ABUNDANCE, AGE, SEX, AND SIZE STATISTICS FOR PACIFIC SALMON IN BRISTOL BAY, 1997

by

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ABSTRACT

Abundance, age, sex, and size data are summarized for 1997 Bristol Bay commercial catches and spawning escapements of Pacific salmon *Oncorhynchus* as part of an ongoing project to collect baseline information. These data have been used to determine spawner-recruit relationships, establish spawning escapement goals, and forecast future run sizes. Age, sex, and size of sockeye salmon *O. nerka* were estimated with systematic stratified sampling programs. Using age and sex composition data combined with escapement information, sockeye salmon harvests were assigned to river of origin to estimate each river's run. Sampling efforts for other salmon species were limited. In 1997 the total number of sockeye salmon commercially harvested in Bristol Bay was over 12 million fish. Total escapement of sockeye salmon in Bristol Bay for 1997 was over 6 million fish. Age-1.3 and age-2.2 sockeye salmon were the largest returning age groups.

KEY WORDS: Bristol Bay, Pacific salmon, *Oncorhynchus*, catch, escapement, age composition, sex composition, size composition

INTRODUCTION

The Bristol Bay Management Area encompasses all waters east of a line from Cape Newenham to Cape Menshikof (Figure 1). Bristol Bay supports harvests of five species of Pacific salmon including the largest sockeye salmon *Oncorhynchus nerka* fishery in the world.

The area is divided into five fishing districts for the regulation of commercial salmon fisheries: Naknek-Kvichak, Egegik, Ugashik, Nushagak, and Togiak Districts (Figure 1). Naknek-Kvichak, Egegik, and Ugashik Districts are referred to as the Eastside fishery, and Nushagak and Togiak Districts are referred to as the Westside fishery. Rivers that produce major salmon runs include Kvichak, Naknek, Branch, Egegik, Ugashik, Wood, Igushik, Nushagak, and Togiak Rivers. Bristol Bay sockeye salmon are intercepted in the North Alaska Peninsula fishery (Geiger 1989, Swanton and Murphy 1992), and the South Alaska Peninsula June fishery (Gilbert 1924, Gilbert and Rich 1926, Eggers et al. 1988). At this time the magnitude of interceptions of Bristol Bay salmon in other fisheries are unknown.

The Alaska Department of Fish and Game (ADF&G) conducts a variety of programs that supply the information used to manage Bristol Bay salmon fisheries. These programs include (1) compiling catch statistics, (2) sampling catches for age, sex, and size, (3) counting major spawning escapements, and (4) sampling escapements for age, sex, and size. Data generated from these programs are used to manage fisheries in season, establish optimum escapement goals, and forecast future run sizes. This report summarizes 1997 commercial catch, escapement, age, sex, and size data for Bristol Bay salmon. Such data for Bristol Bay salmon have been summarized annually since 1972 (McCurdy and Paulus 1972; Paulus and Nelson 1972a, 1972b; McCurdy and Schroeder 1972; Krasnowski and Randall 1975a, 1975b, 1976; Randall and Yuen 1978; Meacham and Randall 1979; Meacham and Nelson 1980; Yuen et al. 1981; Yuen and Nelson 1983, 1984a, 1984b, 1985, 1987; Yuen and Meacham 1983; Yuen et al. 1984; Yuen 1984; Yuen et al. 1986; Cross and Stratton 1988; Yuen and Bill 1989a, 1989b, 1990; Stratton 1990, 1991; Stratton and Cross 1990; Stratton and Crawford 1992, 1994, Menard 1997, Gray 1998).

METHODS

Catch Estimation

Commercial catches in numbers of salmon by Bristol Bay districts were taken from summaries of *fish tickets*, sales receipts given to fishers by buyers at the time of delivery. The final catch numbers used for

this report were from final fish ticket reports compiled by Keith Weiland, Egegik/Ugashik Area Management Biologist. The number of Bristol Bay sockeye salmon caught in the North Alaska Peninsula fishery is unknown. All sockeye caught during the South Alaska Peninsula fishery around Unimak and Shumagin Islands in June were assumed to be of Bristol Bay origin. A 1987 tagging study (Eggers et al. 1988) indicated that sockeye stocks other than Bristol Bay composed a small percentage of the South Alaska Peninsula harvest.

Escapement Enumeration

Escapements of salmon in Bristol Bay in 1997 were estimated with various methods by the Division of Commercial Fisheries (ADF&G 1998). Sockeye salmon escapement estimates were based on visual counts made from towers erected on the banks of Kvichak, Naknek, Egegik, Ugashik, Wood, Igushik, and Togiak Rivers. In addition, in 1997 there was a counting tower project on the Nuyakuk River operated by ADF&G with assistance from University of Washington personnel. The United States Fish and Wildlife Service (USFWS) Kulukak River counting tower project was not operated in 1997. At all tower projects counts were made daily for 10 min every hour on both river banks. Counting began on one bank at the start of each hour, followed by counting on the opposite bank. Each 10-min count was expanded into an hourly estimate to calculate the total daily escapement. Escapements in Branch and Snake Rivers, as well as various rivers in Egegik, Ugashik, and Togiak Districts, were estimated from aerial surveys of major spawning grounds (Browning, 1998). Side-scanning sonar located in the lower Nushagak River near Portage Creek was used to estimate salmon escapements for the entire Nushagak River drainage (Miller 1998).

Age, Sex, and Size Estimation

Ages for all 1997 Bristol Bay salmon runs were determined by examining scales (Mosher 1968), except ages of sockeye salmon spawning in Branch River were determined from otoliths (Bilton and Jenkinson 1968). European notation (e.g., 2.2; Koo 1962) was used to record ages: numerals preceding the decimal refer to number of freshwater annuli, numerals following the decimal refer to number of marine annuli. Total age from time of egg deposition or brood year is the sum of these numbers plus one.

Scales were collected from the left side of the fish approximately two rows above the lateral line in the area crossed by a diagonal from the posterior insertion of the dorsal fin to the anterior insertion of the anal fin (INPFC 1963). Scales were mounted on gum cards and impressions made on cellulose acetate cards with a heated hydraulic press (Clutter and Whitesel 1956). Salmon were measured to the nearest mm from the

middle-of-the-eye to the fork-of-the-tail. Weights were taken to the nearest 0.1 kg. Sex was determined from external characteristics.

Catch sampling was stratified spatially by district; escapement sampling was stratified by major drainage. The number of time strata sampled differed among fisheries and rivers. District catches of sockeye salmon were usually sampled each fishing period during the emergency order period for 1997, except when fishing periods were greater than 24 h. When this occurred, each district catch was generally sampled every 72 h. For dates not sampled, the age composition of sockeye salmon harvested was assumed to be the same as that estimated for the most recent catch date. Chinook and chum salmon catches were sampled less frequently than sockeye salmon. Coho salmon catches were not sampled.

Sample size goals for sockeye and chinook salmon catches were set at 500 fish per species per stratum. Chum salmon catch sample goals were set at 400 individuals per stratum. Sample size goals for each tower project may be adjusted annually to account for high numbers of unreadable scales encountered the previous year. These goals were selected to ensure that a sufficient sample would be collected, such that with repeated sampling, each major age group in each stratum would be estimated within 5% of its true value 90% of the time, based on Thompson's (1987) work on the "worst-case" parameter value for the multinomial distribution.

Sample size goals for sockeye salmon escapements were set at 200 fish per day, which in practice, was only reached during the peak of the run. Daily age composition estimates were compared, and samples from successive dates were combined into the same time stratum if significant ($\alpha = 0.05$) differences were not found.

Estimation of Sockeye Salmon Catch Composition

Sockeye salmon harvested in Egegik and Ugashik Districts were assumed to be destined for Egegik and Ugashik Rivers, respectively. Similarly, sockeye salmon caught in Togiak River Section of Togiak District were assumed to be destined for Togiak River. Sockeye salmon harvested in other sections of Togiak District were assumed to be returning to systems not monitored for escapement or age composition and were not assigned to Togiak River. All sockeye salmon caught in set gillnets fished from Igushik Beach were included in total run estimates for Igushik River. Sockeye salmon harvested in Naknek-Kvichak District were assumed to be returning to Kvichak, Branch, and Naknek Rivers. Sockeye harvested in Nushagak District were assumed to be returning to Wood, Igushik,and Nushagak Rivers. Sockeye salmon caught in Naknek-Kvichak and Nushagak Districts were assigned to a natal river under the assumption that age and sex proportion within the catch was the same as within the combined escapement:

$$\hat{C}_{ijk} = \hat{C}_{jk} \frac{\hat{E}_{ijk}}{\sum_{i=1}^{n} \hat{E}_{ijk}} \qquad 1$$

where:

$\hat{C}_{ijk}$ = estimated catch of sockeye salmon from river i age j and sex k

$\hat{C}_{jk}$ = estimated district catch sockeye salmon age j and sex k, and

$\hat{E}_{ijk}$ = estimated escapement to river i of sockeye salmon age j and sex k, and

n = number of rivers contributing to the mixed stock catch.

This has been referred to as the standard method (STD).

Recently, run-size estimates for individual Eastside Bristol Bay river systems, Kvichak, Naknek, Egegik, and Ugashik Rivers, have been estimated using scale pattern analyses (SPA; Menard and Miller 1997) and have differed from estimates based on STD.

RESULTS

Bristol Bay Sockeye Run

In 1997 the total number of sockeye salmon commercially harvested in Bristol Bay was 12,158,777 fish, of which 12,107,847 were assigned to river of origin (Table 1). The age, sex and size composition for over 99% of the Bristol Bay catch and escapement were estimated. The 1997 total Bristol Bay sockeye run was comprised primarily of age-2.2 (33.8%) and age-1.3 (25.5%) fish (Table 2). The mean length of all sockeye salmon returning to Bristol Bay in 1997 was 536 mm and the mean weight was 2.54 kg (Table 2). The results from each district are discussed below and the brood year tables are presented in Appendices A.1 - A.9. The brood year tables summarize the total sockeye salmon return from escapement by brood year for nine Bristol Bay river systems. These return-per-spawner data are extremely important in forecasting Bristol Bay sockeye salmon runs.

Naknek-Kvichak District Sockeye Run

The inshore run of sockeye salmon to Naknek-Kvichak District, which included catch and escapements estimated to Kvichak, Branch, and Naknek Rivers, was 3,336,822 (Table 1). Age-1.2 sockeye salmon were the predominant (35.2%) age group; ages 2.2 (23.9%), 1.3 (23.7%), and 2.3 (14.6%) followed in abundance. An estimated 1,683,212 Kvichak River sockeye salmon returned to Bristol Bay: 179,480 were caught and 1,503,732 escaped to spawn (Table 1). Age-1.2 sockeye salmon accounted for 46.8% of the run, or 787,808 fish.

Of the 244,456 Branch River sockeye salmon that returned to Bristol Bay, 26,341 were harvested and 218,115 escaped to spawn (Table 1). Sockeye salmon returning to Branch River were primarily age 1.2 (48.0%), 1.3 (27.5%), and 2.2 (24.1%).

The estimated total inshore run to Naknek River was 1,409,154 sockeye salmon, of which 383,490 were harvested and 1,025,664 escaped the fishery (Table 1). The total inshore run to Naknek River was comprised mostly (36.3%) of age-1.3 sockeye salmon.

The Naknek-Kvichak commercial catch of 589,312 sockeye salmon was composed of 31.7% age-1.3, 23.8% age-1.2, 21.8% age-2.3, and 20.0% age-2.2 fish (Table 3). Mean length of sockeye salmon harvested was 554 mm and mean weight was 2.79 kg.

The 1,503,732 sockeye salmon escaping into the Kvichak River were primarily (48.8%; 734,035) age-1.2 fish (Table 4). Mean length of sockeye salmon in the escapement was 537 mm.

An estimated 1,025,664 sockeye salmon entered the Naknek River of which 372,517 (36.3%) were age 1.3 fish (Table 5). Overall, age-.3 sockeye salmon accounted for 58.8% and age-.2 accounted for 35.1% of the escapement in Naknek River. Sockeye salmon escaping into Naknek River were on average 545 mm long.

Egegik District Sockeye Run

Inshore catch and escapement of Egegik River sockeye salmon totaled 8,621,393 (Table 1). Age-2.2 sockeye salmon composed most (51.9%) of the run, followed by 28.7% age-2.3, 12.0% age-1.3, and 5.3% age-1.2 fish. The commercial fishery harvested 7,517,389 sockeye salmon, which were predominantly age 2.2 (49.8%) and age 2.3 (29.6%). Mean length in the catch was 548 mm and mean weight was 2.7 kg (Table 6).

An estimated 1,103,964 sockeye salmon escaped into the Egegik River. The escapement was comprised mostly of age-2.2 (67.0%) and age-2.3 (23.0%). Mean length of sockeye salmon in the escapement was 518 mm (Table 7).

Ugashik District Sockeye Run

An estimated 2,059,331 Ugashik River sockeye salmon returned to Bristol Bay: 68.1% were caught and 31.9% escaped to spawn (Table 1). Most sockeye salmon returning to Ugashik River were age 2.2 (44.4%), age 1.3 (26.9%), age 2.3 (15.0%), and age 1.2 (11.9%). The commercial fishery harvested 1,402,690 sockeye salmon; their mean length was 557 mm, and mean weight was 2.73 kg (Table 8). Mean length of the 618,396 sockeye salmon escaping into Ugashik River was 520 mm (Table 9). Overall, age-.2 sockeye salmon accounted for 64.6% of the escapement in Ugashik River (Table 9).

Nushagak District Sockeye Run

The inshore run of sockeye salmon to Nushagak District, which included catch and escapements to the Wood, Igushik, and Nushagak Rivers, was estimated at 4,519,953 (Table 1). Age-1.3 (50.7%), and -1.2 (39.1%) sockeye salmon composed most of the sampled run.

Of the estimated 3,365,437 inshore run of sockeye salmon bound for Wood River, 1,853,041 were caught and 1,512,396 escaped to spawn (Table 1). Age-1.2 sockeye salmon composed 53.3% of the Wood River inshore run and age-1.3 fish composed 41.0%.

An estimated 290,947 Igushik River sockeye salmon returned to Bristol Bay: 163,243 were harvested and 127,704 escaped into the river (Table 1). The 1997 Igushik River sockeye salmon inshore run was 47.3% age-1.3 and 41.9% age-1.2

Of the estimated 863,569 sockeye salmon that returned to Nushagak River, 490,534 were caught and 373,035 escaped (Table 1). Sockeye salmon returning to Nushagak River were mostly ages 1.3 (70.0%) and 1.4 (14.9%).

The 2,477,931 Nushagak District catch, excluding Igushik Beach setnets, was composed of 54.0% age-1.3, and 34.3% age-1.2 sockeye salmon. Mean length of sockeye salmon in the Nushagak District catch, excluding Igushik setnets, was 539 mm and mean weight was 2.71 kg (Table 10). Igushik Beach setnets caught 28,887 sockeye salmon. No samples were taken from the Igushik beach set net catch in 1997.

The 1,512,396 sockeye salmon escaping into Wood River were primarily (53.3%) age-1.2 fish (Table 11). Mean length of the sockeye salmon escapement was 523 mm.

An estimated 127,704 sockeye salmon entered the Igushik River of which 62,588 (49.0%) were age-1.2 fish and 54,929 (43.0%) were age-1.3 fish (Table 12). Sockeye salmon escaping into the Igushik River were on average 535 mm long.

Age-1.3 (71.4%) and age-1.4 (13.5%) sockeye salmon accounted for most of the escapement into the Nushagak River (Table 13). Mean length of the sockeye salmon escapement was 558 mm.

Concerns about escapement to the Nushagak River drainage in the 1990s resulted in initiating, after a six-year suspension, the Nuyakuk River counting tower project in 1995 and continuing in 1996 and 1997. Sampling was done by Fisheries Research Institute personnel from University of Washington. Age composition of the 272,982 escaping sockeye salmon was predominantly age-1.3 (77.1%) and age-1.2 (16.1%) fish (Table 14).

Togiak District Sockeye Run

An estimated 243,862 Togiak River sockeye salmon returned to Bristol Bay: 37.6% were caught and 62.4% escaped into the river (Table 1). Of the 91,640 sockeye salmon harvested from Togiak River Section, most (64.0%) were age 1.3 (Table 15). Mean length of sockeye salmon in Togiak River Section catch was 567 mm; mean weight was 3.28 kg. Kulukak Section fishers caught 47,979 sockeye salmon; age-1.3 fish composed 68.5% of the harvest (Table 16). Mean length of sockeye salmon in the Kulukak Section catch was 567 mm and mean weight was 3.2 kg. Escapement into Togiak Lake was estimated to be 131,598 sockeye salmon (Table 17), and an additional 20,625 were counted in the mainstem and tributaries below the counting towers. Most sockeye salmon in the escapement were age 2.2 (37.1%), age 1.3 (29.9%), and age 1.4 (17.5%). Mean length of sockeye salmon in the Togiak River escapement was 549 mm.

Bristol Bay Chinook Run

In 1997 the total number of chinook salmon commercially harvested in Bristol Bay was 76,589 fish (ADF&G 1998). Most (70,222) were caught in the Westside (Nushagak and Togiak Districts) fishery. The age and size composition for Nushagak District and Togiak River Section catches, 91.7% of the Bristol Bay catch, and escapement to the Nushagak River were estimated.

Nushagak District Chinook Run

An estimated 64,156 chinook salmon were caught in Nushagak District with age 1.4 (40.3%), age 1.3 (34.3%), and age 1.2 (24.7%) accounting for most of the catch sample (Table 18). Mean length of the chinook salmon in the catch was 743 mm; mean weight was 8.49 kg. An estimated 40,705 chinook salmon passed the Nushagak River sonar site (Table 19). The escapement sample was composed of 37.8% age-1.2, 31.6% age-1.4 and 29.3% age-1.3 fish. Mean length of chinook salmon in the escapement was 724 mm.

Togiak District Chinook Run

Of the 6,066 chinook salmon caught in Togiak District, most (5,357) were harvested in Togiak River Section (Table 20). Age-1.2 (47.4%), age-1.3 (31.2%), and age-1.4 (20.0%) chinook salmon dominated the Togiak River Section catch. Mean length of chinook salmon in the catch was 683 mm; mean weight was 8.38 kg.

Bristol Bay Chum Run

In 1997 the total number of chum salmon commercially harvested in Bristol Bay was 317,575 fish (ADF&G 1998). Most (232,905) were caught in the Westside fishery. The age, sex, and size composition for Nushagak District and Togiak River Section catches, 73.3% of the Bristol Bay catch, and escapement to the Nushagak River was estimated.

Nushagak District Chum Run

An estimated 185,620 chum salmon were caught in Nushagak District. Age-0.3 (69.5%) and age-0.4 (29.3%) chum salmon dominated the catch (Table 21). Mean length of the chum salmon in the catch was 561 mm; mean weight was 2.9 kg. An estimated 61,456 chum salmon passed the Nushagak River sonar site (Table 22). The escapement sample (n=147) was composed of 51.7% age-0.3, and 48.3% age-0.4, fish. Mean length of chum salmon in the escapement was 579 mm.

Togiak District Chum Run

Of the 47,285 chum salmon caught in Togiak District, most (35,362) were harvested in Togiak River Section (Table 23). Age-0.4 (56.3%), and age-0.3 (42.1%), chum salmon composed the Togiak River Section catch. Mean length of chum salmon commercially harvested was 580 mm; mean weight was 3.26 kg

Bristol Bay Coho Run

The total number of coho salmon commercially harvested in Bristol Bay was 50,424 fish (ADF&G 1998). Most (35,470) were caught in Egegik District. No coho salmon catches were sampled.

Nushagak District Coho Run

An estimated 4,110 coho salmon were harvested in Nushagak District. An estimated 57,096 coho salmon passed the Nushagak River sonar site (Table 24). The escapement sample (n=166) was composed of 92.2% age-2.1 and 4.8% age-1.1 fish. Mean length of coho salmon in the escapement was 583 mm.

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Table 1. Bristol Bay sockeye salmon run, 1997.

		Age Group															
System[a]		0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	3.4	Total
Kvichak	C	-	-	790	53,773	-	108	35,974	53,845	-	705	33,841	190	64	190	-	179,480
	E	-	2,570	-	734,035	1,210	-	173,943	457,690	-	5,268	127,933	-	1,083	-	-	1,503,732
	I	-	2,570	790	787,808	1,210	108	209,917	511,535	-	5,973	161,774	190	1,147	190	-	1,683,212
	S	-	21	214	64,599	55	7	16,382	55,276	-	135	8,394	40	14	6	-	145,143
	T	-	2,591	1,004	852,407	1,265	115	226,299	566,811	-	6,108	170,168	230	1,161	196	-	1,828,355
Branch	C	-	390	115	8,007	-	17	11,538	6,214	-	-	-	30	-	30	-	26,341
	E	-	394	-	109,289	-	-	55,794	52,638	-	-	-	-	-	-	-	218,115
	I	-	784	115	117,296	-	17	67,332	58,852	-	-	-	30	-	30	-	244,456
	S	-	6	31	9,618	-	1	5,255	6,359	-	-	-	6	-	1	-	21,277
	T	-	790	146	126,914	-	18	72,587	65,211	-	-	-	36	-	31	-	265,733
Naknek	C	-	-	1,192	78,493	-	108	139,542	57,825	-	9,469	94,779	191	1,700	191	-	383,490
	E	-	5,605	-	192,038	11,234	-	372,517	167,879	801	34,829	230,847	-	9,914	-	-	1,025,664
	I	-	5,605	1,192	270,531	11,234	108	512,059	225,704	801	44,298	325,626	191	11,614	191	-	1,409,154
	S	-	45	323	22,183	515	7	39,962	24,389	118	1,005	16,896	40	144	6	-	105,633
	T	-	5,650	1,515	292,714	11,749	115	552,021	250,093	919	45,303	342,522	231	11,758	197	-	1,514,787
Egegik	C	312	799	7,792	441,044	-	2,843	986,807	3,739,609	-	44,922	2,224,947	14,370	26,653	27,291	-	7,517,389
	E	-	6,791	-	18,075	29,489	-	49,726	739,139	2,078	1,023	253,575	1,023	1,473	1,612	-	1,104,004
	I	312	7,590	7,792	459,119	29,489	2,843	1,036,533	4,478,748	2,078	45,945	2,478,522	15,393	28,126	28,903	-	8,621,393
	S	1,118	62	2,109	37,647	1,352	179	80,892	483,965	305	1,042	128,603	3,233	348	839	-	741,694
	T	1,430	7,652	9,901	496,766	30,841	3,022	1,117,425	4,962,713	2,383	46,987	2,607,125	18,626	28,474	29,742	-	9,363,087
Ugashik	C	-	-	1,361	117,137	-	802	405,278	617,199	-	12,942	246,355	-	1,616	-	-	1,402,690
	E	-	11,977	511	127,656	6,671	-	148,602	296,766	-	908	63,550	-	-	-	-	656,641
	I	-	11,977	1,872	244,793	6,671	802	553,880	913,965	-	13,850	309,905	-	1,616	-	-	2,059,331
	S	-	97	507	20,073	306	51	43,226	98,760	-	314	16,080	-	20	-	-	179,434
	T	-	12,074	2,379	264,866	6,977	853	597,106	1,012,725	-	14,164	325,985	-	1,636	-	-	2,238,765
Wood	C	-	-	1,261	778,763	-	1,617	932,504	45,492	-	43,638	48,903	-	391	472	-	1,853,041
	E	-	9,818	885	806,673	-	-	620,139	35,953	-	20,230	18,698	-	-	-	-	1,512,396
	I	-	9,818	2,146	1,585,436	-	1,617	1,552,643	81,445	-	63,868	67,601	-	391	472	-	3,365,437
	S	-	80	581	130,003	-	102	121,169	8,801	-	1,449	3,508	-	5	14	-	265,712
	T	-	9,898	2,727	1,715,439	-	1,719	1,673,812	90,246	-	65,317	71,109	-	396	486	-	3,631,149
Igushik	C	-	-	387	59,274	-	142	82,567	3,777	-	3,102	13,953	-	-	41	-	163,243
	E	-	-	158	62,588	-	-	54,929	3,195	-	1,305	5,529	-	-	-	-	127,704
	I	-	-	545	121,862	-	142	137,496	6,972	-	4,407	19,482	-	-	41	-	290,947
	S	-	-	148	9,992	-	9	10,730	753	-	100	1,011	-	-	1	-	22,744
	T	-	-	693	131,854	-	151	148,226	7,725	-	4,507	20,493	-	-	42	-	313,691
Nuyakuk		-	-	3,346	43,983	-	-	210,355	1,434	-	12,908	956	-	-	-	-	272,982
Nush-Mul	C	-	-	21,113	27,134	-	9,926	336,039	4,333	-	78,184	12,382	-	1,271	152	-	490,534
	E	-	396	12,472	31,376	-	396	266,448	3,575	-	50,313	5,518	-	2,541	-	-	373,035
	I	-	396	33,585	58,510	-	10,322	602,487	7,908	-	128,497	17,900	-	3,812	152	-	863,569
	S	-	3	9,091	4,798	-	650	47,019	855	-	2,915	929	-	47	4	-	66,311
	T	-	399	42,676	63,308	-	10,972	649,506	8,763	-	131,412	18,829	-	3,859	156	-	929,880
Togiak	C	-	-	1,395	13,592	-	561	58,676	2,958	-	7,179	7,227	-	51	-	-	91,639
	E	237	237	1,725	45,516	-	-	56,422	26,699	-	786	20,287	-	314	-	-	152,223
	I	237	237	3,120	59,108	-	561	115,098	29,657	-	7,965	27,514	-	365	-	-	243,862
	S	850	2	845	4,847	-	35	8,980	3,205	-	181	1,428	-	5	-	-	20,378
	T	1,087	239	3,965	63,955	-	596	124,078	32,862	-	8,146	28,942	-	370	-	-	264,240
Summary	C	312	1,189	35,406	1,577,217	-	16,124	2,988,925	4,531,252	-	200,141	2,682,387	14,781	31,746	28,367	-	12,107,847
	E	237	37,788	15,751	2,127,246	48,604	396	1,798,520	1,783,534	2,879	114,662	725,937	1,023	15,325	1,612	-	6,673,514
	I	549	38,977	51,157	3,704,463	48,604	16,520	4,787,445	6,314,786	2,879	314,803	3,408,324	15,804	47,071	29,979	-	18,781,361
	S	1,968	316	13,849	303,760	2,228	1,041	373,615	682,363	423	7,141	176,849	3,319	583	871	-	1,568,326
	T	2,517	39,293	65,006	4,008,223	50,832	17,561	5,161,060	6,997,149	3,302	321,944	3,585,173	19,123	47,654	30,850	-	20,349,687

[a] C = Catch, E = Escapement, I = Inshore Return, S = South Peninsula Catch, and T = Total. Egegik escapement includes King Salmon River; Ugashik escapement includes King Salmon and Dog Salmon Rivers; Togiak catch is Togiak River Section only and Togiak escapement includes the tower counts, and lower river and tributaries aerial survey estimate. Nuyakuk escapement is not totaled because it is a tributary of Nushagak.

Table 2. Age, sex, and size (length in mm and weight in kg) composition of sockeye salmon commercial catch and escapement, Bristol Bay, 1997.

	Age Group														
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	Total
Males															
Percent	0	0.16	0.16	10.10	0.25	0.06	14.02	17.26	0.02	0.89	9.57	0.03	0.12	0.08	52.71
Sample Size	1	47	73	2,777	77	19	4,379	3,196	5	315	1,949	7	32	11	12,888
Mean Length	420	348	548	497	361	606	569	526	356	573	591	511	598	615	543
Std. Error		3	5	1	8	12	1	1	4	2	1	6	4	15	0
Sample Size	1	47	71	2,642	77	19	4,211	3,159	5	292	1,915	7	32	11	12,489
Mean Weight			2.75	2.07		4	3.08	2.35		3.51	3.39	2.4	3.7	2.84	2.7
Std. Error			0.15	0.03			0.04	0.04		0.13	0.05		0.14		0.01
Sample Size			6	378		2	638	404		38	276	1	8	1	1,752
Females															
Percent	0	0.05	0.12	9.21	0.01	0.03	11.43	16.52		0.81	8.84	0.06	0.14	0.08	47.29
Sample Size	1	8	62	2,465	2	10	3,746	3,314		294	1,770	7	28	13	11,720
Mean Length	560	362	535	491	400	592	551	508		568	573	493	590	563	528
Std. Error		5	7	1	23	15	1	1		2	1	7	7	4	0
Sample Size	1	8	61	2,413	2	10	3,647	3,286		280	1,751	7	28	13	11,507
Mean Weight		0.59	2.8	1.91		3.54	2.78	2.01		2.76	2.95		3.36	3.11	2.37
Std. Error			0.04	0.03			0.03	0.03		0.11	0.05				0.01
Sample Size		1	10	212		1	506	353		26	233		4	4	1,350
Both Sexes															
Percent	0	0.20	0.28	19.31	0.26	0.09	25.46	33.78	0.02	1.70	18.41	0.09	0.25	0.16	100.00
Sample Size	2	55	135	5,242	79	29	8,125	6,510	5	609	3,719	14	60	24	24,608
Mean Length	475	351	542	494	362	602	561	517	356	571	582	499	594	588	536
Std. Error		2	4	1	7	10	0	0	4	1	1	4	4	9	0
Sample Size	2	55	132	5,055	79	29	7,858	6,445	5	572	3,666	14	60	24	23,996
Mean Weight		0.59	2.77	1.99		3.99	2.95	2.18		3.25	3.18	2.4	3.49	3.04	2.54
Std. Error			0.04	0.02			0.02	0.02		0.12	0.03		0.14		0.01
Sample Size		1	16	590		3	1,144	757		64	509	1	12	5	3,102

Table 3. Age, sex, and size (length in mm and weight in kg) composition of sockeye salmon commercial catch, Naknek-Kvichak District, 1997.

	Age Group											
	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Sample Period 1: June 9 - June 28												
Males		195	9,351		18,897	11,104	390	13,637		195		53,769
Percent		0.17	8.28		16.72	9.83	0.35	12.07		0.17		47.59
Sample Size		1	48		97	57	2	70		1		276
Mean Length		497	521		577	541	577	592		604		563
Std. Error			6		4	6	32	3				2
Sample Size		1	47		97	57	2	70		1		275
Mean Weight			2.39		3.1	3.11		3.43				3.06
Std. Error			0.24		0.15	0.47		0.22				0.13
Sample Size			7		21	7		12				47
Females	390	390	14,027		15,194	13,247	584	15,001		390		59,223
Percent	0.35	0.35	12.41		13.45	11.72	0.52	13.28		0.35		52.41
Sample Size	2	2	72		78	68	3	77		2		304
Mean Length	328	545	495		556	513	600	565		586		533
Std. Error	1	4	5		4	5	10	3		46		2
Sample Size	2	2	72		78	68	3	77		2		304
Mean Weight	0.59	2.46	1.76		2.85	2.32		2.88				2.46
Std. Error			0.16		0.13	0.16		0.11				0.07
Sample Size	1	1	10		21	14		17				64
Both Sexes	390	585	23,378		34,091	24,351	974	28,638		585		112,992
Percent	0.35	0.52	20.69		30.17	21.55	0.86	25.35		0.52		100.00
Sample Size	2	3	120		175	125	5	147		3		580
Mean Length	328	529	505		568	526	591	578		592		548
Std. Error	1	4	4		3	4	14	2		46		1
Sample Size	2	3	119		175	125	5	147		3		579
Mean Weight	0.59	2.46	2.01		2.99	2.68		3.14				2.75
Std. Error			0.14		0.1	0.23		0.12				0.07
Sample Size	1	1	17		42	21		29				111
Sample Period 2: June 29 - June 30												
Males		466	9,560		11,658	10,493	700	11,659		233		44,769
Percent		0.45	9.26		11.29	10.16	0.68	11.29		0.23		43.34
Sample Size		2	41		50	45	3	50		1		192
Mean Length		541	519		597	551	641	606		606		572
Std. Error		29	5		4	5	7	3				2
Sample Size		2	41		50	45	3	50		1		192
Mean Weight			2.29		3.91	2.65		3.86				3.23
Std. Error			0.12		0.16	0.09		0.18				0.07
Sample Size			9		11	8		11				39
Females		233	10,026	233	17,955	14,690	466	14,690		233		58,526
Percent		0.23	9.71	0.23	17.38	14.22	0.45	14.22		0.23		56.66
Sample Size		1	43	1	77	63	2	63		1		251
Mean Length		569	510	550	576	533	616	587		595		557
Std. Error			5		3	4	10	3				2
Sample Size		1	43	1	77	63	2	63		1		251
Mean Weight			2		3.08	2.33	4.2	3.22				2.75
Std. Error			0.17		0.16	0.14		0.13				0.08
Sample Size			9		10	13	1	14				47
Both Sexes		699	19,586	233	29,613	25,183	1,166	26,349		466		103,295
Percent		0.68	18.96	0.23	28.67	24.38	1.13	25.51		0.45		100.00
Sample Size		3	84	1	127	108	5	113		2		443
Mean Length		550	514	550	584	541	631	595		601		563
Std. Error		29	3		2	3	6	2				1
Sample Size		3	84	1	127	108	5	113		2		443
Mean Weight			2.14		3.41	2.46	4.2	3.5				2.96
Std. Error			0.11		0.11	0.09		0.11				0.05
Sample Size			18		21	21	1	25				86

- Continued -

Table 3. (p 2 of 4)

	Age Group											
	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Sample Period 3: July 1 - July 8												
Males		411	18,502		29,604	11,923	1,233	23,025	411			85,109
Percent		0.24	10.95		17.52	7.06	0.73	13.63	0.24			50.37
Sample Size		1	45		72	29	3	56	1			207
Mean Length		594	530		599	552	639	610	533			581
Std. Error			6		4	8	19	4				3
Sample Size		1	45		72	29	3	56	1			207
Mean Weight			2.78		3.42	2.79		3.91				3.32
Std. Error			0.14		0.16	0.37		0.22				0.1
Sample Size			9		17	6		10				42
Females			14,390		31,247	17,680	2,056	18,091			411	83,875
Percent			8.52		18.49	10.46	1.22	10.71			0.24	49.63
Sample Size			35		76	43	5	44			1	204
Mean Length			522		579	539	618	583			595	562
Std. Error			5		3	5	17	5				2
Sample Size			35		76	43	5	44			1	204
Mean Weight			2.03		2.87	2.89	3.1	2.73			3.42	2.71
Std. Error			0.21		0.11	0.21	0.39	0.15				0.08
Sample Size			4		14	9	2	10			1	40
Both Sexes		411	32,892		60,851	29,603	3,289	41,116	411		411	168,984
Percent		0.24	19.46		36.01	17.52	1.95	24.33	0.24		0.24	100.00
Sample Size		1	80		148	72	8	100	1		1	411
Mean Length		594	527		589	544	626	598	533		595	572
Std. Error			4		3	5	13	3				2
Sample Size		1	80		148	72	8	100	1		1	411
Mean Weight			2.45		3.14	2.85	3.1	3.39			3.42	3.01
Std. Error			0.12		0.1	0.2	0.39	0.14				0.07
Sample Size			13		31	15	2	20			1	82
Sample Period 4: July 9 - July 13												
Males			10,034		8,401	3,851	817	2,917		117		26,137
Percent			18.34		15.35	7.04	1.49	5.33		0.21		47.76
Sample Size			86		72	33	7	25		1		224
Mean Length			493		572	498	612	581		610		533
Std. Error			4		4	7	8	6				2
Sample Size			86		72	33	7	25		1		224
Mean Weight			2.16		3.52	2.17		3.4				2.76
Std. Error			0.12		0.14	0.17		0.4				0.09
Sample Size			18		15	11		4				48
Females			9,452		8,285	6,651	233	3,967				28,588
Percent			17.27		15.14	12.15	0.43	7.25				52.24
Sample Size			81		71	57	2	34				245
Mean Length			490		548	503	598	553				520
Std. Error			3		3	4	23	5				2
Sample Size			81		71	57	2	34				245
Mean Weight			1.94		2.55	2.05	2.95	2.81				2.27
Std. Error			0.07		0.17	0.1		0.14				0.06
Sample Size			14		12	12	1	6				45
Both Sexes			19,486		16,686	10,502	1,050	6,884		117		54,725
Percent			35.61		30.49	19.19	1.92	12.58		0.21		100.00
Sample Size			167		143	90	9	59		1		469
Mean Length			492		560	501	609	565		610		526
Std. Error			2		3	4	8	4				1
Sample Size			167		143	90	9	59		1		469
Mean Weight			2.05		3.04	2.09	2.95	3.06				2.5
Std. Error			0.07		0.11	0.09		0.19				0.05
Sample Size			32		27	23	1	10				93

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Table 3. (p 3 of 4)

	Age Group											
	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Sample Period 5: July 14 - July 16												
Males		83	7,297		5,805	3,317	415	4,064		166		21,147
Percent		0.21	18.88		15.02	8.58	1.07	10.52		0.43		54.72
Sample Size		1	88		70	40	5	49		2		255
Mean Length		535	504		566	507	607	560		615		535
Std. Error			3		3	6	7	5		35		2
Sample Size		1	87		69	40	5	49		2		253
Mean Weight			2.07		2.97	2.06		2.95		3.73		2.51
Std. Error			0.09		0.11	0.15		0.18		0.98		0.06
Sample Size			15		15	7		7		2		46
Females			5,142		5,555	3,649	498	2,654				17,498
Percent			13.31		14.37	9.44	1.29	6.87				45.28
Sample Size			62		67	44	6	32				211
Mean Length			499		543	496	562	548				522
Std. Error			5		3	4	19	4				2
Sample Size			62		67	44	6	32				211
Mean Weight			2.1		2.83	1.86		2.58				2.36
Std. Error			0.16		0.16	0.09		0.52				0.11
Sample Size			11		15	10		2				38
Both Sexes		83	12,439		11,360	6,966	913	6,718		166		38,645
Percent		0.21	32.19		29.40	18.03	2.36	17.38		0.43		100.00
Sample Size		1	150		137	84	11	81		2		466
Mean Length		535	502		555	501	582	555		615		529
Std. Error			3		2	3	11	4		35		1
Sample Size		1	149		136	84	11	81		2		464
Mean Weight			2.08		2.9	1.96		2.8		3.73		2.44
Std. Error			0.08		0.1	0.09		0.23		0.98		0.06
Sample Size			26		30	17		9		2		84
Sample Period 6: July 17 - August 1												
Males			14,361		9,894	6,064	319	7,660				38,298
Percent			23.44		16.15	9.90	0.52	12.50				62.50
Sample Size			45		31	19	1	24				120
Mean Length												
Std. Error												
Sample Size												
Mean Weight			2.35		3.39	2.08		3.04				2.72
Std. Error			0.11		0.15	0.1		0.25				0.08
Sample Size			17		9	9		10				45
Females		319	4,787		7,341	5,745	957	3,830				22,979
Percent		0.52	7.81		11.98	9.38	1.56	6.25				37.50
Sample Size		1	15		23	18	3	12				72
Mean Length												
Std. Error												
Sample Size												
Mean Weight			1.9		2.87	2.06		2.95				2.46
Std. Error			0.21		0.14	0.09		0.25				0.08
Sample Size			3		7	5		2				17
Both Sexes		319	19,148		17,235	11,809	1,276	11,490				61,277
Percent		0.52	31.25		28.13	19.27	2.08	18.75				100.00
Sample Size												
Mean Length												
Std. Error												
Sample Size												
Mean Weight			2.24		3.17	2.07		3.01				2.62
Std. Error			0.1		0.11	0.07		0.18				0.06
Sample Size			20		16	14		12				62

- Continued -

Table 3. (p 4 of 4)

	Age Group											
	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
All Periods Combined:												
Males		1,155	76,638		93,299	51,595	4,627	66,728	411	1,141		295,594
Percent		0.20	13.00		15.83	8.76	0.79	11.32	0.07	0.19		50.16
Sample Size		5	423		476	268	28	309	1	9		1,519
Mean Length		552	418		523	474	569	529	533	601		490
Std. Error		29	2		2	3	10	2		15		1
Sample Size		5	376		443	249	27	285	1	9		1,395
Mean Weight			2.39		3.37	2.61	4.4	3.6		3.73		3.03
Std. Error			0.06		0.07	0.14		0.1		0.98		0.04
Sample Size			95		104	55	1	59		2		316
Females	390	942	63,635	233	93,756	66,289	5,547	61,892		623	411	293,718
Percent	0.07	0.16	10.80	0.04	15.91	11.25	0.94	10.50		0.11	0.07	49.84
Sample Size	2	4	362	1	468	336	28	296		3	1	1,501
Mean Length	328	366	465	550	522	477	502	539		589	595	502
Std. Error	1	4	2		1	2	8	2		46		1
Sample Size	2	3	347	1	445	318	25	284		3	1	1,429
Mean Weight	0.59	2.46	1.93		2.84	2.38	3.25	2.89			3.42	2.55
Std. Error			0.07		0.06	0.07	0.31	0.07				0.03
Sample Size	1	1	56		94	69	6	63			1	291
Both Sexes	390	2,097	140,273	233	187,055	117,884	10,174	128,620	411	1,764	411	589,312
Percent	0.07	0.36	23.80	0.04	31.74	20.00	1.73	21.83	0.07	0.30	0.07	100.00
Sample Size	2	8	725	1	890	567	52	569	1	12	1	2,828
Mean Length	328	552	509	550	576	529	609	586	533	597	595	554
Std. Error	1	16	2		1	2	6	1		20		1
Sample Size	2	8	723	1	888	567	52	569	1	12	1	2,824
Mean Weight	0.59	2.46	2.18		3.1	2.48	3.46	3.26		3.73	3.42	2.79
Std. Error			0.04		0.04	0.07	0.31	0.06		0.98		0.03
Sample Size	1	1	151		198	124	7	122		2	1	607

Table 4. Age, sex, and size (length in mm and weight in kg) composition of sockeye salmon escapement, Kvichak River, 1997.

	Age Group								
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 1: June 24 - July 7									
Males		61,734	1,210	42,367	65,367		31,472		202,150
Percent		14.05	0.28	9.64	14.88		7.16		46.01
Sample Size		51	1	35	54		26		167
Mean Length		518	310	613	543		603		558
Std. Error		6		4	5		6		3
Sample Size		51	1	35	54		26		167
Females		84,734		53,261	79,892	1,210	18,157		237,254
Percent		19.28		12.12	18.18	0.28	4.13		53.99
Sample Size		70		44	66	1	15		196
Mean Length		523		589	531	612	580		545
Std. Error		4		4	4		9		2
Sample Size		70		44	66	1	15		196
Both Sexes		146,468	1,210	95,628	145,259	1,210	49,629		439,404
Percent		33.33	0.28	21.76	33.06	0.28	11.29		100.00
Sample Size		121	1	79	120	1	41		363
Mean Length		521	310	600	536	612	594		551
Std. Error		3		3	3		5		2
Sample Size		121	1	79	120	1	41		363
Sample Period 2: July 8 - July 12									
Males	1,487	172,529		25,284	113,036		40,157		352,493
Percent	0.21	24.63		3.61	16.14		5.73		50.32
Sample Size	1	116		17	76		27		237
Mean Length	334	532		596	546		605		549
Std. Error		3		6	4		6		2
Sample Size	1	116		17	76		27		237
Females		196,325		23,797	104,112	2,975	20,822		348,031
Percent		28.03		3.40	14.86	0.42	2.97		49.68
Sample Size		132		16	70	2	14		234
Mean Length		512		571	522	606	579		524
Std. Error		3		8	4	17	9		2
Sample Size		132		16	70	2	14		234
Both Sexes	1,487	368,854		49,081	217,148	2,975	60,979		700,524
Percent	0.21	52.65		7.01	31.00	0.42	8.70		100.00
Sample Size	1	248		33	146	2	41		471
Mean Length	334	521		584	535	606	596		536
Std. Error		2		5	3	17	5		2
Sample Size	1	248		33	146	2	41		471

- Continued -

Table 4. (p 2 of 2)

	Age Group								
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 3: July 13 - July 23									
Males	1,083	99,612		16,241	54,138		10,828	1,083	182,985
Percent	0.30	27.38		4.46	14.88		2.98	0.30	50.30
Sample Size	1	92		15	50		10	1	169
Mean Length	437	514		553	530		590	530	526
Std. Error		4		13	4		12		3
Sample Size	1	92		15	50		10	1	169
Females		119,101		12,993	41,145	1,083	6,497		180,819
Percent		32.74		3.57	11.31	0.30	1.79		49.70
Sample Size		110		12	38	1	6		167
Mean Length		506		557	517	575	550		514
Std. Error		3		13	5		17		2
Sample Size		110		12	38	1	6		167
Both Sexes	1,083	218,713		29,234	95,283	1,083	17,325	1,083	363,804
Percent	0.30	60.12		8.04	26.19	0.30	4.76	0.30	100.00
Sample Size	1	202		27	88	1	16	1	336
Mean Length	437	510		555	524	575	575	530	520
Std. Error		2		9	3		10		2
Sample Size	1	202		27	88	1	16	1	336
All Periods Combined:									
Males	2,570	333,875	1,210	83,892	232,541		82,457	1,083	737,628
Percent	0.17	22.20	0.08	5.58	15.46		5.48	0.07	49.05
Sample Size	2	259	1	67	180		63	1	573
Mean Length	377	524	310	597	541		602	530	546
Std. Error		2		4	3		4		1
Sample Size	2	259	1	67	180		63	1	573
Females		400,160		90,051	225,149	5,268	45,476		766,104
Percent		26.61		5.99	14.97	0.35	3.02		50.95
Sample Size		312		72	174	4	35		597
Mean Length		512		580	524	601	575		528
Std. Error		2		4	2	17	6		1
Sample Size		312		72	174	4	35		597
Both Sexes	2,570	734,035	1,210	173,943	457,690	5,268	127,933	1,083	1,503,732
Percent	0.17	48.81	0.08	11.57	30.44	0.35	8.51	0.07	100.00
Sample Size	2	571	1	139	354	4	98	1	1,170
Mean Length	377	518	310	588	533	601	593	530	537
Std. Error		1		3	2	17	3		1
Sample Size	2	571	1	139	354	4	98	1	1,170

Table 5. Age, sex, and size (length in mm and weight in kg) composition of sockeye salmon escapement, Naknek River, 1997.

	Age Group									
	1.1	1.2	2.1	1.3	2.2	3.1	1.4	2.3	2.4	Total
Sample Period 1: June 22 - July 6										
Males	5,605	48,844	7,207	77,670	44,040	801	4,804	43,239	801	233,011
Percent	1.31	11.40	1.68	18.13	10.28	0.19	1.12	10.09	0.19	54.39
Sample Size	7	61	9	97	55	1	6	54	1	291
Mean Length	334	469	368	592	499	363	616	593	626	535
Std. Error	3	5	18	3	8		9	4		2
Sample Size	7	61	9	97	55	1	6	54	1	291
Females		26,424		76,069	31,228		7,207	52,047	2,402	195,377
Percent		6.17		17.76	7.29		1.68	12.15	0.56	45.61
Sample Size		33		95	39		9	65	3	244
Mean Length		490		567	495		592	579	595	550
Std. Error		6		2	5		7	3	11	2
Sample Size		33		94	39		9	65	3	243
Both Sexes	5,605	75,268	7,207	153,739	75,268	801	12,011	95,286	3,203	428,388
Percent	1.31	17.57	1.68	35.89	17.57	0.19	2.80	22.24	0.75	100.00
Sample Size	7	94	9	192	94	1	15	119	4	535
Mean Length	334	476	368	580	497	363	602	585	603	542
Std. Error	3	4	18	2	5		6	2	11	1
Sample Size	7	94	9	191	94	1	15	119	4	534
Sample Period 2: July 7 - July 18										
Males		72,478	4,027	102,006	55,030		12,080	64,425	5,369	315,415
Percent		12.13	0.67	17.08	9.21		2.02	10.79	0.90	52.81
Sample Size		54	3	76	41		9	48	4	235
Mean Length		487	425	581	507		607	591	602	548
Std. Error		6	71	4	5		10	5	5	3
Sample Size		54	3	76	41		9	48	4	235
Females		44,292		116,772	37,581		10,738	71,136	1,342	281,861
Percent		7.42		19.55	6.29		1.80	11.91	0.22	47.19
Sample Size		33		87	28		8	53	1	210
Mean Length		493		560	508		604	570	590	547
Std. Error		7		3	6		7	3		2
Sample Size		33		87	28		8	53	1	210
Both Sexes		116,770	4,027	218,778	92,611		22,818	135,561	6,711	597,276
Percent		19.55	0.67	36.63	15.51		3.82	22.70	1.12	100.00
Sample Size		87	3	163	69		17	101	5	445
Mean Length		489	425	570	507		606	580	600	547
Std. Error		5	71	2	4		6	3	5	2
Sample Size		87	3	163	69		17	101	5	445

- Continued -

Table 5. (p 2 of 2)

	Age Group									
	1.1	1.2	2.1	1.3	2.2	3.1	1.4	2.3	2.4	Total
All Periods Combined:										
Males	5,605	121,322	11,234	179,676	99,070	801	16,884	107,664	6,170	548,426
Percent	0.55	11.83	1.10	17.52	9.66	0.08	1.65	10.50	0.60	53.47
Sample Size	7	115	12	173	96	1	15	102	5	526
Mean Length	334	480	388	586	503	363	610	592	605	543
Std. Error	3	4	28	3	5		8	3	5	2
Sample Size	7	115	12	173	96	1	15	102	5	526
Females		70,716		192,841	68,809		17,945	123,183	3,744	477,238
Percent		6.89		18.80	6.71		1.75	12.01	0.37	46.53
Sample Size		66		182	67		17	118	4	454
Mean Length		492		563	502		599	573	593	548
Std. Error		5		2	4		5	2	11	1
Sample Size		66		181	67		17	118	4	453
Both Sexes	5,605	192,038	11,234	372,517	167,879	801	34,829	230,847	9,914	1,025,664
Percent	0.55	18.72	1.10	36.32	16.37	0.08	3.40	22.51	0.97	100.00
Sample Size	7	181	12	355	163	1	32	220	9	980
Mean Length	334	484	388	574	503	363	604	582	601	545
Std. Error	3	3	28	2	3		5	2	5	1
Sample Size	7	181	12	354	163	1	32	220	9	979

Table 6. Age, sex, and size (length in mm and weight in kg) composition of sockeye salmon commercial catch, Egegik District, 1997.

	Age Group												
	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Sample Period 1: June 9 - June 19													
Males	312		935	1,558		12,464	40,505	312	24,304		623	312	81,325
Percent	0.26		0.77	1.28		10.20	33.16	0.26	19.90		0.51	0.26	66.58
Sample Size	1		3	5		40	130	1	78		2	1	261
Mean Length	420		562	479		575	511	570	566		555	570	538
Std. Error			43	11		4	3		5		25		2
Sample Size	1		3	5		40	130	1	78		2	1	261
Females			623	935		7,478	16,825		14,645		312		40,818
Percent			0.51	0.77		6.12	13.77		11.99		0.26		33.42
Sample Size			2	3		24	54		47		1		131
Mean Length			550	502		558	516		561		580		541
Std. Error			10	9		4	5		4				3
Sample Size			2	3		24	54		47		1		131
Both Sexes	312		1,558	2,493		19,942	57,330	312	38,949		935	312	122,143
Percent	0.26		1.28	2.04		16.33	46.94	0.26	31.89		0.77	0.26	100.00
Sample Size	1		5	8		64	184	1	125		3	1	392
Mean Length	420		557	488		568	513	570	564		563	570	539
Std. Error			26	8		3	3		3		25		2
Sample Size	1		5	8		64	184	1	125		3	1	392
Sample Period 2: June 20 - June 22													
Males			1,701	6,804		25,515	87,887	1,134	36,289		567		159,897
Percent			0.73	2.93		10.98	37.81	0.49	15.61		0.24		68.78
Sample Size			3	12		45	155	2	64		1		282
Mean Length			515	484		563	517	639	575		604		537
Std. Error			26	12		5	2	4	4				2
Sample Size			3	12		45	154	2	64		1		281
Mean Weight			1.9	1.1		3.07	2.4		3.39				2.67
Std. Error						0.16	0.07		0.16				0.06
Sample Size			1	1		8	33		15				58
Females				2,835		15,309	35,155		19,278				72,577
Percent				1.22		6.59	15.12		8.29				31.22
Sample Size				5		27	62		34				128
Mean Length				498		560	510		572				537
Std. Error				20		5	3		5				2
Sample Size				5		26	60		34				125
Mean Weight				2.4		2.84	2.17		2.78				2.48
Std. Error						0.1	0.17		0.11				0.09
Sample Size				1		8	11		5				25
Both Sexes			1,701	9,639		40,824	123,042	1,134	55,567		567		232,474
Percent			0.73	4.15		17.56	52.93	0.49	23.90		0.24		100.00
Sample Size			3	17		72	217	2	98		1		410
Mean Length			515	488		562	515	639	574		604		537
Std. Error			26	10		4	2	4	3				1
Sample Size			3	17		71	214	2	98		1		406
Mean Weight			1.9	1.48		2.98	2.33		3.18				2.61
Std. Error						0.1	0.07		0.11				0.05
Sample Size			1	2		16	44		20				83

- Continued -

Table 6. (p 2 of 6)

	Age Group												
	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Sample Period 3: June 23 - June 24													
Males			1,011	6,064	1,011	40,424	189,992	2,021	121,273		1,011	1,011	363,818
Percent			0.16	0.93	0.16	6.22	29.24	0.31	18.66		0.16	0.16	55.99
Sample Size			1	6	1	40	188	2	120		1	1	360
Mean Length			591	528	625	585	516	599	582		594	606	547
Std. Error				13		4	3	1	3				2
Sample Size			1	6	1	40	188	2	120		1	1	360
Mean Weight				2.98		3.19	2.49		3.58		3.31		2.95
Std. Error				1.13		0.17	0.19		0.14				0.12
Sample Size				3		7	32		30		1		73
Females			1,011	9,095		48,509	132,390		93,986		1,011		286,002
Percent			0.16	1.40		7.46	20.37		14.46		0.16		44.01
Sample Size			1	9		48	131		93		1		283
Mean Length			550	512		561	504		572		605		537
Std. Error				8		6	2		2				2
Sample Size			1	9		48	131		92		1		282
Mean Weight						2.93	2.23		3.44				2.77
Std. Error						0.13	0.16		0.3				0.13
Sample Size						9	34		18				61
Both Sexes			2,022	15,159	1,011	88,933	322,382	2,021	215,259		2,022	1,011	649,820
Percent			0.31	2.33	0.16	13.69	49.61	0.31	33.13		0.31	0.16	100.00
Sample Size			2	15	1	88	319	2	213		2	1	643
Mean Length			571	519	625	572	511	599	578		600	606	543
Std. Error				7		4	2	1	2				1
Sample Size			2	15	1	88	319	2	212		2	1	642
Mean Weight				2.98		3.05	2.38		3.52		3.31		2.87
Std. Error				1.13		0.11	0.13		0.16				0.09
Sample Size				3		16	66		48		1		134
Sample Period 4: June 25 - June 27													
Males				18,329		61,097	234,203	2,037	118,120				433,786
Percent				2.24		7.46	28.61	0.25	14.43				52.99
Sample Size				9		30	115	1	58				213
Mean Length				515		572	528	634	581				548
Std. Error				10		7	4		5				3
Sample Size				9		30	111	1	58				209
Mean Weight				1.8		4.65	2.3		3.02				2.81
Std. Error							0.13		0.21				0.09
Sample Size				1		1	20		8				30
Females				14,256		36,658	226,057	2,037	103,864		2,037		384,909
Percent				1.74		4.48	27.61	0.25	12.69		0.25		47.01
Sample Size				7		18	111	1	51		1		189
Mean Length				504		556	509	510	566		505		529
Std. Error				9		8	3		4				2
Sample Size				6		18	111	1	50		1		187
Mean Weight				2.55			2.01		2.37				2.14
Std. Error							0.13		0.24				0.11
Sample Size				1			16		5				22
Both Sexes				32,585		97,755	460,260	4,074	221,984		2,037		818,695
Percent				3.98		11.94	56.22	0.50	27.11		0.25		100.00
Sample Size				16		48	226	2	109		1		402
Mean Length				510		566	518	572	574		505		539
Std. Error				7		5	2		3				2
Sample Size				15		48	222	2	108		1		396
Mean Weight				2.13		4.65	2.16		2.72				2.51
Std. Error							0.09		0.16				0.07
Sample Size				2		1	36		13				52

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Table 6. (p 3 of 6)

	Age Group												
	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Sample Period 5: June 28 - July 1													
Males				37,826		96,020	276,421	5,819	192,040		2,910	5,819	616,855
Percent				2.83		7.19	20.70	0.44	14.38		0.22	0.44	46.19
Sample Size				13		33	95	2	66		1	2	212
Mean Length				519		593	535	602	605		640	632	567
Std. Error				6		5	3	8	4			21	2
Sample Size				13		33	95	2	66		1	2	212
Mean Weight				2.14		3.53	2.58		3.74		3.99		3.08
Std. Error				0.09		0.19	0.13		0.15				0.08
Sample Size				3		9	17		13		1		43
Females				26,187		128,026	279,331	11,639	261,872	2,910	5,819	2,910	718,694
Percent				1.96		9.59	20.92	0.87	19.61	0.22	0.44	0.22	53.81
Sample Size				9		44	96	4	90	1	2	1	247
Mean Length				518		576	512	590	584	472	585	548	552
Std. Error				10		3	3	7	3		11		2
Sample Size				9		44	96	4	90	1	2	1	247
Mean Weight				2.33		3.05	2.05		3.24		3.31		2.7
Std. Error				0.31		0.13	0.09		0.1				0.06
Sample Size				2		14	15		20		1		52
Both Sexes				64,013		224,046	555,752	17,458	453,912	2,910	8,729	8,729	1,335,549
Percent				4.79		16.78	41.61	1.31	33.99	0.22	0.65	0.65	100.00
Sample Size				22		77	191	6	156	1	3	3	459
Mean Length				519		583	523	594	593	472	603	604	559
Std. Error				5		3	2	5	2		11	21	1
Sample Size				22		77	191	6	156	1	3	3	459
Mean Weight				2.22		3.26	2.31		3.45		3.54		2.87
Std. Error				0.14		0.11	0.08		0.09				0.05
Sample Size				5		23	32		33		2		95
Sample Period 6: July 2 - July 3													
Males				19,502		52,005	173,894	1,625	120,263			1,625	368,914
Percent				2.73		7.29	24.37	0.23	16.86			0.23	51.71
Sample Size				12		32	107	1	74			1	227
Mean Length				549		592	536	639	606			637	568
Std. Error				9		4	3		3				2
Sample Size				12		32	107	1	74			1	227
Mean Weight				2.22		3.5	2.66		3.9				3.16
Std. Error				0.27		0.16	0.09		0.12				0.06
Sample Size				3		13	23		8				47
Females			1,625	13,001		69,882	100,761	6,501	152,766				344,536
Percent			0.23	1.82		9.79	14.12	0.91	21.41				48.29
Sample Size			1	8		43	62	4	94				212
Mean Length			547	523		577	521	600	576				558
Std. Error				9		4	4	13	2				2
Sample Size			1	8		43	62	4	94				212
Mean Weight				1.83		3.22	2.14		3.05				2.77
Std. Error						0.16	0.1		0.1				0.06
Sample Size				1		8	16		17				42
Both Sexes			1,625	32,503		121,887	274,655	8,126	273,029			1,625	713,450
Percent			0.23	4.56		17.08	38.50	1.14	38.27			0.23	100.00
Sample Size			1	20		75	169	5	168			1	439
Mean Length			547	538		583	530	608	589			637	563
Std. Error				6		3	2	13	2				1
Sample Size			1	20		75	169	5	168			1	439
Mean Weight				2.06		3.34	2.47		3.42				2.97
Std. Error				0.27		0.12	0.07		0.08				0.05
Sample Size				4		21	39		25				89

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Table 6. (p 4 of 6)

	Age Group												
	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Sample Period 7: July 4 - July 6													
Males				88,052		72,870	346,134		151,813				658,869
Percent				6.81		5.63	26.76		11.74				50.94
Sample Size				29		24	114		50				217
Mean Length				519		591	528		601				551
Std. Error				6		8	3		5				2
Sample Size				29		24	114		50				217
Mean Weight				2.15		2.97	2.4		3.66				2.72
Std. Error				0.21		0.34	0.1		0.21				0.09
Sample Size				4		5	27		8				44
Females				66,798		81,979	318,808	3,036	154,849	3,036	3,036	3,036	634,578
Percent				5.16		6.34	24.65	0.23	11.97	0.23	0.23	0.23	49.06
Sample Size				22		27	105	1	51	1	1	1	209
Mean Length				516		566	518	593	576	522	613	565	539
Std. Error				9		5	2		3				2
Sample Size				22		27	105	1	51	1	1	1	209
Mean Weight				1.87		2.85	2.07		2.92		3.37	3.02	2.37
Std. Error						0.26	0.09		0.13				0.06
Sample Size				1		4	23		7		1	1	37
Both Sexes				154,850		154,849	664,942	3,036	306,662	3,036	3,036	3,036	1,293,447
Percent				11.97		11.97	51.41	0.23	23.71	0.23	0.23	0.23	100.00
Sample Size				51		51	219	1	101	1	1	1	426
Mean Length				518		578	523	593	589	522	613	565	545
Std. Error				5		5	2		3				1
Sample Size				51		51	219	1	101	1	1	1	426
Mean Weight				2.03		2.91	2.24		3.29		3.37	3.02	2.55
Std. Error				0.21		0.21	0.07		0.12				0.05
Sample Size				5		9	50		15		1	1	81
Sample Period 8: July 7 - July 8													
Males				31,145		56,794	243,665		163,054		1,832		496,490
Percent				3.85		7.01	30.09		20.14		0.23		61.31
Sample Size				17		31	133		89		1		271
Mean Length				510		581	520		588		560		549
Std. Error				5		6	3		3				2
Sample Size				17		28	126		88		1		260
Mean Weight				1.93		3.23	2.4		3.75				2.91
Std. Error				0.21		0.28	0.14		0.07				0.08
Sample Size				2		2	13		11				28
Females				16,489	1,832	38,473	177,710		76,947		1,832		313,283
Percent				2.04	0.23	4.75	21.95		9.50		0.23		38.69
Sample Size				9	1	21	97		42		1		171
Mean Length				489	590	557	503		567		616		526
Std. Error				9		5	2		4				2
Sample Size				8	1	21	96		42		1		169
Mean Weight						2.97	1.74		3.28		3.61		2.31
Std. Error						0.18	0.12		0.18				0.09
Sample Size						2	7		2		1		12
Both Sexes				47,634	1,832	95,267	421,375		240,001		3,664		809,773
Percent				5.88	0.23	11.76	52.04		29.64		0.45		100.00
Sample Size				26	1	52	230		131		2		442
Mean Length				503	590	571	513		581		588		540
Std. Error				4		4	2		3				1
Sample Size				25	1	49	222		130		2		429
Mean Weight				1.93		3.13	2.12		3.6		3.61		2.69
Std. Error				0.21		0.18	0.1		0.07				0.06
Sample Size				2		4	20		13		1		40

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Table 6. (p 5 of 6)

	Age Group												
	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Sample Period 9: July 9 - July 11													
Males				22,529		34,545	211,775	1,502	106,638		1,502	1,502	379,993
Percent				3.30		5.05	30.99	0.22	15.60		0.22	0.22	55.60
Sample Size				15		23	141	1	71		1	1	253
Mean Length				540		601	547	626	604		589	620	568
Std. Error				10		6	2		3				2
Sample Size				15		23	141	1	71		1	1	253
Mean Weight				2.81		3.33	2.7		3.51				2.99
Std. Error				0.11		0.2	0.12		0.22				0.09
Sample Size				3		3	13		10				29
Females				13,518		39,051	151,695	3,004	93,121		1,502	1,502	303,393
Percent				1.98		5.71	22.20	0.44	13.63		0.22	0.22	44.40
Sample Size				9		26	101	2	62		1	1	202
Mean Length				529		580	521	629	588		644	570	551
Std. Error				8		6	2	7	3				2
Sample Size				9		26	101	2	62		1	1	202
Mean Weight				2.01		2.81	2.09		2.89				2.43
Std. Error						0.12	0.06		0.12				0.05
Sample Size				1		5	10		9				25
Both Sexes				36,047		73,596	363,470	4,506	199,759		3,004	3,004	683,386
Percent				5.27		10.77	53.19	0.66	29.23		0.44	0.44	100.00
Sample Size				24		49	242	3	133		2	2	455
Mean Length				536		590	536	628	596		617	595	561
Std. Error				7		4	2	7	2				1
Sample Size				24		49	242	3	133		2	2	455
Mean Weight				2.51		3.05	2.45		3.22				2.75
Std. Error				0.11		0.11	0.07		0.13				0.06
Sample Size				4		8	23		19				54
Sample Period 10: July 12 - July 14													
Males				12,777		23,957	136,551	1,597	57,496	3,993		799	237,170
Percent				2.82		5.29	30.16	0.35	12.70	0.88		0.18	52.38
Sample Size				16		30	171	2	72	5		1	297
Mean Length				509		580	529	640	590	509		523	549
Std. Error				8		5	3	8	4	6			2
Sample Size				16		30	171	2	72	5		1	297
Mean Weight				1.98		2.94	2.19		3.35	2.4			2.54
Std. Error				0.33		0.21	0.08		0.13				0.06
Sample Size				2		7	45		19	1			74
Females		799		19,165		19,165	120,581		55,100			799	215,609
Percent		0.18		4.23		4.23	26.63		12.17			0.18	47.62
Sample Size		1		24		24	151		69			1	270
Mean Length		388		511		567	509		576			557	531
Std. Error				4		4	2		4				2
Sample Size		1		24		24	150		67			1	267
Mean Weight				1.99		2.62	1.88		2.83				2.2
Std. Error				0.09		0.1	0.05		0.09				0.04
Sample Size				10		6	32		24				72
Both Sexes		799		31,942		43,122	257,132	1,597	112,596	3,993		1,598	452,779
Percent		0.18		7.05		9.52	56.79	0.35	24.87	0.88		0.35	100.00
Sample Size		1		40		54	322	2	141	5		2	567
Mean Length		388		510		575	520	640	583	509		540	540
Std. Error				4		3	2	8	3	6			1
Sample Size		1		40		54	321	2	139	5		2	564
Mean Weight				1.99		2.8	2.04		3.1	2.4			2.38
Std. Error				0.14		0.13	0.05		0.08				0.04
Sample Size				12		13	77		43	1			146

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Table 6. (p 6 of 6)

	Age Group												
	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Sample Period 11: July 15 - August 28													
Males			886	6,203		18,610	108,114	886	65,578	886	2,659	2,659	206,481
Percent			0.22	1.53		4.59	26.64	0.22	16.16	0.22	0.66	0.66	50.87
Sample Size			1	7		21	122	1	74	1	3	3	233
Mean Length			596	496		576	518	602	579	510	604	601	545
Std. Error				12		8	3		3		6	12	2
Sample Size			1	7		21	120	1	74	1	3	3	231
Mean Weight				2.78			2.24		3.21		3.51	2.75	2.63
Std. Error				0.62			0.1		0.13		0.15		0.08
Sample Size				2			28		18		2	1	51
Females				7,976		7,976	131,155	1,772	41,651	3,545		5,317	199,392
Percent				1.97		1.97	32.31	0.44	10.26	0.87		1.31	49.13
Sample Size				9		9	148	2	47	4		6	225
Mean Length				488		546	499	582	555	484		573	514
Std. Error				11		14	2	1	5	7		4	2
Sample Size				9		9	146	2	47	4		6	223
Mean Weight				1.75		2.61	1.82	2.99	2.61			3.25	2.07
Std. Error						0.1	0.06		0.08				0.04
Sample Size				1		3	18	1	13			1	37
Both Sexes			886	14,179		26,586	239,269	2,658	107,229	4,431	2,659	7,976	405,873
Percent			0.22	3.49		6.55	58.95	0.65	26.42	1.09	0.66	1.97	100.00
Sample Size			1	16		30	270	3	121	5	3	9	458
Mean Length			596	492		567	507	589	570	489	604	583	530
Std. Error				8		7	2	1	3	7	6	5	1
Sample Size			1	16		30	266	3	121	5	3	9	454
Mean Weight				2.2		2.61	2.01	2.99	2.98		3.51	3.08	2.34
Std. Error				0.62		0.1	0.06		0.08		0.15		0.04
Sample Size				3		3	46	1	31		2	2	88
All Periods Combined:													
Males	312		4,533	250,789	1,011	494,301	2,049,141	16,933	1,156,868	4,879	11,104	13,727	4,003,598
Percent	0		0.06	3.34	0.01	6.58	27.26	0.23	15.39	0.06	0.15	0.18	53.26
Sample Size	1		8	141	1	349	1,471	13	816	6	10	10	2,826
Mean Length	420		557	520	625	585	528	616	593	509	600	616	554
Std. Error			23	3		2	1	4	1	6	7	15	1
Sample Size	1		8	141	1	346	1,457	13	815	6	10	10	2,808
Mean Weight			1.9	2.16		3.45	2.45		3.57	2.4	3.69	2.75	2.88
Std. Error				0.1		0.09	0.04		0.05		0.15		0.03
Sample Size			1	24		55	251		140	1	4	1	477
Females		799	3,259	190,255	1,832	492,506	1,690,468	27,989	1,068,079	9,491	15,549	13,564	3,513,791
Percent		0.01	0.04	2.53	0.02	6.55	22.49	0.37	14.21	0.13	0.21	0.18	46.74
Sample Size		1	4	114	1	311	1,118	14	680	6	8	10	2,267
Mean Length		388	549	512	590	569	511	590	576	493	590	565	540
Std. Error			10	4		2	1	5	1	7	11	4	1
Sample Size		1	4	112	1	310	1,112	14	676	6	8	10	2,254
Mean Weight				2.03		2.97	2.01	2.99	3.01		3.38	3.17	2.46
Std. Error				0.18		0.07	0.04		0.05				0.03
Sample Size				18		59	182	1	120		3	2	385
Both Sexes	312	799	7,792	441,044	2,843	986,807	3,739,609	44,922	2,224,947	14,370	26,653	27,291	7,517,389
Percent	0.00	0.01	0.10	5.87	0.04	13.13	49.75	0.60	29.60	0.19	0.35	0.36	100.00
Sample Size	1	1	12	255	2	660	2,589	27	1,496	12	18	20	5,093
Mean Length	420	388	554	517	602	577	521	600	585	498	595	590	548
Std. Error			19	2		1	1	4	1	4	7	9	0
Sample Size	1	1	12	253	2	656	2,569	27	1,491	12	18	20	5,062
Mean Weight			1.9	2.11		3.21	2.25	2.99	3.3	2.4	3.5	3.07	2.69
Std. Error				0.09		0.06	0.03		0.04		0.15		0.02
Sample Size			1	42		114	433	1	260	1	7	3	862

Table 7. Age, sex, and size (length in mm and weight in kg) composition of sockeye salmon escapement, Egegik River, 1997.

	Age Group											
	1.1	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	Total[a]
Sample Period 1: June 9 - June 28												
Males	1,798	2,248	13,487	5,844	49,453	899		17,533		450		91,712
Percent	0.96	1.20	7.19	3.12	26.38	0.48		9.35		0.24		48.92
Sample Size	4	5	30	13	110	2		39		1		204
Mean Length	337	494	343	598	497	352		596		616		496
Std. Error	9	19	3	7	4			4				2
Sample Size	4	5	30	13	110	2		39		1		204
Females		450		6,294	65,636			23,378				95,758
Percent		0.24		3.36	35.01			12.47				51.08
Sample Size		1		14	146			52				213
Mean Length		473		565	488			577				515
Std. Error				5	2			3				2
Sample Size		1		14	146			52				213
Both Sexes	1,798	2,698	13,487	12,138	115,089	899		40,911		450		187,470
Percent	0.96	1.44	7.19	6.47	61.39	0.48		21.82		0.24		100.00
Sample Size	4	6	30	27	256	2		91		1		417
Mean Length	337	490	343	581	492	352		585		616		505
Std. Error	9	19	3	4	2			2				1
Sample Size	4	6	30	27	256	2		91		1		417
Sample Period 2: June 29 - July 7												
Males	2,947	3,537	7,663	12,379	68,377	1,179		39,493			589	136,164
Percent	0.92	1.10	2.39	3.85	21.28	0.37		12.29			0.18	42.39
Sample Size	5	6	13	21	116	2		67			1	231
Mean Length	343	516	349	594	510	355		600			610	530
Std. Error	12	14	4	5	4	4		3				2
Sample Size	5	6	13	21	116	2		67			1	231
Females		589	1,179	8,842	137,342			37,136				185,088
Percent		0.18	0.37	2.75	42.75			11.56				57.61
Sample Size		1	2	15	233			63				314
Mean Length		471	400	567	496			572				514
Std. Error			23	10	2			4				2
Sample Size		1	2	15	232			63				313
Both Sexes	2,947	4,126	8,842	21,221	205,719	1,179		76,629			589	321,252
Percent	0.92	1.28	2.75	6.61	64.04	0.37		23.85			0.18	100.00
Sample Size	5	7	15	36	349	2		130			1	545
Mean Length	343	509	356	583	501	355		587			610	521
Std. Error	12	14	4	5	2	4		2				1
Sample Size	5	7	15	36	348	2		130			1	544

- Continued -

Table 7. (p 2 of 2)

	Age Group											
	1.1	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	Total[a]
Sample Period 3: July 8 - July 17												
Males	2,046	4,091	7,159	10,228	147,275			67,502				238,301
Percent	0.34	0.69	1.20	1.72	24.74			11.34				40.03
Sample Size	2	4	7	10	144			66				233
Mean Length	352	517	369	606	514			593				535
Std. Error	18	28	15	7	3			4				2
Sample Size	2	4	7	10	144			66				233
Females		7,159		6,137	271,029		1,023	68,524	1,023	1,023	1,023	356,941
Percent		1.20		1.03	45.53		0.17	11.51	0.17	0.17	0.17	59.97
Sample Size		7		6	265		1	67	1	1	1	349
Mean Length		497		574	495		572	574	495	616	575	512
Std. Error		12		6	2			3				1
Sample Size		7		6	264		1	67	1	1	1	348
Both Sexes	2,046	11,250	7,159	16,365	418,304		1,023	136,026	1,023	1,023	1,023	595,242
Percent	0.34	1.89	1.20	2.75	70.27		0.17	22.85	0.17	0.17	0.17	100.00
Sample Size	2	11	7	16	409		1	133	1	1	1	582
Mean Length	352	504	369	594	501		572	583	495	616	575	521
Std. Error	18	13	15	5	1			2				1
Sample Size	2	11	7	16	408		1	133	1	1	1	581
All Periods Combined:												
Males	6,791	9,876	28,309	28,451	265,105	2,078		124,528		450	589	466,177
Percent	0.62	0.89	2.56	2.58	24.01	0.19		11.28		0.04	0.05	42.23
Sample Size	11	15	50	44	370	4		172		1	1	668
Mean Length	344	511	351	599	510	353		596		616	610	526
Std. Error	8	13	4	4	2	4		2				1
Sample Size	11	15	50	44	370	4		172		1	1	668
Females		8,198	1,179	21,273	474,007		1,023	129,038	1,023	1,023	1,023	637,787
Percent		0.74	0.11	1.93	42.94		0.09	11.69	0.09	0.09	0.09	57.77
Sample Size		9	2	35	644		1	182	1	1	1	876
Mean Length		494	400	568	494		572	574	495	616	575	513
Std. Error		12	23	5	1			2				1
Sample Size		9	2	35	642		1	182	1	1	1	874
Both Sexes	6,791	18,074	29,488	49,724	739,112	2,078	1,023	253,566	1,023	1,473	1,612	1,103,964
Percent	0.62	1.64	2.67	4.50	66.95	0.19	0.09	22.97	0.09	0.13	0.15	100.00
Sample Size	11	24	52	79	1,014	4	1	354	1	2	2	1,544
Mean Length	344	503	353	586	500	353	572	585	495	616	588	518
Std. Error	8	9	4	3	1	4		2				1
Sample Size	11	24	52	79	1,012	4	1	354	1	2	2	1,542

[a] Total does not include King Salmon River escapement (40).

Table 8. Age, sex, and size (length in mm and weight in kg) composition of sockeye salmon commercial catch, Ugashik District, 1997.

	Age Group								
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 1: June 10 - July 1									
Males	778	3,306		14,972	18,666	194	11,667		49,583
Percent	0.57	2.41		10.92	13.62	0.14	8.51		36.17
Sample Size	4	17		77	96	1	60		255
Mean Length	584	543		600	537	583	608		574
Std. Error	23	6		3	2		3		2
Sample Size	4	17		77	96	1	60		255
Mean Weight		2.53		3.28	2.5		3.5		2.98
Std. Error		0.2		0.14	0.07		0.12		0.06
Sample Size		4		14	13		13		44
Females	583	3,694	194	26,833	32,085	194	23,917		87,500
Percent	0.43	2.69	0.14	19.57	23.41	0.14	17.45		63.83
Sample Size	3	19	1	138	165	1	123		450
Mean Length	553	500	648	572	518	634	577		551
Std. Error	18	6		2	2		2		1
Sample Size	3	19	1	138	165	1	123		450
Mean Weight		1.9		2.74	2.31		2.9		2.59
Std. Error				0.09	0.12		0.1		0.06
Sample Size		1		16	16		14		47
Both Sexes	1,361	7,000	194	41,805	50,751	388	35,584		137,083
Percent	0.99	5.11	0.14	30.50	37.02	0.28	25.96		100.00
Sample Size	7	36	1	215	261	2	183		705
Mean Length	571	521	648	582	525	609	587		559
Std. Error	15	4		2	2		2		1
Sample Size	7	36	1	215	261	2	183		705
Mean Weight		2.2		2.93	2.38		3.1		2.73
Std. Error		0.2		0.08	0.08		0.08		0.04
Sample Size		5		30	29		27		91
Sample Period 2: July 2 - July 6									
Males		26,737	608	82,641	88,716	2,431	48,004		249,137
Percent		6.68	0.15	20.64	22.15	0.61	11.99		62.22
Sample Size		44	1	136	146	4	79		410
Mean Length		535	656	608	543	625	614		579
Std. Error		5		2	2	17	3		1
Sample Size		44	1	136	146	4	79		410
Mean Weight		2.61		3.45	2.48		3.32		2.98
Std. Error		0.14		0.1	0.08		0.14		0.05
Sample Size		13		22	27		15		77
Females		13,368		54,689	46,789	3,038	32,813	608	151,305
Percent		3.34		13.66	11.68	0.76	8.19	0.15	37.78
Sample Size		22		90	77	5	54	1	249
Mean Length		525		584	529	590	586	608	562
Std. Error		5		2	3	7	3		1
Sample Size		22		90	77	5	54	1	249
Mean Weight		1.87		3.2	2	3.19	2.82		2.63
Std. Error		0.19		0.12	0.07		0.1		0.06
Sample Size		3		14	16	1	5		39
Both Sexes		40,105	608	137,330	135,505	5,469	80,817	608	400,442
Percent		10.02	0.15	34.29	33.84	1.37	20.18	0.15	100.00
Sample Size		66	1	226	223	9	133	1	659
Mean Length		532	656	599	538	606	602	608	572
Std. Error		4		2	2	9	2		1
Sample Size		66	1	226	223	9	133	1	659
Mean Weight		2.36		3.35	2.31	3.19	3.12		2.85
Std. Error		0.12		0.08	0.06		0.09		0.04
Sample Size		16		36	43	1	20		116

- Continued -

Table 8. (p 2 of 3)

	Age Group								
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 3: July 7 - July 9									
Males		24,188		69,540	102,798	2,016			110,865
Percent		5.59		16.08	23.78	0.47			42.79
Sample Size		24		69	102	2			178
Mean Length		524		593	536	622			594
Std. Error		7		4	2	6			2
Sample Size		24		69	102	2			173
Mean Weight		2.48		3.48	2.51				3.35
Std. Error		0.16		0.2	0.09				0.07
Sample Size		3		12	20				18
Females		13,102		63,493	86,673	3,023			148,235
Percent		3.03		14.69	20.05	0.70			57.21
Sample Size		13		63	86	3			238
Mean Length		501		571	516	576			572
Std. Error		4		3	2	11			2
Sample Size		13		63	86	3			229
Mean Weight		2.03		2.83	2.1				2.94
Std. Error		0.11		0.1	0.05				0.1
Sample Size		2		10	26				21
Both Sexes		37,290		133,033	189,471	5,039			259,100
Percent		8.62		30.77	43.82	1.17			100.00
Sample Size		37		132	188	5			416
Mean Length		516		582	527	594			581
Std. Error		5		2	2	7			1
Sample Size		37		132	188	5			402
Mean Weight		2.32		3.17	2.32				3.12
Std. Error		0.11		0.12	0.06				0.06
Sample Size		5		22	46				39
Sample Period 4: July 10 - September 2									
Males		14,325		45,020	121,759		26,603		207,707
Percent		3.31		10.40	28.13		6.15		47.99
Sample Size		14		44	119		26		203
Mean Length		534		598	531		602		555
Std. Error		8		5	3		5		2
Sample Size		14		44	119		26		203
Mean Weight		2.47		3.74	2.5		3.55		2.9
Std. Error		0.28		0.09	0.13		0.27		0.09
Sample Size		4		13	21		5		43
Females		18,417		48,090	119,713	2,046	36,835		225,101
Percent		4.26		11.11	27.66	0.47	8.51		52.01
Sample Size		18		47	117	2	36		220
Mean Length		508		569	513	587	573		535
Std. Error		6		4	2	11	4		2
Sample Size		18		47	117	2	36		220
Mean Weight		2.11		2.82	2.06		2.86		2.36
Std. Error		0.23		0.18	0.05		0.13		0.05
Sample Size		3		7	28		4		42
Both Sexes		32,742		93,110	241,472	2,046	63,438		432,808
Percent		7.57		21.51	55.79	0.47	14.66		100.00
Sample Size		32		91	236	2	62		423
Mean Length		519		583	522	587	585		544
Std. Error		5		3	2	11	3		1
Sample Size		32		91	236	2	62		423
Mean Weight		2.27		3.26	2.28		3.15		2.62
Std. Error		0.18		0.1	0.07		0.14		0.05
Sample Size		7		20	49		9		85

- Continued -

Table 8. (p 3 of 3)

	Age Group								
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	Total
All Periods Combined:									
Males	778	68,556	608	212,173	331,939	4,641	120,540		739,235
Percent	0.06	4.89	0.04	15.13	23.66	0.33	8.59		52.70
Sample Size	4	99	1	326	463	7	199		1,099
Mean Length	584	531	656	600	536	622	607		566
Std. Error	23	4		2	1	10	2		1
Sample Size	4	99	1	326	463	7	199		1,099
Mean Weight		2.53		3.51	2.5		3.45		2.95
Std. Error		0.1		0.08	0.06		0.12		0.04
Sample Size		24		61	81		37		203
Females	583	48,581	194	193,105	285,260	8,301	125,815	1,616	663,455
Percent	0.04	3.46	0.01	13.77	20.34	0.59	8.97	0.12	47.30
Sample Size	3	72	1	338	445	11	245	2	1,117
Mean Length	553	510	648	574	517	585	578	598	546
Std. Error	18	3		2	1	6	2		1
Sample Size	3	72	1	338	445	11	245	2	1,117
Mean Weight		2.01		2.92	2.09	3.19	2.83	3.14	2.48
Std. Error		0.12		0.07	0.03		0.06		0.03
Sample Size		9		47	86	1	31	1	175
Both Sexes	1,361	117,137	802	405,278	617,199	12,942	246,355	1,616	1,402,690
Percent	0.10	8.35	0.06	28.89	44.00	0.92	17.56	0.12	100.00
Sample Size	7	171	2	664	908	18	444	2	2,216
Mean Length	571	522	654	588	527	598	592	598	557
Std. Error	15	2		1	1	5	1		1
Sample Size	7	171	2	664	908	18	444	2	2,216
Mean Weight		2.31		3.23	2.31	3.19	3.13	3.14	2.73
Std. Error		0.08		0.05	0.04		0.07		0.03
Sample Size		33		108	167	1	68	1	378

Table 9. Age, sex, and size (length in mm and weight in kg) composition of sockeye salmon escapement, Ugashik River, 1997.

	Age Group								
	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total[a]
Sample Period 1: July 2 - July 13									
Males	1,363		12,953	682	37,494	27,951		12,271	92,714
Percent	0.59		5.64	0.30	16.32	12.17		5.34	40.36
Sample Size	2		19	1	55	41		18	136
Mean Length	328		534	380	594	530		601	562
Std. Error	8		10		6	6		8	3
Sample Size	2		19	1	55	41		18	136
Females			38,858		30,677	55,220		12,271	137,026
Percent			16.91		13.35	24.04		5.34	59.64
Sample Size			57		45	81		18	201
Mean Length			485		561	494		560	512
Std. Error			4		5	3		9	2
Sample Size			57		45	81		17	200
Both Sexes	1,363		51,811	682	68,171	83,171		24,542	229,740
Percent	0.59		22.55	0.30	29.67	36.20		10.68	100.00
Sample Size	2		76	1	100	122		36	337
Mean Length	328		497	380	579	506		580	532
Std. Error	8		4		4	3		6	2
Sample Size	2		76	1	100	122		35	336
Sample Period 2: July 14 - July 20									
Males	7,196	480	22,067	3,358	22,547	31,660	480	9,594	97,382
Percent	3.22	0.21	9.87	1.50	10.09	14.16	0.21	4.29	43.56
Sample Size	15	1	46	7	47	66	1	20	203
Mean Length	346	556	480	370	593	521	633	602	519
Std. Error	3		7	12	3	5		6	3
Sample Size	15	1	46	7	47	66	1	20	203
Females	480		25,425		21,587	70,519		8,155	126,166
Percent	0.21		11.37		9.66	31.55		3.65	56.44
Sample Size	1		53		45	147		17	263
Mean Length	362		483		563	492		558	506
Std. Error			4		3	2		5	2
Sample Size	1		53		45	147		17	263
Both Sexes	7,676	480	47,492	3,358	44,134	102,179	480	17,749	223,548
Percent	3.43	0.21	21.24	1.50	19.74	45.71	0.21	7.94	100.00
Sample Size	16	1	99	7	92	213	1	37	466
Mean Length	347	556	482	370	578	501	633	582	512
Std. Error	3		4	12	2	2		4	1
Sample Size	16	1	99	7	92	213	1	37	466

- Continued -

Table 9. (p 2 of 2)

	Age Group								
	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total[a]
Sample Period 3: July 21 - July 29									
Males	1,868		10,459	2,241	15,315	36,982		8,965	75,830
Percent	1.13		6.33	1.36	9.28	22.40		5.43	45.93
Sample Size	5		28	6	41	99		24	203
Mean Length	344		490	363	587	515		593	526
Std. Error	7		9	10	4	4		5	2
Sample Size	5		28	6	41	99		24	203
Females	374		10,459		12,327	57,152	374	8,592	89,278
Percent	0.23		6.33		7.47	34.61	0.23	5.20	54.07
Sample Size	1		28		33	153	1	23	239
Mean Length	368		476		549	489	590	549	501
Std. Error			4		4	2		6	2
Sample Size	1		28		33	153	1	23	239
Both Sexes	2,242		20,918	2,241	27,642	94,134	374	17,557	165,108
Percent	1.36		12.67	1.36	16.74	57.01	0.23	10.63	100.00
Sample Size	6		56	6	74	252	1	47	442
Mean Length	348		483	363	570	499	590	571	513
Std. Error	7		5	10	3	2		4	1
Sample Size	6		56	6	74	252	1	47	442
All Periods Combined:									
Males	10,427	480	45,479	6,281	75,356	96,593	480	30,830	265,926
Percent	1.69	0.08	7.35	1.02	12.19	15.62	0.08	4.99	43.00
Sample Size	22	1	93	14	143	206	1	62	542
Mean Length	343	556	498	369	592	521	633	599	536
Std. Error	2		5	8	3	3		4	2
Sample Size	22	1	93	14	143	206	1	62	542
Females	854		74,742		64,591	182,891	374	29,018	352,470
Percent	0.14		12.09		10.44	29.58	0.06	4.69	57.00
Sample Size	2		138		123	381	1	58	703
Mean Length	365		483		559	492	590	556	507
Std. Error			3		3	1		4	1
Sample Size	2		138		123	381	1	57	702
Both Sexes	11,281	480	120,221	6,281	139,947	279,484	854	59,848	618,396
Percent	1.82	0.08	19.44	1.02	22.63	45.19	0.14	9.68	100.00
Sample Size	24	1	231	14	266	587	2	120	1,245
Mean Length	345	556	489	369	577	502	614	578	520
Std. Error	2		3	8	2	1		3	1
Sample Size	24	1	231	14	266	587	2	119	1,244

[a] Total does not include escapement to King Salmon (27,645) and Dog Salmon (10,600) Rivers.

Table 10. Age, sex, and size (length in mm and weight in kg) composition of sockeye salmon commercial catch, Nushagak District, 1997.

	Age Group									
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	3.3	Total[a]
Sample Period 1: June 11 - June 30										
Males	597	6,267	149	13,504	522	448	895	149		22,531
Percent	1.17	12.25	0.29	26.39	1.02	0.88	1.75	0.29		44.02
Sample Size	8	84	2	181	7	6	12	2		302
Mean Length	567	510	590	580	522	578	590	616		559
Std. Error	15	3	1	2	16	10	7	14		2
Sample Size	8	84	2	181	7	6	12	2		302
Mean Weight	3.6	2.22		3.48	3.06	3.42	3.83	4.19		3.14
Std. Error	0.15	0.09		0.07	0.91	0.42	0.13	0.26		0.05
Sample Size	2	19		56	2	3	4	2		88
Females	746	3,506	224	20,292	597	1,343	1,716	224		28,648
Percent	1.46	6.85	0.44	39.65	1.17	2.62	3.35	0.44		55.98
Sample Size	10	47	3	272	8	18	23	3		384
Mean Length	539	503	578	555	490	583	559	584		549
Std. Error	11	4	17	1	12	6	5	27		1
Sample Size	10	47	3	272	8	18	23	3		384
Mean Weight	2.83	2.26		2.77	1.97	2.99	3.15			2.72
Std. Error	0.09	0.11		0.04	0.49	0.25	0.14			0.04
Sample Size	4	12		62	2	3	5			88
Both Sexes	1,343	9,773	373	33,796	1,119	1,791	2,611	373		51,179
Percent	2.62	19.10	0.73	66.03	2.19	3.50	5.10	0.73		100.00
Sample Size	18	131	5	453	15	24	35	5		686
Mean Length	551	507	583	565	505	582	570	597		553
Std. Error	9	2	10	1	10	5	4	17		1
Sample Size	18	131	5	453	15	24	35	5		686
Mean Weight	3.17	2.23		3.05	2.48	3.1	3.38	4.19		2.91
Std. Error	0.08	0.07		0.04	0.5	0.22	0.1	0.26		0.03
Sample Size	6	31		118	4	6	9	2		176
Sample Period 2: July 1 - July 3										
Males	3,081	134,534	5,135	198,206	10,270	21,567	8,216			381,009
Percent	0.56	24.44	0.93	36.01	1.87	3.92	1.49			69.22
Sample Size	3	131	5	193	10	21	8			371
Mean Length	493	499	604	574	507	601	577			547
Std. Error	13	2	9	2	12	6	11			2
Sample Size	3	131	5	193	10	21	8			371
Mean Weight		2.31	4	3.3	2.11	4.22	2.64			2.96
Std. Error		0.07		0.1	0.32	0.28	0.52			0.06
Sample Size		35	1	39	4	6	2			87
Females	2,054	44,160	2,054	99,617	4,108	10,270	7,189			169,452
Percent	0.37	8.02	0.37	18.10	0.75	1.87	1.31			30.78
Sample Size	2	43	2	97	4	10	7			165
Mean Length	588	490	596	550	501	569	541			535
Std. Error	12	3	16	2	8	6	6			2
Sample Size	2	43	2	97	4	10	7			165
Mean Weight		1.94		2.66	2.03					2.43
Std. Error		0.06		0.06	0.12					0.04
Sample Size		15		27	4					46
Both Sexes	5,135	178,694	7,189	297,823	14,378	31,837	15,405			550,461
Percent	0.93	32.46	1.31	54.10	2.61	5.78	2.80			100.00
Sample Size	5	174	7	290	14	31	15			536
Mean Length	531	497	602	566	505	590	560			543
Std. Error	9	2	8	2	9	5	7			1
Sample Size	5	174	7	290	14	31	15			536
Mean Weight		2.22	4	3.09	2.09	4.22	2.64			2.81
Std. Error		0.06		0.07	0.23	0.28	0.52			0.05
Sample Size		50	1	66	8	6	2			133

- Continued -

Table 10. (p 2 of 6)

	Age Group									
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	3.3	Total[a]
Sample Period 3: July 4 - July 5										
Males	1,369	57,479	684	110,853	2,053	10,948	6,158			189,544
Percent	0.52	21.71	0.26	41.86	0.78	4.13	2.33			71.58
Sample Size	2	84	1	162	3	16	9			277
Mean Length	544	500	625	569	522	593	562			549
Std. Error	1	3		2	21	6	6			2
Sample Size	2	84	1	162	3	16	9			277
Mean Weight		2.06		2.91		3.9	2.65			2.7
Std. Error		0.07		0.1		0.39	0.05			0.07
Sample Size		13		34		2	3			52
Females	684	26,687		40,372	1,369	3,421	2,737			75,270
Percent	0.26	10.08		15.25	0.52	1.29	1.03			28.42
Sample Size	1	39		59	2	5	4			110
Mean Length	525	492		547	509	582	547			528
Std. Error		3		3	27	13	13			2
Sample Size	1	39		59	2	5	4			110
Mean Weight		1.98		2.65	2.42	.	2.76			2.4
Std. Error		0.13		0.16						0.1
Sample Size		7		9	1		1			18
Both Sexes	2,053	84,166	684	151,225	3,422	14,369	8,895			264,814
Percent	0.78	31.78	0.26	57.11	1.29	5.43	3.36			100.00
Sample Size	3	123	1	221	5	21	13			387
Mean Length	537	498	625	563	517	590	557			543
Std. Error	1	2		2	17	6	6			1
Sample Size	3	123	1	221	5	21	13			387
Mean Weight		2.03		2.84	2.42	3.9	2.68			2.61
Std. Error		0.06		0.09		0.39	0.05			0.06
Sample Size		20		43	1	2	4			70
Sample Period 4: July 6										
Males	6,879	76,814	3,439	167,385	6,879	17,197	6,879			285,472
Percent	1.66	18.51	0.83	40.33	1.66	4.14	1.66			68.78
Sample Size	6	67	3	146	6	15	6			249
Mean Length	557	512	590	564	481	589	570			550
Std. Error	12	5	30	3	9	6	13			2
Sample Size	6	67	3	146	6	15	6			249
Mean Weight		2.1		3.27	1.7	4.3				2.96
Std. Error		0.11		0.13		0.29				0.09
Sample Size		9		21	1	3				34
Females	3,439	49,298		61,910	5,732	4,586	4,586			129,551
Percent	0.83	11.88		14.92	1.38	1.10	1.10			31.22
Sample Size	3	43		54	5	4	4			113
Mean Length	499	496		537	497	569	551			521
Std. Error	10	5		4	10	8	12			3
Sample Size	3	43		54	5	4	4			113
Mean Weight		1.97		2.74						2.4
Std. Error		0.05		0.27						0.15
Sample Size		2		6						8
Both Sexes	10,318	126,112	3,439	229,295	12,611	21,783	11,465			415,023
Percent	2.49	30.39	0.83	55.25	3.04	5.25	2.76			100.00
Sample Size	9	110	3	200	11	19	10			362
Mean Length	538	506	590	557	488	585	563			541
Std. Error	8	3	30	2	7	5	9			2
Sample Size	9	110	3	200	11	19	10			362
Mean Weight		2.05		3.13	1.7	4.3				2.8
Std. Error		0.07		0.12		0.29				0.08
Sample Size		11		27	1	3				42

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Table 10. (p 3 of 6)

	Age Group									
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	3.3	Total[a]
Sample Period 5: July 7 - July 8										
Males	665	57,894		85,842	1,996	7,320	5,324			159,041
Percent	0.22	19.42		28.79	0.67	2.46	1.79			53.35
Sample Size	1	87		129	3	11	8			239
Mean Length	551	515		577	489	599	577			554
Std. Error		3		2	30	7	10			2
Sample Size	1	87		129	3	11	8			239
Mean Weight	2.64	2.36		3.3	2.35	3.25	3.12			2.93
Std. Error		0.14		0.09	0.33	0.15	0.14			0.07
Sample Size	1	23		34	2	2	4			66
Females	1,331	41,923		85,843	1,331	5,989	1,996		665	139,078
Percent	0.45	14.06		28.79	0.45	2.01	0.67		0.22	46.65
Sample Size	2	63		129	2	9	3		1	209
Mean Length	541	491		553	510	589	555		486	535
Std. Error	11	3		2	6	4	18			1
Sample Size	2	63		129	2	9	3		1	209
Mean Weight	2.48	1.84		2.67			2.51		1.95	2.4
Std. Error	0.03	0.06		0.06			0.08			0.04
Sample Size	2	20		39			2		1	64
Both Sexes	1,996	99,817		171,685	3,327	13,309	7,320		665	298,119
Percent	0.67	33.48		57.59	1.12	4.46	2.46		0.22	100.00
Sample Size	3	150		258	5	20	11		1	448
Mean Length	544	505		565	497	594	571		486	545
Std. Error	11	2		1	18	4	9			1
Sample Size	3	150		258	5	20	11		1	448
Mean Weight	2.53	2.14		2.98	2.35	3.25	2.95		1.95	2.69
Std. Error	0.03	0.09		0.05	0.33	0.15	0.11			0.04
Sample Size	3	43		73	2	2	6		1	130
Sample Period 6: July 9 - July 10										
Males	898	75,444		116,761	2,694	8,083	7,185	898		211,963
Percent	0.29	24.78		38.35	0.88	2.65	2.36	0.29		69.62
Sample Size	1	84		130	3	9	8	1		236
Mean Length	522	501		562	496	596	546	605		540
Std. Error		3		2	5	9	5			2
Sample Size	1	84		130	3	9	8	1		236
Mean Weight		2.27		3.06	2.18	3.89	2.52			2.78
Std. Error		0.06		0.08	0.01		0.11			0.05
Sample Size		22		30	2	1	4			59
Females		27,843		53,888	898	4,491	5,389			92,509
Percent		9.14		17.70	0.29	1.48	1.77			30.38
Sample Size		31		60	1	5	6			103
Mean Length		495		538	477	563	559			527
Std. Error		4		3		8	10			2
Sample Size		31		60	1	5	6			103
Mean Weight		2.02		2.62			3			2.45
Std. Error		0.09		0.08			0.01			0.06
Sample Size		7		16			2			25
Both Sexes	898	103,287		170,649	3,592	12,574	12,574	898		304,472
Percent	0.29	33.92		56.05	1.18	4.13	4.13	0.29		100.00
Sample Size	1	115		190	4	14	14	1		339
Mean Length	522	499		555	491	584	552	605		536
Std. Error		2		2	5	6	5			1
Sample Size	1	115		190	4	14	14	1		339
Mean Weight		2.2		2.92	2.18	3.89	2.73			2.68
Std. Error		0.05		0.06	0.01		0.06			0.04
Sample Size		29		46	2	1	6			84

- Continued -

Table 10. (p 4 of 6)

	Age Group									
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	3.3	Total[a]
Sample Period 7: July 11 - July 13										
Males		60,658		55,484	2,116	2,586	3,291			124,135
Percent		29.69		27.16	1.04	1.27	1.61			60.76
Sample Size		258		236	9	11	14			528
Mean Length		501		565	507	582	585			534
Std. Error		2		2	9	8	6			1
Sample Size		258		236	9	11	14			528
Mean Weight		2.18		3.02	1.69	3.69	3.34			2.61
Std. Error		0.05		0.07		0.21	0.53			0.04
Sample Size		69		51	1	2	2			125
Females	235	39,967		35,501	2,351	1,411	705			80,170
Percent	0.12	19.56		17.38	1.15	0.69	0.35			39.24
Sample Size	1	170		151	10	6	3			341
Mean Length	563	487		543	489	557	552			514
Std. Error		1		2	9	15	14			1
Sample Size	1	170		151	10	6	3			341
Mean Weight	3.03	1.82		2.55	1.97	3.15	2.98			2.18
Std. Error		0.03		0.04	0.25	0.23	0.06			0.03
Sample Size	1	43		40	5	2	2			93
Both Sexes	235	100,625		90,985	4,467	3,997	3,996			204,305
Percent	0.12	49.25		44.53	2.19	1.96	1.96			100.00
Sample Size	1	428		387	19	17	17			869
Mean Length	563	495		557	498	573	579			526
Std. Error		1		1	6	8	5			1
Sample Size	1	428		387	19	17	17			869
Mean Weight	3.03	2.04		2.84	1.84	3.5	3.28			2.44
Std. Error		0.03		0.05	0.25	0.15	0.44			0.03
Sample Size	1	112		91	6	4	4			218
Sample Period 8: July 14										
Males	383	33,698		50,164	1,532	8,424	3,446			97,647
Percent	0.28	24.31		36.19	1.11	6.08	2.49			70.44
Sample Size	1	88		131	4	22	9			255
Mean Length	555	504		553	504	579	562			538
Std. Error		2		3	9	6	9			2
Sample Size	1	88		131	4	22	9			255
Mean Weight		2.47		2.99	2.4	3.23	3.09			2.82
Std. Error		0.14		0.07		0.34	0.11			0.07
Sample Size		20		43	1	5	6			75
Females		11,871		24,891	383	3,446	383			40,974
Percent		8.56		17.96	0.28	2.49	0.28			29.56
Sample Size		31		65	1	9	1			107
Mean Length		489		535	502	570	527			524
Std. Error		5		3		9				2
Sample Size		31		65	1	9	1			107
Mean Weight		1.83		2.59		2.62				2.37
Std. Error		0.04		0.13						0.08
Sample Size		6		11		1				18
Both Sexes	383	45,569		75,055	1,915	11,870	3,829			138,621
Percent	0.28	32.87		54.14	1.38	8.56	2.76			100.00
Sample Size	1	119		196	5	31	10			362
Mean Length	555	500		547	504	576	558			534
Std. Error		2		2	9	5	9			1
Sample Size	1	119		196	5	31	10			362
Mean Weight		2.3		2.86	2.4	3.05	3.09			2.69
Std. Error		0.1		0.06		0.34	0.11			0.05
Sample Size		26		54	1	6	6			93

- Continued -

Table 10. (p 5 of 6)

	Age Group									
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	3.3	Total*
Sample Period 9: July 15 - July 17										
Males		32,818		33,208	4,688	1,172	3,126			75,012
Percent		27.18		27.51	3.88	0.97	2.59			62.14
Sample Size		84		85	12	3	8			192
Mean Length		508		573	516	590	584			542
Std. Error		3		3	8	20	7			2
Sample Size		84		85	12	3	8			192
Females		27,348		14,456	1,563	781	1,172	391		45,711
Percent		22.65		11.97	1.29	0.65	0.97	0.32		37.86
Sample Size		70		37	4	2	3	1		117
Mean Length		484		544	488	581	549	546		507
Std. Error		2		3	9	6	18			2
Sample Size		70		37	4	2	3	1		117
Both Sexes		60,166		47,664	6,251	1,953	4,298	391		120,723
Percent		49.84		39.48	5.18	1.62	3.56	0.32		100.00
Sample Size		154		122	16	5	11	1		309
Mean Length		497		564	508	586	574	546		529
Std. Error		2		2	6	12	7			1
Sample Size		154		122	16	5	11	1		309
Sample Period 10: July 18 - July 29										
Males	365	31,629		47,099	1,432	7,904	3,229			91,658
Percent	0.28	24.29		36.17	1.10	6.07	2.48			70.39
Sample Size	1	88		131	4	22	9			255
Mean Length										
Std. Error										
Sample Size										
Females		11,172		23,412	365	3,242	365			38,556
Percent		8.58		17.98	0.28	2.49	0.28			29.61
Sample Size		31		65	1	9	1			107
Mean Length										
Std. Error										
Sample Size										
Both Sexes	365	42,801		70,511	1,797	11,146	3,594			130,214
Percent	0.28	32.87		54.15	1.38	8.56	2.76			100.00
Sample Size	1	119		196	5	31	10			362
Mean Length										
Std. Error										
Sample Size										

- Continued -

Table 10. (p 6 of 6)

	Age Group									
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	3.3	Total*
All Periods Combined:										
Males	14,237	567,235	9,407	878,506	34,182	85,649	47,749	1,047		1,638,012
Percent	0.57	22.89	0.38	35.45	1.38	3.46	1.93	0.04		66.10
Sample Size	23	1,055	11	1,524	61	136	91	3		2,904
Mean Length	525	476	600	538	481	538	531	607		515
Std. Error	7	1	13	1	5	3	3	14		1
Sample Size	22	967	11	1,393	57	114	82	3		2,649
Mean Weight	3.09	2.24	4	3.17	2.03	3.93	2.83	4.19		2.86
Std. Error	0.15	0.03		0.04	0.22	0.14	0.14	0.26		0.03
Sample Size	3	210	1	308	13	24	25	2		586
Females	8,489	283,775	2,278	460,182	18,697	38,980	26,238	615	665	839,919
Percent	0.34	11.45	0.09	18.57	0.75	1.57	1.06	0.02	0.03	33.90
Sample Size	19	568	5	989	38	77	55	4	1	1,756
Mean Length	535	472	594	518	487	525	542	560	486	503
Std. Error	6	1	15	1	5	3	4	27		1
Sample Size	19	537	5	924	37	68	54	4	1	1,649
Mean Weight	2.65	1.92		2.66	2.07	2.82	2.89		1.95	2.4
Std. Error	0.04	0.03		0.05	0.12	0.17	0.03			0.03
Sample Size	7	112		210	12	6	12		1	360
Both Sexes	22,726	851,010	11,685	1,338,688	52,879	124,629	73,987	1,662	665	2,477,931
Percent	0.92	34.34	0.47	54.02	2.13	5.03	2.99	0.07	0.03	100.00
Sample Size	41	1,504	16	2,317	94	182	136	7	1	4,298
Mean Length	537	500	599	560	500	587	562	589	486	539
Std. Error	5	1	11	1	4	2	3	17		0
Sample Size	41	1,504	16	2,317	94	182	136	7	1	4,298
Mean Weight	2.81	2.14	4	2.99	2.04	3.85	2.85	4.19	1.95	2.71
Std. Error	0.04	0.02		0.03	0.15	0.13	0.11	0.26		0.02
Sample Size	10	322	1	518	25	30	37	2	1	946

* Total does not include Igushik Beach setnet catch (28,887).

Table 11. Age, sex, and size (length in mm and weight in kg) composition of sockeye salmon escapement, Wood River, 1997.

	Age Group							
	1.1	0.3	1.2	1.3	2.2	1.4	2.3	Total
Sample Period 1: June 22 - July 1								
Males			55,751	76,989	2,655			135,395
Percent			16.94	23.39	0.81			41.13
Sample Size			63	87	3			153
Mean Length			514	583	508			553
Std. Error			4	3	9			2
Sample Size			63	87	3			153
Females		885	69,025	115,926	2,655		5,310	193,801
Percent		0.27	20.97	35.21	0.81		1.61	58.87
Sample Size		1	78	131	3		6	219
Mean Length		563	497	558	479		584	536
Std. Error			4	2	22		12	2
Sample Size		1	78	130	3		6	218
Both Sexes		885	124,776	192,915	5,310		5,310	329,196
Percent		0.27	37.90	58.60	1.61		1.61	100.00
Sample Size		1	141	218	6		6	372
Mean Length		563	504	568	494		584	543
Std. Error			3	2	12		12	1
Sample Size		1	141	217	6		6	371
Sample Period 2: July 2 - July 9								
Males			185,644	183,263	7,140	9,520	4,760	390,327
Percent			22.74	22.45	0.87	1.17	0.58	47.81
Sample Size			78	77	3	4	2	164
Mean Length			504	585	544	621	599	547
Std. Error			4	3	12	12	6	2
Sample Size			78	77	3	4	2	164
Females	7,140		249,904	147,563	11,900	7,140	2,380	426,027
Percent	0.87		30.61	18.08	1.46	0.87	0.29	52.19
Sample Size	3		105	62	5	3	1	179
Mean Length	361		476	548	479	592	538	501
Std. Error	5		2	3	11	13		2
Sample Size	3		105	62	5	3	1	179
Both Sexes	7,140		435,548	330,826	19,040	16,660	7,140	816,354
Percent	0.87		53.35	40.52	2.33	2.04	0.87	100.00
Sample Size	3		183	139	8	7	3	343
Mean Length	361		488	569	503	609	578	523
Std. Error	5		2	2	8	9	6	1
Sample Size	3		183	139	8	7	3	343

- Continued -

Table 11. (p 2 of 2)

	Age Group							
	1.1	0.3	1.2	1.3	2.2	1.4	2.3	Total
Sample Period 3: July 10 - July 22								
Males	2,678		89,257	65,158	5,355	1,785	4,463	168,696
Percent	0.73		24.33	17.76	1.46	0.49	1.22	45.99
Sample Size	3		100	73	6	2	5	189
Mean Length	359		499	579	518	633	568	532
Std. Error	14		3	4	13	1	8	2
Sample Size	3		100	73	6	2	5	189
Females			157,092	31,240	6,248	1,785	1,785	198,150
Percent			42.82	8.52	1.70	0.49	0.49	54.01
Sample Size			176	35	7	2	2	222
Mean Length			470	533	465	586	514	481
Std. Error			2	7	7	20	10	2
Sample Size			175	35	7	2	2	221
Both Sexes	2,678		246,349	96,398	11,603	3,570	6,248	366,846
Percent	0.73		67.15	26.28	3.16	0.97	1.70	100.00
Sample Size	3		276	108	13	4	7	411
Mean Length	359		481	564	490	609	552	505
Std. Error	14		2	3	7	10	7	1
Sample Size	3		275	108	13	4	7	410
All Periods Combined:								
Males	2,678		330,652	325,410	15,150	11,305	9,223	694,418
Percent	0.18		21.86	21.52	1.00	0.75	0.61	45.92
Sample Size	3		241	237	12	6	7	506
Mean Length	359		505	584	528	623	584	544
Std. Error	14		2	2	7	10	5	1
Sample Size	3		241	237	12	6	7	506
Females	7,140	885	476,021	294,729	20,803	8,925	9,475	817,978
Percent	0.47	0.06	31.47	19.49	1.38	0.59	0.63	54.08
Sample Size	3	1	359	228	15	5	9	620
Mean Length	361	563	477	550	475	591	559	504
Std. Error	5		1	2	7	11	9	1
Sample Size	3	1	358	227	15	5	9	618
Both Sexes	9,818	885	806,673	620,139	35,953	20,230	18,698	1,512,396
Percent	0.65	0.06	53.34	41.00	2.38	1.34	1.24	100.00
Sample Size	6	1	600	465	27	11	16	1,126
Mean Length	360	563	488	568	497	609	571	523
Std. Error	5		1	1	5	8	5	1
Sample Size	6	1	599	464	27	11	16	1,124

Table 12. Age, sex, and size (length in mm and weight in kg) composition of sockeye salmon escapement, Igushik River, 1997.

	Age Group						
	0.3	1.2	1.3	2.2	1.4	2.3	Total
Sample Period 1: June 23 - July 15							
Males		12,650	18,975	198	791	2,174	34,788
Percent		15.72	23.59	0.25	0.98	2.70	43.24
Sample Size		64	96	1	4	11	176
Mean Length		529	584	513	598	579	564
Std. Error		4	3		13	9	2
Sample Size		64	96	1	4	11	176
Females		22,533	20,359	791	198	1,779	45,660
Percent		28.01	25.31	0.98	0.25	2.21	56.76
Sample Size		114	103	4	1	9	231
Mean Length		495	552	524	586	565	524
Std. Error		3	2	21		7	2
Sample Size		113	103	4	1	9	230
Both Sexes		35,183	39,334	989	989	3,953	80,448
Percent		43.73	48.89	1.23	1.23	4.91	100.00
Sample Size		178	199	5	5	20	407
Mean Length		507	567	521	596	573	541
Std. Error		2	2	21	13	6	1
Sample Size		177	199	5	5	20	406
Sample Period 2: July 16 - July 24							
Males	158	9,764	9,609	1,103	158	1,418	22,210
Percent	0.33	20.66	20.33	2.33	0.33	3.00	47.00
Sample Size	1	62	61	7	1	9	141
Mean Length	582	513	582	517	572	604	550
Std. Error		3	3	10		5	2
Sample Size	1	62	61	7	1	9	141
Females		17,641	5,986	1,103	158	158	25,046
Percent		37.33	12.67	2.33	0.33	0.33	53.00
Sample Size		112	38	7	1	1	159
Mean Length		489	543	483	432	577	502
Std. Error		3	6	6			2
Sample Size		111	38	6	1	1	157
Both Sexes	158	27,405	15,595	2,206	316	1,576	47,256
Percent	0.33	57.99	33.00	4.67	0.67	3.34	100.00
Sample Size	1	174	99	14	2	10	300
Mean Length	582	497	567	500	502	602	524
Std. Error		2	3	6		5	2
Sample Size	1	173	99	13	2	10	298

- Continued -

Table 12. (p 2 of 2)

	Age Group						
	0.3	1.2	1.3	2.2	1.4	2.3	Total
All Periods Combined:							
Males	158	22,414	28,584	1,301	949	3,592	56,998
Percent	0.12	17.55	22.38	1.02	0.74	2.81	44.63
Sample Size	1	126	157	8	5	20	317
Mean Length	582	522	583	516	594	589	558
Std. Error		2	2	10	13	6	2
Sample Size	1	126	157	8	5	20	317
Females		40,174	26,345	1,894	356	1,937	70,706
Percent		31.46	20.63	1.48	0.28	1.52	55.37
Sample Size		226	141	11	2	10	390
Mean Length		492	550	500	518	566	516
Std. Error		2	2	9		7	1
Sample Size		224	141	10	2	10	387
Both Sexes	158	62,588	54,929	3,195	1,305	5,529	127,704
Percent	0.12	49.01	43.01	2.50	1.02	4.33	100.00
Sample Size	1	352	298	19	7	30	707
Mean Length	582	503	567	507	573	581	535
Std. Error		2	2	7	13	4	1
Sample Size	1	350	298	18	7	30	704

Table 13. Age, sex, and size (length in mm and weight in kg) composition of sockeye salmon escapement, Nushagak River, 1997.

	Age Group									
	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 1: June 9 - July 2										
Males	396	1,585	5,945	396	56,281	1,585	5,945	1,189	396	73,718
Percent	0.28	1.10	4.14	0.28	39.23	1.10	4.14	0.83	0.28	51.38
Sample Size	1	4	15	1	142	4	15	3	1	186
Mean Length	440	612	453	602	578	441	604	595	512	567
Std. Error		8	16		5	110	20	14		5
Sample Size	1	4	15	1	142	4	15	3	1	186
Females		3,567	2,378		48,748		12,286	1,982	793	69,754
Percent		2.49	1.66		33.98		8.56	1.38	0.55	48.62
Sample Size		9	6		123		31	5	2	176
Mean Length		538	451		550		588	581	551	553
Std. Error		27	59		5		10	10	17	4
Sample Size		9	5		123		31	5	2	175
Both Sexes	396	5,152	8,323	396	105,029	1,585	18,231	3,171	1,189	143,472
Percent	0.28	3.59	5.80	0.28	73.21	1.10	12.71	2.21	0.83	100.00
Sample Size	1	13	21	1	265	4	46	8	3	362
Mean Length	440	561	452	602	565	441	593	586	538	560
Std. Error		19	21		3	110	10	8	17	3
Sample Size	1	13	20	1	265	4	46	8	3	361
Sample Period 2: July 3 - July 12										
Males		1,785	5,354		47,825	357	6,068	1,071	357	62,817
Percent		1.36	4.08		36.41	0.27	4.62	0.82	0.27	47.83
Sample Size		5	15		134	1	17	3	1	176
Mean Length		538	487		585	532	605	571	640	577
Std. Error		22	12		3		7	6		2
Sample Size		5	15		134	1	17	3	1	176
Females		1,071	7,495		48,540	357	10,707		357	68,527
Percent		0.82	5.71		36.96	0.27	8.15		0.27	52.17
Sample Size		3	21		136	1	30		1	192
Mean Length		566	487		546	500	579		590	545
Std. Error		8	8		2		4			2
Sample Size		3	21		134	1	30		1	190
Both Sexes		2,856	12,849		96,365	714	16,775	1,071	714	131,344
Percent		2.17	9.78		73.37	0.54	12.77	0.82	0.54	100.00
Sample Size		8	36		270	2	47	3	2	368
Mean Length		548	487		566	516	588	571	615	561
Std. Error		14	7		2		3	6		1
Sample Size		8	36		268	2	47	3	2	366

- Continued -

Table 13. (p 2 of 2)

	Age Group									
	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 3: July 13 - September 1										
Males		2,870	5,102		28,700	638	7,016	957		45,283
Percent		2.92	5.19		29.22	0.65	7.14	0.97		46.10
Sample Size		9	16		90	2	22	3		142
Mean Length		574	461		579	501	607	577		569
Std. Error		10	12		3	23	7	4		2
Sample Size		9	16		90	2	22	3		142
Females		1,594	5,102		36,354	638	8,291	319	638	52,936
Percent		1.62	5.19		37.01	0.65	8.44	0.32	0.65	53.90
Sample Size		5	16		114	2	26	1	2	166
Mean Length		536	487		535	520	569	515	562	536
Std. Error		10	17		2	20	4		5	2
Sample Size		5	16		113	2	25	1	2	164
Both Sexes		4,464	10,204		65,054	1,276	15,307	1,276	638	98,219
Percent		4.54	10.39		66.23	1.30	15.58	1.30	0.65	100.00
Sample Size		14	32		204	4	48	4	2	308
Mean Length		561	474		554	510	587	562	562	551
Std. Error		7	10		2	15	4	4	5	2
Sample Size		14	32		203	4	47	4	2	306
All Periods Combined:										
Males	396	6,240	16,401	396	132,806	2,580	19,029	3,217	753	181,818
Percent	0.11	1.67	4.40	0.11	35.60	0.69	5.10	0.86	0.20	48.74
Sample Size	1	18	46	1	366	7	54	9	2	504
Mean Length	440	573	467	602	581	468	606	582	573	571
Std. Error		8	8		2	79	7	6		2
Sample Size	1	18	46	1	366	7	54	9	2	504
Females		6,232	14,975		133,642	995	31,284	2,301	1,788	191,217
Percent		1.67	4.01		35.83	0.27	8.39	0.62	0.48	51.26
Sample Size		17	43		373	3	87	6	5	534
Mean Length		542	481		544	513	580	572	563	546
Std. Error		16	12		2	20	4	10	10	2
Sample Size		17	42		370	3	86	6	5	529
Both Sexes	396	12,472	31,376	396	266,448	3,575	50,313	5,518	2,541	373,035
Percent	0.11	3.34	8.41	0.11	71.43	0.96	13.49	1.48	0.68	100.00
Sample Size	1	35	89	1	739	10	141	15	7	1,038
Mean Length	440	558	474	602	563	481	590	578	566	558
Std. Error		9	7		1	62	4	5	10	1
Sample Size	1	35	88	1	736	10	140	15	7	1,033

Table 14. Age, sex and size (length in mm and weight in kg) composition of sockeye salmon escapement, Nuyakuk River, 1997.

	Age Group						
	0.3	1.2	1.3	2.2	1.4	2.3	Total [a]
Sample period: June 30 - July 26							
Males	956	32,031	90,836	1,434	2,868	956	129,081
Percent	0.35	11.73	33.28	0.53	1.05	0.35	47.29
Sample Size	2	67	190	3	6	2	270
Mean Length	617	458	593	517	596	588	559
Std. Error	16	6	3	13	29	48	3
Sample Size	2	66	187	3	6	2	266
Females	2,390	11,952	119,519		10,040		143,901
Percent	0.88	4.38	43.78		3.68		52.71
Sample Size	5	25	250		21		301
Mean Length	565	491	558		580		554
Std. Error	13	8	2		6		2
Sample Size	5	25	249		21		300
Both Sexes	3,346	43,983	210,355	1,434	12,908	956	272,982
Percent	1.23	16.11	77.06	0.53	4.73	0.35	100.00
Sample Size	7	92	440	3	27	2	571
Mean Length	580	467	573	517	584	588	556
Std. Error	11	5	2	13	8	48	2
Sample Size	7	91	436	3	27	2	566

[a] Enumeration and escapement sampling was done by Fisheries Research Institute personnel from University of Washington.

Table 15. Age, sex, and size (length in mm and weight in kg) composition of sockeye salmon commercial catch, Togiak River Section, Togiak District, 1997.

	Age Group								
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 1: June 10 - July 6									
Males	305	1,627	305	15,453	102	2,033	1,627		21,452
Percent	0.72	3.87	0.72	36.71	0.24	4.83	3.87		50.97
Sample Size	3	16	3	152	1	20	16		211
Mean Length	582	527	622	588	524	617	602		587
Std. Error	8	5	25	2		6	8		2
Sample Size	2	16	3	151	1	20	16		209
Mean Weight	3.57	2.88	4	3.75		4.57	3.99		3.78
Std. Error		0.16		0.08		0.2	0.17		0.07
Sample Size	1	6	1	46		6	5		65
Females	407	2,237	102	14,232	610	2,237	813		20,638
Percent	0.97	5.31	0.24	33.81	1.45	5.31	1.93		49.03
Sample Size	4	22	1	140	6	22	8		203
Mean Length	577	520	588	556	537	572	565		554
Std. Error	7	6		2	11	5	10		2
Sample Size	4	22	1	135	6	21	8		197
Mean Weight	3.34	2.2	3.54	3.05		3.12	2.73		2.96
Std. Error		0.05		0.1		0.16	0.11		0.07
Sample Size	1	3	1	25		5	2		37
Both Sexes	712	3,864	407	29,685	712	4,270	2,440		42,090
Percent	1.69	9.18	0.97	70.53	1.69	10.14	5.80		100.00
Sample Size	7	38	4	292	7	42	24		414
Mean Length	579	523	613	573	535	594	589		571
Std. Error	6	4	25	2	11	4	6		1
Sample Size	6	38	4	286	7	41	24		406
Mean Weight	3.44	2.49	3.88	3.41		3.81	3.57		3.38
Std. Error		0.07		0.06		0.13	0.12		0.05
Sample Size	2	9	2	71		11	7		102
Sample Period 2: July 7 - July 13									
Males	308	924	103	6,675	359	1,181	1,027		10,577
Percent	1.46	4.37	0.49	31.55	1.70	5.58	4.85		50.00
Sample Size	6	18	2	130	7	23	20		206
Mean Length	587	538	623	593	535	608	600		589
Std. Error	11	4	39	2	10	8	6		2
Sample Size	6	18	2	130	7	23	20		206
Mean Weight	4.2	2.74		3.8	3.17	4.49	3.32		3.73
Std. Error		0.4		0.09	0.79	0.34	0.28		0.09
Sample Size	1	3		33	2	5	7		51
Females	308	1,335	51	7,446	205	719	462	51	10,577
Percent	1.46	6.31	0.24	35.20	0.97	3.40	2.18	0.24	50.00
Sample Size	6	26	1	145	4	14	9	1	206
Mean Length	541	525	559	558	541	575	577	572	555
Std. Error	5	5		2	9	6	9		2
Sample Size	6	26	1	145	4	14	9	1	206
Mean Weight		2.63		3.03	2.92	3.73	2.81		3.01
Std. Error		0.28		0.07		0.06	0.12		0.06
Sample Size		5		41	1	3	2		52
Both Sexes	616	2,259	154	14,121	564	1,900	1,489	51	21,154
Percent	2.91	10.68	0.73	66.75	2.67	8.98	7.04	0.24	100.00
Sample Size	12	44	3	275	11	37	29	1	412
Mean Length	564	530	601	574	537	596	593	572	572
Std. Error	6	3	39	1	7	6	5		1
Sample Size	12	44	3	275	11	37	29	1	412
Mean Weight	4.2	2.67		3.39	3.08	4.2	3.16		3.38
Std. Error		0.23		0.06	0.79	0.22	0.2		0.05
Sample Size	1	8		74	3	8	9		103

- Continued -

Table 15. (p 2 of 2)

	Age Group								
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 3: July 14 - August 26									
Males		3,970		7,335	807	336	1,548		13,996
Percent		13.98		25.83	2.84	1.18	5.45		49.29
Sample Size		59		109	12	5	23		208
Mean Length		537		581	551	577	600		569
Std. Error		4		3	9	10	5		2
Sample Size		59		109	12	5	23		208
Mean Weight		2.73		3.64	2.84	3.89	3.55		3.33
Std. Error		0.09		0.09	0.01	0.28	0.32		0.07
Sample Size		16		31	2	2	3		54
Females	67	3,499		7,536	875	673	1,750		14,400
Percent	0.24	12.32		26.54	3.08	2.37	6.16		50.71
Sample Size	1	52		112	13	10	26		214
Mean Length	560	523		553	514	557	563		545
Std. Error		5		3	10	8	5		2
Sample Size	1	52		112	13	10	26		214
Mean Weight	3.13	2.45		2.92	2.33	3.34	2.92		2.79
Std. Error		0.16		0.08	0.24	0.13	0.32		0.07
Sample Size	1	9		30	3	4	3		50
Both Sexes	67	7,469		14,871	1,682	1,009	3,298		28,396
Percent	0.24	26.30		52.37	5.92	3.55	11.61		100.00
Sample Size	1	111		221	25	15	49		422
Mean Length	560	530		567	532	564	580		557
Std. Error		3		2	7	6	4		1
Sample Size	1	111		221	25	15	49		422
Mean Weight	3.13	2.6		3.28	2.57	3.52	3.22		3.06
Std. Error		0.09		0.06	0.13	0.12	0.23		0.05
Sample Size	1	25		61	5	6	6		104
All Periods Combined:									
Males	613	6,521	408	29,463	1,268	3,550	4,202		46,025
Percent	0.67	7.12	0.45	32.15	1.38	3.87	4.59		50.22
Sample Size	9	93	5	391	20	48	59		625
Mean Length	584	534	622	588	544	610	601		582
Std. Error	7	3	21	2	7	4	4		1
Sample Size	8	93	5	390	20	48	59		623
Mean Weight	3.89	2.77	4	3.73	2.94	4.48	3.66		3.63
Std. Error		0.09		0.05	0.24	0.16	0.15		0.04
Sample Size	2	25	1	110	4	13	15		170
Females	782	7,071	153	29,214	1,690	3,629	3,025	51	45,615
Percent	0.85	7.72	0.17	31.88	1.84	3.96	3.30	0.06	49.78
Sample Size	11	100	2	397	23	46	43	1	623
Mean Length	561	522	578	556	525	570	565	572	551
Std. Error	5	3		1	7	3	4		1
Sample Size	11	100	2	392	23	45	43	1	617
Mean Weight	3.31	2.4	3.54	3.01	2.44	3.28	2.85		2.92
Std. Error		0.1		0.05	0.24	0.1	0.19		0.04
Sample Size	2	17	1	96	4	12	7		139
Both Sexes	1,395	13,592	561	58,677	2,958	7,179	7,227	51	91,640
Percent	1.52	14.83	0.61	64.03	3.23	7.83	7.89	0.06	100.00
Sample Size	20	193	7	788	43	94	102	1	1,248
Mean Length	571	528	610	572	533	590	586	572	567
Std. Error	4	2	21	1	5	3	3		1
Sample Size	19	193	7	782	43	93	102	1	1,240
Mean Weight	3.64	2.58	3.88	3.37	2.7	3.87	3.32		3.28
Std. Error		0.07		0.04	0.17	0.1	0.12		0.03
Sample Size	4	42	2	206	8	25	22		309

Table 16. Age, sex, and size (length in mm and weight in kg) composition of sockeye salmon commercial catch, Kulukak Section, Togiak District, 1997.

	Age Group							
	0.3	1.2	0.4	1.3	2.2	1.4	2.3	Total
Sample period: June 16 - July 15								
Males	563	3,154	113	15,541	451	2,365	1,239	23,426
Percent	1.17	6.57	0.24	32.39	0.94	4.93	2.58	48.83
Sample Size	5	28	1	138	4	21	11	208
Mean Length	571	539	585	586	551	610	593	582
Std. Error	19	7		2	13	6	8	2
Sample Size	5	28	1	135	4	21	11	205
Mean Weight	3.36	2.87		3.62	2.79	3.94	3.44	3.52
Std. Error	0.45	0.19		0.1		0.34	0.5	0.08
Sample Size	3	9		68	1	7	3	91
Females	563	2,590	225	17,345	1,014	1,915	901	24,553
Percent	1.17	5.40	0.47	36.15	2.11	3.99	1.88	51.17
Sample Size	5	23	2	154	9	17	8	218
Mean Length	545	523	570	556	520	573	565	552
Std. Error	10	6	1	2	6	6	8	2
Sample Size	5	23	2	152	9	17	8	216
Mean Weight	2.32	2.6	3.24	2.96	2.52	3.18	2.8	2.9
Std. Error		0.44	0.24	0.06	0.16	0.14		0.06
Sample Size	1	3	2	61	3	7	1	78
Both Sexes	1,126	5,744	338	32,886	1,465	4,280	2,140	47,979
Percent	2.35	11.97	0.70	68.54	3.05	8.92	4.46	100.00
Sample Size	10	51	3	292	13	38	19	426
Mean Length	558	532	575	570	529	594	581	567
Std. Error	11	5	1	2	6	4	6	1
Sample Size	10	51	3	287	13	38	19	421
Mean Weight	2.84	2.75	3.24	3.27	2.6	3.6	3.17	3.2
Std. Error	0.45	0.22	0.24	0.06	0.16	0.2	0.5	0.05
Sample Size	4	12	2	129	4	14	4	169

Table 17. Age, sex, and size (length in mm and weight in kg) composition of sockeye salmon escapement, Togiak River, 1997.

	Age Group									
	0.2	1.1	0.3	1.2	1.3	2.2	1.4	2.3	2.4	Total[a]
Sample Period 1: July 3 - July 24										
Males		204	814	8,954	17,296	3,256	204	2,646		33,374
Percent		0.33	1.33	14.62	28.24	5.32	0.33	4.32		54.48
Sample Size		1	4	44	85	16	1	13		164
Mean Length		333	612	538	604	539	588	612		579
Std. Error			19	3	3	7		10		2
Sample Size		1	4	44	85	16	1	13		164
Females	204		407	8,751	11,191	3,053	204	4,070		27,880
Percent	0.33		0.66	14.29	18.27	4.98	0.33	6.64		45.52
Sample Size	1		2	43	55	15	1	20		137
Mean Length	560		561	500	569	512	584	569		541
Std. Error			17	4	3	8		9		2
Sample Size	1		2	43	55	15	1	19		136
Both Sexes	204	204	1,221	17,705	28,487	6,309	408	6,716		61,254
Percent	0.33	0.33	1.99	28.90	46.51	10.30	0.67	10.96		100.00
Sample Size	1	1	6	87	140	31	2	33		301
Mean Length	560	333	595	519	591	526	586	586		562
Std. Error			14	3	2	5		7		2
Sample Size	1	1	6	87	140	31	2	32		300
Sample Period 2: July 25 - August 9										
Males				7,305	11,092	4,870	271	7,305	271	31,114
Percent				10.38	15.77	6.92	0.39	10.38	0.39	44.23
Sample Size				27	41	18	1	27	1	115
Mean Length				512	590	523	607	599	639	564
Std. Error				6	5	7		7		3
Sample Size				27	41	18	1	27	1	115
Females			271	14,339	9,199	11,904		3,517		39,230
Percent			0.39	20.38	13.08	16.92		5.00		55.77
Sample Size			1	53	34	44		13		145
Mean Length			564	497	556	498		557		517
Std. Error				4	7	4		11		3
Sample Size			1	53	34	44		13		145
Both Sexes			271	21,644	20,291	16,774	271	10,822	271	70,344
Percent			0.39	30.77	28.85	23.85	0.39	15.38	0.39	100.00
Sample Size			1	80	75	62	1	40	1	260
Mean Length			564	502	575	505	607	585	639	538
Std. Error				3	4	3		6		2
Sample Size			1	80	75	62	1	40	1	260

- Continued -

Table 17. (p 2 of 2)

	Age Group									
	0.2	1.1	0.3	1.2	1.3	2.2	1.4	2.3	2.4	Total[a]
All Periods Combined:										
Males		204	814	16,259	28,388	8,126	475	9,951	271	64,488
Percent		0.16	0.62	12.36	21.57	6.17	0.36	7.56	0.21	49.00
Sample Size		1	4	71	126	34	2	40	1	279
Mean Length		333	612	526	599	529	599	602	639	572
Std. Error			19	3	3	5		6		2
Sample Size		1	4	71	126	34	2	40	1	279
Females	204		678	23,090	20,390	14,957	204	7,587		67,110
Percent	0.16		0.52	17.55	15.49	11.37	0.16	5.77		51.00
Sample Size	1		3	96	89	59	1	33		282
Mean Length	560		562	498	563	501	584	563		527
Std. Error			17	3	3	3		7		2
Sample Size	1		3	96	89	59	1	32		281
Both Sexes	204	204	1,492	39,349	48,778	23,083	679	17,538	271	131,598
Percent	0.16	0.16	1.13	29.90	37.07	17.54	0.52	13.33	0.21	100.00
Sample Size	1	1	7	167	215	93	3	73	1	561
Mean Length	560	333	589	510	584	511	594	585	639	549
Std. Error			14	2	2	3		4		1
Sample Size	1	1	7	167	215	93	3	72	1	560

[a] Total does not include (20,625) sockeye salmon counted in the tributaries and mainstem Togiak River, below the counting towers.

Table 18. Age and size (length in mm and weight in kg) composition of chinook salmon commercial catch, Nushagak District, 1997.

	Age Group					
	1.1	1.2	1.3	1.4	1.5	Total
Sample Period: June 11 - July 29						
Both Sexes	289	15,822	21,997	25,855	193	64,156
Percent	0.45	24.66	34.29	40.30	0.30	100.00
Sample Size	3	164	228	268	2	665
Mean Length	501	579	742	846	931	743
Std. Error	21	6	5	5	34	3
Sample Size	3	164	228	268	2	665
Mean Weight		4.87	7.81	11.29		8.49
Std. Error		0.32	0.2	0.38		0.19
Sample Size		15	48	62		125

Table 19. Age, sex, and size (length in mm and weight in kg) composition of chinook salmon escapement, Nushagak River, 1997.

	Age Group					
	1.1	1.2	1.3	1.4	1.5	Total
Sample period: June 9 - July 29						
Both Sexes	362	15,377	11,940	12,845	181	40,705
Percent	0.89	37.78	29.33	31.56	0.44	100.00
Sample Size	2	85	66	71	1	225
Mean Length	358	584	755	872	803	724
Std. Error	10	7	10	7		4
Sample Size	2	85	66	71	1	225

Table 20. Age and size (length in mm and weight in kg) composition of chinoook salmon commercial catch, Togiak River Section, Togiak District, 1997.

	Age Group					
	1.1	1.2	1.3	1.4	1.5	Total
Sample period: June 10 - August 26						
Both Sexes	11	2,540	1,673	1,069	64	5,357
Percent	0.21	47.41	31.23	19.96	1.19	100.00
Sample Size	1	240	158	101	6	506
Mean Length	360	578	729	857	844	683
Std. Error		4	6	7	29	3
Sample Size	1	240	158	101	6	506
Mean Weight	3.5	6.26	8.88	12.48	12	8.38
Std. Error		0.7	0.34	0.58		0.37
Sample Size	1	70	47	35	1	154

Table 21. Age, sex, and size (length in mm and weight in kg) composition of chum salmon commercial catch, Nushagak District, 1997.

	Age Group				
	0.2	0.3	0.4	0.5	Total
Sample Period 1: June 11 - July 29					
Males	684	61,326	26,967	548	89,525
Percent	0.37	33.04	14.53	0.30	48.23
Sample Size	5	448	197	4	654
Mean Length	516	565	583	599	570
Std. Error	10	1	3	21	1
Sample Size	5	448	197	4	654
Mean Weight	1.96	3.07	3.35	4.35	3.15
Std. Error		0.05	0.1		0.05
Sample Size	1	95	52	1	149
Females	548	67,758	27,378	411	96,095
Percent	0.30	36.50	14.75	0.22	51.77
Sample Size	4	495	200	3	702
Mean Length	503	548	565	565	553
Std. Error	15	1	2	5	1
Sample Size	4	495	200	3	702
Mean Weight	1.92	2.61	2.76	2.7	2.65
Std. Error		0.04	0.06	0.53	0.03
Sample Size	1	148	48	2	199
Both Sexes	1,232	129,084	54,345	959	185,620
Percent	0.66	69.54	29.28	0.52	100.00
Sample Size	9	943	397	7	1,356
Mean Length	510	556	574	584	561
Std. Error	9	1	2	12	1
Sample Size	9	943	397	7	1,356
Mean Weight	1.94	2.83	3.05	3.64	2.89
Std. Error		0.03	0.06	0.53	0.03
Sample Size	2	243	100	3	348

Table 22. Age, sex, and size (length in mm and weight in kg) composition of chum salmon escapement, Nushagak River, 1997.

	Age Group		
	0.3	0.4	Total
Sample period 1: June 9 - July 29			
Males	15,886	15,469	31,355
Percent	25.85	25.17	51.02
Sample Size	38	37	75
Mean Length	590	619	604
Std. Error	4	6	4
Sample Size	38	37	75
Females	15,887	14,214	30,101
Percent	25.85	23.13	48.98
Sample Size	38	34	72
Mean Length	541	563	552
Std. Error	4	5	3
Sample Size	38	33	71
Both Sexes	31,773	29,683	61,456
Percent	51.70	48.30	100.00
Sample Size	76	71	147
Mean Length	566	592	579
Std. Error	3	4	2
Sample Size	76	70	146

Table 23. Age, sex, and size (length in mm and weight in kg) composition of chum salmon commercial catch, Togiak River Section, Togiak District, 1997.

	Age Group				
	0.2	0.3	0.4	0.5	Total
Sample Period 1: June 10 - July 7					
Males		3,535	4,564	134	8,233
Percent		15.77	20.36	0.60	36.73
Sample Size		79	102	3	184
Mean Length		586	608	617	599
Std. Error		4	3	9	2
Sample Size		77	100	3	180
Mean Weight		3.74	3.82		3.79
Std. Error		0.13	0.17		0.11
Sample Size		24	30		54
Females	220	5,101	8,948	134	14,183
Percent	0.20	22.76	39.92	0.60	63.27
Sample Size	1	114	200	3	317
Mean Length	552	559	583	584	575
Std. Error		2	2	5	2
Sample Size	1	112	197	3	312
Mean Weight		2.85	3.34	2.92	3.16
Std. Error		0.06	0.06	0.21	0.05
Sample Size		53	78	2	133
Both Sexes	220	8,636	13,512	268	22,416
Percent	0.20	38.53	60.28	1.20	100.00
Sample Size	1	193	302	6	501
Mean Length	552	570	592	601	584
Std. Error		2	2	5	1
Sample Size	1	189	297	6	492
Mean Weight		3.21	3.5	2.92	3.39
Std. Error		0.06	0.07	0.21	0.05
Sample Size		77	108	2	187
Sample Period 2: July 8 - August 26					
Males	51	1,905	1,905	77	3,938
Percent	0.39	14.71	14.71	0.59	30.42
Sample Size	2	74	74	3	153
Mean Length	564	581	596	593	588
Std. Error	8	4	5	14	3
Sample Size	2	71	73	3	149
Mean Weight		3.37	3.23	3.33	3.3
Std. Error		0.17	0.13		0.11
Sample Size		11	12	1	24
Females		4,350	4,504	154	9,008
Percent		33.60	34.79	1.19	69.58
Sample Size		169	175	6	350
Mean Length		559	572	575	566
Std. Error		2	2	16	1
Sample Size		167	173	6	346
Mean Weight		2.8	3.04	3.26	2.93
Std. Error		0.08	0.08		0.06
Sample Size		29	31	1	61
Both Sexes	51	6,255	6,409	231	12,946
Percent	0.39	48.32	49.51	1.78	100.00
Sample Size	2	243	249	9	503
Mean Length	564	565	579	581	573
Std. Error	8	2	2	11	1
Sample Size	2	238	246	9	495
Mean Weight		2.97	3.1	3.28	3.04
Std. Error		0.08	0.07		0.05
Sample Size		40	43	2	85

- Continued -

Table 23. (p 2 of 2)

	Age Group				
	0.2	0.3	0.4	0.5	Total
All Periods Combined:					
Males	51	5,440	6,469	211	12,171
Percent	0.14	15.38	18.29	0.60	34.42
Sample Size	2	153	176	6	337
Mean Length	564	584	604	608	595
Std. Error	8	3	3	7	2
Sample Size	2	148	173	6	329
Mean Weight		3.61	3.65	3.33	3.63
Std. Error		0.11	0.12		0.08
Sample Size		35	42	1	78
Females		9,451	13,452	288	23,191
Percent		26.73	38.04	0.81	65.58
Sample Size		283	375	9	667
Mean Length		559	580	579	571
Std. Error		1	2	9	1
Sample Size		279	370	9	658
Mean Weight		2.83	3.24	3.1	3.07
Std. Error		0.05	0.05	0.21	0.04
Sample Size		82	109	3	194
Both Sexes	51	14,891	19,921	499	35,362
Percent	0.14	42.11	56.33	1.41	100.00
Sample Size	2	436	551	15	1,004
Mean Length	564	568	588	591	580
Std. Error	8	1	1	6	1
Sample Size	2	427	543	15	987
Mean Weight		3.11	3.37	3.15	3.26
Std. Error		0.05	0.05	0.21	0.04
Sample Size		117	151	4	272

Table 24. Age, sex, and size (length in mm and weight in kg) composition of coho salmon escapement, Nushagak River, 1997.

	Age Group			
	1.1	2.1	3.1	Total
Sample period 1: July 12 - September 13				
Males	2,064	35,771	1,032	38,867
Percent	3.61	62.65	1.81	68.07
Sample Size	6	104	3	113
Mean Length	571	583	563	582
Std. Error	21	5	24	5
Sample Size	6	104	3	113
Females	688	16,853	688	18,229
Percent	1.2	29.52	1.2	31.93
Sample Size	2	49	2	53
Mean Length	581	586	576	585
Std. Error	18	5	57	5
Sample Size	2	49	2	53
Both Sexes	2,752	52,624	1,720	57,096
Percent	4.82	92.17	3.01	100.00
Sample Size	8	153	5	166
Mean Length	573	584	568	583
Std. Error	16	4	27	3
Sample Size	8	153	5	166

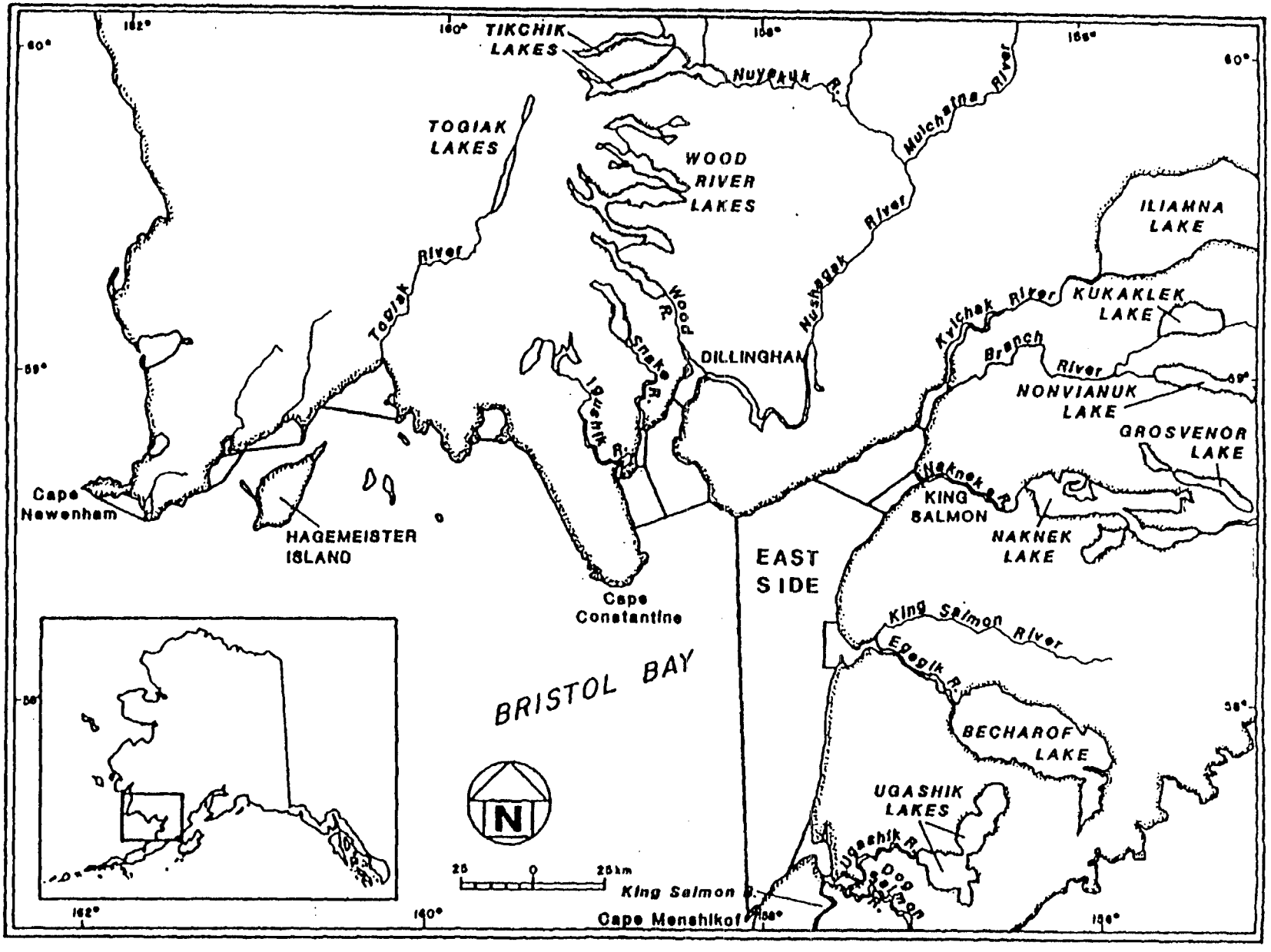

Figure 1. Bristol Bay major river systems and commercial fishing districts.

APPENDIX

Appendix A.1. Kvichak River sockeye salmon escapement and return by brood year including estimated interception catch (in thousands), 1950 - 1994.

		Return by Age Group															
Brood Year	Escapement	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	3.4	Total
1950	0 [a]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0	248	0	0	0	0	248 [c]
1951	0 [a]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0	221	3,377	0	0	983	0	1	0	0	4,582 [c]
1952	0 [a]	0 [b]	0 [b]	0	9,954	0	0	6,681	2,956	0	0	654	1	0	1	0	20,248 [c]
1953	0 [a]	0	0	0	91	0	0	62	365	0	0	60	0	0	0	16	593
1954	0 [a]	0	0	0	81	17	0	29	643	0	0	0	0	0	29	0	799
1955	0 [a]	0	0	0	251	14	0	100	589	0	0	531	20	0	0	0	1,504
1956	9,443	0	14	0	24,273	0	0	6,968	6,472	0	0	1,308	0	0	0	0	39,036
1957	2,843	8	0	0	243	0	0	244	3,333	0	2	259	0	0	2	0	4,091
1958	535	0	0	0	76	0	0	48	135	0	0	26	0	0	3	0	289
1959	680	0	0	0	212	1	0	117	206	0	0	11	0	0	0	0	547
1960	14,630	0	0	1	1,314	134	0	563	46,746	0	0	6,485	10	0	6	0	55,259
1961	3,706	1	0	0	334	0	0	190	2,293	0	0	679	5	0	0	0	3,503
1962	2,581	0	0	0	104	2	0	152	4,675	0	0	408	12	0	4	0	5,357
1963	339	0	0	0	49	3	0	50	639	0	0	366	3	0	9	0	1,120
1964	957	0	8	0	2,232	105	0	407	2,341	0	0	647	8	0	3	0	5,751
1965	24,326	0	25	0	9,853	484	0	471	32,951	0	0	1,239	2	0	1	0	45,026
1966	3,775	4	11	6	497	11	0	1,086	4,262	0	0	385	0	1	0	0	6,262
1967	3,216	0	0	5	349	2	0	272	812	0	0	86	0	0	0	0	1,527
1968	2,557	0	0	0	293	0	0	34	77	0	5	132	0	0	2	0	543
1969	8,394	0	0	1	129	7	0	321	4,221	0	0	595	19	0	11	0	5,304
1970	13,935	0	1	0	43	40	0	13	14,463	6	0	848	412	0	7	0	15,834
1971	2,387	0	0	0	244	18	0	93	2,169	0	0	303	2	0	0	0	2,829
1972	1,010	0	0	0	255	1	0	159	1,206	0	22	297	0	0	0	0	1,941
1973	227	0	0	2	576	2	2	1,028	274	0	3	543	28	0	0	0	2,457
1974	4,434	0	9	1	6,328	309	0	2,009	16,725	0	8	763	23	0	5	0	26,179
1975	13,140	0	5	0	5,683	302	0	1,232	30,263	0	0	599	2	0	0	0	38,087
1976	1,965	0	5	11	5,298	43	0	826	4,115	0	4	273	0	0	0	0	10,575
1977	1,341	11	43	6	1,934	2	0	935	208	0	0	99	0	0	0	0	3,238
1978	4,149	0	0	0	1,835	16	0	1,157	1,318	0	0	817	11	0	6	0	5,160
1979	11,218	1	57	3	18,331	73	0	2,234	17,931	0	0	3,512	0	0	0	0	42,142
1980	22,505	0	2	5	2,889	20	0	1,641	8,076	0	2	413	0	0	0	0	13,048
1981	1,754	0	0	12	789	0	0	231	931	0	0	167	0	0	0	0	2,129
1982	1,135	25	0	2	445	1	0	544	524	0	6	139	0	0	0	0	1,685
1983	3,570	0	1	5	8,596	3	0	3,010	1,195	0	5	573	0	2	1	0	13,392
1984	10,491	0	0	4	2,532	44	1	1,924	16,952	0	0	2,483	8	0	2	0	23,949
1985	7,211	4	7	30	1,024	29	0	1,282	13,465	0	2	1,560	1	15	2	0	17,419
1986	1,179	10	0	27	688	0	1	1,079	1,390	0	25	1,332	2	0	4	0	4,557
1987	6,066	29	4	69	4,179	31	4	2,519	4,499	0	5	700	4	0	2	0	12,044
1988	4,065	11	5	19	2,503	19	1	2,470	4,385	0	5	557	11	0	6	0	9,991
1989	8,318	29	2	54	2,147	117	2	1,678	18,826	0	2	3,316	13	1	0	0	26,167
1990	6,970	6	8	11	1,541	83	0	1,192	21,105	0	0	1,162	0	1	0	0 [c]	25,109 [c]
1991	4,223	0	1	4	2,688	2	0	1,232	699	0	6	170	0	0 [c]	0 [c]	0 [c]	4,802 [c]
1992	4,726	2	0	13	429	2	0	226	567	0	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	1,239 [c]
1993	4,025	0	1	1	852	1	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	855 [c]
1994	8,338	0	3	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	3 [c]

[a] Escapement not available.

[b] Younger age groups not available.

[c] Incomplete returns from brood year escapement.

Appendix A.2. Branch River sockeye salmon escapement and return by brood year including estimated interception catch (in thousands), 1950 - 1994.

		Return by Age Group															
Brood Year	Escapement	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	3.4	Total
1950	0 [a]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0	262	0	0	0	0	262 [c]
1951	0 [a]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0	294	343	0	0	43	0	0	0	0	681 [c]
1952	0 [a]	0 [b]	0 [b]	0	383	0	0	295	131	0	0	115	0	0	1	0	925 [c]
1953	0 [a]	0	0	0	5	0	0	11	64	0	0	0	0	0	0	0	80
1954	0 [a]	0	0	0	14	3	0	109	392	0	0	141	0	0	1	0	660
1955	0 [a]	0	0	0	788	0	0	237	26	0	0	44	0	0	0	0	1,095
1956	784	5	0	0	1,885	0	0	459	0	0	0	38	3	0	0	0	2,390
1957	127	0	0	0	5	0	0	23	43	0	0	13	0	0	1	0	85
1958	95	0	0	0	43	0	0	26	27	0	0	52	0	0	0	0	147
1959	825	0	0	0	302	0	0	265	122	0	0	76	1	0	2	0	768
1960	1,241	0	0	0	105	0	0	185	135	0	0	31	0	0	0	0	456
1961	90	0	10	1	89	1	0	185	7	0	0	0	0	0	0	0	292
1962	91	0	19	0	129	0	0	91	3	0	0	19	1	0	0	0	262
1963	203	0	0	0	199	1	0	140	34	0	0	1	0	0	0	0	376
1964	249	0	5	0	100	2	0	98	113	0	0	17	0	0	0	0	336
1965	175	0	6	0	104	1	0	161	10	0	0	17	0	0	0	0	299
1966	174	0	13	0	282	0	0	262	12	0	0	11	0	0	0	0	581
1967	203	0	9	8	291	1	0	51	46	0	0	7	0	0	0	0	413
1968	194	3	5	0	127	0	0	40	2	0	0	3	0	0	0	0	180
1969	182	0	0	0	4	1	0	54	105	0	0	25	0	0	0	0	190
1970	177	0	0	0	73	0	0	71	6	0	0	2	0	0	0	0	152
1971	187	0	2	0	26	0	0	28	31	0	0	37	0	0	2	0	126
1972	151	0	1	0	91	0	0	17	7	0	0	14	0	0	0	0	130
1973	35	0	0	0	97	1	0	130	18	0	0	2	0	0	0	0	248
1974	215	0	4	0	292	5	0	18	128	0	0	8	0	0	0	0	456
1975	100	0	15	0	415	0	0	340	3	0	1	1	0	0	0	0	775
1976	82	0	26	0	211	0	0	168	20	0	0	55	0	0	0	0	481
1977	100	0	27	0	141	1	0	700	0	0	4	9	0	0	0	0	881
1978	229	0	1	0	102	0	0	68	39	0	0	147	0	0	0	0	358
1979	294	0	3	2	459	2	0	297	32	0	0	3	0	0	0	0	799
1980	298	0	0	0	103	0	0	211	13	0	2	9	0	1	0	0	339
1981	82	0	0	0	55	0	0	171	53	0	2	11	0	0	0	0	291
1982	239	0	0	0	172	0	0	142	4	0	0	3	0	0	0	0	322
1983	96	0	0	0	148	0	0	131	33	0	0	3	0	0	0	0	316
1984	215	0	1	0	159	0	0	146	42	0	0	23	0	0	0	0	372
1985	118	0	3	0	357	0	0	113	92	0	0	8	0	0	0	0	574
1986	230	0	1	0	344	0	0	267	193	0	0	8	0	0	0	0	813
1987	154	0	0	0	158	0	0	170	172	0	3	80	0	0	0	0	583
1988	195	0	1	0	154	0	0	148	279	0	0	43	0	0	0	0	625
1989	197	0	5	0	354	2	0	172	178	0	0	16	0	0	0	0	727
1990	169	0	2	0	262	0	0	124	330	0	0	237	0	0	0	0 [c]	955 [c]
1991	278	0	0	0	200	4	0	220	165	0	0	0	0	0 [c]	0 [c]	0 [c]	589 [c]
1992	225	0	2	0	98	0	0	73	65	0	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	238 [c]
1993	348	0	4	0	127	0	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	131 [c]
1994	243	0	1	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	1 [c]

[a] Escapement not available.

[b] Younger age groups not available.

[c] Incomplete returns from brood year escapement.

Appendix A.3. Naknek River sockeye salmon escapement and return by brood year including estimated interception catch (in thousands), 1950 - 1994.

		Return by Age Group															
Brood Year	Escapement	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	3.4	Total
1950	0 [a]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0	1,093	0	2	5	0	1,100 [c]
1951	0 [a]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0	1,295	688	0	0	1,250	0	1	0	0	3,234 [c]
1952	0 [a]	0 [b]	0 [b]	0	79	0	0	1,199	108	0	7	176	1	0	2	0	1,571 [c]
1953	0 [a]	0	0	0	24	0	0	135	177	3	0	206	42	0	1	1	589
1954	0 [a]	0	0	0	85	19	0	302	2,129	0	0	587	0	13	3	0	3,137
1955	0 [a]	0	0	0	720	1	0	820	214	0	0	88	2	4	2	0	1,851
1956	1,773	0	1	0	473	0	0	1,701	3	0	17	304	0	0	0	0	2,501
1957	635	0	0	0	53	2	0	329	505	0	1	674	5	0	3	0	1,571
1958	278	0	0	0	112	4	0	211	539	0	0	168	3	0	2	0	1,040
1959	2,232	0	0	0	349	7	0	351	742	0	0	705	0	0	0	0	2,155
1960	828	0	1	1	1,408	9	0	625	696	0	0	1,278	1	1	2	0	4,023
1961	351	0	0	0	239	3	0	744	315	0	3	640	0	0	8	0	1,953
1962	723	0	0	0	76	4	0	230	351	0	2	397	13	0	1	0	1,074
1963	905	0	0	0	136	8	0	390	833	0	0	627	7	0	1	0	2,003
1964	1,350	0	1	0	447	24	0	264	1,135	0	0	177	11	0	1	0	2,061
1965	718	0	5	0	540	44	0	360	732	0	0	437	1	0	1	0	2,121
1966	1,016	1	4	0	728	2	0	2,304	167	0	1	630	0	1	0	0	3,837
1967	756	0	0	2	326	6	0	625	401	0	0	356	0	1	0	0	1,716
1968	1,023	0	3	0	152	0	0	234	83	0	0	269	2	0	2	0	745
1969	1,331	0	0	0	47	3	0	307	976	0	0	1,211	5	0	3	0	2,552
1970	733	0	1	0	154	19	0	318	1,845	0	0	370	12	0	0	0	2,718
1971	936	0	1	0	397	24	0	559	1,428	0	0	1,844	3	9	8	0	4,274
1972	587	0	3	0	245	3	0	241	161	0	3	599	9	0	1	0	1,264
1973	357	0	0	0	494	0	0	618	524	0	0	598	0	0	0	0	2,235
1974	1,241	0	2	0	232	3	0	228	1,026	0	1	783	5	0	5	0	2,285
1975	2,027	0	1	0	425	11	0	1,746	1,393	0	0	1,641	1	8	0	0	5,226
1976	1,321	0	4	0	1,084	3	0	4,048	1,575	0	21	1,491	0	28	1	0	8,256
1977	1,086	2	10	7	635	0	0	2,272	95	0	64	401	0	1	5	0	3,493
1978	813	0	1	0	331	4	0	1,695	1,121	0	11	530	2	0	0	0	3,694
1979	925	0	4	1	2,438	4	0	973	792	0	9	408	4	0	3	0	4,637
1980	2,645	0	1	1	723	14	0	1,505	1,192	0	9	826	0	2	0	0	4,274
1981	1,796	0	4	0	782	9	0	2,568	473	0	12	937	0	3	0	0	4,788
1982	1,156	0	3	3	185	0	0	1,172	191	0	23	457	0	9	0	0	2,043
1983	888	0	0	1	163	7	0	484	336	0	5	480	0	0	1	0	1,477
1984	1,242	0	1	0	469	23	0	911	1,214	0	21	1,828	5	1	4	0	4,477
1985	1,850	0	2	6	656	20	1	3,533	1,293	0	44	1,441	0	28	10	0	7,033
1986	1,978	0	3	6	1,981	6	1	7,167	1,276	0	367	2,817	1	38	2	0	13,666
1987	1,062	3	0	12	336	4	1	1,251	565	0	95	3,225	2	12	0	0	5,505
1988	1,038	0	0	0	273	13	0	796	516	0	37	544	2	2	1	0	2,183
1989	1,162	0	1	0	226	5	0	930	1,154	0	0	566	4	0	1	0	2,888
1990	2,093	0	0	0	405	46	0	1,236	1,345	0	12	1,316	3	12	0	0 [c]	4,375 [c]
1991	3,579	1	13	0	546	1	0	5,209	250	0	45	343	0	0 [c]	0 [c]	0 [c]	6,408 [c]
1992	1,607	0	0	16	268	1	0	552	250	1	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	1,088 [c]
1993	1,536	0	0	2	293	12	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	307 [c]
1994	991	0	6	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	6 [c]

[a] Escapement not available.

[b] Younger age groups not available.

[c] Incomplete returns from brood year escapement.

Appendix A.4. Egegik River sockeye salmon escapement and return by brood year including estimated interception catch (in thousands), 1949 - 1994.

		Return by Age Group															
Brood Year	Escapement	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	3.4	Total
1949	0 [a]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0	0	0	0	14	0	14 [c]
1950	0 [a]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0	0	0	0	0	274	70	4	23	0	371 [c]
1951	0 [a]	0 [b]	0 [b]	0	0	0	0	325	1,018	0	1	1,301	2	0	6	0	2,654 [c]
1952	0 [a]	0	0	0	623	0	0	446	241	0	1	295	19	2	5	0	1,633
1953	0 [a]	0	0	0	26	0	0	39	435	2	0	337	254	0	12	0	1,104
1954	0 [a]	0	0	0	11	4	0	13	1,190	0	0	641	87	0	46	0	1,990
1955	0 [a]	0	1	0	20	0	0	163	672	0	0	396	6	1	6	0	1,265
1956	1,104	0	6	0	2,025	0	0	3,190	925	0	2	685	1	0	12	0	6,846
1957	391	0	0	0	37	0	0	43	1,096	0	0	927	70	0	62	0	2,236
1958	246	0	0	0	42	2	0	73	817	0	0	308	16	0	3	0	1,263
1959	1,072	0	0	0	73	2	0	164	1,037	0	0	467	14	0	24	0	1,783
1960	1,799	8	0	0	447	21	0	328	4,447	0	1	2,560	49	0	50	0	7,912
1961	702	0	0	3	82	0	0	229	446	0	1	791	28	0	10	0	1,591
1962	1,027	0	0	0	22	0	0	69	950	0	0	375	28	0	30	0	1,475
1963	998	0	0	1	16	2	0	112	538	1	1	506	74	0	7	0	1,258
1964	850	0	1	0	126	6	0	69	1,454	1	0	242	73	0	12	0	1,983
1965	1,445	0	0	0	104	35	0	72	2,016	0	4	845	6	2	20	0	3,103
1966	804	0	0	1	249	0	0	752	600	0	2	890	7	0	10	0	2,511
1967	637	0	0	2	60	2	0	257	665	0	0	622	1	1	2	0	1,613
1968	339	0	0	0	41	0	0	56	87	0	0	258	3	5	9	0	458
1969	1,016	0	0	0	12	1	0	111	1,096	0	0	1,141	279	2	113	0	2,756
1970	920	0	0	0	59	0	0	89	796	0	1	175	95	0	25	0	1,240
1971	634	0	0	0	45	2	0	109	1,477	0	0	970	74	1	55	0	2,732
1972	546	0	0	1	57	2	0	61	1,508	0	0	1,264	48	0	18	0	2,959
1973	329	0	0	0	76	0	0	135	578	0	0	851	35	0	4	0	1,679
1974	1,276	0	0	0	131	18	0	99	2,224	0	0	496	54	0	3	0	3,025
1975	1,174	0	0	0	148	9	0	241	2,449	2	0	797	14	2	1	0	3,663
1976	509	1	1	2	612	59	0	789	3,003	0	4	846	0	0	0	0	5,317
1977	693	0	2	0	823	1	0	1,969	688	0	14	655	52	0	13	0	4,217
1978	896	0	0	2	398	6	0	510	6,071	0	0	2,184	25	4	8	0	9,208
1979	1,032	0	3	0	712	9	3	520	3,036	0	4	1,659	0	0	0	0	5,947
1980	1,061	0	1	13	803	26	0	2,225	4,576	0	6	917	7	0	0	0	8,576
1981	695	0	0	6	544	64	0	953	3,284	0	11	1,438	9	0	7	0	6,317
1982	1,035	2	2	4	988	12	0	1,874	1,796	0	9	1,638	11	2	2	0	6,340
1983	792	0	3	0	1,748	7	1	2,763	3,235	0	7	2,822	21	23	16	0	10,646
1984	1,165	0	1	8	608	85	0	978	6,539	3	10	5,029	215	13	39	0	13,527
1985	1,095	4	0	9	567	32	0	1,404	4,358	0	9	1,262	8	0	18	0	7,672
1986	1,152	0	2	14	1,850	10	0	3,733	3,912	0	92	4,515	86	83	34	0	14,331
1987	1,274	2	0	9	886	66	0	4,561	8,863	3	101	11,239	133	31	57	0	25,952
1988	1,613	0	1	0	413	62	0	1,278	11,061	0	4	5,650	261	3	152	0	18,885
1989	1,612	1	0	6	513	34	0	456	6,063	1	6	3,979	170	1	31	0	11,260
1990	2,192	0	0	2	403	66	0	867	9,598	1	3	4,721	21	28	30	0 [c]	15,740 [c]
1991	2,787	4	1	3	1,397	20	2	3,939	3,113	0	47	2607	19	0 [c]	0 [c]	0 [c]	11,152 [c]
1992	1,946	5	0	32	335	54	3	1117	4963	2	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	6,512 [c]
1993	1,517	0	2	10	497	31	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	540 [c]
1994	1,898	1	8	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	9 [c]

[a] Esacpement not available.

[b] Younger age groups not available.

[c] Incomplete returns from brood year escapement.

Appendix A.5. Ugashik River sockeye salmon escapement and return by brood year including estimated interception catch (in thousands), 1949 - 1994.

		Return by Age Group															
Brood Year	Escapement	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	3.4	Total
1949	0 [a]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0	0	0	0	2	0	2 [c]
1950	0 [a]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0	0	0	0	1	45	0	0	3	0	49 [c]
1951	0 [a]	0 [b]	0 [b]	0	0	0	1	47	174	0	2	118	1	0	0	0	342 [c]
1952	0 [a]	0	0	1	508	0	0	391	209	0	0	78	2	0	0	0	1,189
1953	0 [a]	0	0	0	216	0	0	249	420	0	0	216	7	0	0	0	1,108
1954	0 [a]	0	0	0	24	3	0	28	395	0	0	61	0	0	0	0	511
1955	0 [a]	0	0	1	17	1	0	33	118	0	0	7	0	0	0	0	177
1956	425	1	12	0	3,165	0	0	837	80	0	2	35	0	0	0	0	4,132
1957	215	0	0	1	35	0	0	105	354	0	2	100	4	0	2	0	603
1958	280	0	0	0	63	0	0	105	444	0	0	66	0	0	0	0	679
1959	219	0	0	0	18	0	0	38	310	0	0	132	0	0	1	0	498
1960	2,304	0	0	0	674	11	0	296	1,563	0	0	487	0	0	0	0	3,032
1961	349	0	0	3	240	2	0	500	247	0	1	120	0	0	0	0	1,113
1962	255	0	0	2	77	2	0	130	185	0	0	27	0	0	0	0	424
1963	388	0	0	0	13	0	0	21	91	0	0	23	0	0	0	0	148
1964	473	0	0	0	31	9	0	16	245	0	0	18	0	0	2	0	324
1965	997	0	0	0	86	2	0	38	249	0	1	162	1	0	0	0	538
1966	704	1	0	2	723	0	0	1,478	90	0	0	21	0	0	0	0	2,315
1967	239	0	0	0	56	0	0	50	44	0	0	34	0	0	0	0	184
1968	71	0	0	0	14	0	0	7	15	0	0	3	0	0	0	0	40
1969	160	0	0	0	4	0	0	5	53	0	0	26	2	0	2	0	92
1970	735	0	0	0	4	1	0	2	256	0	1	28	2	0	1	0	295
1971	530	0	0	0	178	0	0	236	290	0	0	130	0	0	1	0	835
1972	79	0	0	0	35	0	0	58	119	0	0	41	2	0	3	0	258
1973	39	0	0	1	16	0	0	6	17	0	0	46	4	0	0	0	92
1974	62	0	0	0	13	10	0	15	602	0	0	83	2	0	0	0	724
1975	429	0	3	0	1,484	4	0	575	1,721	0	0	325	2	1	0	0	4,116
1976	356	0	0	2	2,027	58	0	1,527	1,248	0	7	437	0	0	3	0	5,309
1977	202	0	2	18	585	0	0	1,614	266	0	10	186	6	1	4	0	2,693
1978	82	0	0	5	247	7	0	413	863	0	6	523	1	0	0	0	2,064
1979	1,707	0	20	0	3,076	8	0	851	1,471	0	14	562	0	5	0	0	6,006
1980	3,335	0	1	13	1,183	39	0	2,309	3,371	0	10	850	3	2	0	0	7,782
1981	1,328	0	2	10	1,603	4	0	2,632	2,278	0	4	933	1	1	0	0	7,468
1982	1,186	0	1	15	423	1	1	713	606	0	9	737	0	2	0	0	2,508
1983	1,001	0	0	10	650	6	1	342	632	0	3	319	1	1	0	0	1,965
1984	1,270	0	0	5	472	55	0	568	3,635	0	13	709	3	0	4	0	5,464
1985	1,006	2	1	6	508	2	0	721	978	0	4	469	0	5	0	0	2,696
1986	1,016	5	1	46	503	1	0	2,427	1,874	0	71	1,750	4	15	0	0	6,697
1987	687	7	1	9	828	11	0	1,626	1,875	0	25	2,310	10	20	24	0	6,744
1988	654	1	2	1	463	27	0	692	2,144	0	37	2,252	22	3	7	0	5,651
1989	1,713	3	7	7	694	14	0	391	2,479	0	12	955	6	1	4	0	4,573
1990	749	0	1	13	345	15	2	709	2,302	0	2	1,218	2	2	0	0 [c]	4,611 [c]
1991	2,482	1	6	0	2,034	1	0	3,167	597	0	14	326	0	0 [c]	0 [c]	0 [c]	6,146 [c]
1992	2,195	6	3	49	191	4	1	597	1013	0	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	1,864 [c]
1993	1,413	1	2	2	265	7	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	277 [c]
1994	1,095	0	12	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	12 [c]

[a] Escapement not available.

[b] Younger age groups not available.

[c] Incomplete returns from brood year escapement.

Appendix A.6. Wood River sockeye salmon escapement and return by brood year including estimated interception catch (in thousands), 1950 - 1994.

		Return by Age Group															
Brood Year	Escapement	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	3.4	Total
1950	0 [a]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	1	57	0	0	0	0	58 [c]
1951	0 [a]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0	456	290	0	3	54	0	0	1	0	803 [c]
1952	0 [a]	0 [b]	0 [b]	0	690	0	0	558	29	0	2	34	0	0	0	0	1,314 [c]
1953	0 [a]	0	0	0	301	0	0	331	139	0	2	34	0	0	1	0	809
1954	0 [a]	0	0	0	1,237	0	0	140	1,085	0	1	66	0	0	0	0	2,529
1955	0 [a]	0	0	0	2,407	0	0	833	401	0	5	143	0	0	0	0	3,789
1956	773	0	0	48	774	0	0	627	24	0	0	0	0	0	0	0	1,472
1957	289	0	0	21	136	0	0	257	35	0	0	0	0	0	0	0	449
1958	960	0	1	0	2,145	1	0	389	75	0	0	32	0	0	0	0	2,643
1959	2,209	0	0	1	979	10	0	398	359	0	1	55	0	0	2	0	1,805
1960	1,016	0	6	0	1,474	0	0	1,039	106	0	2	105	1	0	0	0	2,732
1961	461	0	0	10	255	0	0	1,183	24	0	2	20	0	1	1	0	1,495
1962	874	1	2	0	992	1	2	340	116	0	6	43	0	0	0	0	1,503
1963	721	0	0	0	536	1	0	769	76	0	0	46	0	0	0	0	1,427
1964	1,076	0	1	6	452	0	0	347	338	0	0	74	0	0	2	0	1,219
1965	675	2	1	8	472	1	0	999	90	0	0	213	0	0	1	0	1,787
1966	1,209	0	7	29	974	0	0	988	46	0	7	69	0	0	1	0	2,122
1967	516	0	3	21	642	0	0	269	75	0	2	80	0	0	0	0	1,090
1968	649	0	1	0	514	0	0	565	5	0	4	19	0	0	0	0	1,108
1969	604	0	0	4	57	0	0	445	201	0	10	116	0	0	0	0	834
1970	1,162	0	2	0	1,539	0	0	1,002	231	0	0	26	0	0	0	0	2,799
1971	851	3	0	18	456	0	0	576	198	0	1	49	0	0	0	0	1,301
1972	431	2	1	22	779	0	0	631	32	0	20	27	0	0	0	0	1,514
1973	330	1	1	0	213	0	0	1,148	74	0	3	44	0	0	0	0	1,484
1974	1,709	0	3	6	2,956	4	0	1,698	421	0	5	71	0	0	0	0	5,164
1975	1,270	13	47	12	1,592	2	0	1,977	406	0	2	734	0	0	0	0	4,784
1976	817	0	3	0	2,278	3	0	2,589	572	0	10	265	0	0	0	0	5,721
1977	562	0	20	0	1,029	0	0	2,173	40	0	0	26	2	0	0	0	3,289
1978	2,267	0	0	0	1,364	3	0	1,029	784	0	12	96	0	0	0	0	3,288
1979	1,706	0	10	0	2,643	0	0	1,491	24	0	1	13	0	0	0	0	4,182
1980	2,969	0	0	0	453	0	0	978	72	0	1	101	0	0	0	0	1,606
1981	1,233	0	0	0	826	0	0	1,137	60	0	0	86	0	0	0	0	1,909
1982	976	0	4	0	522	0	0	765	121	0	12	14	0	0	0	0	1,438
1983	1,361	0	1	5	1,940	0	2	1,154	15	0	2	75	0	0	0	0	3,194
1984	1,003	0	0	0	586	0	2	1,340	32	0	15	23	0	0	0	0	1,998
1985	939	8	3	15	1,127	0	1	1,390	29	0	2	12	0	1	0	0	2,587
1986	819	7	2	25	1,179	0	1	1,970	70	0	12	64	0	0	0	0	3,330
1987	1,337	25	0	30	1,334	0	14	756	98	0	8	92	0	1	0	0	2,360
1988	867	4	1	8	1,613	0	3	1,425	90	0	15	34	0	0	0	0	3,193
1989	1,186	1	4	16	2,293	0	0	1,922	13	0	2	39	0	0	0	0	4,288
1990	1,069	10	1	10	1,104	1	3	1,208	286	0	2	169	0	0	0	0 [c]	2,794 [c]
1991	1,160	0	12	9	2,633	0	0	2,466	54	0	65	71	0	0 [c]	0 [c]	0 [c]	5,310 [c]
1992	1,286	10	1	57	2,398	0	2	1674	90	0	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	4,232 [c]
1993	1,176	14	0	3	1715	0	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	1,732 [c]
1994	1,472	0	10	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	10 [c]

[a] Escapement not available.

[b] Younger age groups not available.

[c] Incomplete returns from brood year escapement.

Appendix A.7. Igushik River sockeye salmon escapement and return by brood year including estimated interception catch (in thousands), 1950 - 1993.

		Return by Age Group															
Brood Year	Escapement	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	3.4	Total
1950	0 [a]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	1	78	0	0	0	0	78 [c]
1951	0 [a]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0	615	62	0	1	29	0	0	2	0	709 [c]
1952	0 [a]	0 [b]	0 [b]	0	147	0	0	303	9	0	5	73	0	0	0	0	538 [c]
1953	0 [a]	0	0	0	98	0	0	1	20	0	3	65	0	0	1	0	187
1954	0 [a]	0	0	0	175	0	0	269	204	0	0	113	0	1	0	0	763
1955	0 [a]	0	0	0	454	0	0	781	113	0	0	94	0	0	0	0	1,443
1956	400	0	0	0	169	0	0	523	12	0	3	36	0	0	0	0	743
1957	130	0	0	0	2	0	0	35	19	0	0	20	0	0	0	0	76
1958	107	0	0	0	14	0	0	71	20	0	0	28	0	0	0	0	133
1959	644	0	0	0	101	0	0	155	93	0	0	22	0	0	0	0	372
1960	495	0	0	1	61	0	0	310	44	0	0	57	0	0	0	0	474
1961	294	0	0	1	33	0	1	364	20	0	0	17	0	0	0	0	437
1962	16	0	0	8	20	0	0	280	9	0	0	9	0	0	0	0	327
1963	92	0	0	3	254	0	0	190	36	0	0	25	0	0	0	0	508
1964	129	0	0	1	162	0	0	585	133	0	0	49	0	0	0	0	930
1965	181	0	0	0	371	0	0	436	203	0	0	80	0	0	0	0	1,089
1966	206	0	0	0	66	0	0	383	6	0	0	15	0	0	0	0	470
1967	282	0	0	3	57	0	0	90	13	0	0	12	0	0	0	0	175
1968	195	0	0	0	43	0	0	120	0	0	2	10	0	0	0	0	176
1969	512	0	0	0	1	0	0	131	301	0	2	103	0	0	0	0	536
1970	371	0	0	1	26	0	0	170	41	0	0	71	0	0	0	0	309
1971	211	0	0	1	48	0	0	164	60	0	0	30	0	0	0	0	303
1972	60	0	0	4	89	0	0	109	6	0	8	13	0	0	0	0	229
1973	60	0	0	0	19	0	0	650	25	0	2	29	0	0	0	0	725
1974	359	0	0	7	441	1	0	750	346	0	4	25	0	0	0	0	1,574
1975	241	0	0	0	783	0	0	2,556	137	0	2	503	0	0	0	0	3,981
1976	186	0	0	0	551	3	0	1,411	194	0	20	215	0	0	0	0	2,394
1977	96	0	0	6	294	0	0	1,689	9	0	8	9	0	0	0	0	2,015
1978	536	0	0	0	96	0	0	330	84	0	1	15	0	0	0	0	527
1979	860	0	0	0	422	0	0	406	13	0	0	5	0	0	0	0	847
1980	1,988	0	0	0	20	0	0	271	25	0	0	56	0	0	0	0	373
1981	591	0	0	0	188	0	0	779	8	0	1	49	0	0	0	0	1,025
1982	424	0	0	7	57	0	0	434	9	0	2	10	0	0	0	0	518
1983	180	1	0	0	151	0	0	353	8	0	2	29	0	0	0	0	544
1984	185	0	0	0	41	0	0	641	56	0	5	36	0	1	0	0	781
1985	212	0	0	7	515	0	0	938	86	0	7	79	0	1	0	0	1,633
1986	308	3	0	14	236	0	1	2,231	27	0	15	30	0	0	0	0	2,557
1987	169	2	0	11	158	0	0	587	7	0	12	29	0	0	0	0	804
1988	170	0	0	1	189	0	1	1,056	41	0	3	36	0	0	0	0	1,327
1989	462	0	0	15	508	0	0	1,119	59	0	7	53	0	0	0	0	1,760
1990	366	1	0	3	159	0	0	1,429	183	0	4	146	0	0	0	0 [c]	1,925 [c]
1991	756	0	0	1	318	0	0	1,314	3	0	5	20	0	0 [c]	0 [c]	0 [c]	1,661 [c]
1992	305	0	0	3	44	0	0	148	8	0	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	203 [c]
1993	406	0	0	1	132	0	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	133 [c]

[a] Escapement not available.

[b] Younger age groups not available.

[c] Incomplete returns from brood year escapement.

Appendix A.8. Nushagak River sockeye salmon escapement and return by brood year including estimated interception catch (in thousands), 1983 - 1993.

		Return by Age Group															
Brood Year	Escapement	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	3.4	Total
1983	404	100	0	608	114	0	122	553	6	0	16	3	0	0	0	0	1,521
1984	593	10	0	226	51	0	32	566	2	0	20	6	0	0	0	0	912
1985	498	68	0	510	64	0	62	612	6	0	13	16	0	1	0	0	1,351
1986	990	68	0	837	114	0	58	676	0	0	182	64	0	0	0	0	1,999
1987	388	140	0	933	36	0	253	535	36	0	101	10	0	1	0	0	2,047
1988	483	68	0	546	214	0	120	1,426	12	0	62	8	0	0	0	0	2,457
1989	513	68	0	483	124	0	35	703	1	0	18	4	0	0	0	0	1,436
1990	680	53	0	761	36	0	104	253	18	0	11	7	0	4	0	0 [a]	1,247 [a]
1991	493	10	1	137	172	0	6	1,010	3	0	131	19	0	0 [a]	0 [a]	0 [a]	1491 [a]
1992	695	85	0	496	228	0	11	650	9	0	0 [a]	0 [a]	0 [a]	0 [a]	0 [a]	0 [a]	1478 [a]
1993	715	43	0	43	63	0	0 [a]	0 [a]	0 [a]	0 [a]	0 [a]	0 [a]	0 [a]	0 [a]	0 [a]	0 [a]	149 [a]

[b] Incomplete returns from brood year escapement.

Appendix A.9. Togiak River sockeye salmon escapement and return by brood year including estimated interception catch (in thousands), 1950 - 1994.

		Return by Age Group															
Brood Year	Escapement	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	3.4	Total
1950	0 [a]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0	28	0	0	0	0	28 [c]
1951	0 [a]	0 [b]	0 [b]	0 [b]	0 [b]	0 [b]	0	98	53	0	0	9	0	0	0	0	160 [c]
1952	0 [a]	0 [b]	0 [b]	0	152	0	0	58	9	0	0	6	0	0	0	0	225 [c]
1953	0 [a]	0	0	1	31	0	0	84	8	0	0	16	0	0	0	0	141
1954	0 [a]	0	0	0	20	0	0	146	12	0	0	17	2	0	0	0	196
1955	0 [a]	0	0	0	136	0	0	190	9	0	1	38	0	0	0	0	373
1956	225	0	0	4	114	0	0	306	22	0	1	13	0	0	0	0	461
1957	25	2	0	5	48	0	0	70	20	0	0	36	1	0	0	0	182
1958	72	0	1	2	68	0	0	115	59	0	0	25	0	0	0	0	270
1959	210	0	0	0	141	0	0	92	56	0	0	7	0	0	0	0	296
1960	163	0	0	2	191	0	0	274	22	0	0	52	0	0	0	0	541
1961	122	1	0	3	85	0	0	216	15	0	1	19	0	0	0	0	340
1962	62	0	0	7	48	0	0	102	4	0	0	8	0	0	0	0	170
1963	116	0	0	2	43	0	0	65	16	0	0	24	0	0	0	0	152
1964	105	0	0	1	43	0	0	84	41	0	0	6	0	0	0	0	175
1965	96	0	0	2	154	0	0	181	31	0	0	37	0	0	0	0	406
1966	104	1	0	6	200	0	0	419	4	0	1	9	0	0	0	0	642
1967	81	1	0	6	18	0	0	99	16	0	1	40	0	0	0	0	181
1968	50	0	0	1	49	0	0	190	6	0	3	13	0	0	0	0	263
1969	117	0	0	5	28	0	0	142	25	0	3	13	0	0	0	0	216
1970	203	0	0	1	54	0	0	226	55	0	1	70	0	0	0	0	408
1971	200	0	0	4	106	0	0	317	62	0	1	68	0	0	0	0	558
1972	79	0	0	2	93	0	0	150	21	0	2	34	0	0	0	0	304
1973	107	1	0	10	151	0	0	442	18	0	1	31	0	0	0	0	654
1974	104	0	0	2	271	0	0	307	73	0	3	45	0	1	0	0	704
1975	181	1	0	7	195	0	0	848	87	0	2	59	0	0	0	0	1,200
1976	189	0	0	1	189	0	0	558	142	0	4	175	0	0	0	0	1,069
1977	163	0	0	5	232	0	0	617	14	0	4	14	0	0	0	0	884
1978	306	0	0	12	149	0	0	430	65	0	1	25	0	0	0	0	682
1979	198	1	0	1	270	0	0	293	12	0	2	5	0	0	0	0	583
1980	527	0	0	5	45	0	1	224	10	0	0	19	0	0	0	0	305
1981	307	2	0	11	53	0	0	245	15	0	1	16	0	0	0	0	345
1982	289	0	0	16	109	0	0	255	14	0	5	26	0	0	0	0	425
1983	213	1	0	3	285	0	2	924	9	0	2	21	0	0	0	0	1,246
1984	151	0	0	14	21	0	0	109	4	0	1	17	0	0	0	0	167
1985	153	0	0	7	35	0	0	194	35	0	1	77	0	1	0	0	351
1986	203	0	0	18	77	0	1	445	83	0	14	121	0	0	0	0	760
1987	278	0	0	7	190	0	1	575	31	0	7	81	0	0	0	0	892
1988	309	1	0	9	111	0	3	403	34	0	3	53	0	0	0	0	616
1989	104	0	0	36	132	0	1	328	7	0	1	41	0	0	0	0	548
1990	166	1	0	23	101	0	1	460	75	0	5	37	0	0	0	0 [c]	703 [c]
1991	254	1	3	3	189	0	1	429	28	0	8	29	0	0 [c]	0 [c]	0 [c]	691 [c]
1992	210	1	0	35	50	0	1	124	33	0	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	244 [c]
1993	189	0	0	4	64	0	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	68 [c]
1994	174	1	0	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	1 [c]

[a] Escapement not avialable.

[b] Younger age groups not available.

[c] Incomplete returns from brood year escapement.

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