6	16.7	22.2				50.0
Std. Error	2.6	2.6	4.2	4.7				5.7
Number	1	1	3	5				10
Female								
Sample Size		2	2	5				9
Percent		11.1	11.1	27.8				50.0
Std. Error		3.6	3.6	5.1				5.7
Number		2	2	6				10
All Fish								
Sample Size	1	3	5	11				20
Percent	5.0	15.0	25.0	55.0				100.0
Std. Error	1.8	3.0	3.6	4.1				
Number	1	3	6	13				23
Statistical Weeks 34 - 35 (August 14 - 27)								
Male								
Sample Size				2				2
Percent				33.3				33.3
Std. Error				16.3				16.3
Number				5				5
Female								
Sample Size			3	1				4
Percent			50.0	16.7				66.7
Std. Error			17.3	12.9				16.3
Number			8	2				10
All Fish								
Sample Size			3	3				6
Percent			50.0	50.0				100.0
Std. Error			17.3	17.3				
Number			8	7				15

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	Brood Year and Age Class							
	1985	1984		1983		1982	1981	
	0.2	0.3	1.2	1.3	2.2	2.3	3.3	Total
Combined Periods (Percentages are weighted by period catches)								
Male								
Sample Size	4	17	42	73	4	4	1	145
Percent	1.4	6.1	15.0	26.9	1.5	1.4	0.4	52.6
Std. Error	0.3	0.6	0.8	1.2	0.3	0.3	0.2	1.3
Number	4	19	48	87	5	4	1	168
Female								
Sample Size		14	21	85	1	7		128
Percent		4.9	8.8	30.7	0.4	2.5		47.4
Std. Error		0.5	1.0	1.2	0.2	0.3		1.3
Number		14	28	103	1	8		154
All Fish								
Sample Size	4	31	63	160	5	11	1	275
Percent	1.4	11.0	23.6	57.9	1.9	3.9	0.4	100.0
Std. Error	0.2	0.7	1.2	1.3	0.3	0.4	0.2	
Number	4	33	77	192	6	12	1	325

Appendix D.8. Test for significant changes in the age composition of sockeye salmon in the Canadian drift gill net test catch in the lower Stikine River by age class and fishing period, 1988.

	Brood Year and Age Class						
	1985	1984		1983		1982	1981
	0.2	0.3	1.2	1.3	2.2	2.3	3.3
Periods Compared							
1 , 2							
1 , 3							
1 , 4							
1 , 5							
1 , 6							
1 , 7							
1 , 8							
1 , 9							
2 , 3							
2 , 4							
2 , 5							
2 , 6						S*	
2 , 7							
2 , 8							
2 , 9							
3 , 4							
3 , 5							
3 , 6							
3 , 7							
3 , 8							
3 , 9							
4 , 5					S		
4 , 6							
4 , 7							
4 , 8							
4 , 9							
5 , 6							
5 , 7							
5 , 8							
5 , 9							
6 , 7							
6 , 8							
6 , 9							
7 , 8							
7 , 9							
8 , 9							

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix D.9. Length composition of sockeye salmon in the Canadian drift gill net test catch in the lower Stikine River by sex, age class, and fishing period, 1988.

		Brood Year and Age Class							
		1985	1984		1983		1982	1981	
		0.2	0.3	1.2	1.3	2.2	2.3	3.3	Total
Statistical Weeks 26 - 28 (June 19 - July 9)									
Male	Avg. Length		502	447	512		523	506	491
	Std. Error		3.9	12.5	5.7				7.0
	Sample Size		5	9	14		1	1	30
Female	Avg. Length		514	457	502	449	499		494
	Std. Error		1.0	3.2	3.7		14.7		4.2
	Sample Size		2	5	22	1	3		33
All Fish	Avg. Length		505	451	506	449	505	506	493
	Std. Error		3.5	8.1	3.2		12.1		4.0
	Sample Size		7	14	36	1	4	1	63
Statistical Weeks 29 - 31 (July 10 - 30)									
Male	Avg. Length	425	526	431	525	470	486		488
	Std. Error	17.2	6.9	7.0	4.2	21.7	28.4		6.0
	Sample Size	3	9	25	36	3	3		79
Female	Avg. Length		497	444	508		520		499
	Std. Error		5.7	5.0	3.7		14.2		3.9
	Sample Size		8	8	44		3		63
All Fish	Avg. Length	425	512	434	515	470	503		493
	Std. Error	17.2	5.7	5.5	2.9	21.7	16.2		3.8
	Sample Size	3	17	33	80	3	6		142
Statistical Weeks 32 - 35 (July 31 - August 27)									
Male	Avg. Length	389	489	444	524	476			499
	Std. Error		28.3	13.7	5.7				8.2
	Sample Size	1	3	7	22	1			34
Female	Avg. Length		496	448	505		510		489
	Std. Error		9.2	5.3	5.7				5.9
	Sample Size		4	8	17		1		30
All Fish	Avg. Length	389	493	446	515	476	510		494
	Std. Error		11.8	6.7	4.1				5.1
	Sample Size	1	7	15	41	1	1		64
Combined Periods (Lengths weighted by period catches)									
Male	Avg. Length	413	511	438	521	472	498	506	491
	Std. Error	15.2	6.7	5.6	2.9	15.4	22.1		4.1
	Sample Size	4	17	41	72	4	4	1	143
Female	Avg. Length		501	448	505	449	513		495
	Std. Error		4.3	3.0	2.5		8.7		2.6
	Sample Size		14	21	83	1	7		126
All Fish	Avg. Length	413	506	442	513	466	506	506	492
	Std. Error	15.2	4.3	3.9	2.0	12.7	9.4		2.5
	Sample Size	4	31	62	157	5	11	1	269

Appendix D.10. Test for significant changes in the length composition of sockeye salmon in the Canadian drift gill net test catch in the lower Stikine River by age class and fishing period, 1988.

	Brood Year and Age Class						
	1985	1984		1983		1982	1981
	0.2	0.3	1.2	1.3	2.2	2.3	3.3
Periods Compared							
1 , 2			S	S*			
1 , 3				S			
2 , 3							

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.1. Age composition of sockeye salmon in the Hugh Smith escapement by sex, age class, and escapement period, 1988.

	Brood Year and Age Class								
	1985	1984		1983		1982		1981	
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	3.3	Total
Escapement Dates:	(June 12 - July 2)								
Sample Dates:	(June 12 - July 2)								
Male									
Sample Number		23		49	18	15	102		207
Percent		6.4		13.6	5.0	4.2	28.3		57.5
Std. Error		0.6		0.8	0.5	0.5	1.0		1.2
Number		29		61	22	19	126		257
Female									
Sample Number		1		68	7	8	69		153
Percent		0.3		18.9	1.9	2.2	19.2		42.5
Std. Error		0.1		0.9	0.3	0.3	0.9		1.2
Number		1		84	9	10	86		190
All Fish									
Sample Number		24		117	25	23	171		360
Percent		6.7		32.5	6.9	6.4	47.5		100.0
Std. Error		0.6		1.1	0.6	0.6	1.2		
Number		30		145	31	29	212		447
Escapement Dates:	(July 3 - 23)								
Sample Dates:	(July 3 - 23)								
Male									
Sample Number		151		48	17	13	46		275
Percent		36.5		11.6	4.1	3.1	11.1		66.4
Std. Error		1.4		0.9	0.6	0.5	0.9		1.4
Number		235		75	26	20	72		428
Female									
Sample Number		36		54	11	4	34		139
Percent		8.7		13.0	2.7	1.0	8.2		33.6
Std. Error		0.8		1.0	0.5	0.3	0.8		1.4
Number		56		84	17	6	53		216
All Fish									
Sample Number		187		102	28	17	80		414
Percent		45.2		24.6	6.8	4.1	19.3		100.0
Std. Error		1.5		1.3	0.7	0.6	1.2		
Number		291		159	43	26	125		644
Escapement Dates:	(July 24 - Aug 6)								
Sample Dates:	(July 24 - Aug 6)								
Male									
Sample Number	1	135		38	19		14		207
Percent	0.3	42.6		12.0	6.0		4.4		65.3
Std. Error	0.2	1.7		1.1	0.8		0.7		1.6
Number	2	215		61	30		22		330
Female									
Sample Number		33		46	12	2	17		110
Percent		10.4		14.5	3.8	0.6	5.4		34.7
Std. Error		1.0		1.2	0.7	0.3	0.8		1.6
Number		53		73	19	3	27		175
All Fish									
Sample Number	1	168		84	31	2	31		317
Percent	0.3	53.0		26.5	9.8	0.6	9.8		100.0
Std. Error	0.2	1.7		1.5	1.0	0.3	1.0		
Number	2	268		134	49	3	49		505

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	Brood Year and Age Class								
	1985	1984		1983		1982		1981	
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	3.3	Total
Escapement Dates:	(Aug 7 - 13)								
Sample Dates:	(Aug 7 - 13)								
Male									
Sample Number		227		46	59	2	28		362
Percent		40.5		8.2	10.5	0.4	5.0		64.6
Std. Error		1.6		0.9	1.0	0.2	0.7		1.5
Number		517		105	133	5	64		824
Female									
Sample Number		61		56	42	1	37	1	198
Percent		10.9		10.0	7.5	0.2	6.6	0.2	35.4
Std. Error		1.0		1.0	0.8	0.1	0.8	0.1	1.5
Number		139		127	96	2	84	2	451
All Fish [a]									
Sample Number		288		102	102	3	65	1	561
Percent		51.3		18.2	18.2	0.5	11.6	0.2	100.0
Std. Error		1.6		1.2	1.2	0.2	1.0	0.1	
Number		656		232	232	7	148	2	1277
Escapement Dates:	(Aug 14 - 20)								
Sample Dates:	(Aug 14 - 20)								
Male									
Sample Number	1	106		26	75	1	8		217
Percent	0.3	30.7		7.5	21.7	0.3	2.3		62.9
Std. Error	0.2	1.3		0.8	1.2	0.2	0.4		1.4
Number	1	149		36	105	1	11		303
Female									
Sample Number		40		25	46		17		128
Percent		11.6		7.2	13.3		4.9		37.1
Std. Error		0.9		0.7	1.0		0.6		1.4
Number		55		35	64		24		178
All Fish									
Sample Number	1	146		51	121	1	25		345
Percent	0.3	42.3		14.8	35.1	0.3	7.2		100.0
Std. Error	0.2	1.4		1.0	1.4	0.2	0.7		
Number	1	204		71	169	1	35		481
Escapement Dates:	(Aug 21 - 27)								
Sample Dates:	(Aug 21 - 27)								
Male									
Sample Number	1	79	2	34	101		27		244
Percent	0.2	16.9	0.4	7.3	21.6		5.8		52.2
Std. Error	0.1	1.0	0.2	0.7	1.0		0.6		1.3
Number	1	113	3	49	144		39		349
Female									
Sample Number		52		44	98		29		223
Percent		11.1		9.4	21.0		6.2		47.8
Std. Error		0.8		0.7	1.0		0.6		1.3
Number		74		63	141		41		319
All Fish [a]									
Sample Number	1	131	2	78	201		56		469
Percent	0.2	27.9	0.4	16.6	42.9		11.9		100.0
Std. Error	0.1	1.1	0.2	0.9	1.3		0.8		
Number	1	187	3	111	288		80		670

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	Brood Year and Age Class								
	1985	1984		1983		1982		1981	
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	3.3	Total
Escapement Dates: (Aug 28 - Sept 3)									
Sample Dates: (Aug 28 - Sept 3)									
Male									
Sample Number		39		17	35		14		105
Percent		16.0		7.0	14.4		5.8		43.2
Std. Error		1.8		1.3	1.7		1.1		2.4
Number		93		40	83		33		249
Female									
Sample Number		30		35	60		13		138
Percent		12.3		14.4	24.7		5.3		56.8
Std. Error		1.6		1.7	2.1		1.1		2.4
Number		71		83	143		31		328
All Fish [a]									
Sample Number		70		52	96		28		246
Percent		28.5		21.1	39.0		11.4		100.0
Std. Error		2.2		2.0	2.4		1.5		
Number		166		123	229		66		584
Escapement Dates: (Sept 4 - Oct 4)									
Sample Dates: (Sept 4 - Oct 4)									
Male									
Sample Number		36		18	59		23		136
Percent		13.5		6.7	22.1		8.6		50.9
Std. Error		1.0		0.8	1.3		0.8		1.5
Number		47		24	78		30		179
Female									
Sample Number		25		20	66		20		131
Percent		9.4		7.5	24.7		7.5		49.1
Std. Error		0.9		0.8	1.3		0.8		1.5
Number		33		26	87		26		172
All Fish [a]									
Sample Number		62		38	125		43		268
Percent		23.1		14.2	46.6		16.0		100.0
Std. Error		1.3		1.0	1.5		1.1		
Number		81		50	165		56		352
Combined Periods (Percentages are weighted by period escapements)									
Male									
Sample Number	3	796	2	276	383	31	262		1753
Percent	0.1	28.2	0.1	9.1	12.6	0.9	8.0		59.0
Std. Error	<0.1	0.6	<0.1	0.3	0.4	0.1	0.3		0.6
Number	4	1398	3	451	621	45	397		2919
Female									
Sample Number		278		348	342	15	236	1	1220
Percent		9.8		11.6	11.6	0.4	7.5	<0.1	41.0
Std. Error		0.4		0.4	0.4	0.1	0.3	<0.1	0.6
Number		482		575	576	21	372	2	2028
All Fish [a]									
Sample Number	3	1076	2	624	729	46	499	1	2980
Percent	0.1	37.9	0.1	20.7	24.3	1.3	15.6	<0.1	100.0
Std. Error	<0.1	0.6	<0.1	0.5	0.5	0.1	0.4	<0.1	
Number	4	1883	3	1025	1206	66	771	2	4960

[a] Includes unsexed fish totals.

Appendix E.2. Test for significant changes among periods in the age composition of sockeye salmon in the Hugh Smith Lake escapement by age class, 1988.

	Brood Year and Age Class							
	1985	1984		1983		1982		1981
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	3.3
Periods Compared								
1 , 2		S**		S*			S**	
1 , 3		S**				S**	S**	
1 , 4		S**		S**	S**	S**	S**	
1 , 5		S**		S**	S**	S**	S**	
1 , 6		S**		S**	S**	S**	S**	
1 , 7		S**		S**	S**	S**	S**	
1 , 8		S**		S**	S**	S**	S**	
2 , 3		S*				S**	S**	
2 , 4		S		S*	S**	S**	S**	
2 , 5				S**	S**	S**	S**	
2 , 6		S**		S**	S**	S**	S**	
2 , 7		S**			S**	S**	S*	
2 , 8		S**		S**	S**	S**		
3 , 4				S**	S**			
3 , 5		S**		S**	S**			
3 , 6		S**		S**	S**			
3 , 7		S**			S**			
3 , 8		S**		S**	S**		S*	
4 , 5		S*			S**		S*	
4 , 6		S**			S**			
4 , 7		S**			S**			
4 , 8		S**			S**		S	
5 , 6		S**			S*		S*	
5 , 7		S**		S				
5 , 8		S**			S**		S**	
6 , 7								
6 , 8								
7 , 8				S	S			

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.3. Length composition of sockeye salmon in the Hugh Smith escapement by sex, age class, and escapement period, 1988.

		Brood Year and Age Class								
		1985	1984		1983		1982		1981	
		1.1	1.2	2.1	1.3	2.2	1.4	2.3	3.3	Total
Escapement Dates: (June 12 - July 2)										
Sample Dates: (June 12 - July 2)										
Male	Avg. Length		490		599	483	618	594		576
	Std. Error		6.7		4.1	8.7	7.6	2.7		3.7
	Sample Size		23		49	18	15	102		207
Female	Avg. Length		490		581	518	613	587		582
	Std. Error				2.9	14.5	6.9	2.6		2.3
	Sample Size		1		68	7	8	69		153
All Fish	Avg. Length		490		588	493	617	591		578
	Std. Error		6.4		2.6	7.9	5.4	1.9		2.3
	Sample Size		24		117	25	23	171		360
Escapement Dates: (July 3 - 23)										
Sample Dates: (July 3 - 23)										
Male	Avg. Length		525		604	524	633	603		557
	Std. Error		3.2		5.0	11.8	10.3	5.0		3.4
	Sample Size		151		48	17	13	46		275
Female	Avg. Length		525		581	522	618	584		564
	Std. Error		5.7		4.2	5.9	10.9	5.1		3.5
	Sample Size		36		54	11	4	34		139
All Fish	Avg. Length		525		592	523	629	595		559
	Std. Error		2.8		3.4	7.4	8.3	3.7		2.5
	Sample Size		187		102	28	17	80		414
Escapement Dates: (July 24 - August 6)										
Sample Dates: (July 24 - August 6)										
Male	Avg. Length	325	533		603	523		601		549
	Std. Error		3.3		4.9	10.6		6.9		3.5
	Sample Size	1	135		38	19		14		207
Female	Avg. Length		520		586	522	585	571		557
	Std. Error		4.3		4.0	6.5		10.3		4.0
	Sample Size		33		46	12	2	17		110
All Fish	Avg. Length	325	531		593	523	585	585		552
	Std. Error		2.8		3.3	6.9		6.9		2.7
	Sample Size	1	168		84	31	2	31		317
Escapement Dates: (August 7 - 13)										
Sample Dates: (August 7 - 13)										
Male	Avg. Length		533		595	528	650	606		546
	Std. Error		1.8		4.9	4.9	35.0	4.9		2.2
	Sample Size		227		46	59	2	28		362
Female	Avg. Length		528		586	522	610	590	580	556
	Std. Error		2.9		4.0	3.6		3.4		2.8
	Sample Size		60		56	42	1	37	1	197
All Fish	Avg. Length		532		590	525	637	597	580	550
	Std. Error		1.6		3.1	3.2	24.2	3.0		1.7
	Sample Size		287		102	102	3	65	1	560

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		Brood Year and Age Class								
		1985	1984		1983		1982		1981	
		1.1	1.2	2.1	1.3	2.2	1.4	2.3	3.3	Total
Escapement Dates: (August 14 - 20)										
Sample Dates: (August 14 - 20)										
Male	Avg. Length	380	528		597	533	655	599		540
	Std. Error		2.8		5.6	3.1		7.3		2.7
	Sample Size	1	106		26	75	1	8		217
Female	Avg. Length		525		586	527		605		548
	Std. Error		2.8		5.1	2.3		5.8		3.3
	Sample Size		40		25	46		17		128
All Fish	Avg. Length	380	527		592	530	655	603		543
	Std. Error		2.2		3.8	2.1		4.5		2.1
	Sample Size	1	146		51	121	1	25		345
Escapement Dates: (August 21 - 27)										
Sample Dates: (August 21 - 27)										
Male	Avg. Length	345	533	378	599	546		591		552
	Std. Error		2.8	12.5	4.7	2.7		5.2		2.6
	Sample Size	1	79	2	34	100		27		243
Female	Avg. Length		530		591	534		598		552
	Std. Error		3.6		3.4	2.5		4.1		2.5
	Sample Size		52		44	98		29		223
All Fish	Avg. Length	345	532	378	594	540		595		552
	Std. Error		2.2	12.5	2.8	1.9		3.3		1.8
	Sample Size	1	131	2	78	200		56		468
Escapement Dates: (August 28 - September 3)										
Sample Dates: (August 28 - September 3)										
Male	Avg. Length		528		594	541		593		552
	Std. Error		5.3		5.8	5.3		7.9		4.0
	Sample Size		39		17	35		14		105
Female	Avg. Length		527		592	540		607		556
	Std. Error		5.1		4.9	2.5		6.6		3.3
	Sample Size		30		35	60		13		138
All Fish	Avg. Length		527		592	540		599		554
	Std. Error		3.7		3.8	2.5		5.2		2.5
	Sample Size		70		52	96		28		246
Escapement Dates: (September 4 - October 4)										
Sample Dates: (September 4 - October 4)										
Male	Avg. Length		525		591	535		575		547
	Std. Error		5.1		7.9	2.7		4.7		3.0
	Sample Size		36		18	59		23		136
Female	Avg. Length		535		591	534		598		552
	Std. Error		3.8		6.1	3.2		6.7		3.3
	Sample Size		25		20	66		20		131
All Fish	Avg. Length		529		591	534		586		549
	Std. Error		3.4		4.8	2.1		4.3		2.2
	Sample Size		61		38	125		43		267
Combined Periods (Lengths weighted by period escapements)										
Male	Avg. Length	349	526	378	598	528	642	598		551
	Std. Error	16.1	1.2	12.5	1.8	1.7	6.1	1.8		1.1
	Sample Size	3	796	2	276	382	31	262		1752
Female	Avg. Length		524		586	527	608	592	580	558
	Std. Error		1.5		1.5	1.3	5.2	1.7		1.1
	Sample Size		277		348	342	15	236	1	1219
All Fish	Avg. Length	349	526	378	591	527	627	595	580	554
	Std. Error	16.1	1.0	12.5	1.2	1.1	4.6	1.2		0.8
	Sample Size	3	1074	2	624	728	46	499	1	2977

Appendix E.4. Test for significant changes among periods in the length composition of sockeye salmon in the Hugh Smith Lake escapement, 1988.

	Brood Year and Age Class							
	1985	1984		1983		1982		1981
Periods Compared	1.1	1.2	2.1	1.3	2.2	1.4	2.3	3.3
1 , 2		S**			S**			
1 , 3		S**			S**	S**		
1 , 4		S**			S**		S	
1 , 5		S**			S**		S*	
1 , 6		S**			S**			
1 , 7		S**			S**			
1 , 8		S**			S**			
2 , 3						S**		
2 , 4		S*						
2 , 5								
2 , 6		S*			S*			
2 , 7					S*			
2 , 8								
3 , 4						S*		
3 , 5							S*	
3 , 6					S*			
3 , 7					S*			
3 , 8								
4 , 5		S						
4 , 6					S**			
4 , 7					S**			
4 , 8					S*		S*	
5 , 6					S**			
5 , 7					S**			
5 , 8							S**	
6 , 7								
6 , 8					S*		S	
7 , 8					S		S	

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.5. Daily sockeye salmon counts and associated statistics from Hugh Smith Lake weir, 1988.

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
June	5	0	0	0.0000	0.0000
June	6	0	0	0.0000	0.0000
June	7	0	0	0.0000	0.0000
June	8	0	0	0.0000	0.0000
June	9	0	0	0.0000	0.0000
June	10	0	0	0.0000	0.0000
June	11	0	0	0.0000	0.0000
June	12	1	1	0.0002	0.0002
June	13	0	1	0.0000	0.0002
June	14	2	3	0.0004	0.0006
June	15	0	3	0.0000	0.0006
June	16	0	3	0.0000	0.0006
June	17	0	3	0.0000	0.0006
June	18	4	7	0.0008	0.0014
June	19	8	15	0.0016	0.0030
June	20	14	29	0.0028	0.0058
June	21	15	44	0.0030	0.0089
June	22	15	59	0.0030	0.0119
June	23	25	84	0.0050	0.0169
June	24	20	104	0.0040	0.0210
June	25	30	134	0.0060	0.0270
June	26	25	159	0.0050	0.0321
June	27	27	186	0.0054	0.0375
June	28	65	251	0.0131	0.0506
June	29	92	343	0.0185	0.0692
June	30	40	383	0.0081	0.0772
July	1	36	419	0.0073	0.0845
July	2	28	447	0.0056	0.0901
July	3	2	449	0.0004	0.0905
July	4	11	460	0.0022	0.0927
July	5	0	460	0.0000	0.0927
July	6	0	460	0.0000	0.0927
July	7	0	460	0.0000	0.0927
July	8	0	460	0.0000	0.0927
July	9	10	470	0.0020	0.0948
July	10	0	470	0.0000	0.0948
July	11	0	470	0.0000	0.0948
July	12	0	470	0.0000	0.0948
July	13	0	470	0.0000	0.0948
July	14	0	470	0.0000	0.0948
July	15	4	474	0.0008	0.0956
July	16	0	474	0.0000	0.0956
July	17	0	474	0.0000	0.0956
July	18	0	474	0.0000	0.0956
July	19	47	521	0.0095	0.1050
July	20	89	610	0.0179	0.1230
July	21	156	766	0.0315	0.1544
July	22	150	916	0.0302	0.1847
July	23	175	1091	0.0353	0.2200
July	24	248	1339	0.0500	0.2700
July	25	29	1368	0.0058	0.2758
July	26	12	1380	0.0024	0.2782
July	27	19	1399	0.0038	0.2821
July	28	13	1412	0.0026	0.2847
July	29	36	1448	0.0073	0.2919
July	30	10	1458	0.0020	0.2940
July	31	15	1473	0.0030	0.2970
Aug.	1	11	1484	0.0022	0.2992
Aug.	2	24	1508	0.0048	0.3040
Aug.	3	17	1525	0.0034	0.3075
Aug.	4	26	1551	0.0052	0.3127

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Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
Aug.	5	27	1578	0.0054	0.3181
Aug.	6	18	1596	0.0036	0.3218
Aug.	7	120	1716	0.0242	0.3460
Aug.	8	387	2103	0.0780	0.4240
Aug.	9	461	2564	0.0929	0.5169
Aug.	10	92	2656	0.0185	0.5355
Aug.	11	80	2736	0.0161	0.5516
Aug.	12	40	2776	0.0081	0.5597
Aug.	13	97	2873	0.0196	0.5792
Aug.	14	81	2954	0.0163	0.5956
Aug.	15	23	2977	0.0046	0.6002
Aug.	16	26	3003	0.0052	0.6054
Aug.	17	37	3040	0.0075	0.6129
Aug.	18	61	3101	0.0123	0.6252
Aug.	19	104	3205	0.0210	0.6462
Aug.	20	149	3354	0.0300	0.6762
Aug.	21	185	3539	0.0373	0.7135
Aug.	22	99	3638	0.0200	0.7335
Aug.	23	65	3703	0.0131	0.7466
Aug.	24	50	3753	0.0101	0.7567
Aug.	25	95	3848	0.0192	0.7758
Aug.	26	88	3936	0.0177	0.7935
Aug.	27	88	4024	0.0177	0.8113
Aug.	28	32	4056	0.0065	0.8177
Aug.	29	430	4486	0.0867	0.9044
Aug.	30	9	4495	0.0018	0.9062
Aug.	31	0	4495	0.0000	0.9062
Sept.	1	16	4511	0.0032	0.9095
Sept.	2	87	4598	0.0175	0.9270
Sept.	3	10	4608	0.0020	0.9290
Sept.	4	10	4618	0.0020	0.9310
Sept.	5	14	4632	0.0028	0.9339
Sept.	6	27	4659	0.0054	0.9393
Sept.	7	13	4672	0.0026	0.9419
Sept.	8	20	4692	0.0040	0.9460
Sept.	9	35	4727	0.0071	0.9530
Sept.	10	23	4750	0.0046	0.9577
Sept.	11	3	4753	0.0006	0.9583
Sept.	12	121	4874	0.0244	0.9827
Sept.	13	46	4920	0.0093	0.9919
Sept.	14	11	4931	0.0022	0.9942
Sept.	15	2	4933	0.0004	0.9946
Sept.	16	8	4941	0.0016	0.9962
Sept.	17	2	4943	0.0004	0.9966
Sept.	18	0	4943	0.0000	0.9966
Sept.	19	0	4943	0.0000	0.9966
Sept.	20	3	4946	0.0006	0.9972
Sept.	21	0	4946	0.0000	0.9972
Sept.	22	0	4946	0.0000	0.9972
Sept.	23	0	4946	0.0000	0.9972
Sept.	24	1	4947	0.0002	0.9974
Sept.	25	0	4947	0.0000	0.9974
Sept.	26	3	4950	0.0006	0.9980
Sept.	27	7	4957	0.0014	0.9994
Sept.	28	0	4957	0.0000	0.9994
Sept.	29	0	4957	0.0000	0.9994
Sept.	30	0	4957	0.0000	0.9994
Oct.	1	0	4957	0.0000	0.9994
Oct.	2	0	4957	0.0000	0.9994
Oct.	3	0	4957	0.0000	0.9994
Oct.	4	3	4960	0.0006	1.0000

Mean Day of Migration = Aug. 9 Variance = 402.7 Days squared

Appendix E.6. Age composition of sockeye salmon in the Leask Lake escapement by sex and age class, 1988.

	Brood Year and Age Class						
	1985	1984		1983		1982	
	1.1	1.2	2.1	1.3	2.2	2.3	Total
Sample Date:	(September 14)						
Male							
Sample Number	3	4	10		47	4	68
Percent	2.4	3.2	8.0		37.6	3.2	54.4
Std. Error	1.4	1.6	2.4		4.3	1.6	4.5
Female							
Sample Number		5	2	1	49		57
Percent		4.0	1.6	0.8	39.2		45.6
Std. Error		1.8	1.1	0.8	4.4		4.5
All Fish							
Sample Number	3	10	13	1	102	4	133
Percent	2.3	7.5	9.8	0.8	76.7	3.0	100.0
Std. Error	1.3	2.3	2.6	0.7	3.7	1.5	

Appendix E.7. Length composition of sockeye salmon in the Leask Lake escapement by sex and age class, 1988.

		Brood Year and Age Class						
		1985	1984		1983		1982	
		1.1	1.2	2.1	1.3	2.2	2.3	Total
Sample Date:	(September 14)							
Male	Avg. Length	300	501	396		503	569	482
	Std. Error	5.0	12.0	6.4		4.0	5.2	7.6
	Sample Size	3	4	10		47	4	68
Female	Avg. Length		462	375	540	502		494
	Std. Error		5.6	15.0		2.4		4.1
	Sample Size		5	2	1	49		57
All Fish	Avg. Length	300	478	393	540	502	569	488
	Std. Error	5.0	8.1	5.6		2.3	5.2	4.6
	Sample Size	3	10	13	1	102	4	125

Appendix E.8. Age composition of sockeye salmon in the Bakewell Lake fish ladder escapement by sex and age class, 1988.

	Brood Year and Age Class				
	1984	1983		1982	
	1.2	1.3	2.2	2.3	Total
Sample Dates: (July 15 - August 22)					
Male					
Sample Size	118		1	1	120
Percent	54.1		0.5	0.5	55.0
Std. Error	3.4		0.5	0.5	3.4
Female					
Sample Size	91	3	4		98
Percent	41.7	1.4	1.8		45.0
Std. Error	3.3	0.8	0.9		3.4
All Fish					
Sample Size	209	3	5	1	218
Percent	95.9	1.4	2.3	0.5	100.0
Std. Error	1.3	0.8	1.0	0.5	

Appendix E.9. Length composition of sockeye salmon in the Bakewell Lake fish ladder escapement by sex and age class, 1988.

		Brood Year and Age Class				
		1984	1983		1982	
		1.2	1.3	2.2	2.3	Total
Sample Dates: (July 15 - August 22)						
Male	Avg. Length	528		560	540	529
	Std. Error	6.3				6.2
	Sample Size	118		1	1	120
Female	Avg. Length	527	550	508		527
	Std. Error	2.3	17.3	8.5		2.2
	Sample Size	91	3	4		98
All Fish	Avg. Length	528	550	518	540	528
	Std. Error	3.7	17.3	12.4		3.5
	Sample Size	209	3	5	1	218

Appendix E.10. Age composition of sockeye salmon in the McDonald Lake escapement by sex and age class, 1988.

	Brood Year and Age Class						
	1985	1984	1983		1982		
	1.1	1.2	1.3	2.2	1.4	2.3	Total
Sample Dates: (July 29 - September 17)							
Male							
Sample Size	3	149	225	35		39	451
Percent	0.3	14.0	21.2	3.3		3.7	42.4
Std. Error	0.2	1.1	1.2	0.5		0.6	1.5
Number	197	9803	14804	2303		2566	29674
Female							
Sample Size		59	455	27	1	70	612
Percent		5.6	42.8	2.5	0.1	6.6	57.6
Std. Error		0.7	1.5	0.5	0.1	0.8	1.5
Number		3882	29937	1776	66	4606	40267
All Fish							
Sample Size	3	208	685	62	1	110	1069
Percent	0.3	19.5	64.1	5.8	0.1	10.3	100.0
Std. Error	0.2	1.2	1.5	0.7	0.1	0.9	
Number	197	13685	45070	4079	66	7237	70335

Appendix E.11. Length composition of sockeye salmon in the McDonald Lake escapement by sex and age class, 1988.

		Brood Year and Age Class						
		1985	1984	1983		1982		
		1.1	1.2	1.3	2.2	1.4	2.3	Total
Sample Dates: (July 29 - September 17)								
Male	Avg. Length	335	509	603	495		600	561
	Std. Error	10.4	3.4	1.8	7.3		4.2	2.9
	Sample Size	3	149	225	35		39	451
Female	Avg. Length		520	588	534	615	592	579
	Std. Error		4.9	1.1	5.7		2.7	1.4
	Sample Size		59	455	27	1	70	612
All Fish	Avg. Length	335	512	593	512	615	595	572
	Std. Error	10.4	2.8	1.0	5.4		2.3	1.5
	Sample Size	3	208	681	62	1	109	1063

Appendix E.12. Age composition of sockeye salmon in the Naha River escapement by sex, age class, and escapement period, 1988.

	Brood Year and Age Class							
	1985	1984	1983		1982		1981	
	1.1	1.2	1.3	2.2	1.4	2.3	2.4	Total
Escapement Dates: (July 4 - 23)								
Sample Dates: (July 6 - 23)								
Male								
Sample Number		91	267	11	1	85		455
Percent		12.0	35.2	1.5	0.1	11.2		60.0
Std. Error		0.5	0.7	0.2	0.1	0.5		0.7
Number		108	318	13	1	101		541
Female								
Sample Number		40	182	5	3	72	1	303
Percent		5.3	24.0	0.7	0.4	9.5	0.1	40.0
Std. Error		0.3	0.6	0.1	0.1	0.4	0.1	0.7
Number		48	215	6	4	86	1	360
All Fish								
Sample Number		132	457	16	4	161	1	771
Percent		17.1	59.3	2.1	0.5	20.9	0.1	100.0
Std. Error		0.5	0.7	0.2	0.1	0.6	0.1	
Number		157	544	19	5	191	1	917
Escapement Dates: (July 24 - August 20)								
Sample Dates: (July 24 - August 20)								
Male								
Sample Number	1	53	177	1	3	43		278
Percent	0.3	14.8	49.4	0.3	0.8	12.0		77.7
Std. Error	0.1	0.7	1.0	0.1	0.2	0.6		0.8
Number	1	61	206	1	3	50		322
Female								
Sample Number		13	59	1		7		80
Percent		3.6	16.5	0.3		2.0		22.3
Std. Error		0.4	0.7	0.1		0.3		0.8
Number		15	69	1		8		93
All Fish								
Sample Number	1	66	237	2	3	50		359
Percent	0.3	18.4	66.0	0.6	0.8	13.9		100.0
Std. Error	0.1	0.8	0.9	0.1	0.2	0.7		
Number	1	76	276	2	3	58		416
Combined Periods (Percentages are weighted by period escapements)								
Male								
Sample Number	1	144	444	12	4	128		733
Percent	0.1	12.9	39.7	1.1	0.4	11.5		65.6
Std. Error	<0.1	0.4	0.6	0.1	0.1	0.4		0.6
Number	1	169	523	14	4	151		863
Female								
Sample Number		53	241	6	3	79	1	383
Percent		4.8	21.6	0.5	0.3	7.1	0.1	34.4
Std. Error		0.3	0.5	0.1	0.1	0.3	<0.1	0.6
Number		63	284	7	4	94	1	453
All Fish								
Sample Number	1	198	694	18	7	211	1	1130
Percent	0.1	17.5	61.4	1.6	0.6	18.7	0.1	100.0
Std. Error	<0.1	0.4	0.6	0.1	0.1	0.5	<0.1	
Number	1	233	819	21	8	249	1	1333

Appendix E.13. Test for significant changes among periods in the age composition of sockeye salmon in the Naha River escapement by age class, 1988.

	Brood Year and Age Class						
	1985	1984	1983		1982		1981
	1.1	1.2	1.3	2.2	1.4	2.3	2.4
Periods Compared							
1 , 2			S*			S**	

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.14. Length composition of sockeye salmon in the Naha River escapement by sex, age class, and escapement period, 1988.

		Brood Year and Age Class							
		1985	1984	1983		1982		1981	
		1.1	1.2	1.3	2.2	1.4	2.3	2.4	Total
Escapement Dates: (July 4 - 23)									
Sample Dates: (July 6 - 23)									
Male	Avg. Length		547	605	543	595	606		592
	Std. Error		2.8	1.6	10.1		2.6		1.7
	Sample Size		91	267	11	1	85		455
Female	Avg. Length		530	588	523	603	584	600	579
	Std. Error		3.7	1.7	8.6	8.8	2.4		1.7
	Sample Size		40	182	5	3	71	1	302
All Fish	Avg. Length		542	599	537	601	596	600	587
	Std. Error		2.3	1.2	7.6	6.6	2.0		1.2
	Sample Size		132	456	16	4	160	1	769
Escapement Dates: (July 24 - August 20)									
Sample Dates: (July 24 - August 20)									
Male	Avg. Length	355	550	611	535	642	608		598
	Std. Error		3.1	2.3		1.5	5.2		2.5
	Sample Size	1	53	177	1	3	43		278
Female	Avg. Length		547	595	520		577		585
	Std. Error		9.4	3.4			11.9		3.7
	Sample Size		13	59	1		7		80
All Fish	Avg. Length	355	549	607	528	642	603		595
	Std. Error		3.1	2.0	7.5	1.5	4.9		2.1
	Sample Size	1	66	236	2	3	50		358
Combined Periods (Lengths weighted by period escapements)									
Male	Avg. Length	355	548	607	541	610	607		594
	Std. Error		2.1	1.3	9.2	11.7	2.4		1.4
	Sample Size	1	144	444	12	4	128		733
Female	Avg. Length		535	590	522	603	582	600	581
	Std. Error		3.7	1.5	7.0	8.8	2.4		1.6
	Sample Size		53	241	6	3	78	1	382
All Fish	Avg. Length	355	544	601	534	614	598	600	590
	Std. Error		1.9	1.1	6.8	8.9	1.9		1.1
	Sample Size	1	198	692	18	7	210	1	1127

Appendix E.15. Test for significant changes among periods in the length composition of sockeye salmon in the Naha River escapement by age class, 1988.

	Brood Year and Age Class						
	1985	1984	1983		1982		1981
	1.1	1.2	1.3	2.2	1.4	2.3	2.4
Periods Compared							
1 , 2		S	S**		S**		

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.16. Daily sockeye salmon counts and associated statistics from Naha River weir, 1988.

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
July	4	0	0	0.0000	0.0000
July	5	0	0	0.0000	0.0000
July	6	66	66	0.0493	0.0493
July	7	35	101	0.0261	0.0754
July	8	111	212	0.0828	0.1582
July	9	67	279	0.0500	0.2082
July	10	79	358	0.0590	0.2672
July	11	25	383	0.0187	0.2858
July	12	99	482	0.0739	0.3597
July	13	64	546	0.0478	0.4075
July	14	77	623	0.0575	0.4649
July	15	30	653	0.0224	0.4873
July	16	40	693	0.0299	0.5172
July	17	13	706	0.0097	0.5269
July	18	8	714	0.0060	0.5328
July	19	19	733	0.0142	0.5470
July	20	6	739	0.0045	0.5515
July	21	4	743	0.0030	0.5545
July	22	100	843	0.0746	0.6291
July	23	74	917	0.0552	0.6843
July	24	85	1002	0.0634	0.7478
July	25	0	1002	0.0000	0.7478
July	26	19	1021	0.0142	0.7619
July	27	38	1059	0.0284	0.7903
July	28	17	1076	0.0127	0.8030
July	29	8	1084	0.0060	0.8090
July	30	42	1126	0.0313	0.8403
July	31	26	1152	0.0194	0.8597
Aug.	1	25	1177	0.0187	0.8784
Aug.	2	30	1207	0.0224	0.9007
Aug.	3	11	1218	0.0082	0.9090
Aug.	4	24	1242	0.0179	0.9269
Aug.	5	4	1246	0.0030	0.9299
Aug.	6	2	1248	0.0015	0.9313
Aug.	7	35	1283	0.0261	0.9575
Aug.	8	30	1313	0.0224	0.9799
Aug.	9	5	1318	0.0037	0.9836
Aug.	10	0	1318	0.0000	0.9836
Aug.	11	1	1319	0.0007	0.9843
Aug.	12	0	1319	0.0000	0.9843
Aug.	13	5	1324	0.0037	0.9881
Aug.	14	1	1325	0.0007	0.9888
Aug.	15	0	1325	0.0000	0.9888
Aug.	16	1	1326	0.0007	0.9896
Aug.	17	0	1326	0.0000	0.9896
Aug.	18	0	1326	0.0000	0.9896
Aug.	19	3	1329	0.0022	0.9918
Aug.	20	4	1333	0.0030	0.9948
Aug.	21	1	1334	0.0007	0.9955
Aug.	22	5	1339	0.0037	0.9993
Aug.	23	0	1339	0.0000	0.9993
Aug.	24	1	1340	0.0007	1.0000
Aug.	25	0	1340	0.0000	1.0000

Mean Day of Migration = July 19 Variance = 104.9 Days squared

Appendix E.17. Age composition of sockeye salmon in the Helm Lake escapement by sex and age class, 1988.

	Brood Year and Age Class					
	1985	1984	1983		1982	
	1.1	1.2	1.3	2.2	2.3	Total
Sample Date:	(September 19)					
Male						
Sample Number	9	25	3	12		49
Percent	4.1	11.4	1.4	5.5		22.4
Std. Error	1.3	2.1	0.8	1.5		2.8
Female						
Sample Number		120	19	30	1	170
Percent		54.8	8.7	13.7	0.5	77.6
Std. Error		3.4	1.9	2.3	0.5	2.8
All Fish						
Sample Number	9	145	22	42	1	219
Percent	4.1	66.2	10.0	19.2	0.5	100.0
Std. Error	1.3	3.2	2.0	2.7	0.5	

Appendix E.18. Length composition of sockeye salmon in the Helm Lake escapement by sex and age class, 1988.

		Brood Year and Age Class					
		1985	1984	1983		1982	
		1.1	1.2	1.3	2.2	2.3	Total
Sample Date:	(September 19)						
Male	Avg. Length	315	479	532	472		451
	Std. Error	6.6	4.6	10.9	5.1		9.9
	Sample Size	9	25	3	12		49
Female	Avg. Length		471	525	465	530	476
	Std. Error		2.1	3.7	4.3		2.2
	Sample Size		120	19	30	1	170
All Fish	Avg. Length	315	472	526	467	530	471
	Std. Error	6.6	2.0	3.4	3.4		2.9
	Sample Size	9	145	22	42	1	219

Appendix E.19. Age composition of sockeye salmon in the Kegan Lake escapement by sex and age class, 1988.

	Brood Year and Age Class						
	1985	1984		1983		1982	
	1.1	1.2	2.1	1.3	2.2	2.3	Total
Sample Dates:	(September 20 - 21)						
Male							
Sample Number	6	124	2	94	39	13	278
Percent	1.1	23.8	0.4	18.0	7.5	2.5	53.3
Std. Error	0.5	1.8	0.3	1.7	1.1	0.7	2.2
Female							
Sample Number		105	1	97	38	3	244
Percent		20.1	0.2	18.6	7.3	0.6	46.7
Std. Error		1.7	0.2	1.7	1.1	0.3	2.2
All Fish							
Sample Number	6	229	3	191	77	16	522
Percent	1.1	43.9	0.6	36.6	14.8	3.1	100.0
Std. Error	0.5	2.1	0.3	2.1	1.5	0.7	

Appendix E.20. Length composition of sockeye salmon in the Kegan Lake escapement by sex and age class, 1988.

		Brood Year and Age Class						
		1985	1984		1983		1982	
		1.1	1.2	2.1	1.3	2.2	2.3	Total
Sample Dates:	(September 20 - 21)							
Male	Avg. Length	363	518	333	584	513	580	538
	Std. Error	12.5	2.7	27.5	2.5	4.3	8.8	3.2
	Sample Size	6	124	2	94	39	13	278
Female	Avg. Length		521	325	571	508	572	539
	Std. Error		2.8		2.1	4.8	19.6	2.5
	Sample Size		104	1	97	38	3	243
All Fish	Avg. Length	363	519	330	577	510	579	538
	Std. Error	12.5	1.9	16.1	1.7	3.2	7.8	2.1
	Sample Size	6	228	3	191	77	16	521

Appendix E.21. Age composition of sockeye salmon in the Karta River escapement by sex, age class, and escapement period, 1988.

	Brood Year and Age Class								
	1984		1983			1982		1981	
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	Total
Escapement Dates: (June 25 - July 16)									
Sample Dates: (June 25 - July 16)									
Male									
Sample Number		11		108	3	4	9	1	136
Percent		7.2		70.6	2.0	2.6	5.9	0.7	88.9
Std. Error		2.0		3.5	1.1	1.2	1.8	0.6	2.4
Number		110		1076	30	40	90	10	1356
Female									
Sample Number		2		13		1	1		17
Percent		1.3		8.5		0.7	0.7		11.1
Std. Error		0.9		2.1		0.6	0.6		2.4
Number		20		130		10	10		170
All Fish									
Sample Number		13		121	3	5	10	1	153
Percent		8.5		79.1	2.0	3.3	6.5	0.7	100.0
Std. Error		2.1		3.1	1.1	1.4	1.9	0.6	
Number		130		1206	30	50	100	10	1526
Escapement Dates: (July 17 - 23)									
Sample Dates: (July 17 - 23)									
Male									
Sample Number		159		78	13	2	7		259
Percent		43.1		21.1	3.5	0.5	1.9		70.2
Std. Error		1.2		1.0	0.5	0.2	0.3		1.1
Number		205		100	17	2	9		333
Female									
Sample Number		63		38	4	3	2		110
Percent		17.1		10.3	1.1	0.8	0.5		29.8
Std. Error		0.9		0.7	0.3	0.2	0.2		1.1
Number		81		49	5	4	3		142
All Fish									
Sample Number		222		116	17	5	9		369
Percent		60.2		31.4	4.6	1.4	2.4		100.0
Std. Error		1.2		1.1	0.5	0.3	0.4		
Number		286		149	22	6	12		475

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	Brood Year and Age Class								
	1984		1983			1982		1981	
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	Total
Escapement Dates:	(July 24 - 30)								
Sample Dates:	(July 24 - 30)								
Male									
Sample Number	1	209		158	29	1	16		414
Percent	0.2	34.8		26.3	4.8	0.2	2.7		68.9
Std. Error	0.1	0.7		0.6	0.3	0.1	0.2		0.7
Number	1	240		182	33	1	19		476
Female									
Sample Number		64	1	101	11		10		187
Percent		10.6	0.2	16.8	1.8		1.7		31.1
Std. Error		0.5	0.1	0.6	0.2		0.2		0.7
Number		74	1	116	13		11		215
All Fish									
Sample Number	1	273	1	259	40	1	26		601
Percent	0.2	45.4	0.2	43.1	6.7	0.2	4.3		100.0
Std. Error	0.1	0.7	0.1	0.7	0.4	0.1	0.3		
Number	1	314	1	298	46	1	30		691
Escapement Dates:	(July 31 - August 25)								
Sample Dates:	(July 31 - August 21)								
Male									
Sample Number		91		50	19		6		166
Percent		41.4		22.7	8.6		2.7		75.5
Std. Error		2.4		2.0	1.4		0.8		2.1
Number		189		104	40		13		346
Female									
Sample Number		30		10	10		4		54
Percent		13.6		4.5	4.5		1.8		24.5
Std. Error		1.7		1.0	1.0		0.7		2.1
Number		63		21	21		8		113
All Fish									
Sample Number		121		60	29		10		220
Percent		55.0		27.3	13.2		4.5		100.0
Std. Error		2.4		2.2	1.6		1.0		
Number		252		125	61		21		459
Combined Periods (Percentages are weighted by period escapements)									
Male									
Sample Number	1	470		394	64	7	38	1	975
Percent	<0.1	23.6		46.4	3.8	1.4	4.1	0.3	79.7
Std. Error	<0.1	1.1		1.7	0.6	0.6	0.9	0.3	1.2
Number	1	744		1462	120	43	131	10	2511
Female									
Sample Number		159	1	162	25	4	17		368
Percent		7.5	<0.1	10.0	1.2	0.4	1.0		20.3
Std. Error		0.5	<0.1	1.1	0.2	0.3	0.3		1.2
Number		238	1	316	39	14	32		640
All Fish									
Sample Number	1	629	1	556	89	11	55	1	1343
Percent	<0.1	31.2	<0.1	56.5	5.0	1.8	5.1	0.3	100.0
Std. Error	<0.1	1.1	<0.1	1.6	0.6	0.7	0.9	0.3	
Number	1	982	1	1778	159	57	163	10	3151

Appendix E.22. Test for significant changes among periods in the age composition of sockeye salmon in the Karta River escapement by age class, 1988.

	Brood Year and Age Class							
	1984		1983			1982		1981
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4
Periods Compared								
1 , 2		S**		S**			S*	
1 , 3		S**		S**	S*	S**		
1 , 4		S**		S**	S**	S*		
2 , 3		S**		S**		S		
2 , 4					S**			
3 , 4		S*		S**	S**			

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.23. Length composition of sockeye salmon in the Karta River escapement by sex, age class, and escapement period, 1988.

		Brood Year and Age Class								
		1984		1983			1982		1981	
		0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	Total
Escapement Dates: (June 25 - July 16)										
Sample Dates: (June 25 - July 16)										
Male	Avg. Length		574		616	557	639	616	630	612
	Std. Error		12.0		1.7	8.8	7.2	4.5		2.1
	Sample Size		11		108	3	4	9	1	136
Female	Avg. Length		528		594		620	595		588
	Std. Error		12.5		3.7					6.5
	Sample Size		2		13		1	1		17
All Fish	Avg. Length		567		614	557	635	614	630	610
	Std. Error		11.3		1.7	8.8	6.7	4.5		2.1
	Sample Size		13		121	3	5	10	1	153
Escapement Dates: (July 17 - 23)										
Sample Dates: (July 17 - 23)										
Male	Avg. Length		543		595	546	580	609		561
	Std. Error		2.0		3.8	7.3	30.0	8.4		2.3
	Sample Size		158		77	13	2	7		257
Female	Avg. Length		527		574	509	613	588		546
	Std. Error		2.8		4.2	8.8	14.8	27.5		3.3
	Sample Size		63		38	4	3	2		110
All Fish	Avg. Length		538		588	537	600	604		556
	Std. Error		1.7		3.1	7.0	14.9	8.5		1.9
	Sample Size		221		115	17	5	9		367
Escapement Dates: (July 24 - 30)										
Sample Dates: (July 24 - 30)										
Male	Avg. Length	585	537		592	540	625	577		560
	Std. Error		1.7		1.8	6.6		8.6		1.8
	Sample Size	1	209		157	29	1	16		413
Female	Avg. Length		518	580	570	528		569		550
	Std. Error		2.3		2.2	4.4		5.7		2.3
	Sample Size		64	1	101	11		10		187
All Fish	Avg. Length	585	532	580	583	537	625	574		557
	Std. Error		1.5		1.6	5.0		5.7		1.5
	Sample Size	1	273	1	258	40	1	26		600
Escapement Dates: (July 31 - August 25)										
Sample Dates: (July 31 - August 21)										
Male	Avg. Length		546		588	546		598		560
	Std. Error		2.7		4.6	6.9		6.5		2.7
	Sample Size		91		50	19		6		166
Female	Avg. Length		509		563	531		559		527
	Std. Error		4.8		6.9	9.2		8.4		4.6
	Sample Size		30		10	10		4		54
All Fish	Avg. Length		537		584	541		582		552
	Std. Error		2.8		4.1	5.6		8.1		2.5
	Sample Size		121		60	29		10		220
Combined Periods (Lengths weighted by period escapements)										
Male	Avg. Length	585	557		604	550	625	604	630	586
	Std. Error		1.2		1.4	3.9	13.0	4.9		1.3
	Sample Size	1	469		392	64	7	38	1	972
Female	Avg. Length		523	580	581	523	618	583		564
	Std. Error		1.8		1.8	4.5	10.6	5.1		1.8
	Sample Size		159	1	162	25	4	17		368
All Fish	Avg. Length	585	551	580	599	547	626	599	630	582
	Std. Error		1.1		1.2	3.2	8.8	4.1		1.1
	Sample Size	1	628	1	554	89	11	55	1	1340

Appendix E.24. Test for significant changes among periods in the length composition of sockeye salmon in the Karta River escapement by age class, 1988.

	Brood Year and Age Class							
	1984		1983			1982		1981
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4
Periods Compared								
1 . 2		S*		S**	S	S*		
1 . 3		S**		S**	S*		S**	
1 . 4		S**		S**			S**	
2 . 3		S**					S**	
2 . 4							S	
3 . 4								

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.25. Daily sockeye salmon counts and associated statistics from Karta River weir, 1988.

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
June	25	9	9	0.0029	0.0029
June	26	255	264	0.0809	0.0838
June	27	81	345	0.0257	0.1095
June	28	993	1338	0.3151	0.4246
June	29	6	1344	0.0019	0.4265
June	30	55	1399	0.0175	0.4440
July	1	20	1419	0.0063	0.4503
July	2	17	1436	0.0054	0.4557
July	3	13	1449	0.0041	0.4599
July	4	4	1453	0.0013	0.4611
July	5	6	1459	0.0019	0.4630
July	6	5	1464	0.0016	0.4646
July	7	3	1467	0.0010	0.4656
July	8	2	1469	0.0006	0.4662
July	9	3	1472	0.0010	0.4672
July	10	5	1477	0.0016	0.4687
July	11	5	1482	0.0016	0.4703
July	12	4	1486	0.0013	0.4716
July	13	20	1506	0.0063	0.4779
July	14	6	1512	0.0019	0.4798
July	15	9	1521	0.0029	0.4827
July	16	5	1526	0.0016	0.4843
July	17	59	1585	0.0187	0.5030
July	18	54	1639	0.0171	0.5202
July	19	59	1698	0.0187	0.5389
July	20	52	1750	0.0165	0.5554
July	21	119	1869	0.0378	0.5931
July	22	101	1970	0.0321	0.6252
July	23	31	2001	0.0098	0.6350
July	24	240	2241	0.0762	0.7112
July	25	92	2333	0.0292	0.7404
July	26	69	2402	0.0219	0.7623
July	27	106	2508	0.0336	0.7959
July	28	76	2584	0.0241	0.8201
July	29	80	2664	0.0254	0.8454
July	30	28	2692	0.0089	0.8543
July	31	26	2718	0.0083	0.8626
Aug.	1	13	2731	0.0041	0.8667
Aug.	2	7	2738	0.0022	0.8689
Aug.	3	3	2741	0.0010	0.8699
Aug.	4	6	2747	0.0019	0.8718
Aug.	5	2	2749	0.0006	0.8724
Aug.	6	4	2753	0.0013	0.8737
Aug.	7	2	2755	0.0006	0.8743
Aug.	8	4	2759	0.0013	0.8756
Aug.	9	4	2763	0.0013	0.8769
Aug.	10	7	2770	0.0022	0.8791
Aug.	11	8	2778	0.0025	0.8816
Aug.	12	49	2827	0.0156	0.8972
Aug.	13	42	2869	0.0133	0.9105
Aug.	14	20	2889	0.0063	0.9169
Aug.	15	19	2908	0.0060	0.9229
Aug.	16	44	2952	0.0140	0.9368
Aug.	17	45	2997	0.0143	0.9511
Aug.	18	11	3008	0.0035	0.9546
Aug.	19	4	3012	0.0013	0.9559
Aug.	20	3	3015	0.0010	0.9568
Aug.	21	13	3028	0.0041	0.9610
Aug.	22	9	3037	0.0029	0.9638
Aug.	23	52	3089	0.0165	0.9803
Aug.	24	61	3150	0.0194	0.9997
Aug.	25	1	3151	0.0003	1.0000

Mean Day of Migration = July 15 Variance = 318.9 Days squared

Appendix E.26. Age composition of sockeye salmon in the Klakas Lake escapement by sex and age class, 1988.

	Brood Year and Age Class					
	1984	1983		1982		
	1.2	1.3	2.2	1.4	2.3	Total
Sample Dates:	(September 20 - 21)					
Male						
Sample Number	30	118	4	1	4	157
Percent	9.1	35.9	1.2	0.3	1.2	47.7
Std. Error	1.6	2.6	0.6	0.3	0.6	2.7
Female						
Sample Number	90	71	7		4	172
Percent	27.4	21.6	2.1		1.2	52.3
Std. Error	2.4	2.3	0.8		0.6	2.7
All Fish						
Sample Number	121	189	11	1	8	330
Percent	36.7	57.3	3.3	0.3	2.4	100.0
Std. Error	2.6	2.7	1.0	0.3	0.8	

Appendix E.27. Length composition of sockeye salmon in the Klakas Lake escapement by sex and age class, 1988.

		Brood Year and Age Class					
		1984	1983		1982		
		1.2	1.3	2.2	1.4	2.3	Total
Sample Dates:		(September 20 - 22)					
Male	Avg. Length	515	572	526	595	590	561
	Std. Error	4.4	1.8	15.5		12.4	2.5
	Sample Size	29	118	4	1	4	156
Female	Avg. Length	510	541	499		571	523
	Std. Error	2.4	2.8	5.9		4.3	2.2
	Sample Size	90	71	7		4	172
All Fish	Avg. Length	511	560	509	595	581	541
	Std. Error	2.1	1.9	7.6		7.0	1.9
	Sample Size	120	189	11	1	8	328

Appendix E.28. Age composition of sockeye salmon in the Hetta Lake escapement by sex and age class, 1988.

	Brood Year and Age Class						
	1985	1984	1983		1982		
	1.1	1.2	1.3	2.2	1.4	2.3	Total
Sample Dates:	(September 16 - 19)						
Male							
Sample Number	21	78	68	3			170
Percent	5.7	21.0	18.3	0.8			45.8
Std. Error	1.2	2.1	2.0	0.5			2.6
Female							
Sample Number		104	92	3	1	1	201
Percent		28.0	24.8	0.8	0.3	0.3	54.2
Std. Error		2.3	2.2	0.5	0.3	0.3	2.6
All Fish							
Sample Number	21	182	160	6	1	1	371
Percent	5.7	49.1	43.1	1.6	0.3	0.3	100.0
Std. Error	1.2	2.6	2.6	0.6	0.3	0.3	

Appendix E.29. Length composition of sockeye salmon in the Hetta Lake escapement by sex and age class, 1988.

		Brood Year and Age Class						
		1985	1984	1983		1982		
		1.1	1.2	1.3	2.2	1.4	2.3	Total
Sample Dates:		(September 16 - 19)						
Male	Avg. Length	320	495	568	517			503
	Std. Error	6.4	3.5	2.8	24.2			6.3
	Sample Size	21	78	67	3			169
Female	Avg. Length		486	545	512	535	535	514
	Std. Error		2.6	2.7	14.5			2.8
	Sample Size		103	91	3	1	1	199
All Fish	Avg. Length	320	490	555	514	535	535	509
	Std. Error	6.4	2.2	2.2	12.7			3.3
	Sample Size	21	181	158	6	1	1	368

Appendix E.30. Age composition of sockeye salmon in the Klawock Lake escapement by sex and age class, 1988.

	Brood Year and Age Class						
	1984	1983		1982		1981	
	1.2	1.3	2.2	1.4	2.3	2.4	Total
Sample Dates: (August 11 - September 20)							
Male							
Sample Size	116	90	44		20	1	271
Percent	20.7	16.1	7.9		3.6	0.2	48.4
Std. Error	1.6	1.4	1.0		0.7	0.2	1.9
Number	708	550	269		122	6	1655
Female							
Sample Size	82	144	25	2	36		289
Percent	14.6	25.7	4.5	0.4	6.4		51.6
Std. Error	1.4	1.7	0.8	0.2	0.9		1.9
Number	501	879	153	12	220		1765
All Fish							
Sample Size	198	235	69	2	56	1	561
Percent	35.3	41.9	12.3	0.4	10.0	0.2	100.0
Std. Error	1.8	1.9	1.3	0.2	1.2	0.2	
Number	1209	1436	421	12	342	6	3426

Appendix E.31. Length composition of sockeye salmon in the Klawock Lake escapement by sex and age class, 1988.

		Brood Year and Age Class						
		1984	1983		1982		1981	
		1.2	1.3	2.2	1.4	2.3	2.4	Total
Sample Dates: (August 11 - September 20)								
Male	Avg. Length	527	591	522		569	625	551
	Std. Error	1.4	3.2	5.0		8.3		2.5
	Sample Size	116	90	44		20	1	271
Female	Avg. Length	519	569	526	568	576		552
	Std. Error	2.2	1.8	3.7	27.5	4.1		1.9
	Sample Size	82	144	25	2	36		289
All Fish	Avg. Length	524	577	524	568	574	625	551
	Std. Error	1.3	1.8	3.5	27.5	3.9		1.5
	Sample Size	198	234	69	2	56	1	560

Appendix E.32. Daily sockeye salmon counts and associated statistics from Klawock Lake weir, 1988.

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
Aug.	11	26	26	0.0076	0.0076
Aug.	12	0	26	0.0000	0.0076
Aug.	13	0	26	0.0000	0.0076
Aug.	14	0	26	0.0000	0.0076
Aug.	15	0	26	0.0000	0.0076
Aug.	16	0	26	0.0000	0.0076
Aug.	17	0	26	0.0000	0.0076
Aug.	18	0	26	0.0000	0.0076
Aug.	19	0	26	0.0000	0.0076
Aug.	20	0	26	0.0000	0.0076
Aug.	21	0	26	0.0000	0.0076
Aug.	22	0	26	0.0000	0.0076
Aug.	23	0	26	0.0000	0.0076
Aug.	24	0	26	0.0000	0.0076
Aug.	25	0	26	0.0000	0.0076
Aug.	26	0	26	0.0000	0.0076
Aug.	27	0	26	0.0000	0.0076
Aug.	28	0	26	0.0000	0.0076
Aug.	29	0	26	0.0000	0.0076
Aug.	30	375	401	0.1095	0.1170
Aug.	31	8	409	0.0023	0.1194
Sept.	1	209	618	0.0610	0.1804
Sept.	2	259	877	0.0756	0.2560
Sept.	3	0	877	0.0000	0.2560
Sept.	4	0	877	0.0000	0.2560
Sept.	5	0	877	0.0000	0.2560
Sept.	6	239	1116	0.0698	0.3257
Sept.	7	0	1116	0.0000	0.3257
Sept.	8	371	1487	0.1083	0.4340
Sept.	9	270	1757	0.0788	0.5128
Sept.	10	354	2111	0.1033	0.6162
Sept.	11	399	2510	0.1165	0.7326
Sept.	12	349	2859	0.1019	0.8345
Sept.	13	67	2926	0.0196	0.8541
Sept.	14	45	2971	0.0131	0.8672
Sept.	15	37	3008	0.0108	0.8780
Sept.	16	65	3073	0.0190	0.8970
Sept.	17	0	3073	0.0000	0.8970
Sept.	18	28	3101	0.0082	0.9051
Sept.	19	0	3101	0.0000	0.9051
Sept.	20	31	3132	0.0090	0.9142
Sept.	21	0	3132	0.0000	0.9142
Sept.	22	175	3307	0.0511	0.9653
Sept.	23	40	3347	0.0117	0.9769
Sept.	24	0	3347	0.0000	0.9769
Sept.	25	0	3347	0.0000	0.9769
Sept.	26	0	3347	0.0000	0.9769
Sept.	27	8	3355	0.0023	0.9793
Sept.	28	0	3355	0.0000	0.9793
Sept.	29	48	3403	0.0140	0.9933
Sept.	30	0	3403	0.0000	0.9933
Oct.	1	0	3403	0.0000	0.9933
Oct.	2	0	3403	0.0000	0.9933
Oct.	3	12	3415	0.0035	0.9968
Oct.	4	0	3415	0.0000	0.9968
Oct.	5	0	3415	0.0000	0.9968
Oct.	6	0	3415	0.0000	0.9968
Oct.	7	0	3415	0.0000	0.9968
Oct.	8	0	3415	0.0000	0.9968
Oct.	9	0	3415	0.0000	0.9968
Oct.	10	0	3415	0.0000	0.9968
Oct.	11	0	3415	0.0000	0.9968
Oct.	12	11	3426	0.0032	1.0000
Oct.	13	0	3426	0.0000	1.0000

Mean Day of Migration = Sept. 9 Variance = 53.8 Days squared

Appendix E.33. Age composition of sockeye salmon in the Upper Sarkar Lake escapement by sex and age class, 1988.

	Brood Year and Age Class						
	1984		1983		1982	1981	
	1.2	2.1	1.3	2.2	2.3	3.3	Total
Sample Dates:	(September 10 - 13, 24 - 26)						
Male							
Sample Number	29	7	4	29	14	1	84
Percent	14.9	3.6	2.1	14.9	7.2	0.5	43.3
Std. Error	2.6	1.3	1.0	2.6	1.9	0.5	3.5
Female							
Sample Number	58		12	28	12		110
Percent	29.9		6.2	14.4	6.2		56.7
Std. Error	3.3		1.7	2.5	1.7		3.5
All Fish							
Sample Number	87	7	16	57	26	1	194
Percent	44.8	3.6	8.2	29.4	13.4	0.5	100.0
Std. Error	3.6	1.3	2.0	3.3	2.4	0.5	

Appendix E.34. Length composition of sockeye salmon in the Upper Sarkar Lake escapement by sex and age class, 1988.

		Brood Year and Age Class						
		1984		1983		1982	1981	
		1.2	2.1	1.3	2.2	2.3	3.3	Total
Sample Dates:		(September 10 - 13, 24 - 26)						
Male	Avg. Length	498	394	558	519	565	590	512
	Std. Error	5.6	10.3	12.8	4.5	4.0		5.5
	Sample Size	29	7	4	29	14	1	84
Female	Avg. Length	476		541	486	541		493
	Std. Error	3.0		4.5	3.8	4.1		3.2
	Sample Size	58		12	28	12		110
All Fish	Avg. Length	483	394	545	503	554	590	501
	Std. Error	2.9	10.3	4.8	3.7	3.7		3.0
	Sample Size	87	7	16	57	26	1	194

Appendix E.35. Age composition of sockeye salmon in the Luck Lake escapement by sex and age class, 1988.

	Brood Year and Age Class			
	1984	1983		
	1.2	1.3	2.2	Total
Sample Dates:	(August 31, September 8,23)			
Male				
Sample Number	32	3	9	44
Percent	57.1	5.4	16.1	78.6
Std. Error	6.7	3.0	4.9	5.5
Female				
Sample Number	4	7	1	12
Percent	7.1	12.5	1.8	21.4
Std. Error	3.5	4.5	1.8	5.5
All Fish				
Sample Number	36	10	10	56
Percent	64.3	17.9	17.9	100.0
Std. Error	6.5	5.2	5.2	

Appendix E.36. Length composition of sockeye salmon in the Luck Lake escapement by sex and age class, 1988.

		Brood Year and Age Class			
		1984	1983		
		1.2	1.3	2.2	Total
Sample Dates:		(August 31, September 8, 23)			
Male	Avg. Length	451	563	416	452
	Std. Error	8.5	8.8	20.5	9.1
	Sample Size	30	3	9	42
Female	Avg. Length	538	588	530	565
	Std. Error	21.5	12.6		12.7
	Sample Size	4	6	1	11
All Fish	Avg. Length	461	580	428	475
	Std. Error	9.2	9.5	21.6	9.9
	Sample Size	34	9	10	53

Appendix E.37. Age composition of sockeye salmon in the Galea Lake escapement by sex and age class, 1988.

	Brood Year and Age Class				
	1984	1983		1982	
	1.2	1.3	2.2	2.3	Total
Sample Dates:	(September 7 - 9)				
Male					
Sample Number	41	15	4	4	64
Percent	28.7	10.5	2.8	2.8	44.8
Std. Error	3.8	2.6	1.4	1.4	4.2
Female					
Sample Number	41	20	17	1	79
Percent	28.7	14.0	11.9	0.7	55.2
Std. Error	3.8	2.9	2.7	0.7	4.2
All Fish					
Sample Number	84	35	21	5	145
Percent	57.9	24.1	14.5	3.4	100.0
Std. Error	4.1	3.6	2.9	1.5	

Appendix E.38. Length composition of sockeye salmon in the Galea Lake escapement by sex and age class, 1988.

		Brood Year and Age Class				
		1984	1983		1982	
		1.2	1.3	2.2	2.3	Total
Sample Dates:		(September 7 - 9)				
Male	Avg. Length	484	561	481	554	506
	Std. Error	5.3	4.4	27.9	9.0	5.8
	Sample Size	41	15	4	4	64
Female	Avg. Length	487	551	501	535	507
	Std. Error	3.4	6.6	6.0		4.1
	Sample Size	41	20	17	1	79
All Fish	Avg. Length	485	556	498	550	507
	Std. Error	3.1	4.3	7.0	7.9	3.4
	Sample Size	82	35	21	5	143

Appendix E.39. Age composition of sockeye salmon in the Salmon Bay Lake escapement by sex, age class, and escapement period, 1988.

	Brood Year and Age Class							
	1985	1984		1983		1982		
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	Total
Escapement Dates:	(July 3 - 16)							
Sample Dates:	(July 4 - 16)							
Male								
Sample Number	1	183		14	5			203
Percent	0.4	74.7		5.7	2.0			82.9
Std. Error	0.4	2.4		1.3	0.8			2.1
Number	4	751		57	21			833
Female								
Sample Number		29		8			5	42
Percent		11.8		3.3			2.0	17.1
Std. Error		1.8		1.0			0.8	2.1
Number		118		33			21	172
All Fish								
Sample Number	1	212		22	6		5	246
Percent	0.4	86.2		8.9	2.4		2.0	100.0
Std. Error	0.4	1.9		1.6	0.9		0.8	
Number	4	869		90	25		21	1009
Escapement Dates:	(July 17 - 30)							
Sample Dates:	(July 17 - 30)							
Male								
Sample Number		321		23	9	3	7	363
Percent		61.5		4.4	1.7	0.6	1.3	69.5
Std. Error		2.1		0.9	0.6	0.3	0.5	1.9
Number		4934		354	138	46	108	5580
Female								
Sample Number		103		36	4	1	15	159
Percent		19.7		6.9	0.8	0.2	2.9	30.5
Std. Error		1.7		1.1	0.4	0.2	0.7	1.9
Number		1584		553	61	15	231	2444
All Fish								
Sample Number		425		59	13	4	22	523
Percent		81.3		11.3	2.5	0.8	4.2	100.0
Std. Error		1.7		1.3	0.7	0.4	0.8	
Number		6533		907	200	61	338	8039

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	Brood Year and Age Class							
	1985	1984		1983		1982		
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	Total
Escapement Dates:	(July 31 - August 13)							
Sample Dates:	(July 31 - August 12)							
Male								
Sample Number	3	243	1	19	4		1	271
Percent	0.5	42.4	0.2	3.3	0.7		0.2	47.3
Std. Error	0.3	2.0	0.2	0.7	0.3		0.2	2.0
Number	53	4266	18	334	70		17	4758
Female								
Sample Number		260	1	21	13		7	302
Percent		45.4	0.2	3.7	2.3		1.2	52.7
Std. Error		2.0	0.2	0.8	0.6		0.4	2.0
Number		4565	18	368	228		123	5302
All Fish								
Sample Number	3	503	2	40	17		8	573
Percent	0.5	87.8	0.3	7.0	3.0		1.4	100.0
Std. Error	0.3	1.3	0.2	1.0	0.7		0.5	
Number	53	8831	36	702	298		140	10060
Escapement Dates:	(August 14 - September 12)							
Sample Dates:	(August 15 - September 12)							
Male								
Sample Number	5	177	6	51	10		1	250
Percent	0.7	24.0	0.8	6.9	1.4		0.1	33.9
Std. Error	0.3	1.4	0.3	0.8	0.4		0.1	1.5
Number	21	745	25	215	42		4	1052
Female								
Sample Number		404		52	18	2	11	487
Percent		54.8		7.1	2.4	0.3	1.5	66.1
Std. Error		1.6		0.8	0.5	0.2	0.4	1.5
Number		1700		219	76	8	47	2050
All Fish								
Sample Number	5	581	6	103	28	2	12	737
Percent	0.7	78.8	0.8	14.0	3.8	0.3	1.6	100.0
Std. Error	0.3	1.3	0.3	1.1	0.6	0.2	0.4	
Number	21	2445	25	434	118	8	51	3102
Combined Periods (Percentages are weighted by period escapements)								
Male								
Sample Number	9	924	7	107	28	3	9	1087
Percent	0.4	48.2	0.2	4.3	1.2	0.2	0.6	55.1
Std. Error	0.1	1.2	0.1	0.5	0.3	0.1	0.2	1.2
Number	78	10696	43	960	271	46	129	12223
Female								
Sample Number		796	1	117	35	3	38	990
Percent		35.9	0.1	5.3	1.6	0.1	1.9	44.9
Std. Error		1.1	0.1	0.5	0.3	0.1	0.3	1.2
Number		7967	18	1173	365	23	422	9968
All Fish								
Sample Number	9	1721	8	224	64	6	47	2079
Percent	0.4	84.1	0.3	9.6	2.9	0.3	2.5	100.0
Std. Error	0.1	0.9	0.1	0.7	0.4	0.1	0.4	
Number	78	18678	61	2133	641	69	550	22210

Appendix E.40. Test for significant changes among periods in the age composition of sockeye salmon in the Salmon Bay Lake escapement by age class, 1988.

	Brood Year and Age Class						
	1985	1984		1983		1982	
Periods Compared	1.1	1.2	2.1	1.3	2.2	1.4	2.3
1 , 2							
1 , 3							
1 , 4		S*		S			
2 , 3		S**		S*			S**
2 , 4			S				S**
3 , 4		S**		S**			

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.41. Length composition of sockeye salmon in the Salmon Bay Lake escapement by sex, age class, and escapement period, 1988.

		Brood Year and Age Class							
		1985	1984		1983		1982		
		1.1	1.2	2.1	1.3	2.2	1.4	2.3	Total
Escapement Dates: (July 3 - 16)									
Sample Dates: (July 4 - 16)									
Male	Avg. Length	350	487		569	483			491
	Std. Error		3.1		9.9	17.7			3.4
	Sample Size	1	183		14	5			203
Female	Avg. Length		503		567			561	522
	Std. Error		4.9		9.1			17.4	6.1
	Sample Size		29		8			5	42
All Fish	Avg. Length	350	489		568	478		561	497
	Std. Error		2.8		7.0	15.5		17.4	3.0
	Sample Size	1	212		22	6		5	246
Escapement Dates: (July 17 - 30)									
Sample Dates: (July 17 - 30)									
Male	Avg. Length		489		549	517	642	582	497
	Std. Error		2.5		8.9	21.0	9.3	9.5	2.6
	Sample Size		321		23	9	3	7	363
Female	Avg. Length		521		570	530	610	586	539
	Std. Error		2.3		5.5	11.4		5.3	2.9
	Sample Size		103		36	4	1	15	159
All Fish	Avg. Length		497		562	521	634	585	510
	Std. Error		2.1		5.0	14.7	10.3	4.6	2.2
	Sample Size		425		59	13	4	22	523
Escapement Dates: (July 31 - August 13)									
Sample Dates: (July 31 - August 12)									
Male	Avg. Length	372	516	405	575	443		550	518
	Std. Error	10.1	2.8		5.3	41.5			3.0
	Sample Size	3	243	1	19	4		1	271
Female	Avg. Length		518	410	586	521		564	523
	Std. Error		1.4		5.4	7.3		11.3	1.7
	Sample Size		260	1	21	13		7	302
All Fish	Avg. Length	372	517	408	581	502		563	521
	Std. Error	10.1	1.5	2.5	3.8	13.2		9.9	1.7
	Sample Size	3	503	2	40	17		8	573
Escapement Dates: (August 14 - September 12)									
Sample Dates: (August 15 - September 12)									
Male	Avg. Length	365	523	380	561	470		575	522
	Std. Error	14.7	2.6	6.7	2.7	16.7			3.2
	Sample Size	5	177	6	51	10		1	250
Female	Avg. Length		515		560	519	595	576	522
	Std. Error		1.2		4.2	4.5	25.0	8.3	1.3
	Sample Size		403		52	18	2	11	486
All Fish	Avg. Length	365	517	380	560	502	595	576	522
	Std. Error	14.7	1.2	6.7	2.5	7.9	25.0	7.5	1.4
	Sample Size	5	580	6	103	28	2	12	736
Combined Periods (Lengths weighted by period escapements)									
Male	Avg. Length	369	506	399	563	475	642	566	509
	Std. Error	8.6	1.5	6.7	2.9	11.6	9.3	8.1	1.5
	Sample Size	9	924	7	107	28	3	9	1087
Female	Avg. Length		518	410	576	524	606	574	529
	Std. Error		0.8		2.9	3.7	15.3	4.5	1.0
	Sample Size		795	1	117	35	3	38	989
All Fish	Avg. Length	369	509	401	570	508	623	572	516
	Std. Error	8.6	0.9	6.7	2.0	6.0	12.3	3.9	1.0
	Sample Size	9	1720	8	224	64	6	47	2078

Appendix E.42. Test for significant changes among periods in the length composition of sockeye salmon in the Salmon Bay Lake escapement by age class, 1988.

	Brood Year and Age Class						
	1985	1984		1983		1982	
	1.1	1.2	2.1	1.3	2.2	1.4	2.3
Periods Compared							
1 , 2		S*			S*		
1 , 3		S**					
1 , 4		S**					
2 , 3		S**		S**			S*
2 , 4		S**					
3 , 4			S**	S**			

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.43. Daily sockeye salmon counts and associated statistics from Salmon Bay weir, 1988.

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
July	3	0	0	0.0000	0.0000
July	4	4	4	0.0002	0.0002
July	5	0	4	0.0000	0.0002
July	6	3	7	0.0001	0.0003
July	7	4	11	0.0002	0.0005
July	8	0	11	0.0000	0.0005
July	9	0	11	0.0000	0.0005
July	10	0	11	0.0000	0.0005
July	11	2	13	0.0001	0.0006
July	12	0	13	0.0000	0.0006
July	13	9	22	0.0004	0.0010
July	14	128	150	0.0058	0.0068
July	15	691	841	0.0311	0.0379
July	16	168	1009	0.0076	0.0454
July	17	133	1142	0.0060	0.0514
July	18	57	1199	0.0026	0.0540
July	19	44	1243	0.0020	0.0560
July	20	35	1278	0.0016	0.0575
July	21	0	1278	0.0000	0.0575
July	22	122	1400	0.0055	0.0630
July	23	4	1404	0.0002	0.0632
July	24	2381	3785	0.1072	0.1704
July	25	2160	5945	0.0973	0.2677
July	26	412	6357	0.0186	0.2862
July	27	414	6771	0.0186	0.3049
July	28	454	7225	0.0204	0.3253
July	29	1673	8898	0.0753	0.4006
July	30	150	9048	0.0068	0.4074
July	31	226	9274	0.0102	0.4176
Aug.	1	642	9916	0.0289	0.4465
Aug.	2	240	10156	0.0108	0.4573
Aug.	3	190	10346	0.0086	0.4658
Aug.	4	90	10436	0.0041	0.4699
Aug.	5	83	10519	0.0037	0.4736
Aug.	6	1762	12281	0.0793	0.5529
Aug.	7	1506	13787	0.0678	0.6208
Aug.	8	4090	17877	0.1842	0.8049
Aug.	9	161	18038	0.0072	0.8122
Aug.	10	79	18117	0.0036	0.8157
Aug.	11	41	18158	0.0018	0.8176
Aug.	12	842	19000	0.0379	0.8555
Aug.	13	108	19108	0.0049	0.8603
Aug.	14	15	19123	0.0007	0.8610
Aug.	15	20	19143	0.0009	0.8619
Aug.	16	24	19167	0.0011	0.8630
Aug.	17	53	19220	0.0024	0.8654
Aug.	18	30	19250	0.0014	0.8667
Aug.	19	71	19321	0.0032	0.8699
Aug.	20	70	19391	0.0032	0.8731
Aug.	21	6	19397	0.0003	0.8733
Aug.	22	6	19403	0.0003	0.8736
Aug.	23	6	19409	0.0003	0.8739
Aug.	24	10	19419	0.0005	0.8743
Aug.	25	143	19562	0.0064	0.8808
Aug.	26	16	19578	0.0007	0.8815
Aug.	27	86	19664	0.0039	0.8854
Aug.	28	1780	21444	0.0801	0.9655
Aug.	29	247	21691	0.0111	0.9766
Aug.	30	13	21704	0.0006	0.9772
Aug.	31	119	21823	0.0054	0.9826
Sept.	1	1	21824	0.0000	0.9826
Sept.	2	211	22035	0.0095	0.9921
Sept.	3	32	22067	0.0014	0.9936
Sept.	4	33	22100	0.0015	0.9950
Sept.	5	26	22126	0.0012	0.9962
Sept.	6	15	22141	0.0007	0.9969
Sept.	7	5	22146	0.0002	0.9971
Sept.	8	6	22152	0.0003	0.9974
Sept.	9	9	22161	0.0004	0.9978
Sept.	10	3	22164	0.0001	0.9979
Sept.	11	0	22164	0.0000	0.9979
Sept.	12	46	22210	0.0021	1.0000

Mean Day of Migration = Aug. 4 Variance = 142.3 Days squared

Appendix E.44. Age composition of sockeye salmon in the Red Bay Lake escapement by sex and age class, 1988.

	Brood Year and Age Class					
	1985	1984	1983		1982	
	1.1	1.2	1.3	2.2	2.3	Total
Sample Dates:	(September 2 - 4)					
Male						
Sample Number	1	101	44	6	4	156
Percent	0.3	30.8	13.4	1.8	1.2	47.6
Std. Error	0.3	2.5	1.9	0.7	0.6	2.7
Female						
Sample Number		69	73	9	21	172
Percent		21.0	22.3	2.7	6.4	52.4
Std. Error		2.2	2.3	0.9	1.3	2.7
All Fish						
Sample Number	1	170	117	15	25	328
Percent	0.3	51.8	35.7	4.6	7.6	100.0
Std. Error	0.3	2.7	2.6	1.1	1.5	

Appendix E.45. Length composition of sockeye salmon in the Red Bay Lake escapement by sex and age class, 1988.

		Brood Year and Age Class					
		1985	1984	1983		1982	
		1.1	1.2	1.3	2.2	2.3	Total
Sample Dates:	(September 2 - 4)						
Male	Avg. Length	325	465	573	461	572	497
	Std. Error		3.6	4.8	13.7	10.3	5.0
	Sample Size	1	101	44	6	4	156
Female	Avg. Length		494	557	481	561	528
	Std. Error		2.5	2.7	9.8	4.8	3.0
	Sample Size		69	73	9	21	172
All Fish	Avg. Length	325	477	563	473	562	513
	Std. Error		2.6	2.5	8.2	4.3	3.0
	Sample Size	1	170	117	15	25	328

Appendix E.46. Age composition of sockeye salmon in the Kah Sheets Lake escapement by sex and age class, 1988.

	Brood Year and Age Class				
	1984	1983		1982	
	1.2	1.3	2.2	2.3	Total
Sample Date:	(September 20)				
Male					
Sample Number		1	1		2
Percent		5.9	5.9		11.8
Std. Error		5.9	5.9		8.1
Female					
Sample Number	2		11	2	15
Percent	11.8		64.7	11.8	88.2
Std. Error	8.1		11.9	8.1	8.1
All Fish					
Sample Number	2	1	12	2	17
Percent	11.8	5.9	70.6	11.8	100.0
Std. Error	8.1	5.9	11.4	8.1	

Appendix E.47. Length composition of sockeye salmon in the Kah Sheets Lake escapement by sex and age class, 1988.

		Brood Year and Age Class				
		1984	1983		1982	
		1.2	1.3	2.2	2.3	Total
Sample Date:	(September 20)					
Male	Avg. Length		570	485		528
	Std. Error					42.5
	Sample Size		1	1		2
Female	Avg. Length	505		463	550	480
	Std. Error	21.0		8.7	25.5	10.8
	Sample Size	2		11	2	15
All Fish	Avg. Length	505	570	465	550	486
	Std. Error	21.0		8.2	25.5	10.9
	Sample Size	2	1	12	2	17

Appendix E.48. Age composition of sockeye salmon in the Petersburg Lake escapement by sex and age class, 1988.

	Brood Year and Age Class						
	1985	1984		1983		1982	
	1.1	1.2	2.1	1.3	2.2	2.3	Total
Sample Dates:	(August 25 - 27)						
Male							
Sample Number	14	11	23	16	57	9	130
Percent	6.7	5.2	11.0	7.6	27.1	4.3	61.9
Std. Error	1.7	1.5	2.1	1.8	3.1	1.4	3.3
Female							
Sample Number		8		20	39	13	80
Percent		3.8		9.5	18.6	6.2	38.1
Std. Error		1.3		2.0	2.7	1.7	3.3
All Fish							
Sample Number	14	19	23	36	96	22	210
Percent	6.7	9.0	11.0	17.1	45.7	10.5	100.0
Std. Error	1.7	2.0	2.1	2.6	3.4	2.1	

Appendix E.49. Length composition of sockeye salmon in the Petersburg Lake escapement by sex and age class, 1988.

		Brood Year and Age Class						
		1985	1984		1983		1982	
		1.1	1.2	2.1	1.3	2.2	2.3	Total
Sample Dates:		(August 25 - 27)						
Male	Avg. Length	321	430	319	563	443	545	428
	Std. Error	8.0	10.4	6.3	11.7	3.8	12.6	7.7
	Sample Size	14	11	23	16	57	8	129
Female	Avg. Length		500		561	487	554	518
	Std. Error		8.5		4.8	4.3	12.3	5.0
	Sample Size		8		20	39	13	80
All Fish	Avg. Length	321	460	319	562	461	550	462
	Std. Error	8.0	10.6	6.3	5.7	3.6	8.8	5.9
	Sample Size	14	19	23	36	96	21	209

Appendix E.50. Age composition of sockeye salmon in the Thoms Lake escapement by sex and age class, 1988.

	Brood Year and Age Class							
	1985	1984		1983		1982	1981	
	1.1	1.2	2.1	1.3	2.2	2.3	2.4	Total
Sample Dates:	(September 13 - 15)							
Male								
Sample Number	1	8	2	1	62	24		98
Percent	0.4	3.1	0.8	0.4	23.9	9.3		37.8
Std. Error	0.4	1.1	0.5	0.4	2.6	1.8		3.0
Female								
Sample Number		1		1	130	28	1	161
Percent		0.4		0.4	50.2	10.8	0.4	62.2
Std. Error		0.4		0.4	3.1	1.9	0.4	3.0
All Fish								
Sample Number	1	9	2	2	192	52	1	259
Percent	0.4	3.5	0.8	0.8	74.1	20.1	0.4	100.0
Std. Error	0.4	1.1	0.5	0.5	2.7	2.5	0.4	

Appendix E.51. Length composition of sockeye salmon in the Thoms Lake escapement by sex and age class, 1988.

		Brood Year and Age Class							
		1985	1984		1983		1982	1981	
		1.1	1.2	2.1	1.3	2.2	2.3	2.4	Total
Sample Dates:		(September 13 - 15)							
Male	Avg. Length	335	434	377	592	510	578		517
	Std. Error		38.4	16.5		4.7	4.4		6.5
	Sample Size	1	8	2	1	62	24		98
Female	Avg. Length		490		550	506	561	505	515
	Std. Error					2.1	3.6		2.5
	Sample Size		1		1	130	28	1	161
All Fish	Avg. Length	335	440	377	571	507	569	505	516
	Std. Error		34.4	16.5	21.0	2.1	3.0		2.9
	Sample Size	1	9	2	2	192	52	1	259

Appendix E.52. Age composition of sockeye salmon in the Varrett River escapement by sex and age class, 1988.

	Brood Year and Age Class						
	1984		1983		1982		
	0.3	1.2	1.3	2.2	1.4	2.3	Total
Sample Date: (September 9)							
Male							
Sample Number	1	14	16	1	1		33
Percent	1.1	15.6	17.8	1.1	1.1		36.7
Std. Error	1.1	3.8	4.0	1.1	1.1		5.1
Female							
Sample Number	1	5	49			2	57
Percent	1.1	5.6	54.4			2.2	63.3
Std. Error	1.1	2.4	5.3			1.6	5.1
All Fish							
Sample Number	2	19	65	1	1	2	90
Percent	2.2	21.1	72.2	1.1	1.1	2.2	100.0
Std. Error	1.6	4.3	4.7	1.1	1.1	1.6	

Appendix E.53. Length composition of sockeye salmon in the Varrett River escapement by sex and age class, 1988.

		Brood Year and Age Class						
		1984		1983		1982		
		0.3	1.2	1.3	2.2	1.4	2.3	Total
Sample Date:	(September 22)							
Male	Avg. Length	530	535	587	526	585		561
	Std. Error		10.7	7.2				7.3
	Sample Size	1	14	16	1	1		33
Female	Avg. Length	581	532	555			562	554
	Std. Error		12.9	2.7			4.5	2.7
	Sample Size	1	5	49			2	57
All Fish	Avg. Length	556	534	563	526	585	562	557
	Std. Error	25.5	8.4	3.2			4.5	3.2
	Sample Size	2	19	65	1	1	2	90

Appendix E.54. Age composition of sockeye salmon in the mainstem Stikine River escapement by sex and age class, 1988.

	Brood Year and Age Class					
	1985	1984		1983	1982	
	0.2	0.3	1.2	1.3	1.4	Total
Sample Date:	(September 12)					
Male						
Sample Number	1	2	3	5		11
Percent	4.3	8.7	13.0	21.7		47.8
Std. Error	4.3	6.0	7.2	8.8		10.6
Female						
Sample Number			2	9	1	12
Percent			8.7	39.1	4.3	52.2
Std. Error			6.0	10.4	4.3	10.6
All Fish						
Sample Number	1	2	5	16	1	25
Percent	4.0	8.0	20.0	64.0	4.0	100.0
Std. Error	4.0	5.5	8.2	9.8	4.0	

Appendix E.55. Length composition of sockeye salmon in the mainstem Stikine River escapement by sex and age class, 1988.

		Brood Year and Age Class					
		1985	1984		1983	1982	
		0.2	0.3	1.2	1.3	1.4	Total
Sample Date:	(September 12)						
Male	Avg. Length	423	609	495	605		559
	Std. Error		2.0	32.9	10.2		22.3
	Sample Size	1	2	3	5		11
Female	Avg. Length			511	595	548	577
	Std. Error			3.0	6.4		10.8
	Sample Size			2	9	1	12
All Fish	Avg. Length	423	609	501	597	548	568
	Std. Error		2.0	18.4	4.8		11.9
	Sample Size	1	2	5	16	1	23

Appendix E.56. Age composition of sockeye salmon in the Scud River escapement by sex and age class, 1988.

	Brood Year and Age Class				
	1985	1984		1983	
	0.2	0.3	1.2	1.3	Total
Sample Date:	(September 14)				
Male					
Sample Number	2	1	8	11	22
Percent	3.2	1.6	12.7	17.5	34.9
Std. Error	2.2	1.6	4.2	4.8	6.0
Female					
Sample Number		3	10	28	41
Percent		4.8	15.9	44.4	65.1
Std. Error		2.7	4.6	6.3	6.0
All Fish					
Sample Number	2	4	18	39	63
Percent	3.2	6.3	28.6	61.9	100.0
Std. Error	2.2	3.1	5.7	6.2	

Appendix E.57. Length composition of sockeye salmon in the Scud River escapement by sex and age class, 1988.

		Brood Year and Age Class				
		1985	1984		1983	
		0.2	0.3	1.2	1.3	Total
Sample Date:	(September 14)					
Male	Avg. Length	431	609	488	618	553
	Std. Error	8.0		22.8	5.3	17.8
	Sample Size	2	1	8	11	22
Female	Avg. Length		589	540	582	572
	Std. Error		16.0	11.6	5.1	5.4
	Sample Size		3	10	28	41
All Fish	Avg. Length	431	594	517	592	566
	Std. Error	8.0	12.3	13.2	4.8	7.1
	Sample Size	2	4	18	39	63

Appendix E.58. Age composition of sockeye salmon in the Chutine River escapement by sex and age class, 1988.

	Brood Year and Age Class					
	1985	1984		1983	1982	
	0.2	0.3	1.2	1.3	2.3	Total
Sample Dates:	(September 8 - 9)					
Male						
Sample Number	1	2	4	40	1	48
Percent	0.9	1.8	3.5	35.4	0.9	42.5
Std. Error	0.9	1.2	1.7	4.5	0.9	4.7
Female						
Sample Number		4	2	58	1	65
Percent		3.5	1.8	51.3	0.9	57.5
Std. Error		1.7	1.2	4.7	0.9	4.7
All Fish						
Sample Number	1	6	6	98	2	113
Percent	0.9	5.3	5.3	86.7	1.8	100.0
Std. Error	0.9	2.1	2.1	3.2	1.2	

Appendix E.59. Length composition of sockeye salmon in the Chutine River escapement by sex and age class, 1988.

		Brood Year and Age Class					
		1985	1984		1983	1982	
		0.2	0.3	1.2	1.3	2.3	Total
Sample Dates:		(September 8 - 9)					
Male	Avg. Length	523	581	511	601	600	591
	Std. Error		34.5	23.0	4.0		5.5
	Sample Size	1	2	4	40	1	48
Female	Avg. Length		560	482	565	556	562
	Std. Error		16.4	28.0	3.0		3.4
	Sample Size		4	2	56	1	63
All Fish	Avg. Length	523	567	501	580	578	575
	Std. Error		14.3	17.3	3.0	22.0	3.4
	Sample Size	1	6	6	96	2	111

Appendix E.60. Age composition of sockeye salmon in the Chutine Lake escapement by sex and age class, 1988.

	Brood Year and Age Class					
	1985	1984	1983		1982	
	1.1	1.2	1.3	2.2	2.3	Total
Sample Dates:	(September 7 - 8)					
Male						
Sample Number	1	12	12	31	15	71
Percent	0.8	9.5	9.5	24.6	11.9	56.3
Std. Error	0.8	2.6	2.6	3.8	2.9	4.4
Female						
Sample Number		16	11	16	12	55
Percent		12.7	8.7	12.7	9.5	43.7
Std. Error		3.0	2.5	3.0	2.6	4.4
All Fish						
Sample Number	1	28	23	47	27	126
Percent	0.8	22.2	18.3	37.3	21.4	100.0
Std. Error	0.8	3.7	3.4	4.3	3.7	

Appendix E.61. Length composition of sockeye salmon in the Chutine Lake escapement by sex and age class, 1988.

		Brood Year and Age Class					
		1985	1984	1983		1982	
		1.1	1.2	1.3	2.2	2.3	Total
Sample Dates:	(September 7 - 8)						
Male	Avg. Length	299	481	600	490	592	526
	Std. Error		11.6	7.8	6.9	11.5	8.4
	Sample Size	1	12	12	30	15	70
Female	Avg. Length		499	571	499	570	529
	Std. Error		5.7	6.4	4.0	7.5	5.6
	Sample Size		16	11	16	12	55
All Fish	Avg. Length	299	491	586	493	582	527
	Std. Error		6.1	5.8	4.7	7.4	5.3
	Sample Size	1	28	23	46	27	125

Appendix E.62. Age composition of sockeye salmon in the Tahltan Lake escapement by sex, age class, and escapement period, 1988.

	Brood Year and Age Class						
	1984	1983		1982		1981	
	1.2	1.3	2.2	1.4	2.3	3.3	Total
Escapement Dates:	(July 10 - August 6)						
Sample Dates:	(July 16 - August 6)						
Male							
Sample Number	22	92	4	2	17		137
Percent	7.9	32.9	1.4	0.7	6.1		48.9
Std. Error	1.4	2.5	0.6	0.4	1.3		2.7
Number	102	426	19	9	79		635
Female							
Sample Number	29	87	4		23		143
Percent	10.4	31.1	1.4		8.2		51.1
Std. Error	1.6	2.5	0.6		1.5		2.7
Number	135	402	19		107		663
All Fish							
Sample Number	51	181	8	2	40		282
Percent	18.1	64.2	2.8	0.7	14.2		100.0
Std. Error	2.0	2.5	0.9	0.4	1.8		
Number	237	839	37	9	186		1308
Escapement Dates:	(August 7 - 13)						
Sample Dates:	(August 7 - 11)						
Male							
Sample Number	37	54	2		7		100
Percent	14.3	20.8	0.8		2.7		38.6
Std. Error	1.8	2.1	0.5		0.9		2.6
Number	131	191	7		25		354
Female							
Sample Number	77	67	3		12		159
Percent	29.7	25.9	1.2		4.6		61.4
Std. Error	2.4	2.3	0.6		1.1		2.6
Number	273	237	11		42		563
All Fish							
Sample Number	114	121	5		19		259
Percent	44.0	46.7	1.9		7.3		100.0
Std. Error	2.6	2.6	0.7		1.4		
Number	404	428	18		67		917

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	Brood Year and Age Class						
	1984	1983		1982		1981	
	1.2	1.3	2.2	1.4	2.3	3.3	Total
Escapement Dates: (August 14 - September 3)							
Sample Dates: (August 14 - 28)							
Male							
Sample Number	18	20	3		2	1	44
Percent	11.5	12.8	1.9		1.3	0.6	28.2
Std. Error	1.8	1.9	0.8		0.6	0.5	2.6
Number	36	40	6		4	2	88
Female							
Sample Number	62	38	5		7		112
Percent	39.7	24.4	3.2		4.5		71.8
Std. Error	2.8	2.4	1.0		1.2		2.6
Number	123	76	10		14		223
All Fish							
Sample Number	80	58	8		9	1	156
Percent	51.3	37.2	5.1		5.8	0.6	100.0
Std. Error	2.8	2.7	1.3		1.3	0.5	
Number	159	116	16		18	2	311
Combined Periods (Percentages are weighted by period escapements)							
Male							
Sample Number	77	166	9	2	26	1	281
Percent	10.6	26.0	1.3	0.4	4.3	0.1	42.6
Std. Error	1.0	1.5	0.4	0.2	0.7	0.1	1.7
Number	269	657	32	9	108	2	1077
Female							
Sample Number	168	192	12		42		414
Percent	21.0	28.4	1.5		6.5		57.4
Std. Error	1.3	1.5	0.4		0.9		1.7
Number	531	715	40		163		1449
All Fish							
Sample Number	245	360	21	2	68	1	697
Percent	31.5	54.6	2.8	0.4	10.7	0.1	100.0
Std. Error	1.5	1.7	0.5	0.2	1.1	0.1	
Number	800	1383	71	9	271	2	2536

Appendix E.63. Test for significant changes among periods in the age composition of sockeye salmon in the Tahltan Lake escapement by age class, 1988.

	Brood Year and Age Class					
	1984	1983		1982		1981
	1.2	1.3	2.2	1.4	2.3	3.3
Periods Compared						
1 , 2	S**	S**			S*	
1 , 3	S**	S**			S*	
2 , 3		S				

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.64. Length composition of sockeye salmon in the Tahltan Lake escapement by sex, age class, and escapement period, 1988.

		Brood Year and Age Class						
		1984	1983		1982		1981	
		1.2	1.3	2.2	1.4	2.3	3.3	Total
Escapement Dates: (July 10 - August 6)								
Sample Dates: (July 16 - August 6)								
Male	Avg. Length	505	607	524	639	605		588
	Std. Error	8.0	2.2	17.7	2.0	5.3		4.0
	Sample Size	22	92	4	2	17		137
Female	Avg. Length	519	582	531		585		569
	Std. Error	5.3	2.2	15.2		4.5		2.9
	Sample Size	29	87	4		23		143
All Fish	Avg. Length	513	595	527	639	593		578
	Std. Error	4.6	1.8	10.9	2.0	3.7		2.5
	Sample Size	51	179	8	2	40		280
Escapement Dates: (August 7 - 13)								
Sample Dates: (August 7 - 11)								
Male	Avg. Length	521	605	515		601		572
	Std. Error	6.9	3.0	15.0		5.0		5.1
	Sample Size	37	54	2		7		100
Female	Avg. Length	507	577	504		584		542
	Std. Error	2.3	2.4	10.3		5.8		3.3
	Sample Size	77	66	3		12		158
All Fish	Avg. Length	512	590	509		590		554
	Std. Error	2.8	2.3	7.8		4.4		2.9
	Sample Size	114	120	5		19		258
Escapement Dates: (August 14 - September 3)								
Sample Dates: (August 14 - 28)								
Male	Avg. Length	525	603	495		606	609	564
	Std. Error	9.6	5.7	26.1		8.0		8.0
	Sample Size	18	20	3		2	1	44
Female	Avg. Length	511	567	511		581		534
	Std. Error	2.4	4.0	10.2		7.6		3.4
	Sample Size	62	38	5		7		112
All Fish	Avg. Length	514	579	505		587	609	543
	Std. Error	2.9	4.0	10.9		7.0		3.5
	Sample Size	80	58	8		9	1	156
Combined Periods (Lengths weighted by period escapements)								
Male	Avg. Length	514	606	517	639	603	609	579
	Std. Error	4.6	1.7	11.6	2.0	3.7		3.0
	Sample Size	77	166	9	2	26	1	281
Female	Avg. Length	514	579	519		584		555
	Std. Error	1.7	1.6	7.3		3.2		2.0
	Sample Size	168	191	12		42		413
All Fish	Avg. Length	513	591	518	639	591	609	565
	Std. Error	1.9	1.4	6.3	2.0	2.7		1.8
	Sample Size	245	357	21	2	68	1	694

Appendix E.65. Test for significant changes among periods in the length composition of sockeye salmon in the Tahltan Lake escapement by age class, 1988.

	Brood Year and Age Class					
	1984	1983		1982		1981
	1.2	1.3	2.2	1.4	2.3	3.3
Periods Compared						
1 , 2		S				
1 , 3		S**				
2 , 3		S*				

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.66. Daily sockeye salmon counts and associated statistics from Tahltan Lake weir, 1988.

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
July	15	0	0	0.0000	0.0000
July	16	1	1	0.0004	0.0004
July	17	8	9	0.0032	0.0035
July	18	8	17	0.0032	0.0067
July	19	17	34	0.0067	0.0134
July	20	17	51	0.0067	0.0201
July	21	65	116	0.0256	0.0457
July	22	41	157	0.0162	0.0619
July	23	33	190	0.0130	0.0749
July	24	32	222	0.0126	0.0875
July	25	61	283	0.0241	0.1116
July	26	70	353	0.0276	0.1392
July	27	5	358	0.0020	0.1412
July	28	104	462	0.0410	0.1822
July	29	43	505	0.0170	0.1991
July	30	67	572	0.0264	0.2256
July	31	145	717	0.0572	0.2827
Aug.	1	55	772	0.0217	0.3044
Aug.	2	50	822	0.0197	0.3241
Aug.	3	107	929	0.0422	0.3663
Aug.	4	64	993	0.0252	0.3916
Aug.	5	144	1137	0.0568	0.4483
Aug.	6	171	1308	0.0674	0.5158
Aug.	7	113	1421	0.0446	0.5603
Aug.	8	142	1563	0.0560	0.6163
Aug.	9	159	1722	0.0627	0.6790
Aug.	10	316	2038	0.1246	0.8036
Aug.	11	116	2154	0.0457	0.8494
Aug.	12	2	2156	0.0008	0.8502
Aug.	13	69	2225	0.0272	0.8774
Aug.	14	62	2287	0.0244	0.9018
Aug.	15	19	2306	0.0075	0.9093
Aug.	16	22	2328	0.0087	0.9180
Aug.	17	63	2391	0.0248	0.9428
Aug.	18	16	2407	0.0063	0.9491
Aug.	19	18	2425	0.0071	0.9562
Aug.	20	9	2434	0.0035	0.9598
Aug.	21	2	2436	0.0008	0.9606
Aug.	22	15	2451	0.0059	0.9665
Aug.	23	18	2469	0.0071	0.9736
Aug.	24	22	2491	0.0087	0.9823
Aug.	25	7	2498	0.0028	0.9850
Aug.	26	9	2507	0.0035	0.9886
Aug.	27	4	2511	0.0016	0.9901
Aug.	28	12	2523	0.0047	0.9949
Aug.	29	13	2536	0.0051	1.0000

Mean Day of Migration = Aug. 5 Variance = 66.3 Days squared

Appendix E.67. Age composition of sockeye salmon in the Falls Lake escapement by sex and age class, 1988.

	Brood Year and Age Class					
	1984	1983		1982		
	1.2	1.3	2.2	1.4	2.3	Total
Sample Dates:	(July 9 - August 11)					
Male						
Sample Number	61	93	6	1	15	176
Percent	15.0	22.9	1.5	0.2	3.7	43.3
Std. Error	1.8	2.1	0.6	0.2	0.9	2.4
Female						
Sample Number	131	76	11	1	11	230
Percent	32.3	18.7	2.7	0.2	2.7	56.7
Std. Error	2.3	1.9	0.8	0.2	0.8	2.4
All Fish						
Sample Number	192	169	17	2	26	406
Percent	47.3	41.6	4.2	0.5	6.4	100.0
Std. Error	2.5	2.4	1.0	0.3	1.2	

Appendix E.68. Length composition of sockeye salmon in the Falls Lake escapement by sex and age class, 1988.

		Brood Year and Age Class					
		1984	1983		1982		
		1.2	1.3	2.2	1.4	2.3	Total
Escapement Dates:		(July 9 - August 11)					
Sample Dates:		(July 9 - August 11)					
Male	Avg. Length	502	562	516	550	578	541
	Std. Error	2.9	2.7	6.2		4.8	2.9
	Sample Size	61	93	6	1	15	176
Female	Avg. Length	494	554	507	567	551	517
	Std. Error	1.6	3.0	6.6		7.0	2.4
	Sample Size	131	76	11	1	11	230
All Fish	Avg. Length	497	558	510	559	566	528
	Std. Error	1.5	2.0	4.8	8.5	4.7	1.9
	Sample Size	192	169	17	2	26	406

Appendix E.69. Daily sockeye salmon counts and associated statistics from Falls Lake weir, 1988.

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
July	9	13	13	0.0117	0.0117
July	10	13	26	0.0117	0.0233
July	11	21	47	0.0189	0.0422
July	12	15	62	0.0135	0.0557
July	13	9	71	0.0081	0.0637
July	14	15	86	0.0135	0.0772
July	15	55	141	0.0494	0.1266
July	16	50	191	0.0449	0.1715
July	17	48	239	0.0431	0.2145
July	18	53	292	0.0476	0.2621
July	19	8	300	0.0072	0.2693
July	20	0	300	0.0000	0.2693
July	21	59	359	0.0530	0.3223
July	22	38	397	0.0341	0.3564
July	23	72	469	0.0646	0.4210
July	24	126	595	0.1131	0.5341
July	25	63	658	0.0566	0.5907
July	26	62	720	0.0557	0.6463
July	27	34	754	0.0305	0.6768
July	28	13	767	0.0117	0.6885
July	29	11	778	0.0099	0.6984
July	30	14	792	0.0126	0.7110
July	31	10	802	0.0090	0.7199
Aug.	1	51	853	0.0458	0.7657
Aug.	2	26	879	0.0233	0.7890
Aug.	3	37	916	0.0332	0.8223
Aug.	4	57	973	0.0512	0.8734
Aug.	5	7	980	0.0063	0.8797
Aug.	6	2	982	0.0018	0.8815
Aug.	7	4	986	0.0036	0.8851
Aug.	8	69	1055	0.0619	0.9470
Aug.	9	47	1102	0.0422	0.9892
Aug.	10	8	1110	0.0072	0.9964
Aug.	11	4	1114	0.0036	1.0000

Mean Day of Migration = July 25 Variance = 68.5 Days squared

Appendix E.70. Age composition of sockeye salmon in the Kutlaku Lake escapement by sex and age class, 1988.

	Brood Year and Age Class				
	1985	1984	1983		
	1.1	1.2	1.3	2.2	Total
Sample Date:	(September 8)				
Male					
Sample Number	8	86	31	2	127
Percent	2.9	31.2	11.2	0.7	46.0
Std. Error	1.0	2.8	1.9	0.5	3.0
Female					
Sample Number		109	40		149
Percent		39.5	14.5		54.0
Std. Error		2.9	2.1		3.0
All Fish					
Sample Number	8	195	71	2	276
Percent	2.9	70.7	25.7	0.7	100.0
Std. Error	1.0	2.7	2.6	0.5	

Appendix E.71. Length composition of sockeye salmon in the Kutlaku Lake escapement by sex and age class, 1988.

		Brood Year and Age Class				
		1985	1984	1983		
		1.1	1.2	1.3	2.2	Total
Sample Date:	(September 8)					
Male	Avg. Length	364	464	535	396	474
	Std. Error	28.7	6.0	7.6	64.0	6.2
	Sample Size	8	86	31	2	127
Female	Avg. Length		461	524		478
	Std. Error		2.1	2.4		2.8
	Sample Size		109	40		149
All Fish	Avg. Length	364	462	529	396	476
	Std. Error	28.7	2.9	3.6	64.0	3.2
	Sample Size	8	195	71	2	276

Appendix E.72. Age composition of sockeye salmon in the Aleck's Lake escapement by sex and age class, 1988.

	Brood Year and Age Class						
	1985	1984		1983		1982	
	1.1	1.2	2.1	1.3	2.2	2.3	Total
Sample Dates:	(September 6 - 7)						
Male							
Sample Number	16	244	16	29	5	4	314
Percent	3.0	45.7	3.0	5.4	0.9	0.7	58.8
Std. Error	0.7	2.1	0.7	1.0	0.4	0.4	2.1
Female							
Sample Number		160		43	5	12	220
Percent		30.0		8.1	0.9	2.2	41.2
Std. Error		2.0		1.2	0.4	0.6	2.1
All Fish							
Sample Number	16	405	16	73	10	16	536
Percent	3.0	75.6	3.0	13.6	1.9	3.0	100.0
Std. Error	0.7	1.8	0.7	1.5	0.6	0.7	

Appendix E.73. Length composition of sockeye salmon in the Aleck's Lake escapement by sex and age class, 1988.

		Brood Year and Age Class						
		1985	1984		1983		1982	
		1.1	1.2	2.1	1.3	2.2	2.3	Total
Sample Dates:		(September 6 - 7)						
Male	Avg. Length	378	462	357	517	463	555	458
	Std. Error	9.3	2.4	6.4	8.2	23.2	16.2	2.9
	Sample Size	16	244	16	29	5	4	314
Female	Avg. Length		459		523	479	515	475
	Std. Error		2.0		4.8	10.4	7.1	2.5
	Sample Size		159		43	5	12	219
All Fish	Avg. Length	378	461	357	521	471	525	465
	Std. Error	9.3	1.6	6.4	4.3	12.3	7.8	2.0
	Sample Size	16	403	16	73	10	16	533

Appendix E.74. Age composition of sockeye salmon in the Canyon Island (Taku River) fishwheel catch by sex, age class, and escapement period, 1988.

	Brood Year and Age Class											
	1986	1985		1984			1983		1982			
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Statistical Weeks 23 - 25 (May 29 - June 18)												
Male												
Sample Size					4		41	1		1		47
Percent					2.5		25.3	0.6		0.6		29.0
Std. Error					1.2		3.4	0.6		0.6		3.6
Female												
Sample Size					23		77	2	1	12		115
Percent					14.2		47.5	1.2	0.6	7.4		71.0
Std. Error					2.7		3.9	0.9	0.6	2.1		3.6
All Fish												
Sample Size					28		118	3	1	13		163
Percent					17.2		72.4	1.8	0.6	8.0		100.0
Std. Error					3.0		3.5	1.1	0.6	2.1		
Statistical Week 26 (June 19 - 25)												
Male												
Sample Size		1			22		19			3		45
Percent		0.7			15.7		13.6			2.1		32.1
Std. Error		0.7			3.1		2.9			1.2		3.9
Female												
Sample Size					56		30	3		6		95
Percent					40.0		21.4	2.1		4.3		67.9
Std. Error					4.1		3.5	1.2		1.7		3.9
All Fish												
Sample Size		1			79		49	3		9		141
Percent		0.7			56.0		34.8	2.1		6.4		100.0
Std. Error		0.7			4.2		4.0	1.2		2.1		
Statistical Week 27 (June 26 - July 2)												
Male												
Sample Size		3	1	1	43		25	5		3		81
Percent		1.6	0.5	0.5	22.8		13.2	2.6		1.6		42.9
Std. Error		0.9	0.5	0.5	3.0		2.5	1.2		0.9		3.6
Female												
Sample Size				1	71		29	3		4		108
Percent				0.5	37.6		15.3	1.6		2.1		57.1
Std. Error				0.5	3.5		2.6	0.9		1.0		3.6
All Fish												
Sample Size		3	1	2	116		54	8		7		191
Percent		1.6	0.5	1.0	60.7		28.3	4.2		3.7		100.0
Std. Error		0.9	0.5	0.7	3.5		3.3	1.4		1.4		
Statistical Week 28 (July 3 - 9)												
Male												
Sample Size		5	3	4	68		49	15	1	8		153
Percent		1.8	1.1	1.4	24.0		17.3	5.3	0.4	2.8		54.1
Std. Error		0.8	0.6	0.7	2.5		2.2	1.3	0.4	1.0		2.9
Female												
Sample Size		1		5	42		60	13		9		130
Percent		0.4		1.8	14.8		21.2	4.6		3.2		45.9
Std. Error		0.4		0.8	2.1		2.4	1.2		1.0		2.9
All Fish												
Sample Size		6	3	9	110		109	28	1	17	1	284
Percent		2.1	1.1	3.2	38.7		38.4	9.9	0.4	6.0	0.4	100.0
Std. Error		0.8	0.6	1.0	2.9		2.9	1.8	0.3	1.4	0.3	

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Appendix E.74. (page 2 of 3).

	Brood Year and Age Class											
	1986	1985		1984			1983		1982			
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 29 (July 10 - 16)												
Male												
Sample Size		22	2	9	81		90	26		16		246
Percent		5.3	0.5	2.2	19.6		21.7	6.3		3.9		59.4
Std. Error		1.1	0.3	0.7	1.9		2.0	1.2		0.9		2.4
Female												
Sample Size				8	23		117	2		17	1	168
Percent				1.9	5.6		28.3	0.5		4.1	0.2	40.6
Std. Error				0.7	1.1		2.2	0.3		1.0	0.2	2.4
All Fish												
Sample Size		22	2	17	104		208	28		33	1	415
Percent		5.3	0.5	4.1	25.1		50.1	6.7		8.0	0.2	100.0
Std. Error		1.1	0.3	1.0	2.1		2.4	1.2		1.3	0.2	
Statistical Week 30 (July 17 - 23)												
Male												
Sample Size		23	3	15	51	1	69	22		7		191
Percent		7.6	1.0	5.0	16.9	0.3	22.9	7.3		2.3		63.5
Std. Error		1.5	0.6	1.2	2.1	0.3	2.4	1.5		0.9		2.8
Female												
Sample Size		1		12	18	1	68	6		4		110
Percent		0.3		4.0	6.0	0.3	22.6	2.0		1.3		36.5
Std. Error		0.3		1.1	1.4	0.3	2.4	0.8		0.7		2.8
All Fish												
Sample Size		24	3	27	70	2	137	28		11		302
Percent		7.9	1.0	8.9	23.2	0.7	45.4	9.3		3.6		100.0
Std. Error		1.5	0.6	1.6	2.4	0.5	2.8	1.7		1.1		
Statistical Week 31 (July 24 - 30)												
Male												
Sample Size		28	11	18	53		39	10		4		163
Percent		10.8	4.2	6.9	20.5		15.1	3.9		1.5		62.9
Std. Error		1.9	1.2	1.6	2.5		2.2	1.2		0.8		3.0
Female												
Sample Size		1		24	10		46	7		8		96
Percent		0.4		9.3	3.9		17.8	2.7		3.1		37.1
Std. Error		0.4		1.8	1.2		2.4	1.0		1.1		3.0
All Fish												
Sample Size		29	11	42	63		86	17		12		260
Percent		11.2	4.2	16.2	24.2		33.1	6.5		4.6		100.0
Std. Error		1.9	1.2	2.3	2.6		2.9	1.5		1.3		
Statistical Week 32 (July 31 - August 6)												
Male												
Sample Size	3	30	17	15	42	2	26	9		4		148
Percent	1.3	13.4	7.6	6.7	18.8	0.9	11.6	4.0		1.8		66.1
Std. Error	0.8	2.3	1.8	1.7	2.6	0.6	2.1	1.3		0.9		3.2
Female												
Sample Size			1	21	8		41	5				76
Percent			0.4	9.4	3.6		18.3	2.2				33.9
Std. Error			0.4	1.9	1.2		2.6	1.0				3.2
All Fish												
Sample Size	3	30	18	36	50	2	67	14		4		224
Percent	1.3	13.4	8.0	16.1	22.3	0.9	29.9	6.3		1.8		100.0
Std. Error	0.8	2.3	1.8	2.4	2.8	0.6	3.0	1.6		0.9		

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Appendix E.74. (page 3 of 3).

	Brood Year and Age Class											
	1986	1985		1984			1983			1982		
	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 33 (August 7 - 13)												
Male												
Sample Size	3	29	33	13	38	1	30	4	1	1		153
Percent	1.2	11.8	13.5	5.3	15.5	0.4	12.2	1.6	0.4	0.4		62.4
Std. Error	0.7	2.1	2.2	1.4	2.3	0.4	2.1	0.8	0.4	0.4		3.1
Female												
Sample Size		2		20	22		42	3		3		92
Percent		0.8		8.2	9.0		17.1	1.2		1.2		37.6
Std. Error		0.6		1.7	1.8		2.4	0.7		0.7		3.1
All Fish												
Sample Size	3	31	33	33	60	1	72	7	1	4		245
Percent	1.2	12.7	13.5	13.5	24.5	0.4	29.4	2.9	0.4	1.6		100.0
Std. Error	0.7	2.1	2.2	2.2	2.7	0.4	2.9	1.1	0.4	0.8		
Statistical Week 34 (August 14 - 20)												
Male												
Sample Size	1	9	37	7	19		13					86
Percent	0.8	6.9	28.5	5.4	14.6		10.0					66.2
Std. Error	0.8	2.2	4.0	2.0	3.1		2.6					4.2
Female												
Sample Size		2	1	13	8		20					44
Percent		1.5	0.8	10.0	6.2		15.4					33.8
Std. Error		1.1	0.8	2.6	2.1		3.2					4.2
All Fish												
Sample Size	1	11	38	20	27		33					130
Percent	0.8	8.5	29.2	15.4	20.8		25.4					100.0
Std. Error	0.8	2.4	4.0	3.2	3.6		3.8					
Statistical Weeks 35 - 38 (August 21 - September 18)												
Male												
Sample Size		2	43	4	9	2	7	1		2		70
Percent		2.1	45.3	4.2	9.5	2.1	7.4	1.1		2.1		73.7
Std. Error		1.5	5.1	2.1	3.0	1.5	2.7	1.1		1.5		4.5
Female												
Sample Size				5	13		7					25
Percent				5.3	13.7		7.4					26.3
Std. Error				2.3	3.5		2.7					4.5
All Fish												
Sample Size		2	43	9	22	2	14	1		2		95
Percent		2.1	45.3	9.5	23.2	2.1	14.7	1.1		2.1		100.0
Std. Error		1.5	5.1	3.0	4.3	1.5	3.6	1.1		1.5		
Combined Periods (Unweighted)												
Male												
Sample Size	7	152	150	86	430	6	408	93	2	49		1383
Percent	0.3	6.2	6.1	3.5	17.6	0.2	16.7	3.8	0.1	2.0		56.6
Std. Error	0.1	0.5	0.5	0.3	0.7	0.1	0.7	0.4	0.1	0.3		0.9
Female												
Sample Size		7	2	109	294	1	537	44	1	63	1	1059
Percent		0.3	0.1	4.5	12.0	0.0	22.0	1.8	0.0	2.6	0.0	43.4
Std. Error		0.1	0.1	0.4	0.6	0.0	0.8	0.3	0.0	0.3	0.0	0.9
All Fish												
Sample Size	7	159	152	195	729	7	947	137	3	112	2	2450
Percent	0.3	6.5	6.2	8.0	29.8	0.3	38.7	5.6	0.1	4.6	0.1	100.0
Std. Error	0.1	0.5	0.5	0.5	0.9	0.1	0.9	0.4	0.1	0.4	0.1	

Appendix E.75. Test for significant changes in the age composition of sockeye salmon in the Canyon Island (Taku River) escapement by age class and escapement period, 1988.

	Brood Year and Age Class										
	1986	1985		1984			1983			1982	
Periods Compared	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2
1 . 2					S**		S**				
1 . 3					S**		S**				
1 . 4				S	S**		S**	S**			
1 . 5		S**		S**	S		S**	S*			
1 . 6		S**		S**			S**	S**		S	
1 . 7		S**	S**	S**			S**	S*			
1 . 8		S**	S**	S**			S**	S		S**	
1 . 9		S**	S**	S**			S**			S**	
1 . 10		S**	S**	S**			S**			S**	
1 . 11			S**	S**			S**			S	
2 . 3											
2 . 4				S	S**			S**			
2 . 5		S*		S*	S**		S**	S			
2 . 6		S**		S**	S**		S*	S**			
2 . 7		S**	S*	S**	S**			S			
2 . 8		S**	S**	S**	S**					S*	
2 . 9		S**	S**	S**	S**					S*	
2 . 10		S**	S**	S**	S**					S**	
2 . 11			S**	S**	S**		S**				
3 . 4					S**		S*	S*			
3 . 5		S		S	S**		S**			S	
3 . 6		S**		S**	S**		S**	S			
3 . 7		S**	S*	S**	S**						
3 . 8		S**	S**	S**	S**						
3 . 9		S**	S**	S**	S**						
3 . 10		S**	S**	S**	S**			S*		S	
3 . 11			S**	S**	S**		S**				
4 . 5		S			S**		S**				
4 . 6		S**		S**	S**						
4 . 7		S**	S*	S**	S**						
4 . 8		S**	S**	S**	S**		S			S*	
4 . 9		S**	S**	S**	S**		S*	S**		S**	
4 . 10		S**	S**	S**	S**		S**	S**		S**	
4 . 11			S**	S*	S**		S**	S**			
5 . 6				S**						S*	
5 . 7		S**	S**	S**			S**				
5 . 8	S	S**	S**	S**			S**			S**	
5 . 9	S	S**	S**	S**			S**	S*		S**	
5 . 10			S**	S**			S**	S**		S**	
5 . 11			S**	S		S*	S**	S		S	
6 . 7			S*	S**			S**				
6 . 8		S	S**	S**			S**				
6 . 9		S	S**				S**	S**			
6 . 10			S**	S			S**	S**		S	
6 . 11		S	S**				S**	S**			
7 . 8											
7 . 9			S**					S		S	
7 . 10			S**					S**		S*	
7 . 11		S**	S**				S**	S			
8 . 9			S								
8 . 10			S**					S**			
8 . 11		S**	S**				S**	S			
9 . 10			S**								
9 . 11		S**	S**				S**				
10 . 11		S	S**				S				

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.76. Length composition of sockeye salmon in the Canyon Island (Taku River) fishwheel catch by sex, age class, and escapement period, 1988.

		Brood Year and Age Class											
		1986	1985		1984			1983			1982		
		0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Statistical Weeks 23 - 25 (May 29 - June 18)													
Male	Avg. Length					491		590	430		610		578
	Std. Error					22.1		4.2					6.6
	Sample Size					4		41	1		1		47
Female	Avg. Length					498		571	513	600	580		556
	Std. Error					3.8		3.4	2.5		7.7		3.9
	Sample Size					23		73	2	1	12		111
All Fish	Avg. Length					497		577	485	600	582		562
	Std. Error					4.4		2.8	27.5		7.5		3.4
	Sample Size					27		114	3	1	13		158
Statistical Week 26 (June 19 - 25)													
Male	Avg. Length		430			500		592			587		544
	Std. Error					7.2		6.5			29.6		8.7
	Sample Size		1			21		19			3		44
Female	Avg. Length					502		568	490		540		525
	Std. Error					2.7		4.2	5.0		24.7		4.0
	Sample Size					56		30	3		6		95
All Fish	Avg. Length		430			502		577	490		556		531
	Std. Error					2.7		3.9	5.0		19.7		4.0
	Sample Size		1			77		49	3		9		139
Statistical Week 27 (June 26 - July 2)													
Male	Avg. Length		440	345	550	486		576	487		585		515
	Std. Error		5.8			6.3		5.8	14.5		20.2		6.7
	Sample Size		3	1	1	43		25	5		3		81
Female	Avg. Length				560	504		560	512		558		522
	Std. Error					2.6		5.7	8.8		11.3		3.4
	Sample Size				1	69		28	3		4		105
All Fish	Avg. Length		440	345	555	497		567	496		569		519
	Std. Error		5.8		5.0	3.0		4.2	10.2		11.2		3.5
	Sample Size		3	1	2	112		53	8		7		186
Statistical Week 28 (July 3 - 9)													
Male	Avg. Length		451	323	575	475		588	472	560	583		516
	Std. Error		8.0	6.7	6.1	5.7		3.2	9.9		7.8		5.8
	Sample Size		5	3	4	68		49	15	1	8		153
Female	Avg. Length		450		579	499		574	502		562		541
	Std. Error				17.1	4.3		2.5	7.4		5.2		3.9
	Sample Size		1		5	42		60	13		9		130
All Fish	Avg. Length		451	323	577	484		580	486	560	572	540	527
	Std. Error		6.5	6.7	9.4	4.0		2.1	6.8		5.1		3.7
	Sample Size		6	3	9	110		109	28	1	17	1	283
Statistical Week 29 (July 10 - 16)													
Male	Avg. Length		445	345	589	476		589	470		597		525
	Std. Error		7.3	35.0	8.4	4.2		2.9	5.0		5.1		4.5
	Sample Size		22	2	9	81		89	26		16		245
Female	Avg. Length				578	500		569	515		573	475	560
	Std. Error				5.7	3.9		2.0	35.0		4.4		2.5
	Sample Size				8	22		116	2		17	1	166
All Fish	Avg. Length		445	345	584	481		578	474		584	475	539
	Std. Error		7.3	35.0	5.2	3.5		1.8	5.5		3.9		3.0
	Sample Size		22	2	17	103		205	28		33	1	411
Statistical Week 30 (July 17 - 23)													
Male	Avg. Length		435	303	592	457	600	589	454		608		516
	Std. Error		5.2	6.0	6.8	3.6		4.4	4.3		10.9		5.9
	Sample Size		23	3	15	51	1	67	22		7		189
Female	Avg. Length		450		565	487	545	566	491		566		548
	Std. Error				7.5	6.1		3.1	20.9		2.4		4.1
	Sample Size		1		12	18	1	68	6		4		110
All Fish	Avg. Length		436	303	580	465	573	578	462		593		527
	Std. Error		5.0	6.0	5.6	3.5	27.5	2.9	6.1		9.3		4.1
	Sample Size		24	3	27	70	2	135	28		11		299

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Appendix E.76. (page 2 of 2).

		Brood Year and Age Class											
		1986	1985		1984			1983			1982		
		0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Statistical Week 31 (July 24 - 30)													
Male	Avg. Length		452	317	583	461		582	476		600		497
	Std. Error		5.9	4.9	8.5	4.7		5.9	9.4		10.2		6.5
	Sample Size		28	11	18	53		39	10		4		163
Female	Avg. Length		430		568	512		572	501		571		558
	Std. Error				3.6	7.9		3.7	6.9		5.0		3.6
	Sample Size		1		24	10		46	7		8		96
All Fish	Avg. Length		451	317	575	469		577	486		580		519
	Std. Error		5.8	4.9	4.3	4.7		3.4	6.8		6.1		4.7
	Sample Size		29	11	42	63		85	17		12		259
Statistical Week 32 (July 31 - August 6)													
Male	Avg. Length	322	438	317	593	463	305	588	480		574		475
	Std. Error	21.7	3.8	3.8	4.2	5.9	5.0	6.6	12.7		15.3		7.8
	Sample Size	3	29	17	15	42	2	25	9		4		146
Female	Avg. Length			305	568	483		577	485				556
	Std. Error				4.8	13.5		3.1	13.4				5.8
	Sample Size			1	21	8		41	4				75
All Fish	Avg. Length	322	438	316	578	466	305	581	482		574		502
	Std. Error	21.7	3.8	3.7	3.9	5.4	5.0	3.2	9.4		15.3		6.1
	Sample Size	3	29	18	36	50	2	66	13		4		221
Statistical Week 33 (August 7 - 13)													
Male	Avg. Length	312	440	319	592	456	350	603	488	640	615		462
	Std. Error	8.8	4.2	3.2	5.6	6.3		6.7	43.3				8.8
	Sample Size	3	29	33	13	38	1	29	4	1	1		152
Female	Avg. Length		423		554	481		565	533		565		538
	Std. Error		12.5		3.8	6.3		3.8	43.4		12.6		4.9
	Sample Size		2		20	22		42	3		3		92
All Fish	Avg. Length	312	439	319	568	465	350	581	507	640	578		491
	Std. Error	8.8	4.0	3.2	4.6	4.9		4.1	29.9		15.3		6.2
	Sample Size	3	31	33	33	60	1	71	7	1	4		244
Statistical Week 34 (August 14 - 20)													
Male	Avg. Length	290	451	317	601	457		595					428
	Std. Error		10.5	2.1	7.5	9.6		5.3					12.4
	Sample Size	1	9	36	7	19		13					85
Female	Avg. Length		438	495	583	513		572					556
	Std. Error		12.5		5.3	7.7		4.9					6.4
	Sample Size		2	1	13	8		20					44
All Fish	Avg. Length	290	448	322	589	474		581					472
	Std. Error		8.8	5.2	4.6	8.6		4.1					10.0
	Sample Size	1	11	37	20	27		33					129
Statistical Weeks 35 - 38 (August 21 - September 18)													
Male	Avg. Length		425	320	583	482	330	580	530		568		395
	Std. Error		15.0	3.5	14.9	15.7	10.0	16.6			27.5		13.2
	Sample Size		2	43	4	9	2	7	1		2		70
Female	Avg. Length				540	505		551					526
	Std. Error				10.0	10.3		9.7					7.4
	Sample Size				5	12		7					24
All Fish	Avg. Length		425	320	559	495	330	565	530		568		428
	Std. Error		15.0	3.5	11.0	9.1	10.0	10.1			27.5		11.6
	Sample Size		2	43	9	21	2	14	1		2		94
Combined Periods (Unweighted)													
Male	Avg. Length	313	443	319	589	470	370	589	470	600	593		496
	Std. Error	9.8	2.2	1.5	2.8	1.9	46.6	1.5	3.5	40.0	3.8		2.5
	Sample Size	7	151	149	86	429	6	403	93	2	49		1375
Female	Avg. Length		436	400	567	499	545	569	502	600	567	475	545
	Std. Error		5.8	95.0	2.2	1.5		1.1	5.1		3.4		1.3
	Sample Size		7	2	109	290	1	531	43	1	63	1	1048
All Fish	Avg. Length	313	442	320	576	482	395	578	480	600	578	508	518
	Std. Error	9.8	2.1	1.9	1.9	1.4	46.7	0.9	3.2	23.1	2.8	32.5	1.6
	Sample Size	7	158	151	195	720	7	934	136	3	112	2	2423

Appendix E.77. Test for significant changes in the length composition of sockeye salmon in the Canyon Island (Taku River) escapement by age class and fishing period, 1988.

	Brood Year and Age Class										
	1986	1985		1984			1983		1982		
Periods Compared	0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2
1 . 2											
1 . 3							S*				
1 . 4					S*						
1 . 5					S**						
1 . 6					S**						
1 . 7					S**						
1 . 8					S**						
1 . 9					S**						
1 . 10					S**						
1 . 11											
2 . 3							S				
2 . 4					S**						
2 . 5					S**			S*			
2 . 6					S**			S**		S	
2 . 7					S**						
2 . 8					S**						
2 . 9					S**						
2 . 10					S**						
2 . 11											
3 . 4				S*	S**		S**				
3 . 5				S**	S**		S**	S			
3 . 6				S**	S**		S*	S**		S	
3 . 7				S**	S**		S				
3 . 8				S**	S**		S**				
3 . 9				S	S**		S**				
3 . 10				S**	S**		S**				
3 . 11											
4 . 5										S	
4 . 6		S	S*		S**			S**		S*	
4 . 7					S**						
4 . 8		S			S**						
4 . 9					S**						
4 . 10											
4 . 11											
5 . 6					S**						
5 . 7					S*						
5 . 8					S*						
5 . 9				S*	S**						
5 . 10											
5 . 11				S*							
6 . 7		S	S					S**			
6 . 8			S			S**		S			
6 . 9			S**	S							
6 . 10			S**								
6 . 11			S**	S	S**	S**					
7 . 8		S									
7 . 9		S									
7 . 10				S*							
7 . 11					S**						
8 . 9				S							
8 . 10				S							
8 . 11					S**	S*					
9 . 10				S**							
9 . 11					S**						
10 . 11				S**	S						

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.78. Catch and CPUE (catch/wheel hour) of sockeye salmon in fishwheels at Canyon Island (Taku River), 1988.

Date	Daily Sockeye Catch	Cumul. Sockeye Catch	Daily CPUE	Daily Proport. CPUE	Cumul. Proport. CPUE
29-May	1	1	0.022	0.0003	0.0003
30-May	0	1	0.000	0.0000	0.0003
31-May	0	1	0.000	0.0000	0.0003
01-Jun	0	1	0.000	0.0000	0.0003
02-Jun	1	2	0.023	0.0003	0.0006
03-Jun	0	2	0.000	0.0000	0.0006
04-Jun	2	4	0.043	0.0005	0.0011
05-Jun	0	4	0.000	0.0000	0.0011
06-Jun	4	8	0.085	0.0011	0.0022
07-Jun	7	15	0.157	0.0020	0.0042
08-Jun	2	17	0.054	0.0007	0.0049
09-Jun	0	17	0.000	0.0000	0.0049
10-Jun	0	17	0.000	0.0000	0.0049
11-Jun	2	19	0.072	0.0009	0.0058
12-Jun	13	32	0.295	0.0038	0.0096
13-Jun	26	58	0.597	0.0076	0.0172
14-Jun	31	89	0.686	0.0088	0.0260
15-Jun	24	113	0.527	0.0067	0.0327
16-Jun	41	154	0.907	0.0116	0.0443
17-Jun	31	185	0.674	0.0086	0.0529
18-Jun	41	226	0.937	0.0120	0.0649
19-Jun	27	253	0.581	0.0074	0.0723
20-Jun	27	280	0.591	0.0076	0.0799
21-Jun	21	301	0.469	0.0060	0.0859
22-Jun	19	320	0.411	0.0053	0.0911
23-Jun	28	348	0.626	0.0080	0.0991
24-Jun	33	381	0.736	0.0094	0.1085
25-Jun	42	423	0.902	0.0115	0.1201
26-Jun	23	446	0.721	0.0092	0.1293
27-Jun	41	487	1.814	0.0232	0.1525
28-Jun	41	528	1.166	0.0149	0.1674
29-Jun	62	590	1.353	0.0173	0.1847
30-Jun	36	626	0.771	0.0099	0.1945
01-Jul	27	653	0.580	0.0074	0.2019
02-Jul	34	687	0.739	0.0094	0.2114
03-Jul	55	742	1.202	0.0154	0.2267
04-Jul	73	815	1.610	0.0206	0.2473
05-Jul	43	858	0.998	0.0128	0.2601
06-Jul	54	912	1.168	0.0149	0.2750
07-Jul	31	943	0.668	0.0085	0.2835
08-Jul	68	1011	1.497	0.0191	0.3027
09-Jul	48	1059	1.051	0.0134	0.3161
10-Jul	91	1150	2.015	0.0258	0.3418
11-Jul	78	1228	1.733	0.0222	0.3640
12-Jul	88	1316	1.992	0.0255	0.3895
13-Jul	81	1397	1.824	0.0233	0.4128
14-Jul	46	1443	1.520	0.0194	0.4322
15-Jul	69	1512	1.574	0.0201	0.4523
16-Jul	89	1601	1.971	0.0252	0.4775
17-Jul	71	1672	1.629	0.0208	0.4983
18-Jul	74	1746	1.776	0.0227	0.5210
19-Jul	70	1816	1.725	0.0220	0.5430

-continued-

Appendix E.78. (page 2 of 2).

Date	Daily Sockeye Catch	Cumul. Sockeye Catch	Daily CPUE	Daily Proport. CPUE	Cumul. Proport. CPUE
20-Jul	85	1901	1.940	0.0248	0.5678
21-Jul	33	1934	0.731	0.0093	0.5772
22-Jul	22	1956	0.474	0.0061	0.5832
23-Jul	44	2000	0.962	0.0123	0.5955
24-Jul	46	2046	0.991	0.0127	0.6082
25-Jul	63	2109	1.372	0.0175	0.6257
26-Jul	74	2183	1.635	0.0209	0.6466
27-Jul	59	2242	1.297	0.0166	0.6632
28-Jul	37	2279	0.801	0.0102	0.6734
29-Jul	35	2314	0.758	0.0097	0.6831
30-Jul	37	2351	0.779	0.0100	0.6931
31-Jul	35	2386	1.261	0.0161	0.7092
01-Aug	0	2386		0.0000	0.7092
02-Aug	2	2388	0.182	0.0023	0.7115
03-Aug	44	2432	1.970	0.0252	0.7367
04-Aug	86	2518	1.915	0.0245	0.7612
05-Aug	61	2579	1.358	0.0174	0.7785
06-Aug	60	2639	1.351	0.0173	0.7958
07-Aug	39	2678	0.862	0.0110	0.8068
08-Aug	51	2729	1.259	0.0161	0.8229
09-Aug	62	2791	1.355	0.0173	0.8402
10-Aug	53	2844	1.152	0.0147	0.8549
11-Aug	58	2902	1.279	0.0163	0.8713
12-Aug	45	2947	0.975	0.0125	0.8837
13-Aug	29	2976	1.126	0.0144	0.8981
14-Aug	25	3001	1.376	0.0176	0.9157
15-Aug	48	3049	1.059	0.0135	0.9293
16-Aug	38	3087	0.843	0.0108	0.9400
17-Aug	26	3113	0.578	0.0074	0.9474
18-Aug	13	3126	0.322	0.0041	0.9515
19-Aug	12	3138	0.268	0.0034	0.9550
20-Aug	12	3150	0.264	0.0034	0.9583
21-Aug	10	3160	0.218	0.0028	0.9611
22-Aug	12	3172	0.259	0.0033	0.9644
23-Aug	22	3194	0.493	0.0063	0.9707
24-Aug	12	3206	0.259	0.0033	0.9740
25-Aug	4	3210	0.086	0.0011	0.9751
26-Aug	6	3216	0.130	0.0017	0.9768
27-Aug	7	3223	0.164	0.0021	0.9789
28-Aug	8	3231	0.227	0.0029	0.9818
29-Aug	8	3239	0.175	0.0022	0.9840
30-Aug	11	3250	0.244	0.0031	0.9871
31-Aug	1	3251	0.022	0.0003	0.9874
01-Sep	4	3255	0.095	0.0012	0.9886
02-Sep	0	3255	0.000	0.0000	0.9886
03-Sep	4	3259	0.097	0.0012	0.9899
04-Sep	9	3268	0.221	0.0028	0.9927
05-Sep	7	3275	0.162	0.0021	0.9948
06-Sep	4	3279	0.090	0.0012	0.9959
07-Sep	1	3280	0.025	0.0003	0.9962
08-Sep	3	3283	0.065	0.0008	0.9971
09-Sep	0	3283	0.000	0.0000	0.9971
10-Sep	0	3283	0.000	0.0000	0.9971
11-Sep	2	3285	0.075	0.0010	0.9980
12-Sep	5	3290	0.109	0.0014	0.9994
13-Sep	2	3292	0.045	0.0006	1.0000
14-Sep	0	3292	0.000	0.0000	1.0000
15-Sep	0	3292	0.000	0.0000	1.0000
16-Sep	0	3292		0.0000	1.0000
17-Sep	0	3292	0.000	0.0000	1.0000
18-Sep	0	3292	0.000	0.0000	1.0000

Appendix E.79. Age composition of sockeye salmon in the Yehring Creek escapement by sex and age class, 1988.[a]

	Brood Year and Age Class						
	1985	1984		1983		1982	
	0.2	0.3	1.2	1.3	2.2	2.3	Total
Escapement Dates: (August 12 - October 1)							
Sample Dates: (August 13 - September 28)							
Male							
Sample Number	3		29	59	1	2	94
Percent	1.6		15.3	31.1	0.5	1.1	49.5
Std. Error	0.6		1.6	2.1	0.3	0.5	2.2
Number	5		47	94	2	3	151
Female							
Sample Number	1	2	22	71			96
Percent	0.5	1.1	11.6	37.4			50.5
Std. Error	0.3	0.5	1.4	2.2			2.2
Number	2	3	35	115			155
All Fish							
Sample Number	4	2	51	130	1	2	190
Percent	2.1	1.1	26.8	68.4	0.5	1.1	100.0
Std. Error	0.6	0.5	2.0	2.1	0.3	0.5	
Number	7	3	82	209	2	3	306

[a] Incomplete counts.

Appendix E.80. Length composition of sockeye salmon in the Yehring Creek escapement by sex and age class, 1988.

		Brood Year and Age Class						
		1985	1984		1983		1982	
		0.2	0.3	1.2	1.3	2.2	2.3	Total
Escapement Dates: (August 12 - October 1)								
Sample Dates: (August 13 - September 28)								
Male	Avg. Length	458		472	578	455	566	540
	Std. Error	21.4		5.9	5.2		12.5	6.6
	Sample Size	3		29	59	1	2	94
Female	Avg. Length	438	593	504	572			555
	Std. Error		12.5	5.0	4.4			4.7
	Sample Size	1	2	22	71			96
All Fish	Avg. Length	453	593	486	575	455	566	548
	Std. Error	15.9	12.5	4.5	3.4		12.5	4.0
	Sample Size	4	2	51	130	1	2	190

Appendix E.81. Daily sockeye salmon counts and associated statistics from Yehring Creek weir, 1988.[a]

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
Aug.	12	1	1	0.0030	0.0030
Aug.	13	1	2	0.0030	0.0060
Aug.	14	0	2	0.0000	0.0060
Aug.	15	0	2	0.0000	0.0060
Aug.	16	0	2	0.0000	0.0060
Aug.	17	0	2	0.0000	0.0060
Aug.	18	20	22	0.0595	0.0655
Aug.	19	6	28	0.0179	0.0833
Aug.	20	4	32	0.0119	0.0952
Aug.	21	0	32	0.0000	0.0952
Aug.	22	0	32	0.0000	0.0952
Aug.	23	21	53	0.0625	0.1577
Aug.	24	11	64	0.0327	0.1905
Aug.	25	7	71	0.0208	0.2113
Aug.	26	17	88	0.0506	0.2619
Aug.	27	17	105	0.0506	0.3125
Aug.	28	18	123	0.0536	0.3661
Aug.	29	8	131	0.0238	0.3899
Aug.	30	5	136	0.0149	0.4048
Aug.	31	20	156	0.0595	0.4643
Sept.	1	10	166	0.0298	0.4940
Sept.	2	0	166	0.0000	0.4940
Sept.	3	3	169	0.0089	0.5030
Sept.	4	8	177	0.0238	0.5268
Sept.	5	8	185	0.0238	0.5506
Sept.	6	10	195	0.0298	0.5804
Sept.	7	6	201	0.0179	0.5982
Sept.	8	1	202	0.0030	0.6012
Sept.	9	0	202	0.0000	0.6012
Sept.	10	0	202	0.0000	0.6012
Sept.	11	40	242	0.1190	0.7202
Sept.	12	7	249	0.0208	0.7411
Sept.	13	8	257	0.0238	0.7649
Sept.	14	7	264	0.0208	0.7857
Sept.	15	12	276	0.0357	0.8214
Sept.	16	1	277	0.0030	0.8244
Sept.	17	5	282	0.0149	0.8393
Sept.	18	2	284	0.0060	0.8452
Sept.	19	1	285	0.0030	0.8482
Sept.	20	0	285	0.0000	0.8482
Sept.	21	1	286	0.0030	0.8512
Sept.	22	1	287	0.0030	0.8542
Sept.	23	3	290	0.0089	0.8631
Sept.	24	1	291	0.0030	0.8661
Sept.	25	0	291	0.0000	0.8661
Sept.	26	0	291	0.0000	0.8661
Sept.	27	0	291	0.0000	0.8661
Sept.	28	3	294	0.0089	0.8750
Sept.	29	4	298	0.0119	0.8869
Sept.	30	5	303	0.0149	0.9018
Oct.	1	3	306	0.0089	0.9107
Oct.	2	1	307	0.0030	0.9137
Oct.	3	0	307	0.0000	0.9137
Oct.	4	3	310	0.0089	0.9226
Oct.	5	6	316	0.0179	0.9405
Oct.	6	8	324	0.0238	0.9643
Oct.	7	1	325	0.0030	0.9673
Oct.	8	2	327	0.0060	0.9732
Oct.	9	2	329	0.0060	0.9792
Oct.	10	1	330	0.0030	0.9821
Oct.	11	0	330	0.0000	0.9821
Oct.	12	1	331	0.0030	0.9851
Oct.	13	1	332	0.0030	0.9881
Oct.	14	0	332	0.0000	0.9881
Oct.	15	0	332	0.0000	0.9881
Oct.	16	0	332	0.0000	0.9881
Oct.	17	0	332	0.0000	0.9881
Oct.	18	2	334	0.0060	0.9940
Oct.	19	0	334	0.0000	0.9940
Oct.	20	1	335	0.0030	0.9970
Oct.	21	1	336	0.0030	1.0000
Oct.	22	0	336	0.0000	1.0000

Mean Day of Migration = Sept. 6 Variance = 212.8 Days squared

[a] Incomplete counts.

Appendix E.82. Age composition of sockeye salmon in the Tuskwa Slough (Taku River) escapement by sex and age class, 1988.

	Brood Year and Age Class						
	1985		1984		1983	1982	
	0.2	1.1	0.3	1.2	1.3	2.3	Total
Sample Date: (September 26)							
Male							
Sample Size	32	4	15	6	8		65
Percent	29.4	3.7	13.8	5.5	7.3		59.6
Std. Error	4.4	1.8	3.3	2.2	2.5		4.7
Female							
Sample Size			17		26	1	44
Percent			15.6		23.9	0.9	40.4
Std. Error			3.5		4.1	0.9	4.7
All Fish							
Sample Size	32	4	32	6	34	1	109
Percent	29.4	3.7	29.4	5.5	31.2	0.9	100.0
Std. Error	4.4	1.8	4.4	2.2	4.5	0.9	

Appendix E.83. Length composition of sockeye salmon in the Tuskwa Slough (Taku River) escapement by sex and age class, 1988.

		Brood Year and Age Class						
		1985		1984		1983	1982	
		0.2	1.1	0.3	1.2	1.3	2.3	Total
Sample Date: (September 26)								
Male	Avg. Length	443	339	605	471	600		496
	Std. Error	3.4	10.3	9.3	9.0	13.7		10.9
	Sample Size	32	4	15	6	8		65
Female	Avg. Length			576		579	555	577
	Std. Error			4.5		5.0		3.5
	Sample Size			17		26	1	44
All Fish	Avg. Length	443	339	589	471	584	555	529
	Std. Error	3.4	10.3	5.5	9.0	5.1		7.7
	Sample Size	32	4	32	6	34	1	109

Appendix E.84. Age composition of sockeye salmon in the Coffee's Slough (Taku River) escapement by sex and age class, 1988.

	Brood Year and Age Class	
	1985	
	0.2	Total
Sample Date: (September 26)		
Male		
Sample Size	1	1
Percent	100.0	100.0
Std. Error		
All Fish		
Sample Size	1	1
Percent	100.0	100.0
Std. Error		

Appendix E.85. Length composition of sockeye salmon in the Coffee's Slough (Taku River) escapement by sex and age class, 1988.

		Brood Year and Age Class	
		1985	
		0.2	Total
Sample Date: (September 26)			
Male	Avg. Length	476	476
	Std. Error		
	Sample Size	1	1
All Fish	Avg. Length	476	476
	Std. Error		
	Sample Size	1	1

Appendix E.86. Age composition of sockeye salmon in the Yonakina Slough (Taku River) escapement by sex and age class, 1988.

	Brood Year and Age Class							
	1986	1985		1984		1983	1982	
	0.1	0.2	1.1	0.3	1.2	1.3	2.3	Total
Sample Date: (September 26)								
Male								
Sample Size	1	7	3	6	13	4	1	35
Percent	2.0	14.0	6.0	12.0	26.0	8.0	2.0	70.0
Std. Error	2.0	5.0	3.4	4.6	6.3	3.9	2.0	6.5
Female								
Sample Size		1		1	3	10		15
Percent		2.0		2.0	6.0	20.0		30.0
Std. Error		2.0		2.0	3.4	5.7		6.5
All Fish								
Sample Size	1	8	3	7	16	14	1	50
Percent	2.0	16.0	6.0	14.0	32.0	28.0	2.0	100.0
Std. Error	2.0	5.2	3.4	5.0	6.7	6.4	2.0	

Appendix E.87. Length composition of sockeye salmon in the Yonakina Slough (Taku River) escapement by sex and age class, 1988.

		Brood Year and Age Class							
		1986	1985		1984		1983	1982	
		0.1	0.2	1.1	0.3	1.2	1.3	2.3	Total
Sample Date: (September 26)									
Male	Avg. Length	398	426	303	581	442	605	582	472
	Std. Error		5.2	10.5	15.6	5.8	27.0		15.7
	Sample Size	1	7	3	6	13	4	1	35
Female	Avg. Length		421		574	456	571		539
	Std. Error					21.2	8.1		16.2
	Sample Size		1		1	3	10		15
All Fish	Avg. Length	398	426	303	580	445	581	582	492
	Std. Error		4.6	10.5	13.2	5.9	9.9		12.7
	Sample Size	1	8	3	7	16	14	1	50

Appendix E.88. Age composition of sockeye salmon in the Shustahini Slough (Taku River) escapement by sex and age class, 1988.

	Brood Year and Age Class						
	1985		1984		1983	1982	
	0.2	1.1	0.3	1.2	1.3	2.3	Total
Sample Date: (September 26)							
Male							
Sample Size	10	3	17	9	23	1	63
Percent	9.1	2.7	15.5	8.2	20.9	0.9	57.3
Std. Error	2.8	1.6	3.5	2.6	3.9	0.9	4.7
Female							
Sample Size			14	1	32		47
Percent			12.7	0.9	29.1		42.7
Std. Error			3.2	0.9	4.3		4.7
All Fish							
Sample Size	10	3	31	10	56	1	111
Percent	9.0	2.7	27.9	9.0	50.5	0.9	100.0
Std. Error	2.7	1.5	4.3	2.7	4.8	0.9	

Appendix E.89. Length composition of sockeye salmon in the Shustahini Slough (Taku River) escapement by sex and age class, 1988.

		Brood Year and Age Class						
		1985		1984		1983	1982	
		0.2	1.1	0.3	1.2	1.3	2.3	Total
Sample Date: (September 26)								
Male	Avg. Length	444	337	606	450	612	634	546
	Std. Error	7.3	15.2	4.9	6.1	3.7		11.5
	Sample Size	10	3	17	9	22	1	62
Female	Avg. Length			558	479	578		570
	Std. Error			7.0		4.1		4.2
	Sample Size			14	1	32		47
All Fish	Avg. Length	444	337	584	453	592	634	557
	Std. Error	7.3	15.2	5.9	6.1	3.6		6.9
	Sample Size	10	3	31	10	54	1	109

Appendix E.90. Age composition of sockeye salmon in the Kuthai Lake escapement by sex and age class, 1988.

	Brood Year and Age Class				
	1984	1983		1982	
	1.2	1.3	2.2	2.3	Total
Sample Dates:	(September 7 - 8)				
Male					
Sample Number	96	114	5	22	237
Percent	25.6	30.4	1.3	5.9	63.2
Std. Error	2.2	2.4	0.6	1.2	2.5
Female					
Sample Number	65	60	6	7	138
Percent	17.3	16.0	1.6	1.9	36.8
Std. Error	1.9	1.9	0.6	0.7	2.5
All Fish					
Sample Number	161	174	11	29	375
Percent	42.9	46.4	2.9	7.7	100.0
Std. Error	2.5	2.6	0.9	1.4	

Appendix E.91. Length composition of sockeye salmon in the Kuthai Lake escapement by sex and age class, 1988.

		Brood Year and Age Class				
		1984	1983		1982	
		1.2	1.3	2.2	2.3	Total
Sample Dates:		(September 7 - 8)				
Male	Avg. Length	493	567	486	572	536
	Std. Error	1.7	2.2	4.7	5.5	2.8
	Sample Size	96	114	5	22	237
Female	Avg. Length	486	552	477	550	518
	Std. Error	2.6	2.5	7.8	7.1	3.3
	Sample Size	65	60	6	7	138
All Fish	Avg. Length	490	562	481	567	529
	Std. Error	1.5	1.8	4.8	4.8	2.2
	Sample Size	161	174	11	29	375

Appendix E.92. Age composition of sockeye salmon in the Little Trapper Lake escapement by sex, age class, and escapement period, 1988.

	Brood Year and Age Class					
	1984		1983		1982	
	0.3	1.2	1.3	2.2	2.3	Total
Escapement Dates: (July 31 - August 6)						
Sample Dates: (July 31 - August 6)						
Male						
Sample Size		16	89	17	12	134
Percent		5.9	33.1	6.3	4.5	49.8
Std. Error		1.4	2.8	1.4	1.2	3.0
Number		268	1495	286	202	2251
Female						
Sample Size		2	126		7	135
Percent		0.7	46.8		2.6	50.2
Std. Error		0.5	3.0		0.9	3.0
Number		34	2116		117	2267
All Fish						
Sample Size		18	215	17	19	269
Percent		6.7	79.9	6.3	7.1	100.0
Std. Error		1.5	2.4	1.4	1.5	
Number		302	3611	286	319	4518
Escapement Dates: (August 7 - 20)						
Sample Dates: (August 7 - 20)						
Male						
Sample Size		46	104	19	24	193
Percent		10.9	24.6	4.5	5.7	45.6
Std. Error		1.5	2.0	1.0	1.1	2.3
Number		665	1502	274	347	2788
Female						
Sample Size	1	11	174	13	31	230
Percent	0.2	2.6	41.1	3.1	7.3	54.4
Std. Error	0.2	0.7	2.3	0.8	1.2	2.3
Number	14	159	2514	188	448	3323
All Fish						
Sample Size	1	57	278	32	55	423
Percent	0.2	13.5	65.7	7.6	13.0	100.0
Std. Error	0.2	1.6	2.2	1.2	1.6	
Number	14	824	4016	462	795	6111

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	Brood Year and Age Class					
	1984		1983		1982	
	0.3	1.2	1.3	2.2	2.3	Total
Combined Periods (Percentages are weighted by period catches)						
Male						
Sample Size		62	193	36	36	327
Percent		8.8	28.2	5.3	5.2	47.4
Std. Error		1.0	1.7	0.8	0.8	1.8
Number		933	2997	560	549	5039
Female						
Sample Size	1	13	300	13	38	365
Percent	0.1	1.8	43.6	1.8	5.3	52.6
Std. Error	0.1	0.5	1.8	0.5	0.8	1.8
Number	14	193	4630	188	565	5590
All Fish						
Sample Size	1	75	493	49	74	692
Percent	0.1	10.6	71.8	7.0	10.5	100.0
Std. Error	0.1	1.1	1.6	0.9	1.1	
Number	14	1126	7627	748	1114	10629

Appendix E.93. Test for significant changes in the age composition of sockeye salmon in the Little Trapper Lake escapement by age class and escapement period, 1988.

	Brood Year and Age Class				
	1984	1984	1983	1983	1982
	0.3	1.2	1.3	2.2	2.3
Periods Compared					
1 , 2		S**	S**		S**

S = significant at alpha = 0.10

S* = significant at alpha = 0.05

S** = significant at alpha = 0.01

Appendix E.94. Length composition of sockeye salmon in the Little Trapper Lake escapement by sex, age class, and escapement period, 1988.

		Brood Year and Age Class					
		1984		1983		1982	
		0.3	1.2	1.3	2.2	2.3	Total
Escapement Dates: (July 31 - August 6)							
Sample Dates: (July 31 - August 6)							
Male	Avg. Length		459	578	459	573	548
	Std. Error		7.7	2.4	5.8	5.1	4.9
	Sample Size		16	89	17	12	134
Female	Avg. Length		510	557		562	556
	Std. Error		7.5	1.9		5.1	1.8
	Sample Size		2	126		7	135
All Fish	Avg. Length		465	566	459	569	552
	Std. Error		7.9	1.7	5.8	3.8	2.6
	Sample Size		18	215	17	19	269
Escapement Dates: (August 7 - 20)							
Sample Dates: (August 7 - 20)							
Male	Avg. Length		448	583	447	586	538
	Std. Error		3.7	2.5	3.8	5.7	5.0
	Sample Size		46	104	19	24	193
Female	Avg. Length	561	500	558	494	562	552
	Std. Error		7.9	1.8	4.6	5.0	2.0
	Sample Size	1	11	174	13	31	230
All Fish	Avg. Length	561	458	567	466	572	545
	Std. Error		4.3	1.6	5.0	4.1	2.5
	Sample Size	1	57	278	32	55	423
Combined Periods (Lengths weighted by period escapements)							
Male	Avg. Length		452	581	452	580	542
	Std. Error		3.4	1.8	3.5	4.2	3.6
	Sample Size		62	193	36	36	327
Female	Avg. Length	561	504	557	494	562	554
	Std. Error		6.7	1.3	4.6	4.2	1.4
	Sample Size	1	13	300	13	38	365
All Fish	Avg. Length	561	461	567	463	571	548
	Std. Error		3.8	1.2	3.8	3.2	1.9
	Sample Size	1	75	493	49	74	692

Appendix E.95. Test for significant changes in the length composition of sockeye salmon in the Little Trapper Lake escapement by age class and escapement period, 1988.

	Brood Year and Age Class				
	1984		1983		1982
	0.3	1.2	1.3	2.2	2.3
Periods Compared					
1 , 2					

S = significant at alpha = 0.10

S* = significant at alpha = 0.05

S** = significant at alpha = 0.01

Appendix E.96. Daily sockeye salmon counts and associated statistics from Little Trapper Lake weir, 1988.

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
July	26	1	1	0.0001	0.0001
July	27	4	5	0.0004	0.0005
July	28	0	5	0.0000	0.0005
July	29	16	21	0.0015	0.0020
July	30	78	99	0.0073	0.0093
July	31	112	211	0.0105	0.0199
Aug.	1	327	538	0.0308	0.0506
Aug.	2	683	1221	0.0643	0.1149
Aug.	3	756	1977	0.0711	0.1860
Aug.	4	540	2517	0.0508	0.2368
Aug.	5	503	3020	0.0473	0.2841
Aug.	6	1498	4518	0.1409	0.4251
Aug.	7	616	5134	0.0580	0.4830
Aug.	8	644	5778	0.0606	0.5436
Aug.	9	385	6163	0.0362	0.5798
Aug.	10	303	6466	0.0285	0.6083
Aug.	11	509	6975	0.0479	0.6562
Aug.	12	510	7485	0.0480	0.7042
Aug.	13	393	7878	0.0370	0.7412
Aug.	14	431	8309	0.0405	0.7817
Aug.	15	438	8747	0.0412	0.8229
Aug.	16	256	9003	0.0241	0.8470
Aug.	17	215	9218	0.0202	0.8673
Aug.	18	150	9368	0.0141	0.8814
Aug.	19	200	9568	0.0188	0.9002
Aug.	20	124	9692	0.0117	0.9118
Aug.	21	35	9727	0.0033	0.9151
Aug.	22	87	9814	0.0082	0.9233
Aug.	23	106	9920	0.0100	0.9333
Aug.	24	56	9976	0.0053	0.9386
Aug.	25	107	10083	0.0101	0.9486
Aug.	26	152	10235	0.0143	0.9629
Aug.	27	89	10324	0.0084	0.9713
Aug.	28	44	10368	0.0041	0.9754
Aug.	29	28	10396	0.0026	0.9781
Aug.	30	43	10439	0.0040	0.9821
Aug.	31	14	10453	0.0013	0.9834
Sept.	1	40	10493	0.0038	0.9872
Sept.	2	76	10569	0.0072	0.9944
Sept.	3	20	10589	0.0019	0.9962
Sept.	4	6	10595	0.0006	0.9968
Sept.	5	5	10600	0.0005	0.9973
Sept.	6	5	10605	0.0005	0.9977
Sept.	7	10	10615	0.0009	0.9987
Sept.	8	6	10621	0.0006	0.9992
Sept.	9	3	10624	0.0003	0.9995
Sept.	10	2	10626	0.0002	0.9997
Sept.	11	2	10628	0.0002	0.9999
Sept.	12	1	10629	0.0001	1.0000

Mean Day of Migration = Aug. 10 Variance = 52.9 Days squared

Appendix E.97 Age composition of sockeye salmon in the Little Tatsamenie Lake escapement by sex, age class, and escapement period, 1988.

	Brood Year and Age Class							
	1985		1984		1983		1982	
	0.2	1.1	0.3	1.2	1.3	2.2	2.3	Total
Escapement Dates:	(August 14 - 27)							
Sample Dates:	(August 15 - 27)							
Male								
Sample Size	3	8	1	47	34	1	3	97
Percent	1.3	3.4	0.4	20.0	14.5	0.4	1.3	41.3
Std. Error	0.6	1.0	0.4	2.2	2.0	0.4	0.6	2.8
Number	11	31	4	180	130	4	11	371
Female								
Sample Size	3		5	35	85	6	4	138
Percent	1.3		2.1	14.9	36.2	2.6	1.7	58.7
Std. Error	0.6		0.8	2.0	2.7	0.9	0.7	2.8
Number	11		19	134	325	23	15	527
All Fish								
Sample Size	6	8	6	82	119	7	7	235
Percent	2.6	3.4	2.6	34.9	50.6	3.0	3.0	100.0
Std. Error	0.9	1.0	0.9	2.7	2.8	1.0	1.0	
Number	22	31	23	314	455	27	26	898
Escapement Dates:	(August 28 - September 10)							
Sample Dates:	(August 28 - September 7)							
Male								
Sample Size	3	3		48	23	13	7	97
Percent	1.4	1.4		22.5	10.8	6.1	3.3	45.5
Std. Error	0.7	0.7		2.3	1.7	1.3	1.0	2.8
Number	9	9		141	68	38	21	286
Female								
Sample Size	5		5	51	50	5		116
Percent	2.3		2.3	23.9	23.5	2.3		54.5
Std. Error	0.8		0.8	2.4	2.4	0.8		2.8
Number	15		15	150	148	15		343
All Fish								
Sample Size	8	3	5	99	73	18	7	213
Percent	3.8	1.4	2.3	46.5	34.3	8.5	3.3	100.0
Std. Error	1.1	0.7	0.8	2.8	2.7	1.6	1.0	
Number	24	9	15	291	216	53	21	629

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	Brood Year and Age Class							
	1985		1984		1983		1982	
	0.2	1.1	0.3	1.2	1.3	2.2	2.3	Total
Escapement Dates:	(September 11 - 27)							
Sample Dates:	(September 11 - 27)							
Male								
Sample Size	1			23	13	6	1	44
Percent	1.0			22.1	12.5	5.8	1.0	42.3
Std. Error	0.8			3.6	2.9	2.0	0.8	4.3
Number	5			103	58	27	4	197
Female								
Sample Size	1			20	29	6	4	60
Percent	1.0			19.2	27.9	5.8	3.8	57.7
Std. Error	0.8			3.4	3.9	2.0	1.7	4.3
Number	4			89	130	27	18	268
All Fish								
Sample Size	2			43	42	12	5	104
Percent	1.9			41.3	40.4	11.5	4.8	100.0
Std. Error	1.2			4.3	4.3	2.8	1.9	
Number	9			192	188	54	22	465
Combined Periods (Percentages are weighted by period escapements)								
Male								
Sample Size	7	11	1	118	70	20	11	238
Percent	1.2	2.0	0.2	21.3	12.8	3.5	1.8	42.9
Std. Error	0.4	0.5	0.2	1.5	1.2	0.7	0.5	1.8
Number	25	40	4	424	256	69	36	854
Female								
Sample Size	9		10	106	164	17	8	314
Percent	1.5		1.7	18.8	30.2	3.2	1.7	57.1
Std. Error	0.4		0.5	1.4	1.7	0.7	0.5	1.8
Number	30		34	373	603	65	33	1,138
All Fish								
Sample Size	16	11	11	224	234	37	19	552
Percent	2.8	2.0	1.9	40.1	43.1	6.7	3.5	100.0
Std. Error	0.6	0.5	0.5	1.8	1.8	0.9	0.7	
Number	55	40	38	797	859	134	60	1,992

Appendix E.98 Test for significant changes among periods in the age composition of sockeye salmon in the Little Tatsamenie Lake escapement by age class, 1988.

	Brood Year and Age Class						
	1985		1984		1983		1982
	0.2	1.1	0.3	1.2	1.3	2.2	2.3
Periods Compared							
1 , 2				S**	S**	S*	
1 , 3						S**	
2 , 3							

S = significant at alpha = 0.10

S* = significant at alpha = 0.05

S** = significant at alpha = 0.01

Appendix E.99 Length composition of sockeye salmon in the Little Tatsamenie Lake escapement by sex, age class, and escapement period, 1988.

		Brood Year and Age Class							
		1985		1984		1983		1982	
		0.2	1.1	0.3	1.2	1.3	2.2	2.3	Total
Escapement Dates: (August 14 - 27)									
Sample Dates: (August 15 - 27)									
Male	Avg. Length	458	467	626	547	607	612	593	561
	Std. Error	13.7	6.4		9.2	6.1		6.6	6.7
	Sample Size	3	8	1	47	34	1	3	97
Female	Avg. Length	593		579	539	573	512	584	563
	Std. Error	11.0		5.2	6.7	2.9	9.4	6.3	3.0
	Sample Size	3		5	35	85	6	4	138
All Fish	Avg. Length	526	467	587	543	583	526	588	562
	Std. Error	31.2	6.4	8.9	6.0	3.0	16.3	4.6	3.3
	Sample Size	6	8	6	82	119	7	7	235
Escapement Dates: (August 28 - September 10)									
Sample Dates: (August 28 - September 7)									
Male	Avg. Length	486	433		546	613	564	609	563
	Std. Error	24.7	6.5		9.5	5.2	11.1	5.8	6.5
	Sample Size	3	3		48	23	13	7	97
Female	Avg. Length	549		578	537	563	532		550
	Std. Error	22.4		14.0	5.3	4.6	11.5		3.5
	Sample Size	5		5	51	50	5		116
All Fish	Avg. Length	525	433	578	541	579	555	609	556
	Std. Error	19.4	6.5	14.0	5.3	4.5	9.2	5.8	3.5
	Sample Size	8	3	5	99	73	18	7	213
Escapement Dates: (September 11 - 27)									
Sample Dates: (September 11 - 27)									
Male	Avg. Length	403			554	593	522	618	559
	Std. Error				11.5	5.1	11.8		8.2
	Sample Size	1			23	13	6	1	44
Female	Avg. Length	575			508	556	505	578	537
	Std. Error				8.3	5.6	6.6	26.8	5.4
	Sample Size	1			20	29	6	4	60
All Fish	Avg. Length	489			533	568	514	586	546
	Std. Error	86.0			8.0	4.9	6.9	22.3	4.7
	Sample Size	2			43	42	12	5	104
Combined Periods (Lengths weighted by period escapements)									
Male	Avg. Length	454	453	626	548	606	576	604	561
	Std. Error	15.4	6.8		5.7	3.6	9.5	4.6	4.1
	Sample Size	7	11	1	118	70	20	11	238
Female	Avg. Length	575		578	531	566	517	582	553
	Std. Error	14.2		7.0	3.8	2.3	5.6	12.8	2.2
	Sample Size	9		10	106	164	17	8	314
All Fish	Avg. Length	517	453	583	540	578	533	594	557
	Std. Error	16.8	6.8	7.7	3.6	2.3	6.5	6.5	2.2
	Sample Size	16	11	11	224	234	37	19	552

Appendix E.100 Test for significant changes among periods in the length composition of sockeye salmon in the Little Tatsamenie Lake escapement by age class, 1988.

	Brood Year and Age Class						
	1985		1984		1983		1982
	0.2	1.1	0.3	1.2	1.3	2.2	2.3
Periods Compared							
1 , 2		S**					S**
1 , 3					S**		
2 , 3					S	S**	

S = significant at alpha = 0.10

S* = significant at alpha = 0.05

S** = significant at alpha = 0.01

Appendix E.101. Daily sockeye salmon counts and associated statistics from Little Tatsamenie Lake weir, 1988.

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
Aug.	6	1	1	0.0005	0.0005
Aug.	7	0	1	0.0000	0.0005
Aug.	8	1	2	0.0005	0.0010
Aug.	9	0	2	0.0000	0.0010
Aug.	10	0	2	0.0000	0.0010
Aug.	11	4	6	0.0019	0.0029
Aug.	12	9	15	0.0044	0.0073
Aug.	13	3	18	0.0015	0.0087
Aug.	14	5	23	0.0024	0.0111
Aug.	15	10	33	0.0048	0.0160
Aug.	16	1	34	0.0005	0.0165
Aug.	17	0	34	0.0000	0.0165
Aug.	18	35	69	0.0170	0.0334
Aug.	19	42	111	0.0204	0.0538
Aug.	20	24	135	0.0116	0.0654
Aug.	21	128	263	0.0620	0.1275
Aug.	22	47	310	0.0228	0.1503
Aug.	23	115	425	0.0557	0.2060
Aug.	24	46	471	0.0223	0.2283
Aug.	25	84	555	0.0407	0.2690
Aug.	26	258	813	0.1251	0.3941
Aug.	27	85	898	0.0412	0.4353
Aug.	28	36	934	0.0175	0.4527
Aug.	29	104	1038	0.0504	0.5032
Aug.	30	35	1073	0.0170	0.5201
Aug.	31	121	1194	0.0587	0.5788
Sept.	1	48	1242	0.0233	0.6020
Sept.	2	95	1337	0.0460	0.6481
Sept.	3	46	1383	0.0223	0.6704
Sept.	4	29	1412	0.0141	0.6844
Sept.	5	71	1483	0.0344	0.7189
Sept.	6	26	1509	0.0126	0.7315
Sept.	7	16	1525	0.0078	0.7392
Sept.	8	0	1525	0.0000	0.7392
Sept.	9	0	1525	0.0000	0.7392
Sept.	10	2	1527	0.0010	0.7402
Sept.	11	148	1675	0.0717	0.8119
Sept.	12	23	1698	0.0111	0.8231
Sept.	13	85	1783	0.0412	0.8643
Sept.	14	32	1815	0.0155	0.8798
Sept.	15	0	1815	0.0000	0.8798
Sept.	16	0	1815	0.0000	0.8798
Sept.	17	0	1815	0.0000	0.8798
Sept.	18	27	1842	0.0131	0.8929
Sept.	19	45	1887	0.0218	0.9147
Sept.	20	30	1917	0.0145	0.9292
Sept.	21	40	1957	0.0194	0.9486
Sept.	22	19	1976	0.0092	0.9578
Sept.	23	16	1992	0.0078	0.9656
Sept.	24	12	2004	0.0058	0.9714
Sept.	25	3	2007	0.0015	0.9729
Sept.	26	7	2014	0.0034	0.9762
Sept.	27	10	2024	0.0048	0.9811
Sept.	28	3	2027	0.0015	0.9825
Sept.	29	3	2030	0.0015	0.9840

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Date	Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
Sept. 30	3	2033	0.0015	0.9855
Oct. 1	5	2038	0.0024	0.9879
Oct. 2	2	2040	0.0010	0.9889
Oct. 3	1	2041	0.0005	0.9893
Oct. 4	0	2041	0.0000	0.9893
Oct. 5	4	2045	0.0019	0.9913
Oct. 6	2	2047	0.0010	0.9922
Oct. 7	3	2050	0.0015	0.9937
Oct. 8	2	2052	0.0010	0.9947
Oct. 9	1	2053	0.0005	0.9952
Oct. 10	1	2054	0.0005	0.9956
Oct. 11	1	2055	0.0005	0.9961
Oct. 12	1	2056	0.0005	0.9966
Oct. 13	0	2056	0.0000	0.9966
Oct. 14	0	2056	0.0000	0.9966
Oct. 15	1	2057	0.0005	0.9971
Oct. 16	0	2057	0.0000	0.9971
Oct. 17	0	2057	0.0000	0.9971
Oct. 18	1	2058	0.0005	0.9976
Oct. 19	1	2059	0.0005	0.9981
Oct. 20	2	2061	0.0010	0.9990
Oct. 21	0	2061	0.0000	0.9990
Oct. 22	0	2061	0.0000	0.9990
Oct. 23	0	2061	0.0000	0.9990
Oct. 24	0	2061	0.0000	0.9990
Oct. 25	0	2061	0.0000	0.9990
Oct. 26	1	2062	0.0005	0.9995
Oct. 27	0	2062	0.0000	0.9995
Oct. 28	0	2062	0.0000	0.9995
Oct. 29	0	2062	0.0000	0.9995
Oct. 30	1	2063	0.0005	1.0000

Mean Day of Migration = Sept. 2 Variance = 123.2 Days squared

Appendix E.102 Age composition of sockeye salmon in the Hackett River escapement by sex and age class, 1988.

	Brood Year and Age Class						
	1986	1985	1984		1983	1982	
	0.1	0.2	0.3	1.2	1.3	2.3	Total
Escapement Dates:	(August 8 - September 20)						
Sample Dates:	(August 8 - September 20)						
Male							
Sample Size	1	57	123	27	33	1	242
Percent	0.2	14.1	30.5	6.7	8.2	0.2	60.0
Std. Error	0.1	0.6	0.8	0.4	0.5	0.1	0.8
Number	1	64	139	30	37	1	273
Female							
Sample Size		9	93	30	29		161
Percent		2.2	23.1	7.4	7.2		40.0
Std. Error		0.2	0.7	0.4	0.4		0.8
Number		10	105	34	33		182
All Fish							
Sample Size	1	66	216	57	62	1	403
Percent	0.2	16.4	53.6	14.1	15.4	0.2	100.0
Std. Error	0.1	0.6	0.8	0.6	0.6	0.1	
Number	1	75	244	64	70	1	455

Appendix E.103. Length composition of sockeye salmon in the Hackett River escapement by sex and age class, 1988.

		Brood Year and Age Class						
		1986	1985	1984		1983	1982	
		0.1	0.2	0.3	1.2	1.3	2.3	Total
Escapement Dates:		(August 8 - September 20)						
Sample Dates:		(August 8 - September 20)						
Male	Avg. Length	320	458	585	473	583	649	541
	Std. Error		8.5	3.9	10.3	8.4		5.1
	Sample Size	1	57	122	27	33	1	241
Female	Avg. Length		478	578	501	572		557
	Std. Error		16.7	3.0	5.8	5.3		3.7
	Sample Size		9	93	30	29		161
All Fish	Avg. Length	320	461	582	488	578	649	547
	Std. Error		7.7	2.6	6.0	5.1		3.4
	Sample Size	1	66	215	57	62	1	402

Appendix E.104. Daily sockeye salmon counts and associated statistics from Hackett River weir, 1988.

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
Aug.	8	1	1	0.0019	0.0019
Aug.	9	2	3	0.0039	0.0058
Aug.	10	3	6	0.0058	0.0116
Aug.	11	3	9	0.0058	0.0174
Aug.	12	0	9	0.0000	0.0174
Aug.	13	4	13	0.0078	0.0252
Aug.	14	19	32	0.0368	0.0620
Aug.	15	9	41	0.0174	0.0795
Aug.	16	3	44	0.0058	0.0853
Aug.	17	18	62	0.0349	0.1202
Aug.	18	20	82	0.0388	0.1589
Aug.	19	12	94	0.0233	0.1822
Aug.	20	39	133	0.0756	0.2578
Aug.	21	62	195	0.1202	0.3779
Aug.	22	26	221	0.0504	0.4283
Aug.	23	14	235	0.0271	0.4554
Aug.	24	5	240	0.0097	0.4651
Aug.	25	7	247	0.0136	0.4787
Aug.	26	8	255	0.0155	0.4942
Aug.	27	22	277	0.0426	0.5368
Aug.	28	8	285	0.0155	0.5523
Aug.	29	13	298	0.0252	0.5775
Aug.	30	15	313	0.0291	0.6066
Aug.	31	10	323	0.0194	0.6260
Sept.	1	3	326	0.0058	0.6318
Sept.	2	7	333	0.0136	0.6453
Sept.	3	4	337	0.0078	0.6531
Sept.	4	9	346	0.0174	0.6705
Sept.	5	4	350	0.0078	0.6783
Sept.	6	1	351	0.0019	0.6802
Sept.	7	3	354	0.0058	0.6860
Sept.	8	1	355	0.0019	0.6880
Sept.	9	1	356	0.0019	0.6899
Sept.	10	1	357	0.0019	0.6919
Sept.	11	17	374	0.0329	0.7248
Sept.	12	61	435	0.1182	0.8430
Sept.	13	20	455	0.0388	0.8818
Sept.	14	3	458	0.0058	0.8876
Sept.	15	7	465	0.0136	0.9012
Sept.	16	0	465	0.0000	0.9012
Sept.	17	2	467	0.0039	0.9050
Sept.	18	1	468	0.0019	0.9070
Sept.	19	1	469	0.0019	0.9089
Sept.	20	4	473	0.0078	0.9167
Sept.	21	0	473	0.0000	0.9167
Sept.	22	6	479	0.0116	0.9283
Sept.	23	9	488	0.0174	0.9457
Sept.	24	3	491	0.0058	0.9516
Sept.	25	1	492	0.0019	0.9535
Sept.	26	0	492	0.0000	0.9535
Sept.	27	0	492	0.0000	0.9535
Sept.	28	0	492	0.0000	0.9535
Sept.	29	2	494	0.0039	0.9574
Sept.	30	8	502	0.0155	0.9729
Oct.	1	2	504	0.0039	0.9767
Oct.	2	2	506	0.0039	0.9806
Oct.	3	3	509	0.0058	0.9864
Oct.	4	4	513	0.0078	0.9942
Oct.	5	0	513	0.0000	0.9942
Oct.	6	0	513	0.0000	0.9942
Oct.	7	0	513	0.0000	0.9942
Oct.	8	2	515	0.0039	0.9981
Oct.	9	0	515	0.0000	0.9981
Oct.	10	0	515	0.0000	0.9981
Oct.	11	1	516	0.0019	1.0000
Oct.	12	0	516	0.0000	1.0000
Oct.	13	0	516	0.0000	1.0000
Oct.	14	0	516	0.0000	1.0000

Mean Day of Migration = Aug. 30 Variance = 179.7 Days squared

Appendix E.105. Age composition of sockeye salmon in the Nahlin River escapement by sex and age class, 1988.

	Brood Year and Age Class								
	1986	1985	1984		1983		1982		
	0.1	0.2	0.3	1.2	1.3	2.2	1.4	2.3	Total
Sample Dates: (July 28 - August 19)									
Male									
Sample Size	1	1	28	11	84				125
Percent	0.4	0.4	10.9	4.3	32.8				48.8
Std. Error	0.4	0.4	1.9	1.3	2.9				3.1
Female									
Sample Size			23	10	94	1	2	1	131
Percent			9.0	3.9	36.7	0.4	0.8	0.4	51.2
Std. Error			1.8	1.2	3.0	0.4	0.5	0.4	3.1
All Fish									
Sample Size	1	1	51	21	178	1	2	1	256
Percent	0.4	0.4	19.9	8.2	69.5	0.4	0.8	0.4	100.0
Std. Error	0.4	0.4	2.5	1.7	2.9	0.4	0.5	0.4	

Appendix E.106. Length composition of sockeye salmon in the Nahlin River escapement by sex and age class, 1988.

		Brood Year and Age Class								
		1986	1985	1984		1983		1982		
		0.1	0.2	0.3	1.2	1.3	2.2	1.4	2.3	Total
Sample Dates: (July 28 - August 19)										
Male	Avg. Length	395	462	590	489	593				581
	Std. Error			5.0	14.6	3.5				4.3
	Sample Size	1	1	28	11	84				125
Female	Avg. Length			563	501	565	500	582	560	560
	Std. Error			4.3	4.8	2.4		15.0		2.5
	Sample Size			23	10	94	1	2	1	131
All Fish	Avg. Length	395	462	578	494	579	500	582	560	570
	Std. Error			3.8	7.9	2.3		15.0		2.5
	Sample Size	1	1	51	21	178	1	2	1	256

Appendix E.107. Age composition of sockeye salmon in the Speel Lake escapement by sex, age class, and escapement period, 1988.

	Brood Year and Age Class						
	1985	1984	1983		1982		
	1.1	1.2	1.3	2.2	1.4	2.3	Total
Escapement Dates: (July 17 - August 6)							
Sample Dates: (July 22 - 31)							
Male							
Sample Number		36	9	11		1	57
Percent		37.1	9.3	11.3		1.0	58.8
Std. Error		3.3	2.0	2.2		0.7	3.4
Number		63	16	20		2	101
Female							
Sample Number		8	31			1	40
Percent		8.2	32.0			1.0	41.2
Std. Error		1.9	3.2			0.7	3.4
Number		14	55			2	71
All Fish							
Sample Number		46	41	11		2	100
Percent		46.0	41.0	11.0		2.0	100.0
Std. Error		3.3	3.3	2.1		0.9	
Number		81	73	20		4	178
Escapement Dates: (August 7 - 13)							
Sample Date: (August 7)							
Male							
Sample Number		32	38	2			72
Percent		21.5	25.5	1.3			48.3
Std. Error		1.9	2.0	0.5			2.3
Number		46	54	3			103
Female							
Sample Number		8	64	3	1	1	77
Percent		5.4	43.0	2.0	0.7	0.7	51.7
Std. Error		1.0	2.2	0.6	0.4	0.4	2.3
Number		11	94	4	1	1	111
All Fish							
Sample Number		40	102	5	1	1	149
Percent		26.8	68.5	3.4	0.7	0.7	100.0
Std. Error		2.0	2.1	0.8	0.4	0.4	
Number		57	148	7	1	1	214

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	Brood Year and Age Class						
	1985	1984	1983		1982		
	1.1	1.2	1.3	2.2	1.4	2.3	Total
Escapement Dates: (August 14 - 20)							
Sample Date: (August 14)							
Male							
Sample Number		77	29	13		1	120
Percent		44.8	16.9	7.6		0.6	69.8
Std. Error		2.2	1.7	1.2		0.3	2.0
Number		115	44	20		2	181
Female							
Sample Number		14	32	4		2	52
Percent		8.1	18.6	2.3		1.2	30.2
Std. Error		1.2	1.7	0.7		0.5	2.0
Number		22	48	6		3	79
All Fish							
Sample Number		91	61	17		3	172
Percent		52.9	35.5	9.9		1.7	100.0
Std. Error		2.2	2.1	1.3		0.6	
Number		137	92	26		5	260
Escapement Dates: (August 21 - 30)							
Sample Dates: (August 21 - 28)							
Male							
Sample Number	1	58	45	9		2	115
Percent	0.4	24.4	18.9	3.8		0.8	48.3
Std. Error	0.2	1.4	1.3	0.6		0.3	1.6
Number	1	77	60	12		3	153
Female							
Sample Number		31	84	5		3	123
Percent		13.0	35.3	2.1		1.3	51.7
Std. Error		1.1	1.5	0.5		0.4	1.6
Number		41	112	7		4	164
All Fish							
Sample Number	1	89	129	14		5	238
Percent	0.4	37.4	54.2	5.9		2.1	100.0
Std. Error	0.2	1.6	1.6	0.8		0.5	
Number	1	118	172	19		7	317
Combined Periods (Percentages are weighted by period escapements)							
Male							
Sample Number	1	203	121	35		4	364
Percent	0.1	31.5	18.1	5.6		0.6	56.0
Std. Error	0.1	1.0	0.8	0.6		0.2	1.1
Number	1	301	174	55		7	538
Female							
Sample Number		61	211	12	1	7	292
Percent		9.2	31.9	1.8	0.1	1.1	44.0
Std. Error		0.6	1.0	0.3	0.1	0.2	1.1
Number		88	309	17	1	10	425
All Fish							
Sample Number	1	266	333	47	1	11	659
Percent	0.1	40.8	49.9	7.3	0.1	1.7	100.0
Std. Error	0.1	1.1	1.1	0.6	0.1	0.3	
Number	1	393	485	72	1	17	969

Appendix E.108. Test for significant changes among periods in the age composition of sockeye salmon in the Speel Lake escapement by age class, 1988.

	Brood Year and Age Class					
	1985	1984	1983		1982	
	1.1	1.2	1.3	2.2	1.4	2.3
Periods Compared						
1 , 2		S**	S**	S*		
1 , 3						
1 , 4			S*			
2 , 3		S**	S**	S*		
2 , 4		S*	S**			
3 , 4		S**	S**			

S = significant at alpha = 0.10

S* = significant at alpha = 0.05

S** = significant at alpha = 0.01

Appendix E.109. Length composition of sockeye salmon in the Speel Lake escapement by sex, age class, and escapement period, 1988.

		Brood Year and Age Class						
		1985	1984	1983		1982		
		1.1	1.2	1.3	2.2	1.4	2.3	Total
Escapement Dates: (July 17 - August 6)								
Sample Dates: (July 22 - 31)								
Male	Avg. Length		466	599	476		579	491
	Std. Error		4.2	9.1	9.1			7.4
	Sample Size		36	9	11		1	57
Female	Avg. Length		489	590			587	570
	Std. Error		17.2	3.1				7.6
	Sample Size		8	31			1	40
All Fish	Avg. Length		470	592	476		583	523
	Std. Error		4.7	3.1	9.1		4.0	6.6
	Sample Size		46	41	11		2	100
Escapement Dates: (August 7 - 13)								
Sample Date: (August 7)								
Male	Avg. Length		481	619	500			554
	Std. Error		6.5	4.8	39.5			9.0
	Sample Size		32	38	2			72
Female	Avg. Length		534	596	505	607	578	586
	Std. Error		13.9	3.7	18.2			4.5
	Sample Size		8	64	3	1	1	77
All Fish	Avg. Length		491	604	503	607	578	570
	Std. Error		6.7	3.1	16.1			5.1
	Sample Size		40	102	5	1	1	149
Escapement Dates: (August 14 - 20)								
Sample Date: (August 14)								
Male	Avg. Length		480	608	486		628	513
	Std. Error		3.3	5.7	8.8			5.7
	Sample Size		77	29	13		1	120
Female	Avg. Length		510	593	523		586	565
	Std. Error		5.1	4.0	12.9		7.5	6.1
	Sample Size		14	32	4		2	52
All Fish	Avg. Length		485	600	494		600	529
	Std. Error		3.1	3.6	8.2		14.8	4.8
	Sample Size		91	61	17		3	172

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		Brood Year and Age Class						
		1985	1984	1983		1982		
		1.1	1.2	1.3	2.2	1.4	2.3	Total
Escapement Dates: (August 21 - 30)								
Sample Dates: (August 21 - 28)								
Male	Avg. Length	338	499	604	491		594	540
	Std. Error		5.4	5.4	7.3		16.5	6.2
	Sample Size	1	58	45	9		2	115
Female	Avg. Length		511	590	522		581	567
	Std. Error		4.4	2.1	8.1		10.8	3.7
	Sample Size		31	84	5		3	123
All Fish	Avg. Length	338	503	595	502		586	554
	Std. Error		3.9	2.4	6.8		8.4	3.7
	Sample Size	1	89	129	14		5	238
Combined Periods (Lengths weighted by period escapements)								
Male	Avg. Length	338	484	608	489		602	527
	Std. Error		2.5	3.0	5.0		12.4	3.6
	Sample Size	1	203	121	35		4	364
Female	Avg. Length		512	592	518	607	583	571
	Std. Error		4.0	1.6	6.7		4.6	2.5
	Sample Size		61	211	12	1	7	292
All Fish	Avg. Length	338	490	598	495	607	587	545
	Std. Error		2.2	1.5	4.6		5.5	2.5
	Sample Size	1	266	333	47	1	11	659

Appendix E.110. Test for significant changes among periods in the length composition of sockeye salmon in the Speel Lake escapement by age class, 1988.

	Brood Year and Age Class					
	1985	1984	1983		1984	
	1.1	1.2	1.3	2.2	1.4	2.3
Periods Compared						
1 , 2		S*	S**			
1 , 3		S**	S			
1 , 4		S**		S*		
2 , 3						
2 , 4			S*			
3 , 4		S**				

S = significant at alpha = 0.10

S* = significant at alpha = 0.05

S** = significant at alpha = 0.01

Appendix E.111. Daily sockeye salmon counts and associated statistics from Speel Lake weir, 1988.

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
July	15	0	0	0.0000	0.0000
July	16	0	0	0.0000	0.0000
July	17	0	0	0.0000	0.0000
July	18	0	0	0.0000	0.0000
July	19	0	0	0.0000	0.0000
July	20	0	0	0.0000	0.0000
July	21	0	0	0.0000	0.0000
July	22	1	1	0.0010	0.0010
July	23	0	1	0.0000	0.0010
July	24	0	1	0.0000	0.0010
July	25	0	1	0.0000	0.0010
July	26	16	17	0.0165	0.0175
July	27	16	33	0.0165	0.0341
July	28	14	47	0.0144	0.0485
July	29	9	56	0.0093	0.0578
July	30	17	73	0.0175	0.0753
July	31	3	76	0.0031	0.0784
Aug.	1	0	76	0.0000	0.0784
Aug.	2	1	77	0.0010	0.0795
Aug.	3	45	122	0.0464	0.1259
Aug.	4	12	134	0.0124	0.1383
Aug.	5	23	157	0.0237	0.1620
Aug.	6	21	178	0.0217	0.1837
Aug.	7	33	211	0.0341	0.2178
Aug.	8	20	231	0.0206	0.2384
Aug.	9	41	272	0.0423	0.2807
Aug.	10	42	314	0.0433	0.3240
Aug.	11	26	340	0.0268	0.3509
Aug.	12	31	371	0.0320	0.3829
Aug.	13	21	392	0.0217	0.4045
Aug.	14	20	412	0.0206	0.4252
Aug.	15	30	442	0.0310	0.4561
Aug.	16	55	497	0.0568	0.5129
Aug.	17	12	509	0.0124	0.5253
Aug.	18	7	516	0.0072	0.5325
Aug.	19	121	637	0.1249	0.6574
Aug.	20	15	652	0.0155	0.6729
Aug.	21	16	668	0.0165	0.6894
Aug.	22	69	737	0.0712	0.7606
Aug.	23	34	771	0.0351	0.7957
Aug.	24	11	782	0.0114	0.8070
Aug.	25	66	848	0.0681	0.8751
Aug.	26	29	877	0.0299	0.9051
Aug.	27	18	895	0.0186	0.9236
Aug.	28	29	924	0.0299	0.9536
Aug.	29	34	958	0.0351	0.9886
Aug.	30	11	969	0.0114	1.0000

Mean Day of Migration = Aug. 15 Variance = 82.2 Days squared

Appendix E.112. Age composition of sockeye salmon in the Crescent Lake escapement by sex, age class, and escapement period, 1988.

	Brood Year and Age Class								
	1984	1983			1982		1981		
	1.2	0.4	1.3	2.2	1.4	2.3	2.4	3.3	Total
Escapement Dates: (July 11 - August 6)									
Sample Dates: (July 16 - August 5)									
Male									
Sample Number	45		9	5	23			1	83
Percent	26.3		5.3	2.9	13.5			0.6	48.5
Std. Error	2.6		1.3	1.0	2.0			0.4	2.9
Number	107		21	12	55			2	197
Female									
Sample Number		1	33		38	15	1		88
Percent		0.6	19.3		22.2	8.8	0.6		51.5
Std. Error		0.4	2.3		2.4	1.7	0.4		2.9
Number		2	79		90	36	2		209
All Fish									
Sample Number	45	1	42	5	61	15	1	1	171
Percent	26.3	0.6	24.6	2.9	35.7	8.8	0.6	0.6	100.0
Std. Error	2.6	0.4	2.5	1.0	2.8	1.7	0.4	0.4	
Number	107	2	100	12	145	36	2	2	406
Escapement Dates: (August 7 - 28)									
Sample Dates: (August 8 - 28)									
Male									
Sample Number	40		21	12	11	7	1		92
Percent	16.6		8.7	5.0	4.6	2.9	0.4		38.2
Std. Error	2.0		1.5	1.2	1.1	0.9	0.3		2.6
Number	132		69	39	36	23	4		303
Female									
Sample Number	9	1	66	6	35	31	1		149
Percent	3.7	0.4	27.4	2.5	14.5	12.9	0.4		61.8
Std. Error	1.0	0.3	2.4	0.8	1.9	1.8	0.3		2.6
Number	30	3	217	20	115	102	3		490
All Fish									
Sample Number	49	1	87	18	46	38	2		241
Percent	20.3	0.4	36.1	7.5	19.1	15.8	0.8		100.0
Std. Error	2.2	0.3	2.6	1.4	2.1	2.0	0.5		
Number	162	3	286	59	151	125	7		793
Combined Periods (Percentages are weighted by period escapements)									
Male									
Sample Number	85		30	17	34	7	1	1	175
Percent	19.9		7.5	4.3	7.6	1.9	0.3	0.2	41.7
Std. Error	1.6		1.1	0.8	1.0	0.6	0.2	0.2	2.0
Number	239		90	51	91	23	4	2	500
Female									
Sample Number	9	2	99	6	73	46	2		237
Percent	2.5	0.5	24.6	1.6	17.1	11.5	0.5		58.3
Std. Error	0.7	0.3	1.8	0.6	1.5	1.3	0.3		2.0
Number	30	5	296	20	205	138	5		699
All Fish									
Sample Number	94	2	129	23	107	53	3	1	412
Percent	22.4	0.5	32.2	5.9	24.7	13.4	0.7	0.2	100.0
Std. Error	1.7	0.3	1.9	1.0	1.7	1.4	0.4	0.2	
Number	269	5	386	71	296	161	9	2	1199

Appendix E.113. Test for significant changes among periods in the age composition of sockeye salmon in the Crescent Lake escapement by age class, 1988.

	Brood Year and Age Class							
	1984	1983			1982		1981	
	1.2	0.4	1.3	2.2	1.4	2.3	2.4	3.3
Periods Compared								
1 , 2			S*	S	S**	S		

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.114. Length composition of sockeye salmon in the Crescent Lake escapement by sex, age class, and escapement period, 1988.

		Brood Year and Age Class								
		1984	1983			1982		1981		
		1.2	0.4	1.3	2.2	1.4	2.3	2.4	3.3	Total
Escapement Dates: (July 11 - August 6)										
Sample Dates: (July 16 - August 5)										
Male	Avg. Length	455		605	446	622			661	519
	Std. Error	3.4		6.6	10.2	10.3				9.6
	Sample Size	45		9	5	23			1	83
Female	Avg. Length		610	580		602	573	565		588
	Std. Error			3.9		3.6	5.0			2.7
	Sample Size		1	33		38	15	1		88
All Fish	Avg. Length	455	610	585	446	609	573	565	661	555
	Std. Error	3.4		3.7	10.2	4.6	5.0			5.5
	Sample Size	45	1	42	5	61	15	1	1	171
Escapement Dates: (August 7 - 28)										
Sample Dates: (August 8 - 28)										
Male	Avg. Length	459		633	452	622	581	622		528
	Std. Error	4.1		4.9	10.9	9.5	14.3			9.1
	Sample Size	40		21	12	11	7	1		92
Female	Avg. Length	500	624	578	507	589	570	605		572
	Std. Error	8.2		2.9	11.2	5.6	3.9			2.9
	Sample Size	9	1	66	6	35	31	1		149
All Fish	Avg. Length	466	624	591	471	597	572	614		555
	Std. Error	4.3		3.5	10.2	5.2	4.1	8.5		4.1
	Sample Size	49	1	87	18	46	38	2		241
Combined Periods (Lengths weighted by period escapements)										
Male	Avg. Length	457		623	450	622	581	622	661	525
	Std. Error	2.6		4.6	8.1	7.5	14.3			6.6
	Sample Size	85		30	17	34	7	1	1	175
Female	Avg. Length	500	619	578	507	594	571	591		577
	Std. Error	8.2	7.0	2.3	11.2	3.3	3.1	20.0		2.1
	Sample Size	9	2	99	6	73	46	2		237
All Fish	Avg. Length	462	619	589	462	601	572	597	661	555
	Std. Error	2.8	7.0	2.7	8.5	3.5	3.3	16.9		3.3
	Sample Size	94	2	129	23	107	53	3	1	412

Appendix E.115. Test for significant changes among periods in the length composition of sockeye salmon in the Crescent Lake escapement by age class, 1988.

	Brood Year and Age Class							
	1984	1983			1982		1981	
	1.2	0.4	1.3	2.2	1.4	2.3	2.4	3.3
Periods Compared								
1 ..2	S*			S	S			

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.116. Daily sockeye salmon counts and associated statistics from Crescent Lake weir, 1988.

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
July	11	0	0	0.0000	0.0000
July	12	0	0	0.0000	0.0000
July	13	0	0	0.0000	0.0000
July	14	5	5	0.0042	0.0042
July	15	0	5	0.0000	0.0042
July	16	22	27	0.0183	0.0225
July	17	0	27	0.0000	0.0225
July	18	19	46	0.0158	0.0384
July	19	22	68	0.0183	0.0567
July	20	14	82	0.0117	0.0684
July	21	20	102	0.0167	0.0851
July	22	21	123	0.0175	0.1026
July	23	49	172	0.0409	0.1435
July	24	2	174	0.0017	0.1451
July	25	10	184	0.0083	0.1535
July	26	36	220	0.0300	0.1835
July	27	3	223	0.0025	0.1860
July	28	0	223	0.0000	0.1860
July	29	3	226	0.0025	0.1885
July	30	26	252	0.0217	0.2102
July	31	24	276	0.0200	0.2302
Aug.	1	16	292	0.0133	0.2435
Aug.	2	9	301	0.0075	0.2510
Aug.	3	0	301	0.0000	0.2510
Aug.	4	80	381	0.0667	0.3178
Aug.	5	25	406	0.0209	0.3386
Aug.	6	0	406	0.0000	0.3386
Aug.	7	13	419	0.0108	0.3495
Aug.	8	10	429	0.0083	0.3578
Aug.	9	48	477	0.0400	0.3978
Aug.	10	25	502	0.0209	0.4187
Aug.	11	49	551	0.0409	0.4595
Aug.	12	0	551	0.0000	0.4595
Aug.	13	23	574	0.0192	0.4787
Aug.	14	22	596	0.0183	0.4971
Aug.	15	11	607	0.0092	0.5063
Aug.	16	56	663	0.0467	0.5530
Aug.	17	63	726	0.0525	0.6055
Aug.	18	37	763	0.0309	0.6364
Aug.	19	17	780	0.0142	0.6505
Aug.	20	31	811	0.0259	0.6764
Aug.	21	110	921	0.0917	0.7681
Aug.	22	180	1101	0.1501	0.9183
Aug.	23	50	1151	0.0417	0.9600
Aug.	24	21	1172	0.0175	0.9775
Aug.	25	8	1180	0.0067	0.9842
Aug.	26	19	1199	0.0158	1.0000
Aug.	27	0	1199	0.0000	1.0000
Aug.	28	0	1199	0.0000	1.0000

Mean Day of Migration = Aug. 11 Variance = 141.8 Days squared

Appendix E.117. Age composition of sockeye salmon in the Windfall Lake escapement by sex and age class, 1988.

	Brood Year and Age Class				
	1985	1984	1983	1982	
	1.1	1.2	1.3	2.3	Total
Sample Date: (August 18)					
Male					
Sample Size	1	7	70	1	79
Percent	0.5	3.3	32.9	0.5	37.1
Std. Error	0.5	1.2	3.2	0.5	3.3
Female					
Sample Size		2	132		134
Percent		0.9	62.0		62.9
Std. Error		0.7	3.3		3.3
All Fish					
Sample Size	1	9	206	1	217
Percent	0.5	4.1	94.9	0.5	100.0
Std. Error	0.5	1.3	1.5	0.5	

Appendix E.118. Length composition of sockeye salmon in the Windfall Lake escapement by sex and age class, 1988.

		Brood Year and Age Class				
		1985	1984	1983	1982	
		1.1	1.2	1.3	2.3	Total
Sample Date: (August 18)						
Male	Avg. Length	318	463	584	600	570
	Std. Error		14.7	3.5		6.1
	Sample Size	1	7	70	1	79
Female	Avg. Length		501	539		539
	Std. Error		16.0	1.7		1.8
	Sample Size		-	132		134
All Fish	Avg. Length	318	471	555	600	550
	Std. Error		12.8	2.2		2.7
	Sample Size	1	9	206	1	213

Appendix E.119. Age composition of sockeye salmon in the Auke Lake escapement by sex and age class, 1988.

	Brood Year and Age Class							
	1985	1984		1983		1981	1980	
	1.1	1.2	2.1	1.3	2.2	2.3	2.4	Total
Escapement Dates: (July 9 - September 15)								
Sample Dates: (July 9 - August 8)								
Male								
Sample Number	3	13	4	3	50	77		150
Percent	1.0	4.2	1.3	1.0	16.3	25.2		49.0
Std. Error	0.5	1.0	0.6	0.5	1.9	2.2		2.5
Number	14	59	18	14	227	350		682
Female								
Sample Number		8		2	29	116	1	156
Percent		2.6		0.7	9.5	37.9	0.3	51.0
Std. Error		0.8		0.4	1.5	2.5	0.3	2.5
Number		36		9	132	528	5	710
All Fish								
Sample Number	3	21	4	5	79	193	1	306
Percent	1.0	6.9	1.3	1.6	25.8	63.1	0.3	100.0
Std. Error	0.5	1.3	0.6	0.6	2.2	2.4	0.3	
Number	14	95	18	23	359	878	5	1392

Appendix E.120. Length composition of sockeye salmon in the Auke Lake escapement by sex and age class, 1988.

		Brood Year and Age Class							
		1985	1984		1983		1982	1981	
		1.1	1.2	2.1	1.3	2.2	2.3	2.4	Total
Escapement Dates: (July 9 - September 15)									
Sample Dates: (July 9 - August 8)									
Male	Avg. Length	290	485	339	572	492	554		517
	Std. Error	2.9	4.4	16.8	22.4	3.5	3.1		4.9
	Sample Size	3	13	4	3	50	77		150
Female	Avg. Length		471		538	487	547	500	531
	Std. Error		9.1		12.5	4.1	1.9		2.7
	Sample Size		8		2	29	116	1	156
All Fish	Avg. Length	290	480	339	558	490	550	500	524
	Std. Error	2.9	4.6	16.8	15.4	2.7	1.7		2.8
	Sample Size	3	21	4	5	79	193	1	306

Appendix E.121. Daily sockeye salmon counts and associated statistics from Auke Lake weir, 1988.

Date	Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
July 9	46	46	0.0330	0.0330
July 10	22	68	0.0158	0.0489
July 11	218	286	0.1566	0.2055
July 12	102	388	0.0733	0.2787
July 13	37	425	0.0266	0.3053
July 14	2	427	0.0014	0.3068
July 15	8	435	0.0057	0.3125
July 16	0	435	0.0000	0.3125
July 17	248	683	0.1782	0.4907
July 18	104	787	0.0747	0.5654
July 19	5	792	0.0036	0.5690
July 20	2	794	0.0014	0.5704
July 21	0	794	0.0000	0.5704
July 22	28	822	0.0201	0.5905
July 23	0	822	0.0000	0.5905
July 24	0	822	0.0000	0.5905
July 25	82	904	0.0589	0.6494
July 26	52	956	0.0374	0.6868
July 27	45	1001	0.0323	0.7191
July 28	14	1015	0.0101	0.7292
July 29	25	1040	0.0180	0.7471
July 30	27	1067	0.0194	0.7665
July 31	19	1086	0.0136	0.7802
Aug. 1	3	1089	0.0022	0.7823
Aug. 2	2	1091	0.0014	0.7838
Aug. 3	8	1099	0.0057	0.7895
Aug. 4	32	1131	0.0230	0.8125
Aug. 5	9	1140	0.0065	0.8190
Aug. 6	6	1146	0.0043	0.8233
Aug. 7	10	1156	0.0072	0.8305
Aug. 8	52	1208	0.0374	0.8678
Aug. 9	69	1277	0.0496	0.9174
Aug. 10	13	1290	0.0093	0.9267
Aug. 11	7	1297	0.0050	0.9318
Aug. 12	4	1301	0.0028	0.9346
Aug. 13	1	1302	0.0007	0.9353
Aug. 14	1	1303	0.0007	0.9361
Aug. 15	1	1304	0.0007	0.9368
Aug. 16	0	1304	0.0000	0.9368
Aug. 17	1	1305	0.0007	0.9375
Aug. 18	0	1305	0.0000	0.9375
Aug. 19	2	1307	0.0014	0.9389
Aug. 20	0	1307	0.0000	0.9389
Aug. 21	0	1307	0.0000	0.9389
Aug. 22	1	1308	0.0007	0.9397
Aug. 23	22	1330	0.0158	0.9555
Aug. 24	3	1333	0.0022	0.9576
Aug. 25	6	1339	0.0043	0.9619
Aug. 26	3	1342	0.0022	0.9641
Aug. 27	4	1346	0.0029	0.9670
Aug. 28	2	1348	0.0014	0.9684
Aug. 29	4	1352	0.0029	0.9713
Aug. 30	11	1363	0.0079	0.9792
Aug. 31	9	1372	0.0065	0.9856
Sept. 1	2	1374	0.0014	0.9871
Sept. 2	3	1377	0.0022	0.9892
Sept. 3	0	1377	0.0000	0.9892
Sept. 4	1	1378	0.0007	0.9899
Sept. 5	0	1378	0.0000	0.9899
Sept. 6	2	1380	0.0014	0.9914
Sept. 7	0	1380	0.0000	0.9914
Sept. 8	0	1380	0.0000	0.9914
Sept. 9	0	1380	0.0000	0.9914
Sept. 10	0	1380	0.0000	0.9914
Sept. 11	1	1381	0.0007	0.9921
Sept. 12	3	1384	0.0022	0.9943
Sept. 13	4	1388	0.0029	0.9971
Sept. 14	2	1390	0.0014	0.9986
Sept. 15	2	1392	0.0014	1.0000

Mean Day of Migration = July 23 Variance = 185.4 Days squared

Appendix E.122. Age composition of sockeye salmon in the Steep Creek escapement by sex and age class, 1988.

	Brood Year and Age Class							
	1985		1984		1983		1982	
	0.2	1.1	0.3	1.2	1.3	2.2	2.3	Total
Sample Dates: (August 11 - 26)								
Male								
Sample Size	1	1		16	62	1	4	85
Percent	0.4	0.4		5.9	22.9	0.4	1.5	31.4
Std. Error	0.4	0.4		1.4	2.5	0.4	0.7	2.8
Female								
Sample Size			4	4	167	3	8	186
Percent			1.5	1.5	61.6	1.1	3.0	68.6
Std. Error			0.7	0.7	2.9	0.6	1.0	2.8
All Fish								
Sample Size	1	2	4	20	231	4	12	274
Percent	0.4	0.7	1.5	7.3	84.3	1.5	4.4	100.0
Std. Error	0.4	0.5	0.7	1.6	2.2	0.7	1.2	

Appendix E.123. Length composition of sockeye salmon in the Steep Creek escapement by sex and age class, 1988.

		Brood Year and Age Class							
		1985		1984		1983		1982	
		0.2	1.1	0.3	1.2	1.3	2.2	2.3	Total
Sample Dates: (August 11 - 26)									
Male	Avg. Length	443	337		482	572	515	580	550
	Std. Error				11.2	4.6		7.1	6.2
	Sample Size	1	1		16	62	1	4	85
Female	Avg. Length			551	507	545	504	569	545
	Std. Error			12.5	14.3	1.8	11.6	11.2	1.8
	Sample Size			4	4	167	3	8	186
All Fish	Avg. Length	443	325	551	487	552	507	573	546
	Std. Error		12.5	12.5	9.5	2.0	8.6	7.8	2.3
	Sample Size	1	2	4	20	229	4	12	271

Appendix E.124. Age composition of sockeye salmon in the Redoubt Lake escapement by sex, age class, and escapement period, 1988.

	Brood Year and Age Class				
	1984	1983		1982	
	1.2	1.3	2.2	2.3	Total
Escapement Dates:	(June - July 30) [a]				
Sample Dates:	(July 23 - 30)				
Male					
Sample Number	11	18	25	6	60
Percent	8.3	13.5	18.8	4.5	45.1
Std. Error	2.3	2.8	3.3	1.7	4.1
Number	128	209	291	69	697
Female					
Sample Number	6	17	36	14	73
Percent	4.5	12.8	27.1	10.5	54.9
Std. Error	1.7	2.8	3.7	2.6	4.1
Number	70	198	418	163	849
All Fish					
Sample Number	17	35	61	20	133
Percent	12.8	26.3	45.9	15.0	100.0
Std. Error	2.8	3.7	4.1	3.0	
Number	198	407	709	232	1546
Escapement Dates:	(July 31 - August 6)				
Sample Dates:	(July 31 - August 6)				
Male					
Sample Number	10	14	51	7	82
Percent	6.8	9.5	34.5	4.7	55.4
Std. Error	1.8	2.1	3.4	1.5	3.5
Number	38	53	192	26	309
Female					
Sample Number	10	15	37	4	66
Percent	6.8	10.1	25.0	2.7	44.6
Std. Error	1.8	2.1	3.1	1.1	3.5
Number	38	56	140	15	249
All Fish					
Sample Number	20	29	88	11	148
Percent	13.5	19.6	59.5	7.4	100.0
Std. Error	2.4	2.8	3.5	1.9	
Number	76	109	332	41	558

-continued-

Appendix E.124. (page 2 of 2).

	Brood Year and Age Class				
	1984	1983		1982	
	1.2	1.3	2.2	2.3	Total
Escapement Dates:	(August 7 - Oct. 15)				
Sample Dates:	(August 7 - Sept. 9)				
Male					
Sample Number	9	6	37	3	55
Percent	10.1	6.7	41.6	3.4	61.8
Std. Error	3.1	2.5	5.0	1.8	4.9
Number	99	66	406	33	604
Female					
Sample Number	2	3	28	1	34
Percent	2.2	3.4	31.5	1.1	38.2
Std. Error	1.5	1.8	4.7	1.1	4.9
Number	22	33	308	11	374
All Fish					
Sample Number	11	9	65	4	89
Percent	12.4	10.1	73.0	4.5	100.0
Std. Error	3.3	3.1	4.5	2.1	
Number	121	99	714	44	978
Combined Periods (Percentages are weighted by period escapements)					
Male					
Sample Number	30	38	113	16	197
Percent	8.6	10.6	28.9	4.2	52.3
Std. Error	1.5	1.7	2.4	1.1	2.7
Number	265	328	889	128	1610
Female					
Sample Number	18	35	101	19	173
Percent	4.2	9.3	28.1	6.1	47.7
Std. Error	1.0	1.6	2.4	1.3	2.7
Number	130	287	866	189	1472
All Fish					
Sample Number	48	73	214	35	370
Percent	12.8	20.0	56.9	10.3	100.0
Std. Error	1.8	2.1	2.6	1.7	
Number	395	615	1753	317	3082

[a] An estimated 1,193 sockeye salmon were estimated to have passed into the lake prior to weir operation. Estimate made using past years' migratory timing data (Dave Barto, ADF&G, FRED, Sitka, pers. comm.)

Appendix E.125. Test for significant changes among periods in the age composition of sockeye salmon in the Redoubt Lake escapement, 1988.

	Brood Year and Age Class			
	1984	1983		1982
	1.2	1.3	2.2	2.3
Periods Compared				
1 , 2			S*	S
1 , 3		S**	S**	S*
2 , 3		S	S*	

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.126. Length composition of sockeye salmon in the Redoubt Lake escapement by sex, age class, and escapement period, 1988.

		Brood Year and Age Class				
		1984	1983		1982	
		1.2	1.3	2.2	2.3	Total
Escapement Dates: (June - July 30)a Sample Dates: (July 23 - 30)						
Male	Avg. Length	524	579	529	609	551
	Std. Error	7.7	6.1	4.9	5.2	5.0
	Sample Size	11	18	25	6	60
Female	Avg. Length	525	546	505	553	525
	Std. Error	12.2	4.4	3.3	4.2	3.3
	Sample Size	6	17	36	14	73
All Fish	Avg. Length	524	563	515	570	537
	Std. Error	6.4	4.7	3.1	6.8	3.1
	Sample Size	17	35	61	20	133
Escapement Dates: (July 31 - August 6) Sample Dates: (July 31 - August 6)						
Male	Avg. Length	540	571	535	569	544
	Std. Error	4.4	10.0	3.8	20.4	3.8
	Sample Size	10	14	51	7	82
Female	Avg. Length	509	559	511	558	525
	Std. Error	3.3	5.0	3.8	14.5	3.7
	Sample Size	10	15	37	4	66
All Fish	Avg. Length	524	565	525	565	536
	Std. Error	4.5	5.5	3.0	13.6	2.8
	Sample Size	20	29	88	11	148
Escapement Dates: (August 7 - October 15) Sample Dates: (August 7 - September 9)						
Male	Avg. Length	539	586	546	570	551
	Std. Error	11.8	13.5	4.5	23.1	4.4
	Sample Size	9	6	37	3	55
Female	Avg. Length	495	535	509	525	511
	Std. Error	10.0	2.9	4.8		4.3
	Sample Size	2	3	28	1	34
All Fish	Avg. Length	531	569	531	559	536
	Std. Error	11.1	12.2	4.0	19.8	3.7
	Sample Size	11	9	65	4	89
Combined Periods (Lengths weighted by period escapements)						
Male	Avg. Length	532	580	535	590	550
	Std. Error	4.8	5.1	2.6	10.7	2.5
	Sample Size	30	38	113	16	197
Female	Avg. Length	512	545	508	545	521
	Std. Error	4.9	3.3	2.3	4.4	2.2
	Sample Size	18	35	101	19	173
All Fish	Avg. Length	526	565	522	565	536
	Std. Error	3.8	3.4	2.0	6.0	1.8
	Sample Size	48	73	214	35	370

Appendix E.127. Test for significant changes among periods in the length composition of sockeye salmon in the Redoubt Lake escapement, 1988.

	Brood Year and Age Class			
	1984	1983		1982
	1.2	1.3	2.2	2.3
Periods Compared				
1 , 2			S*	
1 , 3			S*	
1 , 4			S**	
2 , 3				
2 , 4				
3 , 4				

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.128. Daily sockeye salmon counts and associated statistics from Redoubt Lake weir, 1988.[a]

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
July	23	14	14	0.0074	0.0074
July	24	124	138	0.0656	0.0731
July	25	54	192	0.0286	0.1016
July	26	50	242	0.0265	0.1281
July	27	38	280	0.0201	0.1482
July	28	44	324	0.0233	0.1715
July	29	5	329	0.0026	0.1742
July	30	24	353	0.0127	0.1869
July	31	33	386	0.0175	0.2043
Aug.	1	114	500	0.0603	0.2647
Aug.	2	136	636	0.0720	0.3367
Aug.	3	81	717	0.0429	0.3796
Aug.	4	73	790	0.0386	0.4182
Aug.	5	63	853	0.0334	0.4516
Aug.	6	58	911	0.0307	0.4823
Aug.	7	5	916	0.0026	0.4849
Aug.	8	6	922	0.0032	0.4881
Aug.	9	4	926	0.0021	0.4902
Aug.	10	37	963	0.0196	0.5098
Aug.	11	42	1005	0.0222	0.5320
Aug.	12	34	1039	0.0180	0.5500
Aug.	13	46	1085	0.0244	0.5744
Aug.	14	96	1181	0.0508	0.6252
Aug.	15	57	1238	0.0302	0.6554
Aug.	16	116	1354	0.0614	0.7168
Aug.	17	61	1415	0.0323	0.7491
Aug.	18	0	1415	0.0000	0.7491
Aug.	19	13	1428	0.0069	0.7560
Aug.	20	37	1465	0.0196	0.7755
Aug.	21	12	1477	0.0064	0.7819
Aug.	22	38	1515	0.0201	0.8020
Aug.	23	22	1537	0.0116	0.8137
Aug.	24	24	1561	0.0127	0.8264
Aug.	25	9	1570	0.0048	0.8311
Aug.	26	42	1612	0.0222	0.8534
Aug.	27	31	1643	0.0164	0.8698
Aug.	28	26	1669	0.0138	0.8835
Aug.	29	25	1694	0.0132	0.8968
Aug.	30	26	1720	0.0138	0.9105
Aug.	31	34	1754	0.0180	0.9285
Sept.	1	27	1781	0.0143	0.9428
Sept.	2	26	1807	0.0138	0.9566
Sept.	3	7	1814	0.0037	0.9603
Sept.	4	12	1826	0.0064	0.9666
Sept.	5	5	1831	0.0026	0.9693
Sept.	6	24	1855	0.0127	0.9820
Sept.	7	6	1861	0.0032	0.9852
Sept.	8	7	1868	0.0037	0.9889
Sept.	9	3	1871	0.0016	0.9905
Sept.	10	1	1872	0.0005	0.9910
Sept.	11	7	1879	0.0037	0.9947
Sept.	12	2	1881	0.0011	0.9958
Sept.	13	3	1884	0.0016	0.9974
Sept.	14	0	1884	0.0000	0.9974
Sept.	15	4	1888	0.0021	0.9995
Sept.	16	0	1888	0.0000	0.9995
Sept.	17	0	1888	0.0000	0.9995
Sept.	18	0	1888	0.0000	0.9995
Sept.	19	0	1888	0.0000	0.9995
Sept.	20	0	1888	0.0000	0.9995
Sept.	21	0	1888	0.0000	0.9995
Sept.	22	1	1889	0.0005	1.0000

Mean Day of Migration = Aug. 11 Variance = 160.0 Days squared

[a] An estimated 1,193 sockeye salmon were estimated to have passed into the lake prior to weir operation. Estimate made using past years' migratory timing data (Dave Barto, ADF&G, FRED, Sitka, pers. comm.). Total escapement estimated to be 3,082.

Appendix E.129. Age composition of sockeye salmon in the Ford Arm Lake escapement by sex and age class, 1988.

	Brood Year and Age Class							
	1985	1984			1983		1982	
	1.1	0.3	1.2	2.1	1.3	2.2	2.3	Total
Sample Dates:	(August 19 - September 26)							
Male								
Sample Size	4		78	7	29	11	6	135
Percent	1.2		24.0	2.2	8.9	3.4	1.8	41.5
Std. Error	0.6		2.4	0.8	1.6	1.0	0.7	2.7
Female								
Sample Size		1	71		85	19	14	190
Percent		0.3	21.8		26.2	5.8	4.3	58.5
Std. Error		0.3	2.3		2.4	1.3	1.1	2.7
All Fish								
Sample Size	4	1	149	7	114	30	20	325
Percent	1.2	0.3	45.8	2.2	35.1	9.2	6.2	100.0
Std. Error	0.6	0.3	2.7	0.8	2.6	1.6	1.3	

Appendix E.130. Length composition of sockeye salmon in the Ford Arm Lake escapement by sex and age class, 1988.

		Brood Year and Age Class							
		1985	1984			1983		1982	
		1.1	0.3	1.2	2.1	1.3	2.2	2.3	Total
Sample Dates:		(August 19 - September 26)							
Male	Avg. Length	341		498	354	552	511	593	503
	Std. Error	14.3		3.1	11.2	5.2	5.3	5.6	5.1
	Sample Size	4		78	7	29	11	6	135
Female	Avg. Length		555	475		533	473	535	505
	Std. Error			2.8		2.0	6.7	8.2	2.7
	Sample Size		1	71		85	19	14	190
All Fish	Avg. Length	341	555	487	354	538	487	552	504
	Std. Error	14.3		2.3	11.2	2.1	5.8	8.5	2.6
	Sample Size	4	1	149	7	114	30	20	325

Appendix E.131. Age composition of sockeye salmon in the Lace River (Berners Bay) escapement by sex and age class, 1988.

	Brood Year and Age Class			
	1984	1984	1983	
	0.3	1.2	1.3	Total
Sample Date: (August 20)				
Male				
Sample Size	5	6	49	60
Percent	4.6	5.5	45.0	55.0
Std. Error	2.0	2.2	4.8	4.8
Female				
Sample Size	3	5	41	49
Percent	2.8	4.6	37.6	45.0
Std. Error	1.6	2.0	4.6	4.8
All Fish				
Sample Size	8	11	90	109
Percent	7.3	10.1	82.6	100.0
Std. Error	2.5	2.9	3.6	

Appendix E.132. Length composition of sockeye salmon in the Lace River (Berners Bay) escapement by sex and age class, 1988.

		Brood Year and Age Class			
		1984	1984	1983	
		0.3	1.2	1.3	Total
Sample Date: (August 20)					
Male	Avg. Length	578	498	595	584
	Std. Error	8.7	11.3	3.4	4.8
	Sample Size	5	6	49	60
Female	Avg. Length	555	511	553	549
	Std. Error	17.3	14.8	3.5	3.8
	Sample Size	3	5	40	48
All Fish	Avg. Length	569	504	576	568
	Std. Error	8.8	8.9	3.3	3.6
	Sample Size	8	11	89	108

Appendix E.133. Age composition of sockeye salmon in the Chilkat Lake escapement by sex, age class, and escapement period, 1988.

	Brood Year and Age Class									
	1984		1983		1982			1981		
	0.3	1.2	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Escapement Dates:	(June 10 - July 23)									
Sample Dates:	(July 12 - 23)									
Male										
Sample Size	1	1	151	9		36				198
Percent	0.3	0.3	50.8	3.0		12.1				66.7
Std. Error	0.3	0.3	2.8	1.0		1.8				2.6
Number	11	11	1,679	100		400				2,201
Female										
Sample Size		1	72	6		20				99
Percent		0.3	24.2	2.0		6.7				33.3
Std. Error		0.3	2.4	0.8		1.4				2.6
Number		11	800	67		222				1,100
All Fish										
Sample Size	1	2	223	15		56				297
Percent	0.3	0.7	75.1	5.1		18.9				100.0
Std. Error	0.3	0.5	2.4	1.2		2.2				
Number	11	22	2,479	167		622				3,301
Escapement Dates:	(July 24 - 30)									
Sample Dates:	(July 24 - 30)									
Male										
Sample Size		2	175	3		39				219
Percent		0.7	64.8	1.1		14.4				81.1
Std. Error		0.5	2.7	0.6		2.0				2.2
Number		15	1,276	22		284				1,597
Female										
Sample Size			38	1		12				51
Percent			14.1	0.4		4.4				18.9
Std. Error			2.0	0.3		1.2				2.2
Number			277	7		88				372
All Fish										
Sample Size		2	213	4		51				270
Percent		0.7	78.9	1.5		18.9				100.0
Std. Error		0.5	2.3	0.7		2.2				
Number		15	1,553	29		372				1,969
Escapement Dates:	(July 31 - August 6)									
Sample Dates:	(July 31 - August 6)									
Male										
Sample Size	1	4	189	4	1	53				252
Percent	0.3	1.2	58.0	1.2	0.3	16.3				77.3
Std. Error	0.3	0.6	2.5	0.6	0.3	1.9				2.1
Number	6	24	1,140	24	6	319				1,519
Female										
Sample Size			51	2	2	18		1		74
Percent			15.6	0.6	0.6	5.5		0.3		22.7
Std. Error			1.8	0.4	0.4	1.2		0.3		2.1
Number			307	12	12	109		6		446
All Fish										
Sample Size	1	4	240	6	3	71		1		326
Percent	0.3	1.2	73.6	1.8	0.9	21.8		0.3		100.0
Std. Error	0.3	0.6	2.2	0.7	0.5	2.1		0.3		
Number	6	24	1,447	36	18	428		6		1,965

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	Brood Year and Age Class									
	1984		1983		1982			1981		
	0.3	1.2	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Escapement Dates: (August 7 - 13)										
Sample Dates: (August 7 - 12)										
Male										
Sample Size		2	87			19				108
Percent		1.7	75.7			16.5				93.9
Std. Error		0.8	2.6			2.3				1.5
Number		3	152			33				188
Female										
Sample Size			7							7
Percent			6.1							6.1
Std. Error			1.5							1.5
Number			12							12
All Fish										
Sample Size		2	94			19				115
Percent		1.7	81.7			16.5				100.0
Std. Error		0.8	2.4			2.3				
Number		3	164			33				200
Escapement Dates: (August 14 - 20)										
Sample Dates: (August 14 - 19)										
Male										
Sample Size			60	1		30				91
Percent			58.3	1.0		29.1				88.3
Std. Error			4.4	0.9		4.1				2.9
Number			330	5		165				500
Female										
Sample Size			7	2		3				12
Percent			6.8	1.9		2.9				11.7
Std. Error			2.3	1.2		1.5				2.9
Number			39	11		16				66
All Fish										
Sample Size			67	3		33				103
Percent			65.0	2.9		32.0				100.0
Std. Error			4.3	1.5		4.2				
Number			369	16		181				566
Escapement Dates: (August 21 - 27)										
Sample Dates: (August 21 - 26)										
Male										
Sample Size		3	32	7	1	33				76
Percent		3.2	34.0	7.4	1.1	35.1				80.9
Std. Error		1.5	4.0	2.2	0.9	4.0				3.3
Number		9	95	21	3	98				226
Female										
Sample Size		1	5	4		8				18
Percent		1.1	5.3	4.3		8.5				19.1
Std. Error		0.9	1.9	1.7		2.4				3.3
Number		3	15	12		24				54
All Fish										
Sample Size		4	37	11	1	41				94
Percent		4.3	39.4	11.7	1.1	43.6				100.0
Std. Error		1.7	4.1	2.7	0.9	4.2				
Number		12	110	33	3	122				280

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	Brood Year and Age Class									
	1984		1983		1982			1981		
	0.3	1.2	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Escapement Dates: (August 28 - September 10)										
Sample Dates: (August 28 - September 9)										
Male										
Sample Size			24	18		132			1	175
Percent			10.5	7.9		57.9			0.4	76.8
Std. Error			2.0	1.8		3.2			0.4	2.8
Number			889	666		4,888			37	6,480
Female										
Sample Size			7	6		40				53
Percent			3.1	2.6		17.5				23.2
Std. Error			1.1	1.0		2.5				2.8
Number			259	222		1,481				1,962
All Fish										
Sample Size			31	24		172			1	228
Percent			13.6	10.5		75.4			0.4	100.0
Std. Error			2.2	2.0		2.8			0.4	
Number			1,148	888		6,369			37	8,442
Escapement Dates: (September 11 - 24)										
Sample Dates: (September 17 - 23)										
Male										
Sample Size		1	1	25		113				140
Percent		0.5	0.5	11.7		52.8				65.4
Std. Error		0.5	0.5	2.2		3.3				3.2
Number		23	23	582		2,628				3,256
Female										
Sample Size			2	12		59	1			74
Percent			0.9	5.6		27.6	0.5			34.6
Std. Error			0.6	1.5		3.0	0.5			3.2
Number			47	279		1,372	23			1,721
All Fish										
Sample Size		1	3	37		173	1			215
Percent		0.5	1.4	17.2		80.5	0.5			100.0
Std. Error		0.5	0.8	2.5		2.7	0.5			
Number		23	70	861		4,024	23			5,001
Escapement Dates: (September 25 - October 22)										
Sample Dates: (September 25 - October 21)										
Male										
Sample Size				27		72	1			100
Percent				17.2		45.9	0.6			63.7
Std. Error				3.0		3.9	0.6			3.8
Number				932		2,485	35			3,452
Female										
Sample Size		1		9		47				57
Percent		0.6		5.7		29.9				36.3
Std. Error		0.6		1.8		3.6				3.8
Number		35		311		1,622				1,968
All Fish										
Sample Size		1		36		119	1			157
Percent		0.6		22.9		75.8	0.6			100.0
Std. Error		0.6		3.3		3.4	0.6			
Number		35		1,243		4,107	35			5,420

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	Brood Year and Age Class									
	1984		1983		1982			1981		
	0.3	1.2	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Escapement Dates:	(October 23 - November 14)									
Sample Dates:	(October 24 - November 7)									
Male										
Sample Size				13		67				80
Percent				11.5		59.3				70.8
Std. Error				2.6		4.0				3.7
Number				52		266				318
Female										
Sample Size				2		31				33
Percent				1.8		27.4				29.2
Std. Error				1.1		3.6				3.7
Number				8		123				131
All Fish										
Sample Size				15		98				113
Percent				13.3		86.7				100.0
Std. Error				2.8		2.8				
Number				60		389				449
Combined Periods (Percentages are weighted by period escapements)										
Male										
Sample Size	2	13	719	107	2	594	1		1	1,439
Percent	0.1	0.3	20.2	8.7	<0.1	42.0	0.1		0.1	71.6
Std. Error	<0.1	0.1	0.8	0.9	<0.1	1.4	0.1		0.1	1.3
Number	17	85	5,584	2,404	9	11,566	35		37	19,737
Female										
Sample Size		3	189	44	2	238	1	1		478
Percent		0.2	6.4	3.4	<0.1	18.3	0.1	<0.1		28.4
Std. Error		0.1	0.5	0.6	<0.1	1.2	0.1	<0.1		1.3
Number		49	1,756	929	12	5,057	23	6		7,832
All Fish										
Sample Size	2	16	908	151	4	833	2	1	1	1,918
Percent	0.1	0.5	26.6	12.1	0.1	60.3	0.2	<0.1	0.1	100.0
Std. Error	<0.1	0.2	0.8	1.0	<0.1	1.2	0.1	<0.1	0.1	
Number	17	134	7,340	3,333	21	16,647	58	6	37	27,593

Appendix E.134. Test for significant changes among periods in the age composition of sockeye salmon in the Chilkat Lake escapement by age class, 1988.

	Brood Year and Age Class								
	1984		1983		1982			1981	
Periods Compared	0.3	1.2	1.3	2.2	1.4	2.3	3.2	2.4	3.3
1 . 2				S*					
1 . 3				S*					
1 . 4				S*					
1 . 5			S			S**			
1 . 6		S*	S**	S*		S**			
1 . 7			S**	S*		S**			
1 . 8			S**	S**		S**			
1 . 9			S**	S**		S**			
1 . 10			S**	S**		S**			
2 . 3									
2 . 4									
2 . 5			S**			S**			
2 . 6		S	S**	S**		S**			
2 . 7			S**	S**		S**			
2 . 8			S**	S**		S**			
2 . 9			S**	S**		S**			
2 . 10			S**	S**		S**			
3 . 4									
3 . 5						S*			
3 . 6			S**	S**		S**			
3 . 7			S**	S**		S**			
3 . 8			S**	S**		S**			
3 . 9			S**	S**		S**			
3 . 10			S**	S**		S**			
4 . 5			S**			S*			
4 . 6			S**	S**		S**			
4 . 7			S**	S**		S**			
4 . 8			S**	S**		S**			
4 . 9			S**	S**		S**			
4 . 10			S**	S**		S**			
5 . 6			S**	S*					
5 . 7			S**	S*		S**			
5 . 8			S**	S**		S**			
5 . 9			S**	S**		S**			
5 . 10			S**	S*		S**			
6 . 7		S**	S**			S**			
6 . 8		S	S**			S**			
6 . 9			S**	S*		S**			
6 . 10		S	S**			S**			
7 . 8			S**	S					
7 . 9			S**	S**					
7 . 10			S**			S*			
8 . 9									
8 . 10									
9 . 10				S		S*			

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.135. Length composition of sockeye salmon in the Chilkat Lake escapement by sex, age class, and escapement period, 1988.

		Brood Year and Age Class									
		1984		1983		1982			1981		
		0.3	1.2	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Escapement Dates: (July 10 - 23) Sample Dates: (July 12 - 23)											
Male	Avg. Length	610	530	619	546		617				615
	Std. Error			2.0	12.7		5.0				2.2
	Sample Size	1	1	151	9		36				198
Female	Avg. Length		420	595	539		599				591
	Std. Error			2.4	16.5		4.0				3.0
	Sample Size		1	72	6		20				99
All Fish	Avg. Length	610	475	612	543		610				607
	Std. Error		55.0	1.7	9.7		3.7				1.9
	Sample Size	1	2	223	15		56				297
Escapement Dates: (July 24 - 30) Sample Dates: (July 24 - 30)											
Male	Avg. Length		553	626	557		619				623
	Std. Error		22.5	1.5	11.7		5.3				1.7
	Sample Size		2	174	3		39				218
Female	Avg. Length			596	570		586				593
	Std. Error			4.0			8.6				3.7
	Sample Size			38	1		12				51
All Fish	Avg. Length		553	621	560		612				617
	Std. Error		22.5	1.6	8.9		4.9				1.7
	Sample Size		2	212	4		51				269
Escapement Dates: (July 31 - August 6) Sample Dates: (July 31 - August 6)											
Male	Avg. Length	590	560	631	568	680	634				629
	Std. Error		7.4	1.6	9.2		4.2				1.7
	Sample Size	1	4	188	4	1	53				251
Female	Avg. Length			600	540	580	604		580		599
	Std. Error			3.2	30.0	30.0	8.0				3.3
	Sample Size			51	2	2	18		1		74
All Fish	Avg. Length	590	560	624	558	613	626		580		622
	Std. Error		7.4	1.7	11.3	37.6	4.0				1.7
	Sample Size	1	4	239	6	3	71		1		325
Escapement Dates: (August 7 - 13) Sample Dates: (August 7 - 12)											
Male	Avg. Length		553	633			652				635
	Std. Error		7.5	2.6			5.9				2.7
	Sample Size		2	87			19				108
Female	Avg. Length			611							611
	Std. Error			6.4							6.4
	Sample Size			7							7
All Fish	Avg. Length		553	631			652				633
	Std. Error		7.5	2.5			5.9				2.6
	Sample Size		2	94			19				115

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Appendix E.135. (page 2 of 3).

		Brood Year and Age Class									
		1984		1983		1982			1981		
		0.3	1.2	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Escapement Dates: (August 14 - 20)											
Sample Dates: (August 14 - 19)											
Male	Avg. Length			634	555		644				637
	Std. Error			3.3			4.3				2.8
	Sample Size			60	1		30				91
Female	Avg. Length			599	575		635				604
	Std. Error			7.5	10.0		7.6				7.6
	Sample Size			7	2		3				12
All Fish	Avg. Length			631	568		643				633
	Std. Error			3.3	8.8		4.0				2.8
	Sample Size			67	3		33				103
Escapement Dates: (August 21 - 27)											
Sample Dates: (August 21 - 26)											
Male	Avg. Length		543	624	596	640	646				628
	Std. Error		12.0	4.1	9.1		2.4				3.4
	Sample Size		3	32	7	1	33				76
Female	Avg. Length		550	600	525		615				587
	Std. Error			10.4	27.5		10.9				11.7
	Sample Size		1	5	4		8				18
All Fish	Avg. Length		545	621	570	640	640				620
	Std. Error		8.7	4.0	15.2		3.4				3.9
	Sample Size		4	37	11	1	41				94
Escapement Dates: (August 28 - September 10)											
Sample Dates: (August 28 - September 9)											
Male	Avg. Length			618	574		637			670	628
	Std. Error			5.1	9.0		2.0				2.4
	Sample Size			24	18		132			1	175
Female	Avg. Length			613	566		612				607
	Std. Error			7.2	10.2		4.4				4.1
	Sample Size			7	6		40				53
All Fish	Avg. Length			617	572		631			670	623
	Std. Error			4.3	7.1		2.0				2.2
	Sample Size			31	24		172			1	228
Escapement Dates: (September 11 - 24)											
Sample Dates: (September 17 - 23)											
Male	Avg. Length		540	610	566		633				620
	Std. Error				6.0		2.1				3.0
	Sample Size		1	1	25		113				140
Female	Avg. Length			580	552		610	555			599
	Std. Error			20.0	7.0		3.0				3.7
	Sample Size			2	12		59	1			74
All Fish	Avg. Length		540	590	561		625	555			613
	Std. Error			15.3	4.7		1.9				2.4
	Sample Size		1	3	37		172	1			214
Escapement Dates: (September 25 - October 22)											
Sample Dates: (September 25 - October 21)											
Male	Avg. Length				563		631	590			612
	Std. Error				6.2		3.0				4.0
	Sample Size				27		72	1			100
Female	Avg. Length		530		559		605				597
	Std. Error				5.8		4.4				4.5
	Sample Size		1		9		47				57
All Fish	Avg. Length		530		562		621	590			606
	Std. Error				4.8		2.8				3.1
	Sample Size		1		36		119	1			157

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		Brood Year and Age Class									
		1984		1983		1982			1981		
		0.3	1.2	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Escapement Dates: (October 23 - November 12) Sample Dates: (October 24 - November 7)											
Male	Avg. Length				573		624				615
	Std. Error				4.5		2.4				3.0
	Sample Size				13		67				80
Female	Avg. Length				580		609				608
	Std. Error				10.0		4.1				4.0
	Sample Size				2		31				33
All Fish	Avg. Length				574		619				613
	Std. Error				4.1		2.2				2.5
	Sample Size				15		98				113
Combined Periods (Lengths weighted by period escapements)											
Male	Avg. Length	595	546	619	567	675	633	590		670	622
	Std. Error	10.0	4.9	0.9	3.1	20.0	1.1				0.8
	Sample Size	2	13	717	107	2	594	1		1	1437
Female	Avg. Length		518	600	559	580	608	555	580		601
	Std. Error		40.4	1.6	4.6	30.0	1.8				1.4
	Sample Size		3	189	44	2	238	1	1		478
All Fish	Avg. Length	595	538	611	565	617	625	573	580	670	616
	Std. Error	10.0	9.0	0.9	2.6	27.4	1.0	17.5			0.8
	Sample Size	2	16	906	151	4	832	2	1	1	1915

Appendix E.136. Test for significant changes among periods in the length composition of sockeye salmon in the Chilkat Lake escapement by age class, 1988.

	Brood Year and Age Class								
	1984		1983		1982			1981	
Periods Compared	0.3	1.2	1.3	2.2	1.4	2.3	3.2	2.4	3.3
1 , 2			S**						
1 , 3			S**			S**			
1 , 4			S**			S**			
1 , 5			S**	S		S**			
1 , 6			S*			S**			
1 , 7				S*		S**			
1 , 8				S		S**			
1 , 9				S		S*			
1 , 10				S**		S*			
2 , 3						S*			
2 , 4			S**			S**			
2 , 5			S**			S**			
2 , 6						S**			
2 , 7						S**			
2 , 8			S*			S*			
2 , 9									
2 , 10									
3 , 4			S*			S**			
3 , 5			S			S**			
3 , 6						S**			
3 , 7									
3 , 8			S*						
3 , 9									
3 , 10									
4 , 5									
4 , 6			S*			S			
4 , 7			S**			S**			
4 , 8			S**			S**			
4 , 9						S**			
4 , 10						S**			
5 , 6			S						
5 , 7			S**			S**			
5 , 8			S**			S**			
5 , 9						S**			
5 , 10						S**			
6 , 7						S*			
6 , 8			S*			S**			
6 , 9						S**			
6 , 10						S**			
7 , 8			S			S*			
7 , 9						S**			
7 , 10						S**			
8 , 9									
8 , 10				S*		S*			
9 , 10				S					

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.137. Daily sockeye salmon counts and associated statistics from Chilkat Lake weir, 1988.

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
June	18	0	0	0.0000	0.0000
June	19	0	0	0.0000	0.0000
June	20	0	0	0.0000	0.0000
June	21	22	22	0.0008	0.0008
June	22	0	22	0.0000	0.0008
June	23	0	22	0.0000	0.0008
June	24	24	46	0.0009	0.0017
June	25	13	59	0.0005	0.0021
June	26	0	59	0.0000	0.0021
June	27	23	82	0.0008	0.0030
June	28	493	575	0.0179	0.0208
June	29	575	1150	0.0208	0.0417
June	30	503	1653	0.0182	0.0599
July	1	154	1807	0.0056	0.0655
July	2	267	2074	0.0097	0.0752
July	3	491	2565	0.0178	0.0930
July	4	5	2570	0.0002	0.0931
July	5	0	2570	0.0000	0.0931
July	6	0	2570	0.0000	0.0931
July	7	0	2570	0.0000	0.0931
July	8	0	2570	0.0000	0.0931
July	9	0	2570	0.0000	0.0931
July	10	0	2570	0.0000	0.0931
July	11	0	2570	0.0000	0.0931
July	12	3	2573	0.0001	0.0932
July	13	2	2575	0.0001	0.0933
July	14	3	2578	0.0001	0.0934
July	15	0	2578	0.0000	0.0934
July	16	1	2579	0.0000	0.0935
July	17	18	2597	0.0007	0.0941
July	18	48	2645	0.0017	0.0959
July	19	169	2814	0.0061	0.1020
July	20	168	2982	0.0061	0.1081
July	21	105	3087	0.0038	0.1119
July	22	164	3251	0.0059	0.1178
July	23	50	3301	0.0018	0.1196
July	24	30	3331	0.0011	0.1207
July	25	193	3524	0.0070	0.1277
July	26	75	3599	0.0027	0.1304
July	27	153	3752	0.0055	0.1360
July	28	253	4005	0.0092	0.1451
July	29	881	4886	0.0319	0.1771
July	30	384	5270	0.0139	0.1910
July	31	623	5893	0.0226	0.2136
Aug.	1	1060	6953	0.0384	0.2520
Aug.	2	58	7011	0.0021	0.2541
Aug.	3	58	7069	0.0021	0.2562
Aug.	4	90	7159	0.0033	0.2594
Aug.	5	47	7206	0.0017	0.2612
Aug.	6	29	7235	0.0011	0.2622
Aug.	7	84	7319	0.0030	0.2652
Aug.	8	28	7347	0.0010	0.2663
Aug.	9	24	7371	0.0009	0.2671
Aug.	10	11	7382	0.0004	0.2675
Aug.	11	19	7401	0.0007	0.2682
Aug.	12	27	7428	0.0010	0.2692
Aug.	13	7	7435	0.0003	0.2695
Aug.	14	28	7463	0.0010	0.2705
Aug.	15	11	7474	0.0004	0.2709
Aug.	16	8	7482	0.0003	0.2712
Aug.	17	38	7520	0.0014	0.2725
Aug.	18	189	7709	0.0068	0.2794
Aug.	19	282	7991	0.0102	0.2896
Aug.	20	10	8001	0.0004	0.2900
Aug.	21	11	8012	0.0004	0.2904
Aug.	22	45	8057	0.0016	0.2920
Aug.	23	0	8057	0.0000	0.2920
Aug.	24	31	8088	0.0011	0.2931
Aug.	25	8	8096	0.0003	0.2934
Aug.	26	165	8261	0.0060	0.2994
Aug.	27	20	8281	0.0007	0.3001
Aug.	28	42	8323	0.0015	0.3016
Aug.	29	234	8557	0.0085	0.3101
Aug.	30	15	8572	0.0005	0.3107
Aug.	31	67	8639	0.0024	0.3131

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Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
Sept.	1	24	8663	0.0009	0.3140
Sept.	2	7	8670	0.0003	0.3142
Sept.	3	80	8750	0.0029	0.3171
Sept.	4	940	9690	0.0341	0.3512
Sept.	5	467	10157	0.0169	0.3681
Sept.	6	3796	13953	0.1376	0.5057
Sept.	7	162	14115	0.0059	0.5115
Sept.	8	1129	15244	0.0409	0.5525
Sept.	9	1459	16703	0.0529	0.6053
Sept.	10	20	16723	0.0007	0.6061
Sept.	11	11	16734	0.0004	0.6065
Sept.	12	0	16734	0.0000	0.6065
Sept.	13	9	16743	0.0003	0.6068
Sept.	14	1158	17901	0.0420	0.6488
Sept.	15	808	18709	0.0293	0.6780
Sept.	16	177	18886	0.0064	0.6844
Sept.	17	91	18977	0.0033	0.6877
Sept.	18	218	19195	0.0079	0.6956
Sept.	19	732	19927	0.0265	0.7222
Sept.	20	95	20022	0.0034	0.7256
Sept.	21	43	20065	0.0016	0.7272
Sept.	22	36	20101	0.0013	0.7285
Sept.	23	1609	21710	0.0583	0.7868
Sept.	24	14	21724	0.0005	0.7873
Sept.	25	1343	23067	0.0487	0.8360
Sept.	26	565	23632	0.0205	0.8564
Sept.	27	1050	24682	0.0381	0.8945
Sept.	28	1513	26195	0.0548	0.9493
Sept.	29	54	26249	0.0020	0.9513
Sept.	30	11	26260	0.0004	0.9517
Oct.	1	15	26275	0.0005	0.9522
Oct.	2	158	26433	0.0057	0.9580
Oct.	3	497	26930	0.0180	0.9760
Oct.	4	0	26930	0.0000	0.9760
Oct.	5	0	26930	0.0000	0.9760
Oct.	6	0	26930	0.0000	0.9760
Oct.	7	0	26930	0.0000	0.9760
Oct.	8	0	26930	0.0000	0.9760
Oct.	9	0	26930	0.0000	0.9760
Oct.	10	0	26930	0.0000	0.9760
Oct.	11	0	26930	0.0000	0.9760
Oct.	12	0	26930	0.0000	0.9760
Oct.	13	0	26930	0.0000	0.9760
Oct.	14	12	26942	0.0004	0.9764
Oct.	15	36	26978	0.0013	0.9777
Oct.	16	22	27000	0.0008	0.9785
Oct.	17	25	27025	0.0009	0.9794
Oct.	18	3	27028	0.0001	0.9795
Oct.	19	12	27040	0.0004	0.9800
Oct.	20	34	27074	0.0012	0.9812
Oct.	21	36	27110	0.0013	0.9825
Oct.	22	34	27144	0.0012	0.9837
Oct.	23	26	27170	0.0009	0.9847
Oct.	24	22	27192	0.0008	0.9855
Oct.	25	31	27223	0.0011	0.9866
Oct.	26	8	27231	0.0003	0.9869
Oct.	27	31	27262	0.0011	0.9880
Oct.	28	57	27319	0.0021	0.9901
Oct.	29	38	27357	0.0014	0.9914
Oct.	30	49	27406	0.0018	0.9932
Oct.	31	20	27426	0.0007	0.9939
Nov.	1	34	27460	0.0012	0.9952
Nov.	2	37	27497	0.0013	0.9965
Nov.	3	3	27500	0.0001	0.9966
Nov.	4	13	27513	0.0005	0.9971
Nov.	5	9	27522	0.0003	0.9974
Nov.	6	10	27532	0.0004	0.9978
Nov.	7	15	27547	0.0005	0.9983
Nov.	8	5	27552	0.0002	0.9985
Nov.	9	6	27558	0.0002	0.9987
Nov.	10	9	27567	0.0003	0.9991
Nov.	11	8	27575	0.0003	0.9993
Nov.	12	1	27576	0.0000	0.9994
Nov.	13	4	27580	0.0001	0.9995
Nov.	14	13	27593	0.0005	1.0000

Mean Day of Migration = Aug. 31 Variance = 854.9 Days squared

Appendix E.138. Age composition of sockeye salmon in the Bear Flats Creek escapement by sex and age class, 1988.

	Brood Year and Age Class						
	1986	1985		1984		1983	
	0.1	0.2	1.1	0.3	1.2	1.3	Total
Sample Date:	(October 20)						
Male							
Sample Number	1	34	1	6	21	3	66
Percent	1.1	36.6	1.1	6.5	22.6	3.2	71.0
Std. Error	1.1	5.0	1.1	2.6	4.3	1.8	4.7
Female							
Sample Number				24	1	2	27
Percent				25.8	1.1	2.2	29.0
Std. Error				4.6	1.1	1.5	4.7
All Fish							
Sample Number	1	34	1	30	22	5	93
Percent	1.1	36.6	1.1	32.3	23.7	5.4	100.0
Std. Error	1.1	5.0	1.1	4.9	4.4	2.3	

Appendix E.139. Length composition of sockeye salmon in the Bear Flats Creek escapement by sex and age class, 1988.

		Brood Year and Age Class						
		1986	1985		1984		1983	
		0.1	0.2	1.1	0.3	1.2	1.3	Total
Sample Date:	(October 20)							
Male	Avg. Length	390	427	385	563	451	567	452
	Std. Error		4.5		23.0	7.6	27.4	7.0
	Sample Size	1	34	1	6	21	3	66
Female	Avg. Length				551	480	523	547
	Std. Error				4.6		2.5	5.0
	Sample Size				24	1	2	27
All Fish	Avg. Length	390	427	385	554	453	549	480
	Std. Error		4.5		5.7	7.4	18.5	6.8
	Sample Size	1	34	1	30	22	5	93

Appendix E.140. Age composition of sockeye salmon in the Chilkoot Lake escapement by sex, age class, and escapement period, 1988.

	Brood Year and Age Class							
	1984	1983		1982		1981		
	1.2	1.3	2.2	1.4	2.3	2.4	3.3	Total
Escapement Dates:	(June 9 - 18)							
Sample Dates:	(June 13 - 17)							
Male								
Sample Size	1	20	2	2	8			33
Percent	1.6	32.3	3.2	3.2	12.9			53.2
Std. Error	1.6	5.8	2.2	2.2	4.2			6.2
Number	19	379	38	38	152			626
Female								
Sample Size		18		4	7			29
Percent		29.0		6.5	11.3			46.8
Std. Error		5.7		3.1	3.9			6.2
Number		342		76	133			551
All Fish								
Sample Size	1	38	2	6	15			62
Percent	1.6	61.3	3.2	9.7	24.2			100.0
Std. Error	1.6	6.1	2.2	3.7	5.3			
Number	19	721	38	114	285			1177
Escapement Dates:	(June 19 - 25)							
Sample Dates:	(June 19 - 23)							
Male								
Sample Size	1	61	2	3	9			76
Percent	0.9	54.5	1.8	2.7	8.0			67.9
Std. Error	0.9	4.5	1.2	1.5	2.5			4.3
Number	13	820	27	41	121			1022
Female								
Sample Size		28		1	7			36
Percent		25.0		0.9	6.3			32.1
Std. Error		4.0		0.9	2.2			4.3
Number		377		13	94			484
All Fish								
Sample Size	1	89	2	4	16			112
Percent	0.9	79.5	1.8	3.6	14.3			100.0
Std. Error	0.9	3.7	1.2	1.7	3.2			
Number	13	1197	27	54	215			1506
Escapement Dates:	(June 26 - July 2)							
Sample Dates:	(June 27 - July 2)							
Male								
Sample Size	9	210	6	2	28		1	256
Percent	2.0	47.4	1.4	0.5	6.3		0.2	57.8
Std. Error	0.7	2.4	0.5	0.3	1.1		0.2	2.3
Number	464	10830	309	103	1444		52	13202
Female								
Sample Size	3	151		2	31			187
Percent	0.7	34.1		0.5	7.0			42.2
Std. Error	0.4	2.2		0.3	1.2			2.3
Number	155	7787		103	1599			9644
All Fish								
Sample Size	12	361	6	4	59		1	443
Percent	2.7	81.5	1.4	0.9	13.3		0.2	100.0
Std. Error	0.8	1.8	0.5	0.4	1.6		0.2	
Number	619	18617	309	206	3043		52	22846

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Appendix E.140. (page 2 of 5).

	Brood Year and Age Class							
	1984	1983		1982		1981		
	1.2	1.3	2.2	1.4	2.3	2.4	3.3	Total
Escapement Dates:	(July 3 - July 9)							
Sample Dates:	(July 3 - July 9)							
Male								
Sample Size	14	69	4	2	5			94
Percent	8.3	40.8	2.4	1.2	3.0			55.6
Std. Error	2.1	3.7	1.2	0.8	1.3			3.8
Number	487	2397	139	69	174			3266
Female								
Sample Size	2	63	2		8			75
Percent	1.2	37.3	1.2		4.7			44.4
Std. Error	0.8	3.7	0.8		1.6			3.8
Number	70	2189	69		278			2606
All Fish								
Sample Size	16	132	6	2	13			169
Percent	9.5	78.1	3.6	1.2	7.7			100.0
Std. Error	2.2	3.1	1.4	0.8	2.0			
Number	557	4586	208	69	452			5872
Escapement Dates:	(July 10 - July 16)							
Sample Dates:	(July 10 - July 16)							
Male								
Sample Size	10	74	5	1	9			99
Percent	5.6	41.8	2.8	0.6	5.1			55.9
Std. Error	1.7	3.6	1.2	0.6	1.6			3.7
Number	248	1835	124	25	223			2455
Female								
Sample Size	2	65			10	1		78
Percent	1.1	36.7			5.6	0.6		44.1
Std. Error	0.8	3.6			1.7	0.6		3.7
Number	50	1611			248	25		1934
All Fish								
Sample Size	12	139	5	1	19	1		177
Percent	6.8	78.5	2.8	0.6	10.7	0.6		100.0
Std. Error	1.9	3.0	1.2	0.6	2.3	0.6		
Number	298	3446	124	25	471	25		4389
Escapement Dates:	(July 17 - July 23)							
Sample Dates:	(July 17 - July 23)							
Male								
Sample Size	10	70	4	1	7			92
Percent	6.0	41.7	2.4	0.6	4.2			54.8
Std. Error	1.8	3.7	1.1	0.6	1.5			3.7
Number	152	1065	61	15	106			1399
Female								
Sample Size	3	68	1		4			76
Percent	1.8	40.5	0.6		2.4			45.2
Std. Error	1.0	3.7	0.6		1.1			3.7
Number	46	1033	15		61			1155
All Fish								
Sample Size	13	138	5	1	11			168
Percent	7.7	82.1	3.0	0.6	6.5			100.0
Std. Error	2.0	2.9	1.3	0.6	1.9			
Number	198	2098	76	15	167			2554

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Appendix E.140. (page 3 of 5).

	Brood Year and Age Class							
	1984	1983		1982		1981		
	1.2	1.3	2.2	1.4	2.3	2.4	3.3	Total
Escapement Dates:	(July 24 - July 30)							
Sample Dates:	(July 24 - July 30)							
Male								
Sample Size	7	111	4	3	16			141
Percent	2.7	42.5	1.5	1.1	6.1			54.0
Std. Error	1.0	3.0	0.7	0.6	1.5			3.0
Number	145	2304	83	62	332			2926
Female								
Sample Size	6	94	1		19			120
Percent	2.3	36.0	0.4		7.3			46.0
Std. Error	0.9	2.9	0.4		1.6			3.0
Number	125	1950	21		394			2490
All Fish								
Sample Size	13	205	5	3	35			261
Percent	5.0	78.5	1.9	1.1	13.4			100.0
Std. Error	1.3	2.5	0.8	0.6	2.1			
Number	270	4254	104	62	726			5416
Escapement Dates:	(July 31 - August 6)							
Sample Dates:	(July 31 - August 6)							
Male								
Sample Size	17	119	4		16	1		157
Percent	6.1	43.0	1.4		5.8	0.4		56.7
Std. Error	1.4	2.9	0.7		1.4	0.4		2.9
Number	358	2502	84		336	21		3301
Female								
Sample Size	3	99	3	1	14			120
Percent	1.1	35.7	1.1	0.4	5.1			43.3
Std. Error	0.6	2.8	0.6	0.4	1.3			2.9
Number	63	2082	63	21	294			2523
All Fish								
Sample Size	20	218	7	1	30	1		277
Percent	7.2	78.7	2.5	0.4	10.8	0.4		100.0
Std. Error	1.5	2.4	0.9	0.4	1.8	0.4		
Number	421	4584	147	21	630	21		5824
Escapement Dates:	(August 7 - 13)							
Sample Dates:	(August 7 - 13)							
Male								
Sample Size	9	161	8	4	21	1		204
Percent	2.7	47.5	2.4	1.2	6.2	0.3		60.2
Std. Error	0.8	2.6	0.8	0.6	1.3	0.3		2.6
Number	151	2699	134	67	352	17		3420
Female								
Sample Size	5	102	5		22	1		135
Percent	1.5	30.1	1.5		6.5	0.3		39.8
Std. Error	0.6	2.4	0.6		1.3	0.3		2.6
Number	84	1709	84		369	17		2263
All Fish								
Sample Size	14	263	13	4	43	2		339
Percent	4.1	77.6	3.8	1.2	12.7	0.6		100.0
Std. Error	1.0	2.2	1.0	0.6	1.8	0.4		
Number	235	4408	218	67	721	34		5683

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Appendix E.140. (page 4 of 5).

	Brood Year and Age Class							
	1984	1983		1982		1981		
	1.2	1.3	2.2	1.4	2.3	2.4	3.3	Total
Escapement Dates:	(August 14 - 20)							
Sample Dates:	(August 14 - 19)							
Male								
Sample Size	7	114	8	5	30	1		165
Percent	2.6	41.8	2.9	1.8	11.0	0.4		60.4
Std. Error	0.9	3.0	1.0	0.8	1.9	0.4		2.9
Number	278	4531	318	199	1192	40		6558
Female								
Sample Size		91	5		12			108
Percent		33.3	1.8		4.4			39.6
Std. Error		2.8	0.8		1.2			2.9
Number		3617	199		477			4293
All Fish								
Sample Size	7	205	13	5	42	1		273
Percent	2.6	75.1	4.8	1.8	15.4	0.4		100.0
Std. Error	0.9	2.6	1.3	0.8	2.2	0.4		
Number	278	8148	517	199	1669	40		10851
Escapement Dates:	(August 21 - 27)							
Sample Dates:	(August 23 - 27)							
Male								
Sample Size	3	47	3	1	6	2		62
Percent	2.3	36.2	2.3	0.8	4.6	1.5		47.7
Std. Error	1.3	4.2	1.3	0.8	1.8	1.1		4.4
Number	154	2404	154	51	307	102		3172
Female								
Sample Size	2	49	1		16			68
Percent	1.5	37.7	0.8		12.3			52.3
Std. Error	1.1	4.2	0.8		2.9			4.4
Number	102	2507	51		818			3478
All Fish								
Sample Size	5	96	4	1	22	2		130
Percent	3.8	73.8	3.1	0.8	16.9	1.5		100.0
Std. Error	1.7	3.8	1.5	0.8	3.3	1.1		
Number	256	4911	205	51	1125	102		6650
Escapement Dates:	(August 28 - October 25)							
Sample Dates:	(August 28 - September 9)							
Male								
Sample Size	1	72	3	4	21	1		102
Percent	0.4	28.8	1.2	1.6	8.4	0.4		40.8
Std. Error	0.4	2.8	0.7	0.8	1.7	0.4		3.1
Number	34	2450	102	136	714	34		3470
Female								
Sample Size	2	118	1	2	24	1		148
Percent	0.8	47.2	0.4	0.8	9.6	0.4		59.2
Std. Error	0.6	3.1	0.4	0.6	1.8	0.4		3.1
Number	68	4015	34	68	817	34		5036
All Fish								
Sample Size	3	190	4	6	45	2		250
Percent	1.2	76.0	1.6	2.4	18.0	0.8		100.0
Std. Error	0.7	2.7	0.8	1.0	2.4	0.6		
Number	102	6465	136	204	1531	68		8506

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Appendix E.140. (page 5 of 5).

	Brood Year and Age Class							
	1984	1983		1982		1981		
	1.2	1.3	2.2	1.4	2.3	2.4	3.3	Total
Combined Periods (Percentages are weighted by period escapements)								
Male								
Sample Size	89	1128	53	28	176	6	1	1481
Percent	3.1	42.1	1.9	1.0	6.7	0.3	0.1	55.1
Std. Error	0.3	1.0	0.3	0.2	0.5	0.1	0.1	1.0
Number	2503	34216	1573	806	5453	214	52	44817
Female								
Sample Size	28	946	19	10	174	3		1180
Percent	0.9	36.0	0.7	0.3	6.9	0.1		44.9
Std. Error	0.2	1.0	0.2	0.1	0.5	0.1		1.0
Number	763	29219	536	281	5582	76		36457
All Fish								
Sample Size	117	2074	72	38	350	9	1	2661
Percent	4.0	78.1	2.6	1.3	13.6	0.4	0.1	100.0
Std. Error	0.4	0.9	0.3	0.2	0.7	0.1	0.1	
Number	3266	63435	2109	1087	11035	290	52	81274

Appendix E.141. Test for significant changes in the age composition of sockeye salmon in the Chilkoot Lake escapement by age class and escapement period, 1988.

	Brood Year and Age Class						
	1984	1983		1982		1981	
Periods Compared	1.2	1.3	2.2	1.4	2.3	2.4	3.3
1 . 2		S**					
1 . 3		S**		S**	S*		
1 . 4	S	S**		S**	S**		
1 . 5		S**		S**	S**		
1 . 6		S**		S**	S**		
1 . 7		S**		S**	S		
1 . 8		S**		S**	S**		
1 . 9		S**		S**	S*		
1 . 10		S*		S**			
1 . 11				S**			
1 . 12		S*		S*			
2 . 3				S			
2 . 4	S**						
2 . 5	S*						
2 . 6	S*				S		
2 . 7							
2 . 8	S*			S*			
2 . 9							
2 . 10							
2 . 11							
2 . 12							
3 . 4	S**				S		
3 . 5	S*						
3 . 6	S**				S*		
3 . 7							
3 . 8	S**						
3 . 9			S*				
3 . 10		S	S**				
3 . 11		S				S	
3 . 12							
4 . 5							
4 . 6							
4 . 7					S		
4 . 8							
4 . 9	S*						
4 . 10	S**				S*		
4 . 11	S				S*		
4 . 12	S**				S**		
5 . 6							
5 . 7							
5 . 8							
5 . 9							
5 . 10	S						
5 . 11							
5 . 12	S**				S		
6 . 7					S*		
6 . 8							
6 . 9					S		
6 . 10	S*				S**		
6 . 11					S**		
6 . 12	S**				S**		
7 . 8							
7 . 9							
7 . 10							
7 . 11							
7 . 12	S*						
8 . 9							
8 . 10	S**						
8 . 11							
8 . 12	S**			S	S*		
9 . 10							
9 . 11							
9 . 12	S				S		
10 . 11							
10 . 12			S				
11 . 12							

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.142. Length composition of sockeye salmon in the Chilkoot Lake escapement by sex, age class, and escapement period, 1988.

		Brood Year and Age Class							
		1984	1983		1982		1981		
		1.2	1.3	2.2	1.4.	2.3	2.4	3.3	Total
Escapement Dates: (June 9 - July 2)									
Sample Dates: (June 13 - July 2)									
Male	Avg. Length	456	577	480	599	578		565	571
	Std. Error	12.4	1.8	15.6	19.2	4.4			2.2
	Sample Size	11	291	10	7	45		1	365
Female	Avg. Length	478	560		584	555			559
	Std. Error	21.7	1.6		13.7	3.2			1.6
	Sample Size	3	197		7	45			252
All Fish	Avg. Length	461	570	480	591	566		565	566
	Std. Error	10.7	1.3	15.6	11.5	3.0			1.4
	Sample Size	14	488	10	14	90		1	617
Escapement Dates: (July 3 - 23)									
Sample Dates: (July 3 - 23)									
Male	Avg. Length	486	587	486	603	575			570
	Std. Error	7.6	1.8	8.9	20.6	7.9			2.9
	Sample Size	34	213	13	4	21			285
Female	Avg. Length	485	567	432		558	580		562
	Std. Error	29.3	1.3	22.4		5.2			2.0
	Sample Size	7	196	3		22	1		229
All Fish	Avg. Length	486	578	476	603	566	580		566
	Std. Error	7.8	1.2	9.7	20.6	4.8			1.8
	Sample Size	41	409	16	4	43	1		514
Escapement Dates: (July 24 - August 13)									
Sample Dates: (July 24 - August 13)									
Male	Avg. Length	517	590	518	618	590	595		583
	Std. Error	7.2	1.3	9.5	9.6	3.0	10.0		1.5
	Sample Size	33	389	15	7	53	2		499
Female	Avg. Length	509	570	516	620	570	620		567
	Std. Error	8.8	1.4	8.9		3.3			1.5
	Sample Size	14	295	9	1	55	1		375
All Fish	Avg. Length	514	581	517	618	580	603		576
	Std. Error	5.7	1.0	6.7	8.3	2.4	10.1		1.1
	Sample Size	47	684	24	8	108	3		874
Escapement Dates: (August 14 - October 25)									
Sample Dates: (August 14 - September 9)									
Male	Avg. Length	509	595	509	613	591	600		588
	Std. Error	11.1	1.6	5.7	11.8	2.3	4.6		1.8
	Sample Size	11	233	14	10	57	4		329
Female	Avg. Length	493	574	502	603	570	525		571
	Std. Error	4.3	1.2	7.6	32.5	3.0			1.4
	Sample Size	4	258	7	2	52	1		324
All Fish	Avg. Length	505	584	506	611	581	585		579
	Std. Error	8.4	1.1	4.5	10.6	2.1	15.4		1.2
	Sample Size	15	491	21	12	109	5		653
Combined Periods (Lengths weighted by period escapements)									
Male	Avg. Length	490	587	498	608	584	598	565	579
	Std. Error	4.9	0.8	5.2	7.1	1.9	4.0		1.0
	Sample Size	89	1126	52	28	176	6	1	1478
Female	Avg. Length	490	568	490	600	563	566		565
	Std. Error	8.7	0.7	8.9	11.3	1.8	27.5		0.8
	Sample Size	28	946	19	10	174	3		1180
All Fish	Avg. Length	490	578	495	605	574	589	565	573
	Std. Error	4.2	0.6	4.5	6.1	1.4	9.2		0.7
	Sample Size	117	2072	71	38	350	9	1	2658

Appendix E.143. Test for significant changes in the length composition of sockeye salmon in the Chilkoot Lake escapement by age class and escapement period, 1988.

	Brood Year and Age Class						
	1984	1983		1982		1981	
	1.2	1.3	2.2	1.4	2.3	2.4	3.3
Periods Compared							
1 , 2	S	S**					
1 , 3	S**	S**	S*	S	S**		
1 , 4	S**	S**			S**		
2 , 3	S**	S	S**		S**		
2 , 4	S	S**	S**		S**		
3 , 4		S*					

S = significant at alpha = 0.10
S* = significant at alpha = 0.05
S** = significant at alpha = 0.01

Appendix E.144. Daily sockeye salmon counts and associated statistics from Chilkoot Lake weir, 1988.

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
June	9	3	3	0.0000	0.0000
June	10	50	53	0.0006	0.0007
June	11	42	95	0.0005	0.0012
June	12	252	347	0.0031	0.0043
June	13	73	420	0.0009	0.0052
June	14	337	757	0.0041	0.0093
June	15	177	934	0.0022	0.0115
June	16	160	1094	0.0020	0.0135
June	17	68	1162	0.0008	0.0143
June	18	15	1177	0.0002	0.0145
June	19	73	1250	0.0009	0.0154
June	20	218	1468	0.0027	0.0181
June	21	237	1705	0.0029	0.0210
June	22	334	2039	0.0041	0.0251
June	23	370	2409	0.0046	0.0296
June	24	153	2562	0.0019	0.0315
June	25	121	2683	0.0015	0.0330
June	26	112	2795	0.0014	0.0344
June	27	256	3051	0.0031	0.0375
June	28	2117	5168	0.0260	0.0636
June	29	6446	11614	0.0793	0.1429
June	30	10000	21614	0.1230	0.2659
July	1	2402	24016	0.0296	0.2955
July	2	1513	25529	0.0186	0.3141
July	3	1689	27218	0.0208	0.3349
July	4	1814	29032	0.0223	0.3572
July	5	493	29525	0.0061	0.3633
July	6	478	30003	0.0059	0.3692
July	7	131	30134	0.0016	0.3708
July	8	817	30951	0.0101	0.3808
July	9	450	31401	0.0055	0.3864
July	10	1017	32418	0.0125	0.3989
July	11	1409	33827	0.0173	0.4162
July	12	814	34641	0.0100	0.4262
July	13	257	34898	0.0032	0.4294
July	14	219	35117	0.0027	0.4321
July	15	113	35230	0.0014	0.4335
July	16	560	35790	0.0069	0.4404
July	17	378	36168	0.0047	0.4450
July	18	479	36647	0.0059	0.4509
July	19	355	37002	0.0044	0.4553
July	20	856	37858	0.0105	0.4658
July	21	286	38144	0.0035	0.4693
July	22	99	38243	0.0012	0.4705
July	23	101	38344	0.0012	0.4718
July	24	820	39164	0.0101	0.4819
July	25	1422	40586	0.0175	0.4994
July	26	1352	41938	0.0166	0.5160
July	27	427	42365	0.0053	0.5213
July	28	763	43128	0.0094	0.5306
July	29	280	43408	0.0034	0.5341
July	30	352	43760	0.0043	0.5384
July	31	402	44162	0.0049	0.5434

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Appendix E.144. (page 2 of 3).

Date		Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
Aug.	1	1338	45500	0.0165	0.5598
Aug.	2	804	46304	0.0099	0.5697
Aug.	3	1361	47665	0.0167	0.5865
Aug.	4	493	48158	0.0061	0.5925
Aug.	5	830	48988	0.0102	0.6028
Aug.	6	596	49584	0.0073	0.6101
Aug.	7	377	49961	0.0046	0.6147
Aug.	8	595	50556	0.0073	0.6220
Aug.	9	901	51457	0.0111	0.6331
Aug.	10	820	52277	0.0101	0.6432
Aug.	11	779	53056	0.0096	0.6528
Aug.	12	397	53453	0.0049	0.6577
Aug.	13	1814	55267	0.0223	0.6800
Aug.	14	915	56182	0.0113	0.6913
Aug.	15	904	57086	0.0111	0.7024
Aug.	16	1475	58561	0.0181	0.7205
Aug.	17	2029	60590	0.0250	0.7455
Aug.	18	2280	62870	0.0281	0.7736
Aug.	19	2181	65051	0.0268	0.8004
Aug.	20	1067	66118	0.0131	0.8135
Aug.	21	1808	67926	0.0222	0.8358
Aug.	22	1509	69435	0.0186	0.8543
Aug.	23	1120	70555	0.0138	0.8681
Aug.	24	131	70686	0.0016	0.8697
Aug.	25	702	71388	0.0086	0.8784
Aug.	26	628	72016	0.0077	0.8861
Aug.	27	752	72768	0.0093	0.8953
Aug.	28	806	73574	0.0099	0.9053
Aug.	29	760	74334	0.0094	0.9146
Aug.	30	514	74848	0.0063	0.9209
Aug.	31	344	75192	0.0042	0.9252
Sept.	1	251	75443	0.0031	0.9283
Sept.	2	907	76350	0.0112	0.9394
Sept.	3	962	77312	0.0118	0.9513
Sept.	4	665	77977	0.0082	0.9594
Sept.	5	809	78786	0.0100	0.9694
Sept.	6	502	79288	0.0062	0.9756
Sept.	7	380	79668	0.0047	0.9802
Sept.	8	150	79818	0.0018	0.9821
Sept.	9	92	79910	0.0011	0.9832
Sept.	10	48	79958	0.0006	0.9838
Sept.	11	99	80057	0.0012	0.9850
Sept.	12	68	80125	0.0008	0.9859
Sept.	13	160	80285	0.0020	0.9878
Sept.	14	75	80360	0.0009	0.9888
Sept.	15	118	80478	0.0015	0.9902
Sept.	16	165	80643	0.0020	0.9922
Sept.	17	74	80717	0.0009	0.9931
Sept.	18	23	80740	0.0003	0.9934
Sept.	19	30	80770	0.0004	0.9938
Sept.	20	84	80854	0.0010	0.9948
Sept.	21	26	80880	0.0003	0.9952
Sept.	22	37	80917	0.0005	0.9956
Sept.	23	93	81010	0.0011	0.9968
Sept.	24	88	81098	0.0011	0.9978
Sept.	25	37	81135	0.0005	0.9983

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Appendix E.144. (page 3 of 3).

Date	Daily Count	Cumulative Count	Daily Proportion of Total	Cumulative Proportion of Total
Sept. 26	27	81162	0.0003	0.9986
Sept. 27	16	81178	0.0002	0.9988
Sept. 28	8	81186	0.0001	0.9989
Sept. 29	15	81201	0.0002	0.9991
Sept. 30	9	81210	0.0001	0.9992
Oct. 1	13	81223	0.0002	0.9994
Oct. 2	15	81238	0.0002	0.9996
Oct. 3	13	81251	0.0002	0.9997
Oct. 4	15	81266	0.0002	0.9999
Oct. 5	0	81266	0.0000	0.9999
Oct. 6	0	81266	0.0000	0.9999
Oct. 7	0	81266	0.0000	0.9999
Oct. 8	0	81266	0.0000	0.9999
Oct. 9	0	81266	0.0000	0.9999
Oct. 10	0	81266	0.0000	0.9999
Oct. 11	0	81266	0.0000	0.9999
Oct. 12	1	81267	0.0000	0.9999
Oct. 13	1	81268	0.0000	0.9999
Oct. 14	1	81269	0.0000	0.9999
Oct. 15	0	81269	0.0000	0.9999
Oct. 16	0	81269	0.0000	0.9999
Oct. 17	0	81269	0.0000	0.9999
Oct. 18	1	81270	0.0000	1.0000
Oct. 19	0	81270	0.0000	1.0000
Oct. 20	0	81270	0.0000	1.0000
Oct. 21	0	81270	0.0000	1.0000
Oct. 22	0	81270	0.0000	1.0000
Oct. 23	2	81272	0.0000	1.0000
Oct. 24	1	81273	0.0000	1.0000
Oct. 25	1	81274	0.0000	1.0000

Mean Day of Migration = July 26 Variance = 619.1 Days squared

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