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ABUNDANCE, AGE, SEX AND SIZE OF CHINOOK, SOCKEYE, COHO, AND CHUM SALMON RETURNING TO UPPER COOK INLET, ALASKA, IN 1996

by

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and

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ABSTRACT

The commercial harvest and escapement of sockeye salmon *Oncorhynchus nerka* to Upper Cook Inlet (UCI) was 5,168,461 fish. The commercial harvest was 3,888,778 while the escapement into the six major river systems was 1,279,683. The exploitation rate for sockeye salmon in UCI was 75%. The combined UCI commercial sockeye salmon harvests and escapements were comprised of four major age classes. The age classes, numbers of fish and mean lengths were:

Age Class	%	Escapement & Harvest	Mean Length
1.2	13.2	667,664	496 mm
1.3	64.7	3,279,469	588 mm
2.2	10.8	547,334	497 mm
2.3	10.1	513,810	580 mm

Sex composition of sockeye salmon in the combined commercial harvests and escapements equaled 51%.

A total of 14,248 chinook salmon *O. tshawytscha* were commercially harvested. The Upper Subdistrict eastside set gillnet harvest of 11,521 fish represented 81% of the total commercial harvest and was comprised of the following major age classes:

Age Class	%	# Harvested	Mean Length
1.1	3.3	375	410 mm
1.2	15.8	1,824	625 mm
1.3	34.9	4,017	871 mm
1.4	42.3	4,878	1,018 mm
1.5	1.5	172	1,098 mm

Sex composition of chinook salmon favored males (62.5%) in the Upper Subdistrict harvest.

The commercial harvest of coho salmon *O. kisutch* was 321,441 fish. Selected commercial gillnet harvests which represented 85% of the total commercial harvest were comprised of the following age classes:

Age Class	%	# Harvested	Mean Length
1.1	18.0	49,151	533 mm
2.1	73.3	200,634	559 mm
3.1	8.7	23,693	578 mm

The female composition of coho salmon in the drift gillnet and Upper and General Subdistricts was 42%.

The commercial harvest of chum salmon *O. keta* was 156,457 fish. The drift gillnet harvest was 140,924 fish or 90% of the total and was mainly comprised of the following age classes:

Age Class	%	# Harvested	Mean Length
0.4	70.6	99,456	617mm
0.3	27.7	39,015	604mm

Female composition of chum salmon was 56% of the harvest.

The commercial harvest of pink salmon *O. gorbuscha* totaled 242,911 fish.

KEY WORDS: Salmon, *Oncorhynchus*, age, size, commercial catch, escapement, exploitation rate, Upper Cook Inlet, Alaska

INTRODUCTION

Upper Cook Inlet (UCI) supports the production of all five species of Pacific salmon *Oncorhynchus* (Figure 1). Since 1966 the average harvest of salmon in UCI was 4.5 million fish representing 2.9 million sockeye *O. nerka*, 1.1 million even-year pink *O. gorbuscha*, 0.1 million odd-year pink, 0.6 million chum *O. keta*, 0.4 million coho *O. kisutch*, and 16,000 chinook *O. tshawytscha* salmon. Salmon harvests in UCI represent approximately five percent of the statewide commercial harvest (Ruesch and Fox 1996). Locations of the commercial fishing districts, subdistricts and Upper Subdistrict beach fisheries are shown in Figure 2.

The pioneering work of Davis and Kissner (1969) in UCI provided a framework from which age, sex and length data collection began. Unfortunately in the early years (1964-78) the sample collection of commercial harvest and escapement data was sporadic and limited compared to the present. Information was published in annual technical reports from 1964 to 1978. Davis and Tarbox (1985) produced a compendium of information for the period 1964-1981 to summarize the yearly results. The series continued with the advent of stock separation studies in 1978 and has been in existence ever since (Bethe et al. 1980; Cross et al. 1981, 1982, 1983, 1985, 1987; Cross 1985; Tobias and Waltemyer 1996; Waltemyer 1989, 1990, 1991, 1993, 1994, 1995). The major emphasis has been on sampling sockeye salmon in selected commercial harvests and escapements. However, since 1983 chinook, coho, and chum salmon sampling in key commercial harvests has been conducted.

Age, sex and length information in conjunction with abundance data provides a basis for assessing yearly variations in production and effects of management strategies. This report is part of a continuing series. Specific objectives were: 1) document number of salmon harvested in selected commercial gillnet fisheries; 2) report escapement numbers from the major river systems; and 3) estimate age, sex, and length composition of salmon in selected commercial harvests and escapements.

METHODS

Numerical Data

Commercial harvest statistics were compiled from ADF&G final fish ticket information.

Sockeye salmon escapement into Fish Creek was determined by observing fish migrating through a weir (C. Whitmore, ADF&G, Palmer, personal communication).

ADF&G personnel used Bendix Corporation[2] side-scanning sonar equipment to enumerate the adult salmon entering the Kenai, Kasilof, Crescent, and Yentna Rivers (Davis and King 1996). Sonar counts were apportioned to salmon species using species proportions from fish wheel catches, except in the Kasilof where all counts were apportioned to sockeye salmon.

[2] *Use of a company's name does not constitute endorsement.*

Chinook salmon escapement into the Kenai River was estimated using BioSonics[2] sonar equipment in the lower river (RM 8.5; Hammarstrom 1996)

Cook Inlet Aquaculture Association (CIAA) personnel monitored sockeye salmon escapements through weirs on Hidden, Packers and Lake Creeks (Cheltna Lake; G. Fandrei, CIAA, Soldotna, personal communication).

Age, Sex, and Size Data

Fish scales were taken from the left side of the salmon approximately two rows above the lateral line on the diagonal row that extends down from the posterior insertion of the dorsal fin to the anterior insertion of the anal fin (Koo 1955). One scale was collected from each sockeye and chum salmon. Because of the higher number of regenerated scales on coho and chinook, three scales were collected from each of these species. Scales were mounted on gum cards and impressions made in cellulose acetate as described by Clutter and Whitesel (1956).

Ages of salmon were determined by visual examination of scale impressions under moderate magnification (40X) using a microfiche viewer. Age was determined based upon criteria established by Mosher (1969) and Tobias et al. (1994). Ages were recorded in European notation (Koo 1962).

Sex and length information were recorded for all specimens sampled. Sex of the fish was determined by morphological characteristics, except for chinook salmon. In 1996 all chinook sampled were cut open to determine sex and sexual maturity. Chinook were also checked for an adipose fin clip. Length in millimeters was measured from mid-eye to fork-of-tail.

Age, sex and length compositions of the commercial catches were estimated using a stratified systematic random sampling design (Cochran 1977). A minimum sample size of 403 readable scales was defined for each species and strata to estimate simultaneously the proportion of each major age class in the harvest within five percent of the true proportion 90% of the time (Thompson 1987). A sample size of 500 fish per strata for sockeye salmon harvested in the commercial fisheries sampling was set to account for unreadable scales. For escapements a single sample size of 500 fish was defined to provide the same level of precision. Escapement samples were weighted over time by sampling fish wheel catches at a rate equal to a fixed proportion of the previous day's escapement count on the following day. Essentially, the percent of each day's escapement to be sampled was a ratio of the total sample size and the anticipated total escapement.

Commercial fishery sampling was stratified by date and area. Salmon were sampled from each of six commercial fishing districts and subdistricts from two to twelve times during the season. Frequency and priority of sampling was based on the historical harvest contribution of a fishery to the total UCI commercial harvest. In order to detect changes in seasonal age composition, sampling dates were selected based on historic data such as run timing for each species throughout the season. In addition, a Chi-square test was used to test the null hypothesis (H_0) of no age class differences for adjacent sampling periods within and between commercial fishery harvests and escapements where appropriate. The test criterion was set at α=0.10.

RESULTS

A total of 2,624 chinook, 21,670 sockeye, 2,689 coho, and 1,000 chum salmon were sampled in selected UCI commercial gillnet harvests and escapements in 1996 (Table 1). Age, sex and length data along with harvest and escapement information are presented below.

Sockeye Salmon

Total Return

The minimum estimate of the 1996 commercial harvest and escapement of sockeye salmon to UCI was 5,168,461 fish (Table 2). Commercial harvests totaled 3,888,778 fish and monitored escapements into the major river systems equaled 1,279,683 fish.

The following four major age classes made up 98.8% of the combined UCI commercial sockeye salmon harvests and escapements (Table 3):

Age Class	%	Escapement & Harvest	Mean Length
1.2	13.2	667,664	496 mm
1.3	64.7	3,279,469	588 mm
2.2	10.8	547,334	497 mm
2.3	10.1	513,810	580 mm

The predominant age class percentages, number of fish, and mean lengths of sockeye salmon in the UCI commercial harvest were:

Age Class	%	# Harvested	Mean Length
1.2	11.8	447,654	501 mm
1.3	66.0	2,504,022	587 mm
2.2	10.1	383,668	502 mm
2.3	11.1	419,208	580 mm

The predominant age class percentages, number of fish, and mean lengths in the monitored UCI escapements were:

Age Class	%	Escapement	Mean Length
1.2	17.2	220,010	488 mm
1.3	60.6	775,447	590 mm
2.2	12.8	163,666	486 mm
2.3	7.4	94,602	580 mm

The female contributions among the major age classes ranged from 47% (Cohoe/Ninilchik Beach) to 62% (Eastern Subdistrict) in the commercial harvests and from 44% (Crescent River) to 59% (Packers Creek) in the escapements (Table 3).

Exploitation rates among the major age classes ranged from 67% for age-1.2 fish to 82% for age-2.3 fish with an overall exploitation rate of 75% (Table 3).

Commercial Harvest by Fishery

The 1996 Central District drift gillnet harvest excluding Chinitna Bay was 2,204,933 fish (Table 4). This harvest represented 56.7% of the total UCI sockeye harvest. Historically, the harvest from 1966-95 has averaged 57.6% of the total UCI harvest. The major age class percentages, number of fish, and mean lengths were:

Age Class	%	# Harvested	Mean Length
1.2	10.8	238,412	510 mm
1.3	68.7	1,515,458	591 mm
2.2	7.6	167,191	511 mm
2.3	11.9	261,601	584 mm

Age-1.3 fish were predominant throughout the season (Table 4; Figures 3 and 4). Age-1.2 fish were slightly more abundant than age-2.2 fish in the harvest until July 16-17, when the two age classes were caught in near equal numbers (Table 4; Figures 5 and 6).

Female composition in the drift gillnet harvest ranged from 38.1% (5 July) to 58.9% (15 July; Table 4).

The Cohoe/Ninilchik Beach set gillnet harvest was 578,833 fish and represented 14.9% of the total UCI sockeye salmon harvest (Table 5). Historically the Cohoe/Ninilchik fishery harvest averages 12.7% of the total UCI sockeye salmon harvest. The major age class percentages, number of fish, and mean lengths were:

Age Class	%	# Harvested	Mean Length
1.2	14.7	85,180	486 mm
1.3	57.8	334,277	576 mm
2.2	17.1	98,974	491 mm
2.3	9.6	55,755	569 mm

Female composition in the Cohoe/Ninilchik Beach sockeye harvest ranged from 33.6% (21 July) to 54.0% (26 July; Table 5).

The Kalifonsky Beach set gillnet harvest, which historically averages 12.1% of the total UCI sockeye salmon harvest, represented 9.5% or 369,745 fish in 1996 (Table 6). The four major age class percentages, number of fish, and mean lengths in the harvest were:

Age Class	%	# Harvested	Mean Length
1.2	15.3	56,719	489 mm
1.3	55.4	204,738	580 mm
2.2	19.7	72,800	490 mm
2.3	9.1	33,763	570 mm

Female composition in the Kalifonsky Beach harvest ranged from 36.1% (27 July- 9 Aug) to 65.4% (19 - 26 July; Table 6).

The Salamatof Beach set gillnet harvest, which historically averages 11.5% of the total UCI sockeye salmon harvest, represented 13.7% or 534,420 fish in 1996 (Table 7). The four major age class percentages, number of fish, and mean lengths were:

Age Class	%	# Harvested	Mean Length
1.2	9.8	52,299	498 mm
1.3	74.6	398,690	583 mm
2.2	6.2	33,099	519 mm
2.3	8.5	45,276	581 mm

Female composition in the Salamatof Beach harvest ranged from 34.9% (19-22 July) to 62.8% (12-16 July; Table 7).

Of the three Upper Subdistrict beach fisheries, sockeye harvested in the Kalifonsky Beach harvest were smallest in total mean length (547 mm) while sockeye in the Salamatof Beach harvest were the largest (571 mm).

Sockeye salmon harvested in the Cohoe/Ninilchik Beach fishery had a mean length of 548 mm. Trends in mean length were similar among the four major age classes and fisheries.

The Eastern Subdistrict sockeye salmon set gillnet harvest of 23,144 fish, which historically averages 1.5% of the total UCI sockeye salmon harvest, represented 0.6% in 1996 (Table 8). The major age class percentages, number of fish, and mean lengths were:

Age Class	%	# Harvested	Mean Length
1.2	26.1	6,040	478 mm
1.3	30.4	7,038	563 mm
2.2	32.6	7,547	487 mm
2.3	8.9	2,053	554 mm

Female composition in the harvest was 61.7%.

The General Subdistrict set gillnet harvest of 80,984 fish, which historically averages 2.6% of the total UCI sockeye salmon harvest, represented 2.1% in 1996 (Table 9). The major age class percentages, number of fish, and mean lengths were:

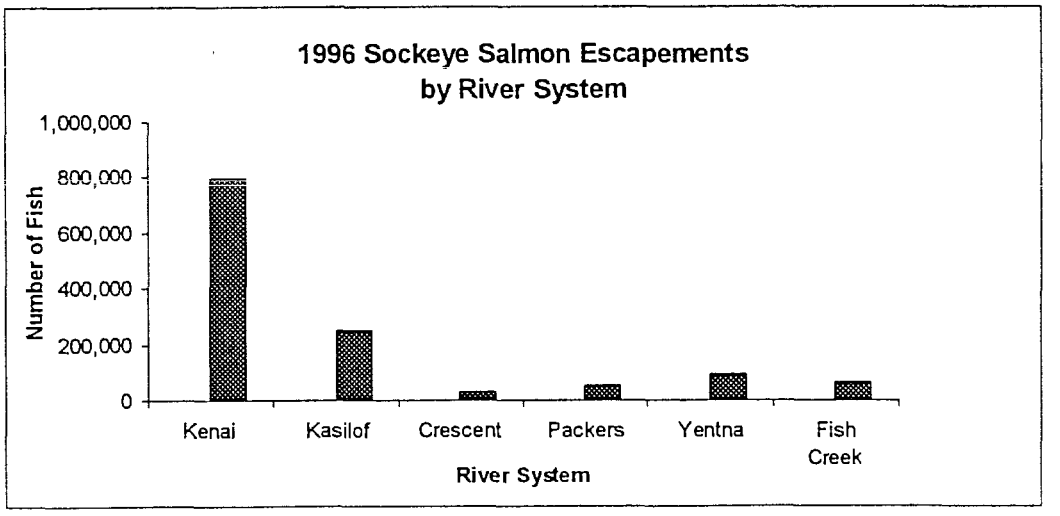
Age Class	%	# Harvested	Mean Length
1.2	11.1	9,004	507 mm
1.3	54.1	43,821	578 mm
2.2	5.0	4,057	511 mm
2.3	25.6	20,760	576 mm

Females represented 53.7% of the harvest.

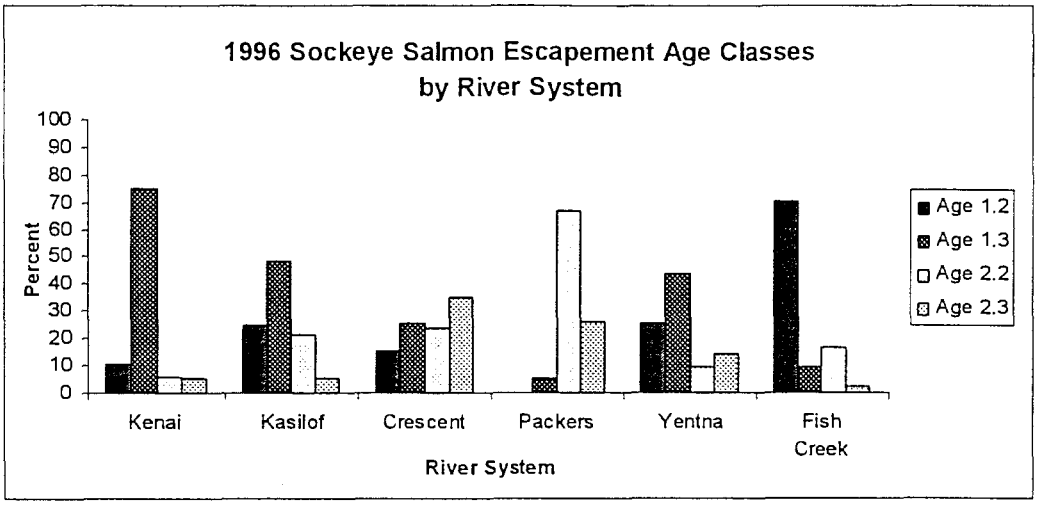
Chi-square test comparisons of the four major age classes (1.2, 1.3, 2.2, 2.3) among the six commercial harvest areas were all significantly different ($P<0.0001$) except between Coho/Ninilchik and Kalifonsky Beach set gillnet harvests which indicated no significant difference ($\chi^2 = 0.74$, $df=3$, $P=0.86$).

Escapement

A minimum of 1,279,683 sockeye salmon entered the major monitored rivers and streams of UCI (Tables 2 and 10-17). The major sockeye salmon escapements were in Kenai River (794,335 fish), Kasilof River (249,944 fish), Crescent River (28,729 fish), Packers Creek (52,855 fish), Yentna River (90,660 fish), and Fish Creek (63,160 fish) as noted below.



The predominant age classes in the total UCI sockeye escapement were age 1.2 (17.2%), age 1.3 (60.6%), age 2.2 (12.8%) and age 2.3 (7.4%, Table 3; Figure 7). Chi-square tests between river escapement age compositions were all highly significant ($P<0.0001$) indicating age composition differences. Individual age class composition by river is presented below:



The Kenai River had an escapement of 794,335 sockeye salmon. The major age class percentages, number of fish, and mean lengths were:

Age Class	%	Escapement	Mean Length
1.2	10.8	85,936	511 mm
1.3	75.4	599,237	597 mm
2.2	6.1	48,775	516 mm
2.3	5.4	42,969	602 mm

The overall mean length of Kenai River sockeye was 582 mm. Females comprised 51% of the Kenai River escapement (Table 10).

Hidden Creek, a tributary of the Kenai River, had an escapement of 55,256 sockeye represented by age-1.2 (83.1%), age-1.3 (6.7%), age-2.2 (9.0%) and age-2.3 (1.2%) fish. Female composition in Hidden Creek was 59.0% (Table 11).

A Chi-square test comparison of the age composition between the Kenai mainstem and Hidden Creek showed a highly significant difference ($\chi^2=842.2$, df=3, $P<0.0001$) which was mainly attributable to age 1.2 and 1.3 differences.

Kasilof River escapement was 249,944 sockeye salmon with the following age class percentages, number of fish, and mean lengths:

Age Class	%	Escapement	Mean Length
1.2	24.8	62,053	475 mm
1.3	48.3	120,638	562 mm
2.2	21.4	53,386	476 mm
2.3	5.6	13,867	554 mm

The overall mean length of Kasilof River escapement sockeye was 522 mm. Females composed 44.5% of the Kasilof River escapement (Tables 3 and 12).

Crescent River escapement of 28,729 sockeye salmon was composed of the following major age class percentages, number of fish, and mean lengths:

Age Class	%	Escapement	Mean Length
1.2	15.3	4,386	487 mm
1.3	25.4	7,310	596 mm
2.2	23.9	6,872	506 mm
2.3	34.9	10,015	590 mm

The overall mean length of Crescent River escapement sockeye was 556 mm. Females composed 43.5% of the Crescent River escapement (Tables 3 and 13).

Packers Creek sockeye salmon escapement was 52,855 fish. The major age class percentages, number of fish, and mean lengths were:

Age Class	%	Escapement	Mean Length
1.3	5.1	2,719	542 mm
2.2	67.1	35,467	456 mm
2.3	25.9	13,681	541 mm

The overall mean length of Packers Creek sockeye was 481 mm. Females composed 59.3% of the total escapement (Tables 3 and 14).

Yentna River sockeye salmon escapement was 90,660 fish. The major age class percentages, number of fish, and mean lengths were:

Age Class	%	Escapement	Mean Length
1.2	25.5	23,152	465 mm
1.3	43.8	39,686	579 mm
2.2	9.4	8,561	486 mm
2.3	14.0	12,646	571 mm

The overall mean length of Yentna River sockeye was 534 mm. Female composition in the escapement was 44.9% (Tables 3 and 15).

Chelatna Lake, a tributary of the Yentna River had an estimated escapement of 30,000 sockeye. The major age classes of sockeye entering Chelatna Lake were age 1.3 (67.9%) and age 1.2 (21.2%; Table 16). Age composition between Chelatna Lake and Yentna River was statistically different (χ^2=68.5, df=2, P<0.0001) for ages 1.2, 1.3, and 2.3. The overall mean length of Yentna River sockeye salmon was significantly smaller (534 mm) compared to Chelatna Lake fish (612mm). Female composition was 52.9% of the Chelatna Lake escapement (Table 16).

Fish Creek sockeye had an escapement of 63,160 sockeye. The major age class percentages, number of fish, and mean lengths were:

Age Class	%	Escapement	Mean Length
1.2	70.4	44,483	471 mm
1.3	9.3	5,857	550 mm
2.2	16.8	10,605	486 mm
2.3	2.3	1,424	543 mm

The overall mean length of Fish Creek sockeye was 481 mm. Females composed 49.6% of the escapement (Tables 3 and 17).

Chinook Salmon

The total commercial harvest of chinook salmon in 1996 was 14,248 fish (Tables 2 and 18). The Upper Subdistrict set gillnet harvest was 11,521 or 80.1% of the UCI harvest. The predominant age class percentages, number of fish, and mean lengths were:

Age Class	%	# Harvested	Mean Length
1.2	15.8	1,824	625 mm
1.3	34.9	4,017	749 mm
1.4	42.3	4,878	1,018 mm
1.5	1.5	172	1,098 mm

The overall mean length was 883 mm, and females accounted for 37.6% of the commercial harvest (Table 18).

Chi-square test results comparing age composition by sampling period showed statistically significant differences (P<0.0001) for all sampling periods indicating changes in age composition occurred through the season in the Upper Subdistrict harvests.

Late run chinook salmon entering the Kenai River numbered 53,934 fish (Table 2).

Coho Salmon

Coho salmon were sampled from three gillnet fisheries which represent 85.1% of the total UCI harvest (Table 19). Age-2.1 coho accounted for the bulk of the harvest:

	Age 2.1	# Harvested	Mean Length
Central District drift gillnet	72.4%	124,016	556 mm
Upper Subdistrict set gillnet	78.6%	31,863	577 mm
General Subdistrict set gillnet	72.6%	44,755	554 mm

Age-1.1 (18.0%) and age-3.1 (8.7%) fish accounted for the remainder of the total monitored coho harvests (Tables 19-22). Chi-square values for comparing age composition of the three major age classes (1.1., 2.1, 3.1) among the three gillnet fisheries were highly significant ($P<0.0004$) in all cases. However, comparisons of age class composition between July and August sample periods for the Upper Subdistrict ($\chi^2=1.13$, df=2, $P=0.56$) and between mid-July and end of July in the Central District drift ($\chi^2=1.6$, df=2, $P=0.45$) and General Subdistrict ($\chi^2=0.58$, df=2, $P=0.74$) revealed non-significant Chi-square statistics indicating no significant age composition changes occurred. Mean lengths for all three age groups combined were, on average, larger in the Upper Subdistrict harvest (576 mm) than in the Central District drift (553 mm) or General Subdistrict harvests (551 mm; Table 19).

Females represented from 41% in the Central District drift gillnet harvest to 48% in the Upper Subdistrict set gillnet harvest (Table 19).

Chum Salmon

The total UCI commercial harvest of chum salmon in 1996 was 156,457 fish (Table 2). Chum salmon were sampled from the commercial drift gillnet harvest of 140,924 fish, which made up 90% of the total commercial harvest of chum salmon (Table 23). The age composition was primarily age-0.4 (70.6%) and age-0.3 (27.7%) fish. A comparison of the age composition between early and late July sampling periods showed a highly significant χ^2 ($P<0.0001$). Overall mean lengths for age-0.4 and age-0.3 chum salmon were 617 mm and 604 mm. For all periods combined, females composed 55.6%.

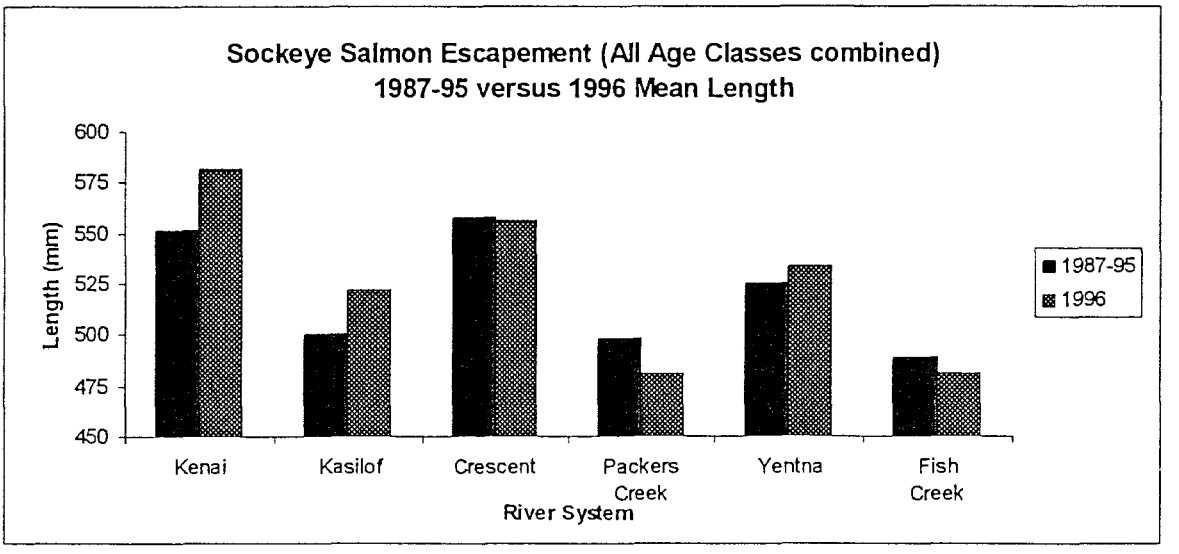
DISCUSSION

The 1996 sockeye salmon harvest of 3.9 million fish was 1.0 million fish higher than the harvest in 1995 and slightly more than 1.0 million fish above the long-term (1966-95) average. Also, the actual harvest was approximately 600,000 fish more than forecasted.

The 1996 total (monitored) return of sockeye salmon was 5.2 million fish which accounted for 500,000 fish more than the preseason forecast of 4.7 million fish. Since not all sockeye salmon producing systems are monitored, estimates are made yearly to include an estimate for "Other" river systems that are not monitored and sport, personal use, and subsistence harvests in UCI. This year the estimate of "Other" systems and harvests increased the total return to 5.6 million. Thus, the actual return was approximately 1.0 million fish more than forecasted. Of the estimated 5.6 million fish that returned, this sampling project accounted for monitoring 93% of the total return.

Differences in the actual to forecasted returns in number of fish were primarily due to increases in age-1.3 fish to the Kenai River (27% more), Kasilof River (90% more), and Fish Creek (96% more) systems. Reasons for the increases are not readily apparent since the forecast takes into account return per spawner performance and sibling relationships as well as cohort interactions and subsequent survival rates from juvenile to adult life stages. These differences tend to be a combination of these factors.

This year the overall mean length of sockeye salmon in the river escapements was larger in the Kenai, Kasilof and Yentna Rivers but smaller in Crescent River, Packers and Fish Creeks when compared to the 1987-95 average as depicted below. There was a noticeable size increase in mean length for 3-ocean age fish in the Kenai and Kasilof Rivers which could have contributed, in part, to the better than expected return of age-1.3 fish to these two systems.



In 1996, the chinook salmon commercial harvest of 14,248 fish was slightly below the long-term (1966-95) average of 16,361 fish with age and length composition similar to past years.

The coho salmon commercial harvest of 321,411 was below the long-term average of 364,437 fish with similar age and length composition as in past years.

The chum salmon commercial harvest of 156,457 fish was significantly below the long-term average of 609,681 fish. The 1996 chum age composition in the drift gillnet fishery shows a significant drop in percent of age-0.3 fish relative to 1995 with a corresponding increase in age-0.4 fish. There appears to be a general decline in the percent of age-0.3 fish with a corresponding increase in age-0.4 fish since 1990 except for 1995 (see below) and very few age-0.2 fish accounted for. The age-0.2 fish made up less than 1% of the commercial drift harvest for the second year in a row.

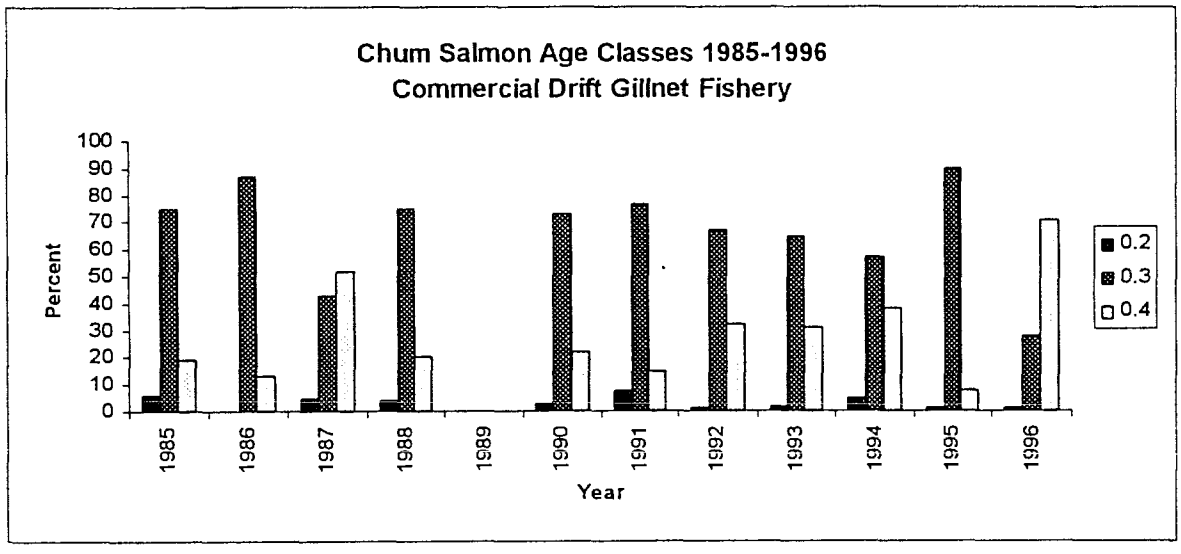


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Table 1. Number of salmon sampled from selected commercial gillnet harvests and escapements in Upper Cook Inlet, Alaska, in 1996.

Location[a]	Species			
	Chinook	Sockeye	Coho	Chum
Commercial Catch:				
Central District				
Drift		5,500	730	1,000
Upper Subdistrict[b]	2,624		1,039	
Cohoe/Ninilchik Beach		3,500		
Kalifonsky Beach		2,739		
Salamatof Beach		2,000		
Western Subdistrict[c]				
Northern District				
Eastern Subdistrict		1,000		
General Subdistrict		1,400	920	
Subtotal	2,624	16,139	2,689	1,000
Escapement:				
Central District				
Kenai River				
Mainstem late run[d]		778		
Hidden Creek[e]		820		
Kasilof River				
Mainstem[f]		750		
Crescent River		465		
Packers Creek[e]		627		
Northern District				
Susitna River				
Yentna River		837		
Chelatna Lake (Lake Creek)[e]		754		
Fish Creek[g]		500		
Subtotal		5,531		
Total	2,624	21,670	2,689	1,000

[a] Specific locations not footnoted were sampled by Commercial Fisheries Management and Development (CFM&D) Division personnel, Alaska Department of Fish and Game (ADF&G).
[b] Represents pooled samples from the Upper Subdistrict commercial set gillnet fisheries.
[c] Western Subdistrict was not sampled in 1996.
[d] This total represents samples collected on a daily basis and special samples taken through the season. The primary sample goal of 0.10% of the previous day's escapement (sonar count) was sampled for age composition.
[e] Samples collected by Cook Inlet Aquaculture Association (CIAA) personnel.
[f] This total represents samples collected on a daily basis and special samples taken through the season. The primary sample goal of 0.35% of the previous day's escapement (sonar count) was sampled for age composition.
[g] Samples collected by Sport Fish Division personnel, ADF&G.

Table 2. Number of salmon commercially harvested and escapements into the major river systems of Upper Cook Inlet, Alaska, in 1996.

Fishery		Chinook	Sockeye	Coho	Pink	Chum	Total
Comercial Harvest:							
A. Northern District Total		1,945	104,128	78,097	20,674	11,771	216,615
1. Northern District West		1,842	80,984	61,653	18,427	11,455	174,361
a. Trading Bay	247-10	103	2,093	3,902	156	321	6,575
b. Tyonek	247-20	540	21,525	27,416	8,267	6,035	63,783
c. Beluga	247-30	955	9,408	13,695	6,014	3,514	33,586
d. Susitna Flat	247-41	45	3,107	3,112	262	151	6,677
e. Pt. Mackenzie	247-42	128	3,893	3,351	581	289	8,242
f. Fire Island	247-43	71	5,713	8,375	3,122	697	17,978
g. Knik Arm	247-50	0	35,245	1,802	25	448	37,520
2. Northern District East		103	23,144	16,444	2,247	316	42,254
a. Pt. Possession	247-70	73	11,926	6,945	1,161	294	20,399
b. Birch Hill	247-80	10	4,560	4,584	295	8	9,457
c. Number 3 Bay	247-90	20	6,658	4,915	791	14	12,398
B. Central District Total		12,303	3,784,650	243,314	222,237	144,686	4,407,190
1. East Side Set Total		11,521	1,482,998	40,548	95,717	1,448	1,632,232
a. Salamatof	244-40	1,935	534,420	16,905	37,199	512	590,971
b. Kalifonsky Beach	244-30	3,960	369,745	7,595	23,426	208	404,934
d. Cohoe/Ninilchik		5,626	578,833	16,048	35,092	728	636,327
1. Cohoe	244-22	2,561	280,169	7,644	19,699	493	310,566
2. Ninilchik	244-21	3,065	298,664	8,404	15,393	235	325,761
2. West Side Set Total		208	24,137	12,082	293	1,285	38,005
a. Little Jack Slough	245-50	1	19,822	4,515	127	70	24,535
b. Polly Creek	245-40	9	872	20	0	6	907
c. Tuxedni Bay	245-30	198	3,189	3,997	166	1,208	8,758
d. Silver Salmon	245-20	0	254	3,550	0	1	3,805
3. Kustatan Total		148	7,734	3,534	72	9	11,497
a. Big River	245-55	146	5,712	1,032	0	1	6,891
b. West Foreland	245-60	2	2,022	2,502	72	8	4,606
4. Kalgin Island Total		39	65,503	15,559	3,426	880	84,407
a. West Side	246-10	34	39,870	11,516	2,904	792	55,116
b. East Side	246-20	5	24,633	4,043	522	88	29,291
5. Chinitna Bay Total		0	345	230	1	140	716
a. Set	245-10	0	345	230	1	140	716
b. Drift	245-10	0	0	0	0	0	0
6. Central District Set Total		11,916	1,579,717	71,953	99,509	3,762	1,766,857
7. Central District Drift Total		387	2,204,933	171,361	122,728	140,924	2,640,333
a. West Side	245-70,80,90	37	387,091	26,387	7,780	37,750	459,045
b. East Side	244-50,60,70	350	1,817,842	144,974	114,948	103,174	2,181,288
c. Chinitna Bay	245-10	0	0	0	0	0	0
Commercial Harvest Total		14,248	3,888,778	321,411	242,911	156,457	4,623,805
Escapement:							
Kenai River		53,934[a]	794,335				848,269
Kasilof River			249,944				249,944
Crescent River			28,729				28,729
Packers Creek			52,855				52,855
Yentna River			90,660				90,660
Fish Creek		11	63,160	682			63,853
Escapement Total		53,945	1,279,683	682			1,334,310
Upper Cook Inlet Total[b]		68,193	5,168,461	322,093	242,911	156,457	5,958,115

[a] Late run only. Source: M. King, ADF&G, Soldotna, personal communication.
[b] Total does not account for other unmonitored escapements, sport, personal use and subsistence harvests.

Table 3. Age, length, and sex composition of sockeye salmon in selected commercial gillnet harvests and river escapements with overall exploitation rates by age, Upper Cook Inlet, Alaska, in 1996.

LOCATION	Age Group 0.2	1.1	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	Total
COMMERCIAL HARVEST														
Central District														
Central Drift														
Number	2,132		8,075	238,412	985	1,515,458	167,191		5,199	261,601	464	5,416		2,204,933
Percent	.10		.37	10.81	.04	68.73	7.58		.24	11.86	.02	.25		100.00
Sample Size	5		15	575	1	3,300	397		11	545	2	8		4,859
Mean Length[a]	466		595	510	525	591	511		618	584	523	623		575
Sample Size	5		14	512	1	2,994	362		11	515	2	8		4,424
% Female	17		57	36	100	56	42		35	54		18		53
Cohoe/Ninilchik Beach														
Number	233		654	85,180	194	334,277	98,974		958	55,755		2,608		578,833
Percent	.04		.11	14.72	.03	57.75	17.10		.17	9.63		.45		100.00
Sample Size	3		4	511	1	1,787	512		5	301		8		3,132
Mean Length	441		560	486	390	576	491		628	569		622		548
Sample Size	3		4	511	1	1,787	512		5	301		8		3,132
% Female	36		90	45		48	48		74	42		26		47
Kalifonsky Beach														
Number		99	20	56,719	99	204,738	72,800		199	33,763	199	1,089	20	369,745
Percent		.03	.01	15.34	.03	55.37	19.69		.05	9.13	.05	.29	.01	100.00
Sample Size		1	1	379	1	1,401	406		2	227	2	5	1	2,426
Mean Length		349	594	489	380	580	490		627	570	533	586	575	547
Sample Size		1	1	379	1	1,401	406		2	227	2	5	1	2,426
% Female			100	47	100	54	59			58		44	100	54
Salamatof Beach														
Number			2,314	52,299	420	398,690	33,099		1,856	45,276		466		534,420
Percent			.43	9.79	.08	74.60	6.19		.35	8.47		.09		100.00
Sample Size			7	175	1	1,293	119		5	163		1		1,764
Mean Length			595	498	359	583	519		619	581		587		571
Sample Size			7	175	1	1,293	119		5	163		1		1,764
% Female			13	43	100	49	41		33	50				48

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Table 3. (page 2 of 4)

LOCATION	Age Group 0.2	1.1	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	Total
COMMERCIAL HARVEST (continued)														
Northern District														
Eastern Subdistrict														
Number	14	68	108	6,040	234	7,038	7,547		14	2,053	14	14		23,144
Percent	.06	.29	.47	26.10	1.01	30.41	32.61		.06	8.87	.06	.06		100.00
Sample Size	1	3	4	198	11	270	291		1	84	1	1		865
Mean Length	447	321	574	478	382	563	487		647	554	476	652		513
Sample Size	1	3	4	198	11	270	291		1	84	1	1		865
% Female		21	100	61	40	58	66			61	100			62
General Subdistrict														
Number	132		2,509	9,004		43,821	4,057		701	20,760				80,984
Percent	.16		3.10	11.12		54.11	5.01		.87	25.63				100.00
Sample Size	2		36	130		617	61		10	291				1,147
Mean Length	447		577	507		578	511		607	576				566
Sample Size	2		36	130		617	61		10	291				1,147
% Female	50		55	43		57	52		28	52				54
COMMERCIAL HARVEST TOTAL														
Number	2,511	167	13,680	447,654	1,932	2,504,022	383,668		8,927	419,208	677	9,593	20	3,792,059[b]
Percent	.07	.00	.36	11.81	.05	66.03	10.12		.24	11.05	.02	.25	.00	100.00
Sample Size	11	4	67	1,968	15	8,668	1,786		34	1,611	5	23	1	14,193
Mean Length	463	338	590	501	451	587	502		619	580	525	616	575	567
Sample Size	11	4	66	1,905	15	8,362	1,751		34	1,581	5	23	1	13,758
% Female	20	8	51	40	83	54	47		37	52	2	22	100	51

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Table 3. (Page 3 of 4)

LOCATION	Age Group 0.2	1.1	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	Total
ESCAPEMENT														
Central District														
Kenai River														
Number			2,322	85,936	5,806	599,237	48,775	1,161	2,322	42,969	1,161	4,646		794,335
Percent			.29	10.82	.73	75.44	6.14	.15	.29	5.41	.15	.58		100.00
Sample Size			2	74	5	516	42	1	2	37	1	4		684
Mean Length			595	511	411	597	516	409	609	602	521	632		582
Sample Size			2	74	5	516	42	1	2	37	1	4		684
% Female			50	36	20	53	57	100	50	51	100	50		51
Kasilof River														
Number				62,053		120,638	53,386			13,867				249,944
Percent				24.83		48.27	21.36			5.55				100.00
Sample Size				179		348	154			40				721
Mean Length				475		562	476			554				522
Sample Size				179		348	154			40				721
% Female				47		39	55			48				45
Crescent River														
Number				4,386		7,310	6,872			10,015		146		28,729
Percent				15.27		25.44	23.92			34.86		.51		100.00
Sample Size				60		100	94			137		2		393
Mean Length				487		596	506			590		593		556
Sample Size				60		100	94			137		2		393
% Female				32		50	31			52		100		44
Packers Creek														
Number		141			706	2,719	35,467			13,681			141	52,855
Percent		.27			1.34	5.14	67.10			25.88			.27	100.00
Sample Size		1			5	21	258			139			1	425
Mean Length		335			343	542	456			541			520	481
Sample Size		1			5	21	258			139			1	425
% Female		100			80	79	50			78			100	59

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Table 3. (Page 4 of 4)

LOCATION	Age Group 0.2	1.1	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	Total
ESCAPEMENT (continued)														
Northern District														
Yentna River														
Number	2,918	389	2,918	23,152	390	39,686	8,561			12,646				90,660
Percent	3.22	.43	3.22	25.54	.43	43.77	9.44			13.95				100.00
Sample Size	15	2	15	119	2	204	44			65				466
Mean Length	444	323	581	465	348	579	486			571				534
Sample Size	15	2	15	119	2	204	44			65				466
% Female	27		60	34	50	48	52			52				45
Fish Creek														
Number		317		44,483	158	5,857	10,605		158	1,424	158			63,160
Percent		.50		70.43	.25	9.27	16.79		.25	2.25	.25			100.00
Sample Size		2		281	1	37	67		1	9	1			399
Mean Length		348		471	340	550	486		525	543	470			481
Sample Size		2		281	1	37	67		1	9	1			399
% Female				47		49	63		100	44	100			50
ESCAPEMENT TOTAL														
Number	2,918	847	5,240	220,010	7,060	775,447	163,666	1,161	2,480	94,602	1,319	4,792	141	1,279,683
Percent	.23	.07	.41	17.19	.55	60.60	12.79	.09	.19	7.39	.10	.37	.01	100.00
Sample Size	15	5	17	713	13	1,226	659	1	3	427	2	6	1	3,088
Mean Length	444	334	587	488	399	590	486	409	604	580	515	631	520	557
Sample Size	15	5	17	713	13	1,226	659	1	3	427	2	6	1	3,088
% Female	27	17	56	41	27	50	54	100	53	55	100	52	100	50
UPPER COOK INLET TOTAL														
Number	5,429	1,014	18,920	667,664	8,992	3,279,469	547,334	1,161	11,407	513,810	1,996	14,385	161	5,071,742
Percent	.11	.02	.37	13.16	.18	64.66	10.79	.02	.22	10.13	.04	.28	.00	100.00
Sample Size	26	9	84	2,681	28	9,894	2,445	1	37	2,038	7	29	2	17,281
Mean Length	453	335	589	496	410	588	497	409	615	580	518	621	527	565
Sample Size	26	9	83	2,618	28	9,588	2,410	1	37	2,008	7	29	2	16,846
% Female	24	15	53	41	39	53	49	100	41	53	67	32	100	51
Exploitation Rate														
Percent	46.25	16.47	72.30	67.05	21.49	76.35	70.10		78.26	81.59	33.92	66.69	12.42	74.77

[a] Mean length in mm.

[b] Total does not include the Chinitna Bay, Kalgin Island, Kustatan, and Western Subdistrict's commercial harvest of 96,719 fish that were not sampled.

Table 4. Age, sex and length composition of sockeye salmon in the Central District commercial drift gillnet harvest, Upper Cook Inlet, Alaska, in 1996.

	Age Group										
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	Total
Sample Period 1: 28 June - 2 July[a]											
Males			8,824		47,109	5,384	150	4,935			66,402
Percent			6.68		35.67	4.08	0.11	3.74			50.28
Sample Size			59		315	36	1	33			444
Mean Length[b]			507		572	504	628	578			558
Std. Error			5		2	6		9			2
Sample Size			29		168	18	1	19			235
Females		299	7,328		47,409	4,038	150	6,431			65,655
Percent		0.23	5.55		35.90	3.06	0.11	4.87			49.72
Sample Size		2	49		317	27	1	43			439
Mean Length		558	514		568	510	613	574			559
Std. Error			5		2	5		6			1
Sample Size		1	16		158	10	1	27			213
Both Sexes		299	16,152		94,518	9,422	300	11,366			132,057
Percent		0.23	12.23		71.57	7.13	0.23	8.61			100.00
Sample Size		2	108		632	63	2	76			883
Mean Length		558	510		570	506	621	576			558
Std. Error			3		1	4		5			1
Sample Size		1	45		326	28	2	46			448

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Table 4. (page 2 of 11)

	Age Group										
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	Total
Sample Period 2: 5 July											
Males			33,061		94,699	11,207		15,129			154,096
Percent			13.29		38.06	4.50		6.08			61.94
Sample Size			59		169	20		27			275
Mean Length			513		584	504		575			562
Std. Error			4		3	7		6			2
Sample Size			59		169	20		27			275
Females		1,121	12,328		60,517	7,845		12,888			94,699
Percent		0.45	4.96		24.32	3.15		5.18			38.06
Sample Size		2	22		108	14		23			169
Mean Length		572	501		579	507		564			560
Std. Error		1	5		3	6		6			2
Sample Size		2	22		108	14		23			169
Both Sexes		1,121	45,389		155,216	19,052		28,017			248,795
Percent		0.45	18.24		62.39	7.66		11.26			100.00
Sample Size		2	81		277	34		50			444
Mean Length		572	510		582	505		570			561
Std. Error		1	3		2	5		4			1
Sample Size		2	81		277	34		50			444

-Continued-

Table 4. (page 3 of 11)

	Age Group										
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	Total
Sample Period 3: 8 - 9 July[c]											
Males	1,065	533	34,085		58,584	14,912	533	13,847			123,559
Percent	0.45	0.22	14.35		24.66	6.28	0.22	5.83			52.02
Sample Size	2	1	64		110	28	1	26			232
Mean Length	484	624	510		578	513	560	581			551
Std. Error	13		4		3	5		6			2
Sample Size	2	1	64		110	28	1	26			232
Females			13,315		74,028	12,782		13,847			113,972
Percent			5.61		31.17	5.38		5.83			47.98
Sample Size			25		139	24		26			214
Mean Length			512		581	506		578			564
Std. Error			5		2	5		6			2
Sample Size			25		139	24		26			214
Both Sexes	1,065	533	47,400		132,612	27,694	533	27,694			237,531
Percent	0.45	0.22	19.96		55.83	11.66	0.22	11.66			100.00
Sample Size	2	1	89		249	52	1	52			446
Mean Length	484	624	510		580	510	560	580			557
Std. Error	13		3		2	4		4			1
Sample Size	2	1	89		249	52	1	52			446

-Continued-

Table 4. (page 4 of 11)

	Age Group										
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	Total
Sample Period 4: 11 - 12 July[a]											
Males	711		20,271		34,853	8,535		6,401	356		71,127
Percent	0.45		12.78		21.97	5.38		4.04	0.22		44.84
Sample Size	2		57		98	24		18	1		200
Mean Length	447		489		590	495		595	514		548
Std. Error	8		5		3	6		8			2
Sample Size	2		57		98	24		18	1		200
Females	356		13,514		59,747	7,468		6,401			87,486
Percent	0.22		8.52		37.67	4.71		4.04			55.16
Sample Size	1		38		168	21		18			246
Mean Length	454		503		583	496		565			561
Std. Error			3		2	5		8			2
Sample Size	1		38		168	21		18			246
Both Sexes	1,067		33,785		94,600	16,003		12,802	356		158,613
Percent	0.67		21.30		59.64	10.09		8.07	0.22		100.00
Sample Size	3		95		266	45		36	1		446
Mean Length	449		494		586	496		580	514		556
Std. Error	8		3		2	4		6			1
Sample Size	3		95		266	45		36	1		446

-Continued-

Table 4. (page 5 of 11)

	Age Group										
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	Total
Sample Period 5: 15 July[e]											
Males			15,640		87,255	17,286		25,518			145,699
Percent			4.42		24.65	4.88		7.21			41.16
Sample Size			19		106	21		31			177
Mean Length			514		599	518		587			578
Std. Error			5		3	9		5			3
Sample Size			19		106	21		31			177
Females		823	13,994		154,754	9,878		28,811			208,260
Percent		0.23	3.95		43.72	2.79		8.14			58.84
Sample Size		1	17		188	12		35			253
Mean Length		584	517		590	513		581			580
Std. Error			4		2	8		4			1
Sample Size		1	17		188	12		35			253
Both Sexes		823	29,634		242,009	27,164		54,329			353,959
Percent		0.23	8.37		68.37	7.67		15.35			100.00
Sample Size		1	36		294	33		66			430
Mean Length		584	515		593	516		584			579
Std. Error			3		2	6		3			1
Sample Size		1	36		294	33		66			430

-Continued-

Table 4. (page 6 of 11)

	Age Group									
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	Total
Sample Period 6: 16 - 17 July[f]											
Males		307	5,534		38,740	7,993	307	5,841		307	59,029
Percent		0.23	4.08		28.57	5.90	0.23	4.31		0.23	43.54
Sample Size		1	18		126	26	1	19		1	192
Mean Length		622	496		605	511	663	585		662	580
Std. Error			7		3	6		10			2
Sample Size		1	18		126	26	1	19		1	192
Females		615	2,767		62,411	2,767	307	7,686			76,553
Percent		0.45	2.04		46.03	2.04	0.23	5.67			56.46
Sample Size		2	9		203	9	1	25			249
Mean Length		593	513		586	511	592	583			581
Std. Error		9	8		1	11		5			1
Sample Size		2	9		203	9	1	25			249
Both Sexes		922	8,301		101,151	10,760	614	13,527		307	135,582
Percent		0.68	6.12		74.61	7.94	0.45	9.98		0.23	100.00
Sample Size		3	27		329	35	2	44		1	441
Mean Length		603	501		593	511	628	584		662	581
Std. Error		9	5		1	6		5			1
Sample Size		3	27		329	35	2	44		1	441

-Continued-

Table 4. (page 7 of 11)

	Age Group									
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	Total
Sample Period 7: 19 July[7]											
Males	1,970	11,817			129,990	11,817	985	19,695		2,954	179,228
Percent	0.46	2.75			30.21	2.75	0.23	4.58		0.69	41.65
Sample Size	2	12			132	12	1	20		3	182
Mean Length	605	518			607	497	644	599		610	593
Std. Error	31	8			3	10		8		6	2
Sample Size	2	12			132	12	1	20		3	182
Females	985	11,817	985		187,105	11,817	985	36,436		985	251,115
Percent	0.23	2.75	0.23		43.48	2.75	0.23	8.47		0.23	58.35
Sample Size	1	12	1		190	12	1	37		1	255
Mean Length	598	518	525		589	542	589	587		632	583
Std. Error		5			2	7		4			1
Sample Size	1	12	1		190	12	1	37		1	255
Both Sexes	2,955	23,634	985		317,095	23,634	1,970	56,131		3,939	430,343
Percent	0.69	5.49	0.23		73.68	5.49	0.46	13.04		0.92	100.00
Sample Size	3	24	1		322	24	2	57		4	437
Mean Length	603	518	525		596	520	617	591		615	587
Std. Error	31	5			1	6		4		6	1
Sample Size	3	24	1		322	24	2	57		4	437

-Continued-

Table 4. (page 8 of 11)

	Age Group										
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	Total
Sample Period 8: 20 - 22 July[h]											
Males		642	12,844		94,404	10,917	1,284	14,128			134,219
Percent		0.23	4.55		33.41	3.86	0.45	5.00			47.50
Sample Size		1	20		147	17	2	22			209
Mean Length		600	510		615	502	654	596			594
Std. Error			8		2	7	11	8			2
Sample Size		1	20		147	17	2	22			209
Females			5,780		119,448	6,422		16,697			148,347
Percent			2.05		42.27	2.27		5.91			52.50
Sample Size			9		186	10		26			231
Mean Length			507		592	534		581			585
Std. Error			8		2	11		5			2
Sample Size			9		186	10		26			231
Both Sexes		642	18,624		213,852	17,339	1,284	30,825			282,566
Percent		0.23	6.59		75.68	6.14	0.45	10.91			100.00
Sample Size		1	29		333	27	2	48			440
Mean Length		600	509		602	514	654	588			589
Std. Error			6		1	6	11	5			1
Sample Size		1	29		333	27	2	48			440

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Table 4. (page 9 of 11)

	Age Group										
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	Total
Sample Period 9: 25 - 28 July[1]											
Males			5,849		62,394	5,459		10,139		1,170	85,011
Percent			3.27		34.93	3.06		5.68		0.66	47.60
Sample Size			15		160	14		26		3	218
Mean Length			542		606	518		597		637	595
Std. Error			7		2	8		9		11	2
Sample Size			15		160	14		26		3	218
Females		780	2,730		75,651	4,290	390	9,749			93,590
Percent		0.44	1.53		42.36	2.40	0.22	5.46			52.40
Sample Size		2	7		194	11	1	25			240
Mean Length		595	540		587	539	559	578			582
Std. Error		6	8		2	7		4			1
Sample Size		2	7		194	11	1	25			240
Both Sexes		780	8,579		138,045	9,749	390	19,888		1,170	178,601
Percent		0.44	4.80		77.29	5.46	0.22	11.14		0.66	100.00
Sample Size		2	22		354	25	1	51		3	458
Mean Length		595	541		595	527	559	587		637	588
Std. Error		6	5		1	6		5		11	1
Sample Size		2	22		354	25	1	51		3	458

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Table 4. (page 10 of 11)

	Age Group										
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	Total
Sample Period 10: 29 July - 9 August[3]											
Males			4,645		13,073	3,997	108	4,537	108		26,468
Percent			9.91		27.88	8.52	0.23	9.68	0.23		56.45
Sample Size			43		121	37	1	42	1		245
Mean Length			499		602	495	659	604	553		568
Std. Error			5		3	6		5			2
Sample Size			43		121	37	1	42	1		245
Females			2,269		13,287	2,377		2,485			20,418
Percent			4.84		28.34	5.07		5.30			43.55
Sample Size			21		123	22		23			189
Mean Length			491		583	501		577			563
Std. Error			6		2	5		7			2
Sample Size			21		123	22		23			189
Both Sexes			6,914		26,360	6,374	108	7,022	108		46,886
Percent			14.75		56.22	13.59	0.23	14.98	0.23		100.00
Sample Size			64		244	59	1	65	1		434
Mean Length			496		592	497	659	595	553		566
Std. Error			4		2	4		4			2
Sample Size			64		244	59	1	65	1		434

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Table 4. (page 11 of 11)

	Age Group										
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	Total
All Periods Combined:											
Males	1,776	3,452	152,570		661,101	97,507	3,367	120,170	464	4,431	1,044,838
Percent	0.08	0.16	6.92		29.98	4.42	0.15	5.45	0.02	0.20	47.39
Sample Size	4	5	366		1,484	235	7	264	2	7	2,374
Mean Length	469	609	509		597	507	636	589	523	620	575
Std. Error	8	31	2		1	3	11	2		6	1
Sample Size	4	5	336		1,337	217	7	250	2	7	2,165
Females	356	4,623	85,842	985	854,357	69,684	1,832	141,431		985	1,160,095
Percent	0.02	0.21	3.89	0.04	38.75	3.16	0.08	6.41		0.04	52.61
Sample Size	1	10	209	1	1,816	162	4	281		1	2,485
Mean Length	454	585	511	525	586	517	585	579		632	576
Std. Error		3	2		1	2		2			1
Sample Size	1	9	176	1	1,657	145	4	265		1	2,259
Both Sexes	2,132	8,075	238,412	985	1,515,458	167,191	5,199	261,601	464	5,416	2,204,933
Percent	0.10	0.37	10.81	0.04	68.73	7.58	0.24	11.86	0.02	0.25	100.00
Sample Size	5	15	575	1	3,300	397	11	545	2	8	4,859
Mean Length	466	595	510	525	591	511	618	584	523	623	575
Std. Error	8	14	1		1	2	11	2		6	0
Sample Size	5	14	512	1	2,994	362	11	515	2	8	4,424

[a] All areas of Central District open 6/28 and 7/01 - 0700-1900. Kasilof Section open 7/01 - 1900-2200 and 7/02 - 0500-1900.
[b] Mean length in mm.
[c] All areas of Central District open 7/08. Kasilof Section open 7/09.
[d] Kasilof Section open 7/11 - 0700-2200. Kenai and Kasilof Sections open 7/12 - 0700-1900.
[e] All areas of Central District open except west of 152 degrees 25 minutes.
[f] Kenai and Kasilof Sections open 7/16 - 0700-2200 and 7/17 - 0500-2200.
[g] All areas of Central district open except west of 152 degrees 25 minutes.
[h] Kenai and Kasilof Sections open 7/20 - 1400-2200 and 7/21 - 0500-1700. Kenai and Kasilof, S. of 60.17, E. of 152.25 open 7/22 - 0700-1900.
[i] Kenai and Kasilof Sections open 7/25-7/28 - 0500-2200.
[j] All areas of Central District open except west of 152 degrees 25 minutes on 7/29. All areas of Central District open 8/2 and 8/5.

Table 5. Age, sex and length composition of sockeye salmon in the Cohoe/Ninilchik Beach commercial set gillnet harvest, Upper Cook Inlet, Alaska, in 1996.

	Age Group									
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 1: 28 June - 2 July										
Males			8,625		28,249	6,253		2,803		45,930
Percent			8.99		29.44	6.52		2.92		47.86
Sample Size			40		131	29		13		213
Mean Length[a]			496		574	504		574		550
Std. Error			3		3	5		8		2
Sample Size			40		131	29		13		213
Females			7,332		34,071	5,822		2,803		50,028
Percent			7.64		35.51	6.07		2.92		52.14
Sample Size			34		158	27		13		232
Mean Length			503		564	501		566		548
Std. Error			4		2	5		6		2
Sample Size			34		158	27		13		232
Both Sexes			15,957		62,320	12,075		5,606		95,958
Percent			16.63		64.95	12.58		5.84		100.00
Sample Size			74		289	56		26		445
Mean Length			499		569	502		570		549
Std. Error			3		2	4		5		1
Sample Size			74		289	56		26		445

-Continued-

Table 5. (page 2 of 8)

	Age Group									
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 2: 5 July										
Males	65	65	3,044		9,130	2,137		1,425		15,866
Percent	0.22	0.22	10.47		31.40	7.35		4.90		54.57
Sample Size	1	1	47		141	33		22		245
Mean Length	435	577	504		576	495		594		552
Std. Error			4		3	5		6		2
Sample Size	1	1	47		141	33		22		245
Females			2,008		8,353	1,749	65	1,036		13,211
Percent			6.91		28.73	6.02	0.22	3.56		45.43
Sample Size			31		129	27	1	16		204
Mean Length			501		571	511	661	576		553
Std. Error			4		2	5		8		2
Sample Size			31		129	27	1	16		204
Both Sexes	65	65	5,052		17,483	3,886	65	2,461		29,077
Percent	0.22	0.22	17.37		60.13	13.36	0.22	8.46		100.00
Sample Size	1	1	78		270	60	1	38		449
Mean Length	435	577	503		573	502	661	586		553
Std. Error			3		2	3		5		1
Sample Size	1	1	78		270	60	1	38		449

-Continued-

Table 5. (page 3 of 8)

	Age Group									
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 3: 8 - 9 July										
Males			2,806		6,313	3,449	58	1,520		14,146
Percent			10.46		23.53	12.85	0.22	5.67		52.72
Sample Size			48		108	59	1	26		242
Mean Length			497		579	495	592	577		542
Std. Error			4		3	3		7		2
Sample Size			48		108	59	1	26		242
Females		58	1,812		7,367	2,104		1,344		12,685
Percent		0.22	6.75		27.46	7.84		5.01		47.28
Sample Size		1	31		126	36		23		217
Mean Length		602	498		570	500		552		547
Std. Error			4		2	3		6		2
Sample Size		1	31		126	36		23		217
Both Sexes		58	4,618		13,680	5,553	58	2,864		26,831
Percent		0.22	17.21		50.99	20.70	0.22	10.67		100.00
Sample Size		1	79		234	95	1	49		459
Mean Length		602	497		574	497	592	565		544
Std. Error			3		2	2		5		1
Sample Size		1	79		234	95	1	49		459

-Continued-

Table 5. (page 4 of 8)

	Age Group									
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 4: 11 - 12 July										
Males	84		4,307		9,796	2,871		2,027		19,085
Percent	0.23		11.57		26.30	7.71		5.44		51.25
Sample Size	1		51		116	34		24		226
Mean Length	441		490		575	493		574		543
Std. Error			4		4	4		9		2
Sample Size	1		51		116	34		24		226
Females	84	84	5,236		8,699	2,449		1,604		18,156
Percent	0.23	0.23	14.06		23.36	6.58		4.31		48.75
Sample Size	1	1	62		103	29		19		215
Mean Length	447	585	482		570	491		569		534
Std. Error			3		3	4		7		2
Sample Size	1	1	62		103	29		19		215
Both Sexes	168	84	9,543		18,495	5,320		3,631		37,241
Percent	0.45	0.23	25.62		49.66	14.29		9.75		100.00
Sample Size	2	1	113		219	63		43		441
Mean Length	444	585	486		573	492		572		538
Std. Error			3		2	3		6		2
Sample Size	2	1	113		219	63		43		441

-Continued-

Table 5. (page 5 of 8)

	Age Group								
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 5: 14 - 17 July										
Males			14,293		54,046	20,100		11,167	1,340	100,946
Percent			7.34		27.75	10.32		5.73	0.69	51.83
Sample Size			32		121	45		25	3	226
Mean Length			479		589	491		562	636	552
Std. Error			6		4	5		8	4	2
Sample Size			32		121	45		25	3	226
Females		447	12,953		51,365	20,100	447	8,040	447	93,799
Percent		0.23	6.65		26.38	10.32	0.23	4.13	0.23	48.17
Sample Size		1	29		115	45	1	18	1	210
Mean Length		548	475		567	486	612	567	610	538
Std. Error			6		2	4		6		2
Sample Size		1	29		115	45	1	18	1	210
Both Sexes		447	27,246		105,411	40,200	447	19,207	1,787	194,745
Percent		0.23	13.99		54.13	20.64	0.23	9.86	0.92	100.00
Sample Size		1	61		236	90	1	43	4	436
Mean Length		548	477		579	489	612	564	629	545
Std. Error			4		2	3		5	4	2
Sample Size		1	61		236	90	1	43	4	436

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Table 5. (page 6 of 8)

	Age Group									
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 6: 19 - 22 July										
Males			8,344		42,196	11,681		8,344		70,565
Percent			7.85		39.69	10.99		7.85		66.37
Sample Size			35		177	49		35		296
Mean Length			475		579	483		574		551
Std. Error			7		3	5		7		2
Sample Size			35		177	49		35		296
Females			3,338		23,363	5,483		3,338	238	35,760
Percent			3.14		21.97	5.16		3.14	0.22	33.63
Sample Size			14		98	23		14	1	150
Mean Length			481		564	496		546	595	544
Std. Error			8		3	6		9		2
Sample Size			14		98	23		14	1	150
Both Sexes			11,682		65,559	17,164		11,682	238	106,325
Percent			10.99		61.66	16.14		10.99	0.22	100.00
Sample Size			49		275	72		49	1	446
Mean Length			477		574	487		566	595	549
Std. Error			5		2	4		5		2
Sample Size			49		275	72		49	1	446

-Continued-

Table 5. (page 7 of 8)

	Age Group								
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 7: 25 July - 12 August										
Males			5,444	194	23,915	5,249	194	5,249	583	40,828
Percent			6.14	0.22	26.98	5.92	0.22	5.92	0.66	46.05
Sample Size			28	1	123	27	1	27	3	210
Mean Length			486	390	603	486	678	590	609	570
Std. Error			8		3	7		5	10	2
Sample Size			28	1	123	27	1	27	3	210
Females			5,638		27,414	9,527	194	5,055		47,828
Percent			6.36		30.92	10.75	0.22	5.70		53.95
Sample Size			29		141	49	1	26		246
Mean Length			485		574	485	614	562		545
Std. Error			5		2	5		6		2
Sample Size			29		141	49	1	26		246
Both Sexes			11,082	194	51,329	14,776	388	10,304	583	88,656
Percent			12.50	0.22	57.90	16.67	0.44	11.62	0.66	100.00
Sample Size			57	1	264	76	2	53	3	456
Mean Length			486	390	588	486	646	576	609	557
Std. Error			5		2	4		4	10	1
Sample Size			57	1	264	76	2	53	3	456

-Continued-

Table 5. (page 8 of 8)

	Age Group									
	0.2	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
All Periods Combined:										
Males	149	65	46,863	194	173,645	51,740	252	32,535	1,923	307,366
Percent	0.03	0.01	8.10	0.03	30.00	8.94	0.04	5.62	0.33	53.10
Sample Size	2	1	281	1	917	276	2	172	6	1,658
Mean Length	438	577	486	390	584	491	658	573	628	553
Std. Error			3		1	2		3	4	1
Sample Size	2	1	281	1	917	276	2	172	6	1,658
Females	84	589	38,317		160,632	47,234	706	23,220	685	271,467
Percent	0.01	0.10	6.62		27.75	8.16	0.12	4.01	0.12	46.90
Sample Size	1	3	230		870	236	3	129	2	1,474
Mean Length	447	559	486		568	491	617	563	605	543
Std. Error			2		1	2		3		1
Sample Size	1	3	230		870	236	3	129	2	1,474
Both Sexes	233	654	85,180	194	334,277	98,974	958	55,755	2,608	578,833
Percent	0.04	0.11	14.72	0.03	57.75	17.10	0.17	9.63	0.45	100.00
Sample Size	3	4	511	1	1,787	512	5	301	8	3,132
Mean Length	441	560	486	390	576	491	628	569	622	548
Std. Error			2		1	2		2	4	1
Sample Size	3	4	511	1	1,787	512	5	301	8	3,132

[a] Mean length in mm.

Table 6. Age, sex and length composition of sockeye salmon in the Kalifonsky Beach commercial set gillnet harvest, Upper Cook Inlet, Alaska, in 1996.

	Age Group										
	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Sample Period 1: 28 June - 5 July												
Males			3,258		13,461	2,486		1,543				20,748
Percent			8.66		35.76	6.61		4.10				55.13
Sample Size			38		157	29		18				242
Mean Length[a]			499		569	499		569				550
Std. Error			4		2	5		5				2
Sample Size			38		157	29		18				242
Females			2,058		11,917	1,372		1,543				16,890
Percent			5.47		31.66	3.65		4.10				44.87
Sample Size			24		139	16		18				197
Mean Length			491		561	501		559				547
Std. Error			4		2	7		7				2
Sample Size			24		139	16		18				197
Both Sexes			5,316		25,378	3,858		3,086				37,638
Percent			14.12		67.43	10.25		8.20				100.00
Sample Size			62		296	45		36				439
Mean Length			496		565	500		564				549
Std. Error			3		1	4		4				1
Sample Size			62		296	45		36				439

-Continued-

Table 6. (page 2 of 6)

	Age Group										
	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Sample Period 2: 8 - 12 July												
Males			1,452		3,886	1,118		706				7,162
Percent			11.53		30.85	8.88		5.60				56.85
Sample Size			74		198	57		36				365
Mean Length			488		571	489		570				541
Std. Error			4		3	4		5				2
Sample Size			74		198	57		36				365
Females		20	1,020		3,041	785		549			20	5,435
Percent		0.16	8.10		24.14	6.23		4.36			0.16	43.15
Sample Size		1	52		155	40		28			1	277
Mean Length		594	489		564	486		557			575	538
Std. Error			4		2	4		6				2
Sample Size		1	52		155	40		28			1	277
Both Sexes		20	2,472		6,927	1,903		1,255			20	12,597
Percent		0.16	19.62		54.99	15.11		9.96			0.16	100.00
Sample Size		1	126		353	97		64			1	642
Mean Length		594	489		568	488		564			575	540
Std. Error			3		2	3		4				1
Sample Size		1	126		353	97		64			1	642

-Continued-

Table 6. (page 3 of 6)

	Age Group										
	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Sample Period 3: 14 - 17 July												
Males			16,864		29,189	18,486		3,567		324		68,430
Percent			11.53		19.96	12.64		2.44		0.22		46.78
Sample Size			52		90	57		11		1		211
Mean Length			486		581	493		560		595		533
Std. Error			3		4	3		9				2
Sample Size			52		90	57		11		1		211
Females			12,000		39,566	19,134		7,135				77,835
Percent			8.20		27.05	13.08		4.88				53.22
Sample Size			37		122	59		22				240
Mean Length			489		578	494		580				544
Std. Error			4		3	3		6				2
Sample Size			37		122	59		22				240
Both Sexes			28,864		68,755	37,620		10,702		324		146,265
Percent			19.73		47.01	25.72		7.32		0.22		100.00
Sample Size			89		212	116		33		1		451
Mean Length			487		579	494		573		595		538
Std. Error			3		2	2		5				1
Sample Size			89		212	116		33		1		451

-Continued-

Table 6. (page 4 of 6)

	Age Group										
	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Sample Period 4: 19 - 26 July												
Males			5,383		29,747	4,250		5,383		283		45,046
Percent			4.14		22.88	3.27		4.14		0.22		34.64
Sample Size			19		105	15		19		1		159
Mean Length			490		600	472		581		606		573
Std. Error			9		3	8		9				2
Sample Size			19		105	15		19		1		159
Females			9,916		47,313	18,415		9,066		283		84,993
Percent			7.63		36.38	14.16		6.97		0.22		65.36
Sample Size			35		167	65		32		1		300
Mean Length			482		578	483		567		570		545
Std. Error			5		2	3		7				2
Sample Size			35		167	65		32		1		300
Both Sexes			15,299		77,060	22,665		14,449		566		130,039
Percent			11.76		59.26	17.43		11.11		0.44		100.00
Sample Size			54		272	80		51		2		459
Mean Length			485		586	481		572		588		554
Std. Error			5		2	3		6				1
Sample Size			54		272	80		51		2		459

-Continued-

Table 6. (page 5 of 6)

	Age Group											
	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Sample Period 5: 27 July - 9 August												
Males	99		2,980		17,481	3,774	199	2,880	199			27,612
Percent	0.23		6.90		40.46	8.73	0.46	6.67	0.46			63.91
Sample Size	1		30		176	38	2	29	2			278
Mean Length	349		506		593	491	627	573	533			566
Std. Error			8		2	6	39	8	29			2
Sample Size	1		30		176	38	2	29	2			278
Females			1,788	99	9,137	2,980		1,391		199		15,594
Percent			4.14	0.23	21.15	6.90		3.22		0.46		36.09
Sample Size			18	1	92	30		14		2		157
Mean Length			498	380	565	496		547		566		541
Std. Error			8		3	6		8		15		2
Sample Size			18	1	92	30		14		2		157
Both Sexes	99		4,768	99	26,618	6,754	199	4,271	199	199		43,206
Percent	0.23		11.04	0.23	61.61	15.63	0.46	9.89	0.46	0.46		100.00
Sample Size	1		48	1	268	68	2	43	2	2		435
Mean Length	349		503	380	583	493	627	565	533	566		557
Std. Error			6		2	4	39	6	29	15		2
Sample Size	1		48	1	268	68	2	43	2	2		435

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Table 6. (page 6 of 6)

	Age Group											
	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
All Periods Combined:												
Males	99		29,937		93,764	30,114	199	14,079	199	607		168,998
Percent	0.03		8.10		25.36	8.14	0.05	3.81	0.05	0.16		45.71
Sample Size	1		213		726	196	2	113	2	2		1,255
Mean Length	349		490		587	490	627	572	533	600		551
Std. Error			3		2	3	39	4	29			1
Sample Size	1		213		726	196	2	113	2	2		1,255
Females		20	26,782	99	110,974	42,686		19,684		482	20	200,747
Percent		0.01	7.24	0.03	30.01	11.54		5.32		0.13	0.01	54.29
Sample Size		1	166	1	675	210		114		3	1	1,171
Mean Length		594	487	380	574	489		569		568	575	544
Std. Error			3		1	2		4		15		1
Sample Size		1	166	1	675	210		114		3	1	1,171
Both Sexes	99	20	56,719	99	204,738	72,800	199	33,763	199	1,089	20	369,745
Percent	0.03	0.01	15.34	0.03	55.37	19.69	0.05	9.13	0.05	0.29	0.01	100.00
Sample Size	1	1	379	1	1,401	406	2	227	2	5	1	2,426
Mean Length	349	594	489	380	580	490	627	570	533	586	575	547
Std. Error			2		1	2	39	3	29	15		1
Sample Size	1	1	379	1	1,401	406	2	227	2	5	1	2,426

[a] Mean length in mm.

Table 7. Age, sex and length composition of sockeye salmon in the Salamatof Beach commercial set gillnet harvest, Upper Cook Inlet, Alaska, in 1996.

	Age Group								
	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 1: 1 - 8 July									
Males		1,058		3,891	778		622		6,349
Percent		7.42		27.30	5.46		4.36		44.54
Sample Size		34		125	25		20		204
Mean Length[a]		498		563	499		553		543
Std. Error		5		3	5		9		2
Sample Size		34		125	25		20		204
Females		498		5,851	467		1,089		7,905
Percent		3.49		41.05	3.28		7.64		55.46
Sample Size		16		188	15		35		254
Mean Length		503		561	509		561		554
Std. Error		8		2	6		5		2
Sample Size		16		188	15		35		254
Both Sexes		1,556		9,742	1,245		1,711		14,254
Percent		10.92		68.35	8.73		12.00		100.00
Sample Size		50		313	40		55		458
Mean Length		499		562	503		558		549
Std. Error		4		2	4		5		1
Sample Size		50		313	40		55		458

-Continued-

Table 7. (page 2 of 5)

	Age Group								
	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 2: 12 - 16 July									
Males		15,135		44,985	7,568		2,523		70,211
Percent		8.02		23.83	4.01		1.34		37.19
Sample Size		36		107	18		6		167
Mean Length		496		596	517		609		567
Std. Error		7		3	10		13		3
Sample Size		36		107	18		6		167
Females		17,658	420	84,086	7,568		8,829		118,561
Percent		9.35	0.22	44.54	4.01		4.68		62.81
Sample Size		42	1	200	18		21		282
Mean Length		488	359	581	522		578		563
Std. Error		7		2	8		5		2
Sample Size		42	1	200	18		21		282
Both Sexes		32,793	420	129,071	15,136		11,352		188,772
Percent		17.37	0.22	68.37	8.02		6.01		100.00
Sample Size		78	1	307	36		27		449
Mean Length		491	359	587	520		585		564
Std. Error		5		2	6		5		2
Sample Size		78	1	307	36		27		449

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Table 7. (page 3 of 5)

	Age Group							
	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 3: 19 - 22 July									
Males	1,540	6,158		66,819	3,695	308	7,698		86,218
Percent	1.16	4.65		50.47	2.79	0.23	5.81		65.12
Sample Size	5	20		217	12	1	25		280
Mean Length	598	492		597	502	651	599		586
Std. Error	9	6		3	7		5		2
Sample Size	5	20		217	12	1	25		280
Females	308	1,540		37,874	2,771	616	3,079		46,188
Percent	0.23	1.16		28.60	2.09	0.47	2.33		34.88
Sample Size	1	5		123	9	2	10		150
Mean Length	575	514		581	523	601	588		576
Std. Error		18		2	7	4	8		2
Sample Size	1	5		123	9	2	10		150
Both Sexes	1,848	7,698		104,693	6,466	924	10,777		132,406
Percent	1.40	5.81		79.07	4.88	0.70	8.14		100.00
Sample Size	6	25		340	21	3	35		430
Mean Length	594	496		591	511	617	596		582
Std. Error	9	6		2	5	4	4		2
Sample Size	6	25		340	21	3	35		430

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Table 7. (page 4 of 5)

	Age Group								
	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 4: 25 July - 9 August									
Males	466	7,456		87,145	7,456	932	11,650	466	115,571
Percent	0.23	3.75		43.79	3.75	0.47	5.85	0.23	58.08
Sample Size	1	16		187	16	2	25	1	248
Mean Length	600	524		584	525	620	581	587	576
Std. Error		13		2	5	13	6		2
Sample Size	1	16		187	16	2	25	1	248
Females		2,796		68,039	2,796		9,786		83,417
Percent		1.41		34.19	1.41		4.92		41.92
Sample Size		6		146	6		21		179
Mean Length		510		567	525		564		563
Std. Error		9		2	5		4		2
Sample Size		6		146	6		21		179
Both Sexes	466	10,252		155,184	10,252	932	21,436	466	198,988
Percent	0.23	5.15		77.99	5.15	0.47	10.77	0.23	100.00
Sample Size	1	22		333	22	2	46	1	427
Mean Length	600	520		577	525	620	573	587	571
Std. Error		10		2	4	13	4		1
Sample Size	1	22		333	22	2	46	1	427

-Continued-

Table 7. (page 5 of 5)

	Age Group								
	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
All Periods Combined:									
Males	2,006	29,807		202,840	19,497	1,240	22,493	466	278,349
Percent	0.38	5.58		37.96	3.65	0.23	4.21	0.09	52.08
Sample Size	6	106		636	71	3	76	1	899
Mean Length	598	502		591	517	628	589	587	576
Std. Error	9	5		1	5	13	4		1
Sample Size	6	106		636	71	3	76	1	899
Females	308	22,492	420	195,850	13,602	616	22,783		256,071
Percent	0.06	4.21	0.08	36.65	2.55	0.12	4.26		47.92
Sample Size	1	69	1	657	48	2	87		865
Mean Length	575	493	359	576	523	601	572		565
Std. Error		6		1	5	4	3		1
Sample Size	1	69	1	657	48	2	87		865
Both Sexes	2,314	52,299	420	398,690	33,099	1,856	45,276	466	534,420
Percent	0.43	9.79	0.08	74.60	6.19	0.35	8.47	0.09	100.00
Sample Size	7	175	1	1,293	119	5	163	1	1,764
Mean Length	595	498	359	583	519	619	581	587	571
Std. Error	9	4		1	3	8	2		1
Sample Size	7	175	1	1,293	119	5	163	1	1,764

[a] Mean length in mm.

Table 8. Age, sex and length composition of sockeye salmon in the Eastern Subdistrict commercial set gillnet harvest, Upper Cook Inlet, Alaska, in 1996.

	Age Group											
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	Total
Sample Period 1: 3 June - 19 July												
Males		40		1,931	40	1,891	1,810		523			6,235
Percent		0.24		11.51	0.24	11.27	10.79		3.12			37.17
Sample Size		1		48	1	47	45		13			155
Mean Length[a]		302		477	420	572	480		568			513
Std. Error				5		7	4		12			3
Sample Size		1		48	1	47	45		13			155
Females			80	3,057	80	3,057	3,460		805			10,539
Percent			0.48	18.22	0.48	18.22	20.63		4.80			62.83
Sample Size			2	76	2	76	86		20			262
Mean Length			585	480	392	553	489		544			509
Std. Error			11	2	4	4	2		7			2
Sample Size			2	76	2	76	86		20			262
Both Sexes		40	80	4,988	120	4,948	5,270		1,328			16,774
Percent		0.24	0.48	29.74	0.72	29.50	31.42		7.92			100.00
Sample Size		1	2	124	3	123	131		33			417
Mean Length		302	585	479	401	560	486		553			510
Std. Error			11	2	4	4	2		6			2
Sample Size		1	2	124	3	123	131		33			417

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Table 8. (page 2 of 3)

	Age Group											
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	Total
Sample Period 2: 26 July - 6 September												
Males	14	14		398	100	1,038	768	14	270		14	2,630
Percent	0.22	0.22		6.25	1.57	16.30	12.06	0.22	4.24		0.22	41.29
Sample Size	1	1		28	7	73	54	1	19		1	185
Mean Length	447	355		476	361	587	485	647	591		652	531
Std. Error				5	7	5	3		9			2
Sample Size	1	1		28	7	73	54	1	19		1	185
Females		14	28	654	14	1,052	1,509		455	14		3,740
Percent		0.22	0.44	10.27	0.22	16.51	23.69		7.14	0.22		58.71
Sample Size		1	2	46	1	74	106		32	1		263
Mean Length		342	546	479	361	553	490		536	476		511
Std. Error			42	3		4	2		6			2
Sample Size		1	2	46	1	74	106		32	1		263
Both Sexes	14	28	28	1,052	114	2,090	2,277	14	725	14	14	6,370
Percent	0.22	0.44	0.44	16.51	1.79	32.81	35.75	0.22	11.38	0.22	0.22	100.00
Sample Size	1	2	2	74	8	147	160	1	51	1	1	448
Mean Length	447	349	546	478	361	570	489	647	556	476	652	519
Std. Error			42	3	7	3	2		5			1
Sample Size	1	2	2	74	8	147	160	1	51	1	1	448

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Table 8. (page 3 of 3)

	Age Group											
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	Total
All Periods Combined:												
Males	14	54		2,329	140	2,929	2,578	14	793		14	8,865
Percent	0.06	0.23		10.06	0.60	12.66	11.14	0.06	3.43		0.06	38.30
Sample Size	1	2		76	8	120	99	1	32		1	340
Mean Length	447	316		477	378	577	482	647	576		652	518
Std. Error				4	7	5	3		9			2
Sample Size	1	2		76	8	120	99	1	32		1	340
Females		14	108	3,711	94	4,109	4,969		1,260	14		14,279
Percent		0.06	0.47	16.03	0.41	17.75	21.47		5.44	0.06		61.70
Sample Size		1	4	122	3	150	192		52	1		525
Mean Length		342	574	480	387	553	489		541	476		510
Std. Error			14	2	4	3	2		5			1
Sample Size		1	4	122	3	150	192		52	1		525
Both Sexes	14	68	108	6,040	234	7,038	7,547	14	2,053	14	14	23,144
Percent	0.06	0.29	0.47	26.10	1.01	30.41	32.61	0.06	8.87	0.06	0.06	100.00
Sample Size	1	3	4	198	11	270	291	1	84	1	1	865
Mean Length	447	321	574	478	382	563	487	647	554	476	652	513
Std. Error			14	2	4	3	2		5			1
Sample Size	1	3	4	198	11	270	291	1	84	1	1	865

[a] Mean length in mm.

Table 9. Age, sex and length composition of sockeye salmon in the General Subdistrict commercial set gillnet harvest, Upper Cook Inlet, Alaska, in 1996.

	Age Group							
	0.2	0.3	1.2	1.3	2.2	1.4	2.3	Total
Sample Period 1: 3 June - 16 July								
Males		415	2,075	7,966	415	249	4,481	15,601
Percent		1.25	6.27	24.06	1.25	0.75	13.53	47.12
Sample Size		5	25	96	5	3	54	188
Mean Length[a]		563	516	581	524	610	583	571
Std. Error		7	6	3	13	16	3	2
Sample Size		5	25	96	5	3	54	188
Females		498	830	11,285	249		4,647	17,509
Percent		1.50	2.51	34.08	0.75		14.04	52.88
Sample Size		6	10	136	3		56	211
Mean Length		564	509	570	500		568	565
Std. Error		9	6	2	4		3	1
Sample Size		6	10	136	3		56	211
Both Sexes		913	2,905	19,251	664	249	9,128	33,110
Percent		2.76	8.77	58.14	2.01	0.75	27.57	100.00
Sample Size		11	35	232	8	3	110	399
Mean Length		563	514	574	515	610	575	568
Std. Error		6	5	1	8	16	2	1
Sample Size		11	35	232	8	3	110	399

-Continued-

Table 9. (page 2 of 4)

	Age Group							
	0.2	0.3	1.2	1.3	2.2	1.4	2.3	Total
Sample Period 2: 19 - 21 July								
Males	66	393	2,164	5,706	787	197	3,410	12,723
Percent	0.24	1.44	7.95	20.96	2.89	0.72	12.53	46.75
Sample Size	1	6	33	87	12	3	52	194
Mean Length	444	597	498	602	514	632	590	575
Std. Error		18	8	3	12	10	4	2
Sample Size	1	6	33	87	12	3	52	194
Females	66	459	1,640	6,952	1,180	131	4,066	14,494
Percent	0.24	1.69	6.03	25.54	4.34	0.48	14.94	53.25
Sample Size	1	7	25	106	18	2	62	221
Mean Length	450	591	498	572	497	578	571	557
Std. Error		3	5	2	7	18	3	2
Sample Size	1	7	25	106	18	2	62	221
Both Sexes	132	852	3,804	12,658	1,967	328	7,476	27,217
Percent	0.48	3.13	13.98	46.51	7.23	1.21	27.47	100.00
Sample Size	2	13	58	193	30	5	114	415
Mean Length	447	594	498	585	504	610	580	566
Std. Error		8	5	2	6	10	2	1
Sample Size	2	13	58	193	30	5	114	415

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Table 9. (page 3 of 4)

	Age Group						
	0.2	0.3	1.2	1.3	2.2	1.4	2.3	Total
Sample Period 3: 23 July - 23 August								
Males		310	930	5,088	744	62	2,047	9,181
Percent		1.50	4.50	24.63	3.60	0.30	9.91	44.44
Sample Size		5	15	82	12	1	33	148
Mean Length		564	515	594	534	621	592	580
Std. Error		19	7	3	8		4	2
Sample Size		5	15	82	12	1	33	148
Females		434	1,365	6,824	682	62	2,109	11,476
Percent		2.10	6.61	33.03	3.30	0.30	10.21	55.56
Sample Size		7	22	110	11	1	34	185
Mean Length		580	509	564	501	567	555	553
Std. Error		10	7	2	5		4	2
Sample Size		7	22	110	11	1	34	185
Both Sexes		744	2,295	11,912	1,426	124	4,156	20,657
Percent		3.60	11.11	57.67	6.90	0.60	20.12	100.00
Sample Size		12	37	192	23	2	67	333
Mean Length		573	511	577	518	594	573	565
Std. Error		10	5	2	5		3	1
Sample Size		12	37	192	23	2	67	333

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Table 9. (page 4 of 4)

	Age Group							
	0.2	0.3	1.2	1.3	2.2	1.4	2.3	Total
All Periods Combined:								
Males	66	1,118	5,169	18,760	1,946	508	9,938	37,505
Percent	0.08	1.38	6.38	23.17	2.40	0.63	12.27	46.31
Sample Size	1	16	73	265	29	7	139	530
Mean Length	444	575	508	591	524	620	587	575
Std. Error		9	4	2	6	10	2	1
Sample Size	1	16	73	265	29	7	139	530
Females	66	1,391	3,835	25,061	2,111	193	10,822	43,479
Percent	0.08	1.72	4.74	30.95	2.61	0.24	13.36	53.69
Sample Size	1	20	57	352	32	3	152	617
Mean Length	450	578	504	569	499	574	567	559
Std. Error		5	4	1	4	18	2	1
Sample Size	1	20	57	352	32	3	152	617
Both Sexes	132	2,509	9,004	43,821	4,057	701	20,760	80,984
Percent	0.16	3.10	11.12	54.11	5.01	0.87	25.63	100.00
Sample Size	2	36	130	617	61	10	291	1,147
Mean Length	447	577	507	578	511	607	576	566
Std. Error		5	3	1	4	9	1	1
Sample Size	2	36	130	617	61	10	291	1,147

[a] Mean length in mm.

Table 10. Age, sex and length composition of sockeye salmon escapement in Kenai River, Upper Cook Inlet, Alaska, in 1996.

	Age Group										
	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	Total
Sample period:	1 July - 12 August										
Males	1,161	54,581	4,645	282,198	20,904		1,161	20,904		2,323	387,877
Percent	0.15	6.87	0.58	35.53	2.63		0.15	2.63		0.29	48.83
Sample Size	1	47	4	243	18		1	18		2	334
Mean Length[a]	593	507	407	607	511		628	606		647	585
Std. Error		8	25	2	10			8		1	2
Sample Size	1	47	4	243	18		1	18		2	334
Females	1,161	31,355	1,161	317,039	27,871	1,161	1,161	22,065	1,161	2,323	406,458
Percent	0.15	3.95	0.15	39.91	3.51	0.15	0.15	2.78	0.15	0.29	51.17
Sample Size	1	27	1	273	24	1	1	19	1	2	350
Mean Length	596	519	429	589	520	409	590	598	521	618	578
Std. Error		5		1	5			5		48	1
Sample Size	1	27	1	273	24	1	1	19	1	2	350
Both Sexes	2,322	85,936	5,806	599,237	48,775	1,161	2,322	42,969	1,161	4,646	794,335
Percent	0.29	10.82	0.73	75.44	6.14	0.15	0.29	5.41	0.15	0.58	100.00
Sample Size	2	74	5	516	42	1	2	37	1	4	684
Mean Length	595	511	411	597	516	409	609	602	521	632	582
Std. Error		5	25	1	5			5		24	1
Sample Size	2	74	5	516	42	1	2	37	1	4	684

[a] Mean length in mm.

Table 11. Age, sex and length composition of sockeye salmon escapement in Hidden Creek, Kenai River drainage, Upper Cook Inlet, Alaska, in 1996.

	Age Group				
	1.2	1.3	2.2	2.3	Total
Sample period:	14 July - 7 September				
Males	17,035	3,130	1,966	510	22,641
Percent	30.83	5.66	3.56	0.92	40.97
Sample Size	234	43	27	7	311
Mean Length[a]	553	590	548	599	559
Std. Error	1	4	6	6	1
Sample Size	234	43	27	7	311
Females	28,902	582	2,985	146	32,615
Percent	52.31	1.05	5.40	0.26	59.03
Sample Size	397	8	41	2	448
Mean Length	530	568	535	619	532
Std. Error	1	8	4	19	1
Sample Size	397	8	41	2	448
Both Sexes	45,937	3,712	4,951	656	55,256[b]
Percent	83.13	6.72	8.96	1.19	100.00
Sample Size	631	51	68	9	759
Mean Length	539	587	540	603	543
Std. Error	1	3	3	6	1
Sample Size	631	51	68	9	759

[a] Mean length in mm.
[b] Total escapement into Hidden Creek was 55,256 with an egg take of 1,640 fish resulting in 53,616 spawners.

Table 12. Age, sex and length composition of sockeye salmon escapement in Kasilof River, Upper Cook Inlet, Alaska, in 1996.

	Age Group				
	1.2	1.3	2.2	2.3	Total
Sample period:	15 June - 8 August				
Males	33,280	74,185	23,920	7,280	138,665
Percent	13.31	29.68	9.57	2.91	55.48
Sample Size	96	214	69	21	400
Mean Length[a]	476	565	482	553	529
Std. Error	3	2	3	6	1
Sample Size	96	214	69	21	400
Females	28,773	46,453	29,466	6,587	111,279
Percent	11.51	18.59	11.79	2.64	44.52
Sample Size	83	134	85	19	321
Mean Length	475	557	472	556	513
Std. Error	3	2	2	7	1
Sample Size	83	134	85	19	321
Both Sexes	62,053	120,638	53,386	13,867	249,944
Percent	24.83	48.27	21.36	5.55	100.00
Sample Size	179	348	154	40	721
Mean Length	475	562	476	554	522
Std. Error	2	1	2	4	1
Sample Size	179	348	154	40	721

[a] Mean length in mm.

Table 13. Age, sex and length composition of sockeye salmon escapement in Crescent River, Upper Cook Inlet, Alaska, in 1996.

	Age Group					
	1.2	1.3	2.2	2.3	2.4	Total
Sample period:	22 June - 2 August					
Males	2,997	3,655	4,752	4,825		16,229
Percent	10.43	12.72	16.54	16.79		56.49
Sample Size	41	50	65	66		222
Mean Length[a]	477	607	497	604		550
Std. Error	5	5	5	4		2
Sample Size	41	50	65	66		222
Females	1,389	3,655	2,120	5,190	146	12,500
Percent	4.83	12.72	7.38	18.07	0.51	43.51
Sample Size	19	50	29	71	2	171
Mean Length	510	585	525	577	593	564
Std. Error	7	4	5	3	4	2
Sample Size	19	50	29	71	2	171
Both Sexes	4,386	7,310	6,872	10,015	146	28,729
Percent	15.27	25.44	23.92	34.86	0.51	100.00
Sample Size	60	100	94	137	2	393
Mean Length	487	596	506	590	593	556
Std. Error	4	3	4	2	4	2
Sample Size	60	100	94	137	2	393

[a] Mean length in mm.

Table 14. Age, sex and length composition of sockeye salmon escapement in Packers Creek, Kalgin Island, Upper Cook Inlet, Alaska, in 1996.

	Age Group						
	1.1	2.1	1.3	2.2	2.3	3.3	Total
Sample Period 1: 22 May - 30 June							
Males				69	274		343
Percent				6.94	27.57		34.51
Sample Size				4	16		20
Mean Length[a]				479	567		549
Std. Error				20	6		7
Sample Size				4	16		20
Females			34	69	548		651
Percent			3.42	6.94	55.13		65.49
Sample Size			2	4	32		38
Mean Length			548	488	545		539
Std. Error			8	15	4		3
Sample Size			2	4	32		38
Both Sexes			34	138	822		994
Percent			3.42	13.88	82.70		100.00
Sample Size			2	8	48		58
Mean Length			548	483	553		543
Std. Error			8	13	3		3
Sample Size			2	8	48		58

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Table 14. (page 2 of 3)

	Age Group						
	1.1	2.1	1.3	2.2	2.3	3.3	Total
Sample Period 2: 1 July - 10 September							
Males		141	565	17,665	2,826		21,197
Percent		0.27	1.09	34.06	5.45		40.87
Sample Size		1	4	125	20		150
Mean Length		440	559	448	554		465
Std. Error			19	2	6		2
Sample Size		1	4	125	20		150
Females	141	565	2,120	17,664	10,033	141	30,664
Percent	0.27	1.09	4.09	34.06	19.35	0.27	59.13
Sample Size	1	4	15	125	71	1	217
Mean Length	335	319	538	464	537	520	490
Std. Error		30	9	3	3		2
Sample Size	1	4	15	125	71	1	217
Both Sexes	141	706	2,685	35,329	12,859	141	51,861
Percent	0.27	1.36	5.18	68.12	24.80	0.27	100.00
Sample Size	1	5	19	250	91	1	367
Mean Length	335	343	542	456	541	520	480
Std. Error		30	8	2	3		2
Sample Size	1	5	19	250	91	1	367

-Continued-

Table 14. (page 3 of 3)

	Age Group						
	1.1	2.1	1.3	2.2	2.3	3.3	Total
All Periods Combined:							
Males		141	565	17,734	3,100		21,540
Percent		0.27	1.07	33.55	5.87		40.75
Sample Size		1	4	129	36		170
Mean Length		440	559	449	555		467
Std. Error			19	2	6		2
Sample Size		1	4	129	36		170
Females	141	565	2,154	17,733	10,581	141	31,315
Percent	0.27	1.07	4.08	33.55	20.02	0.27	59.25
Sample Size	1	4	17	129	103	1	255
Mean Length	335	319	538	464	537	520	491
Std. Error		30	9	3	3		2
Sample Size	1	4	17	129	103	1	255
Both Sexes	141	706	2,719	35,467	13,681	141	52,855[b]
Percent	0.27	1.34	5.14	67.10	25.88	0.27	100.00
Sample Size	1	5	21	258	139	1	425
Mean Length	335	343	542	456	541	520	481
Std. Error		30	8	2	3		2
Sample Size	1	5	21	258	139	1	425

[a] Mean length in mm.
[b] Total represents an escapement through the weir of 19,095, a cost recovery harvest below the weir of 33,349 fish, and mortalities of 411 fish. Number of fish used for egg take above weir was 2,124 fish leaving a spawning stock of 16,971 total fish.

Table 15. Age, sex and length composition of sockeye salmon escapement in Yentna River (RM 4.0), Susitna River drainage, Upper Cook Inlet, Alaska, in 1996.

	Age Group								
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	2.3	Total
Sample period:	7 July - 7 August								
Males	2,140	389	1,167	15,175	195	20,816	4,086	6,031	49,999
Percent	2.36	0.43	1.29	16.74	0.22	22.96	4.51	6.65	55.15
Sample Size	11	2	6	78	1	107	21	31	257
Mean Length[a]	445	323	583	463	345	589	472	585	531
Std. Error	10	8	21	5		3	9	5	2
Sample Size	11	2	6	78	1	107	21	31	257
Females	778		1,751	7,977	195	18,870	4,475	6,615	40,661
Percent	0.86		1.93	8.80	0.22	20.81	4.94	7.30	44.85
Sample Size	4		9	41	1	97	23	34	209
Mean Length	441		579	469	350	568	498	558	536
Std. Error	9		9	7		2	6	4	2
Sample Size	4		9	41	1	97	23	34	209
Both Sexes	2,918	389	2,918	23,152	390	39,686	8,561	12,646	90,660
Percent	3.22	0.43	3.22	25.54	0.43	43.77	9.44	13.95	100.00
Sample Size	15	2	15	119	2	204	44	65	466
Mean Length	444	323	581	465	348	579	486	571	534
Std. Error	8	8	10	4		2	5	3	1
Sample Size	15	2	15	119	2	204	44	65	466

[a] Mean length in mm.

Table 16. Age, sex and length composition of sockeye salmon escapement in Chelatna Lake (Lake Creek), Yentna River drainage, Upper Cook Inlet, Alaska, in 1996.

	Age Group								
	0.2	1.1	0.3	1.2	1.3	2.2	1.4	2.3	Total
Sample period:	8 July - 9 August								
Males	109	55	657	2,190	10,073	55	438	547	14,124
Percent	0.36	0.18	2.19	7.30	33.58	0.18	1.46	1.82	47.08
Sample Size	2	1	12	40	184	1	8	10	258
Mean Length[a]	523	375	663	511	661	475	693	660	636
Std. Error	68		10	8	3		6	8	2
Sample Size	2	1	12	40	184	1	8	10	258
Females	55		876	4,161	10,292	164	109	219	15,876
Percent	0.18		2.92	13.87	34.31	0.55	0.36	0.73	52.92
Sample Size	1		16	76	188	3	2	4	290
Mean Length	485		612	534	613	550	610	616	591
Std. Error			3	3	2		30	9	1
Sample Size	1		16	76	188	3	2	4	290
Both Sexes	164	55	1,533	6,351	20,365	219	547	766	30,000[b]
Percent	0.55	0.18	5.11	21.17	67.88	0.73	1.82	2.55	100.00
Sample Size	3	1	28	116	372	4	10	14	548
Mean Length	510	375	634	526	637	531	677	647	612
Std. Error	68		5	3	2		8	6	1
Sample Size	3	1	28	116	372	4	10	14	548

[a] Mean length in mm.
[b] Estimate made by Cook Inlet Aquaculture Association personnel.

Table 17. Age, sex and length composition of sockeye salmon escapement in Fish Creek, Upper Cook Inlet, Alaska, in 1996.

	Age Group								
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Sample period:	9 July - 13 August								
Males	317	23,586	158	3,008	3,957		791		31,817
Percent	0.50	37.34	0.25	4.76	6.27		1.25		50.38
Sample Size	2	149	1	19	25		5		201
Mean Length[a]	348	462	340	560	477		550		474
Std. Error	13	3		6	9		8		2
Sample Size	2	149	1	19	25		5		201
Females		20,897		2,849	6,648	158	633	158	31,343
Percent		33.09		4.51	10.53	0.25	1.00	0.25	49.62
Sample Size		132		18	42	1	4	1	198
Mean Length		480		539	491	525	534	470	489
Std. Error		2		5	4		15		2
Sample Size		132		18	42	1	4	1	198
Both Sexes	317	44,483	158	5,857	10,605	158	1,424	158	63,160
Percent	0.50	70.43	0.25	9.27	16.79	0.25	2.25	0.25	100.00
Sample Size	2	281	1	37	67	1	9	1	399
Mean Length	348	471	340	550	486	525	543	470	481
Std. Error	13	2		4	4		8		1
Sample Size	2	281	1	37	67	1	9	1	399

[a] Mean length in mm.

Table 18. Age, sex and length composition of chinook salmon in the Upper Subdistrict commercial set gillnet harvest, Upper Cook Inlet, Alaska, in 1996.

	Age Group									
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	1.5	2.4	Total
Sample Period 1: 28 June - 8 July										
Males	216	677	7	422	3	206	3	27		1,561
Percent	11.33	35.50	0.37	22.13	0.16	10.80	0.16	1.42		81.86
Sample Size	63	197	2	123	1	60	1	8		455
Mean Length[a]	409	617	405	821	580	1,033	735	1,116		706
Std. Error	3	5	15	7		11		22		3
Sample Size	63	197	2	123	1	60	1	8		455
Females	7	21		127		182	3	3	3	346
Percent	0.37	1.10		6.66		9.54	0.16	0.16	0.16	18.14
Sample Size	2	6		37		53	1	1	1	101
Mean Length	473	637		888		995	705	1,050	990	921
Std. Error	18	13		11		7				6
Sample Size	2	6		37		53	1	1	1	101
Both Sexes	223	698	7	549	3	388	6	30	3	1,907
Percent	11.69	36.60	0.37	28.79	0.16	20.35	0.31	1.57	0.16	100.00
Sample Size	65	203	2	160	1	113	2	9	1	556
Mean Length	411	618	405	836	580	1,015	720	1,110	990	745
Std. Error	3	5	15	6		7		22		3
Sample Size	65	203	2	160	1	113	2	9	1	556

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Table 18. (page 2 of 5)

	Age Group									
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	1.5	2.4	Total
Sample Period 2: 9 - 16 July										
Males	138	624		778	14	467	14	38	10	2,083
Percent	4.55	20.55		25.63	0.46	15.38	0.46	1.25	0.33	68.61
Sample Size	29	131		163	3	98	3	8	2	437
Mean Length	409	627		855	678	1,045	885	1,110	1,118	805
Std. Error	5	5		7	23	8	55	13	23	4
Sample Size	29	131		163	3	98	3	8	2	437
Females				338		605	5	5		953
Percent				11.13		19.93	0.16	0.16		31.39
Sample Size				71		127	1	1		200
Mean Length				897		1,002	910	980		964
Std. Error				6		5				4
Sample Size				71		127	1	1		200
Both Sexes	138	624		1,116	14	1,072	19	43	10	3,036
Percent	4.55	20.55		36.76	0.46	35.31	0.63	1.42	0.33	100.00
Sample Size	29	131		234	3	225	4	9	2	637
Mean Length	409	627		868	678	1,021	892	1,095	1,118	855
Std. Error	5	5		5	23	5	55	13	23	3
Sample Size	29	131		234	3	225	4	9	2	637

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Table 18. (page 3 of 5)

	Age Group									
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	1.5	2.4	Total
Sample Period 3: 17 - 25 July										
Males	7	389		732		740	20	26	26	1,940
Percent	0.20	11.04		20.78		21.00	0.57	0.74	0.74	55.07
Sample Size	1	59		111		112	3	4	4	294
Mean Length	400	629		853		1,033	863	1,140	1,080	882
Std. Error		8		7		8	29	26	25	4
Sample Size	1	59		111		112	3	4	4	294
Females				561		943	26	46	7	1,583
Percent				15.92		26.77	0.74	1.31	0.20	44.93
Sample Size				85		143	4	7	1	240
Mean Length				905		1,000	881	1,085	1,120	967
Std. Error				5		5	20	15		3
Sample Size				85		143	4	7	1	240
Both Sexes	7	389		1,293		1,683	46	72	33	3,523
Percent	0.20	11.04		36.70		47.77	1.31	2.04	0.94	100.00
Sample Size	1	59		196		255	7	11	5	534
Mean Length	400	629		876		1,015	873	1,105	1,088	920
Std. Error		8		5		4	17	13	25	3
Sample Size	1	59		196		255	7	11	5	534

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Table 18. (page 4 of 5)

	Age Group									
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	1.5	2.4	Total
Sample Period 4: 26 July - 14 August										
Males	7	113		566		838	80	7		1,611
Percent	0.23	3.70		18.53		27.43	2.62	0.23		52.73
Sample Size	1	17		85		126	12	1		242
Mean Length	420	644		865		1,041	843	1,150		939
Std. Error		14		7		7	17			5
Sample Size	1	17		85		126	12	1		242
Females				493		897	27	20	7	1,444
Percent				16.14		29.36	0.88	0.65	0.23	47.27
Sample Size				74		135	4	3	1	217
Mean Length				910		1,004	875	1,045	995	970
Std. Error				5		4	24	51		3
Sample Size				74		135	4	3	1	217
Both Sexes	7	113		1,059		1,735	107	27	7	3,055
Percent	0.23	3.70		34.66		56.79	3.50	0.88	0.23	100.00
Sample Size	1	17		159		261	16	4	1	459
Mean Length	420	644		886		1,021	851	1,072	995	954
Std. Error		14		5		4	14	51		3
Sample Size	1	17		159		261	16	4	1	459

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Table 18. (page 5 of 5)

	Age Group									
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	1.5	2.4	Total
All Periods Combined:										
Males	368	1,803	7	2,498	17	2,251	117	98	36	7,195
Percent	3.19	15.65	0.06	21.68	0.15	19.54	1.02	0.85	0.31	62.45
Sample Size	94	404	2	482	4	396	19	21	6	1,428
Mean Length	409	625	405	851	661	1,038	849	1,123	1,090	834
Std. Error	3	3	15	4	23	4	14	11	19	2
Sample Size	94	404	2	482	4	396	19	21	6	1,428
Females	7	21		1,519		2,627	61	74	17	4,326
Percent	0.06	0.18		13.18		22.80	0.53	0.64	0.15	37.55
Sample Size	2	6		267		458	10	12	3	758
Mean Length	473	637		904		1,001	872	1,066	1,046	964
Std. Error	18	13		3		3	16	19		2
Sample Size	2	6		267		458	10	12	3	758
Both Sexes	375	1,824	7	4,017	17	4,878	178	172	53	11,521
Percent	3.25	15.83	0.06	34.87	0.15	42.34	1.55	1.49	0.46	100.00
Sample Size	96	410	2	749	4	854	29	33	9	2,186
Mean Length	410	625	405	871	661	1,018	857	1,098	1,076	883
Std. Error	3	3	15	3	23	2	11	10	19	1
Sample Size	96	410	2	749	4	854	29	33	9	2,186

[a] Mean length in mm.

Table 19. Age, length, and percent female composition of coho salmon in selected commercial gillnet harvests, Upper Cook Inlet, Alaska, in 1996.

Fishery	Age Group 1.1	2.1	3.1	2.2	Total
COMMERCIAL CATCH					
Central District					
Central Drift					
Number	30,545	124,016	16,800		171,361
Percent	17.82	72.37	9.80		100.00
Sample Size	100	406	55		561
Mean Length[a]	531	556	572		553
% Female	40	42	35		41
Sample Size	100	406	55		561
Upper Subdistrict					
Number	4,218	31,863	4,467		40,548
Percent	10.40	78.58	11.02		100.00
Sample Size	85	642	90		817
Mean Length	549	577	595		576
% Female	38	49	48		48
Sample Size	85	642	90		817
Northern District					
General Subdistrict					
Number	14,388	44,755	2,426	84	61,653
Percent	23.34	72.59	3.93	.14	100.00
Sample Size	172	535	29	1	737
Mean Length	534	554	585	643	551
% Female	43	43	41		43
Sample Size	172	535	29	1	737
Commercial Catch Total					
Number	49,151	200,634	23,693	84	273,562
Percent	17.97	73.34	8.66	.03	100.00
Sample Size	357	1,583	174	1	2,115
Mean Length	533	559	578	643	556
% Female	41	43	38		42
Sample Size	357	1,583	174	1	2,115

[a] Mean length in mm.

Table 20. Age, sex and length composition of coho salmon in the Central District commercial drift gillnet harvest, Upper Cook Inlet, Alaska, in 1996.

	Age Group			
	1.1	2.1	3.1	Total
Sample period:	28 June -	9 August		
Males	18,327	72,089	10,996	101,412
Percent	10.69	42.07	6.42	59.18
Sample Size	60	236	36	332
Mean Length[a]	533	558	585	556
Std. Error	4	3	6	2
Sample Size	60	236	36	332
Females	12,218	51,927	5,804	69,949
Percent	7.13	30.30	3.39	40.82
Sample Size	40	170	19	229
Mean Length	527	552	547	547
Std. Error	4	3	11	2
Sample Size	40	170	19	229
Both Sexes	30,545	124,016	16,800	171,361
Percent	17.82	72.37	9.80	100.00
Sample Size	100	406	55	561
Mean Length	531	556	572	553
Std. Error	3	2	6	2
Sample Size	100	406	55	561

[a] Mean length in mm.

Table 21. Age, sex and length composition of coho salmon in the Upper Subdistrict commercial set gillnet harvest, Upper Cook Inlet, Alaska, in 1996.

	Age Group			
	1.1	2.1	3.1	Total
Sample period:	28 June - 12 August			
Males	2,630	16,180	2,333	21,143
Percent	6.49	39.90	5.75	52.14
Sample Size	53	326	47	426
Mean Length[a]	549	577	594	575
Std. Error	8	3	7	3
Sample Size	53	326	47	426
Females	1,588	15,683	2,134	19,405
Percent	3.92	38.68	5.26	47.86
Sample Size	32	316	43	391
Mean Length	549	577	596	577
Std. Error	8	2	7	2
Sample Size	32	316	43	391
Both Sexes	4,218	31,863	4,467	40,548
Percent	10.40	78.58	11.02	100.00
Sample Size	85	642	90	817
Mean Length	549	577	595	576
Std. Error	6	2	5	2
Sample Size	85	642	90	817

[a] Mean length in mm.

Table 22. Age, sex and length composition of coho salmon in the General Subdistrict commercial set gillnet harvest, Upper Cook Inlet, Alaska, in 1996.

	Age Group				
	1.1	2.1	3.1	2.2	Total
Sample period:	28 June - 26 August				
Males	8,198	25,598	1,422	84	35,302
Percent	13.30	41.52	2.31	0.14	57.26
Sample Size	98	306	17	1	422
Mean Length[a]	541	560	586	643	557
Std. Error	4	2	9		2
Sample Size	98	306	17	1	422
Females	6,190	19,157	1,004		26,351
Percent	10.04	31.07	1.63		42.74
Sample Size	74	229	12		315
Mean Length	526	545	585		542
Std. Error	4	2	7		2
Sample Size	74	229	12		315
Both Sexes	14,388	44,755	2,426	84	61,653
Percent	23.34	72.59	3.93	0.14	100.00
Sample Size	172	535	29	1	737
Mean Length	534	554	585	643	551
Std. Error	3	2	6		1
Sample Size	172	535	29	1	737

[a] Mean length in mm.

Table 23. Age, sex and length composition of chum salmon in the Central District commercial drift gillnet harvest, Upper Cook Inlet, Alaska, in 1996.

	Age Group				
	0.2	0.3	0.4	0.5	Total
Sample Period 1: 28 June - 12 July					
Males	6,957	29,661	549		37,167
Percent	8.92	38.03	0.70		47.65
Sample Size	38	162	3		203
Mean Length[a]	610	621	639		620
Std. Error	5	3	22		2
Sample Size	38	162	3		203
Females	8,422	31,857	549		40,828
Percent	10.80	40.84	0.70		52.35
Sample Size	46	174	3		223
Mean Length	595	612	622		609
Std. Error	5	2	24		2
Sample Size	46	174	3		223
Both Sexes	15,379	61,518	1,098		77,995
Percent	19.72	78.87	1.41		100.00
Sample Size	84	336	6		426
Mean Length	601	617	631		614
Std. Error	3	2	16		1
Sample Size	84	336	6		426

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Table 23. (Page 2 of 3)

	Age Group				
	0.2	0.3	0.4	0.5	Total
Sample Period 2: 15 July - 9 August					
Males	753	9,183	15,507		25,443
Percent	1.20	14.59	24.64		40.43
Sample Size	5	61	103		169
Mean Length	543	601	619		610
Std. Error	13	4	3		2
Sample Size	5	61	103		169
Females	602	14,453	22,431		37,486
Percent	0.96	22.97	35.64		59.57
Sample Size	4	96	149		249
Mean Length	570	609	616		613
Std. Error	10	3	2		2
Sample Size	4	96	149		249
Both Sexes	1,355	23,636	37,938		62,929
Percent	2.15	37.56	60.29		100.00
Sample Size	9	157	252		418
Mean Length	555	606	617		612
Std. Error	8	2	2		1
Sample Size	9	157	252		418

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Table 23. (page 3 of 3)

	Age Group				
	0.2	0.3	0.4	0.5	Total
All Periods Combined:					
Males	753	16,140	45,168	549	62,610
Percent	0.53	11.45	32.05	0.39	44.43
Sample Size	5	99	265	3	372
Mean Length	543	605	621	639	616
Std. Error	13	3	2	22	2
Sample Size	5	99	265	3	372
Females	602	22,875	54,288	549	78,314
Percent	0.43	16.23	38.52	0.39	55.57
Sample Size	4	142	323	3	472
Mean Length	570	604	614	622	611
Std. Error	10	3	1	24	1
Sample Size	4	142	323	3	472
Both Sexes	1,355	39,015	99,456	1,098	140,924
Percent	0.96	27.69	70.57	0.78	100.00
Sample Size	9	241	588	6	844
Mean Length	555	604	617	631	613
Std. Error	8	2	1	16	1
Sample Size	9	241	588	6	844

[a] Mean length in mm.

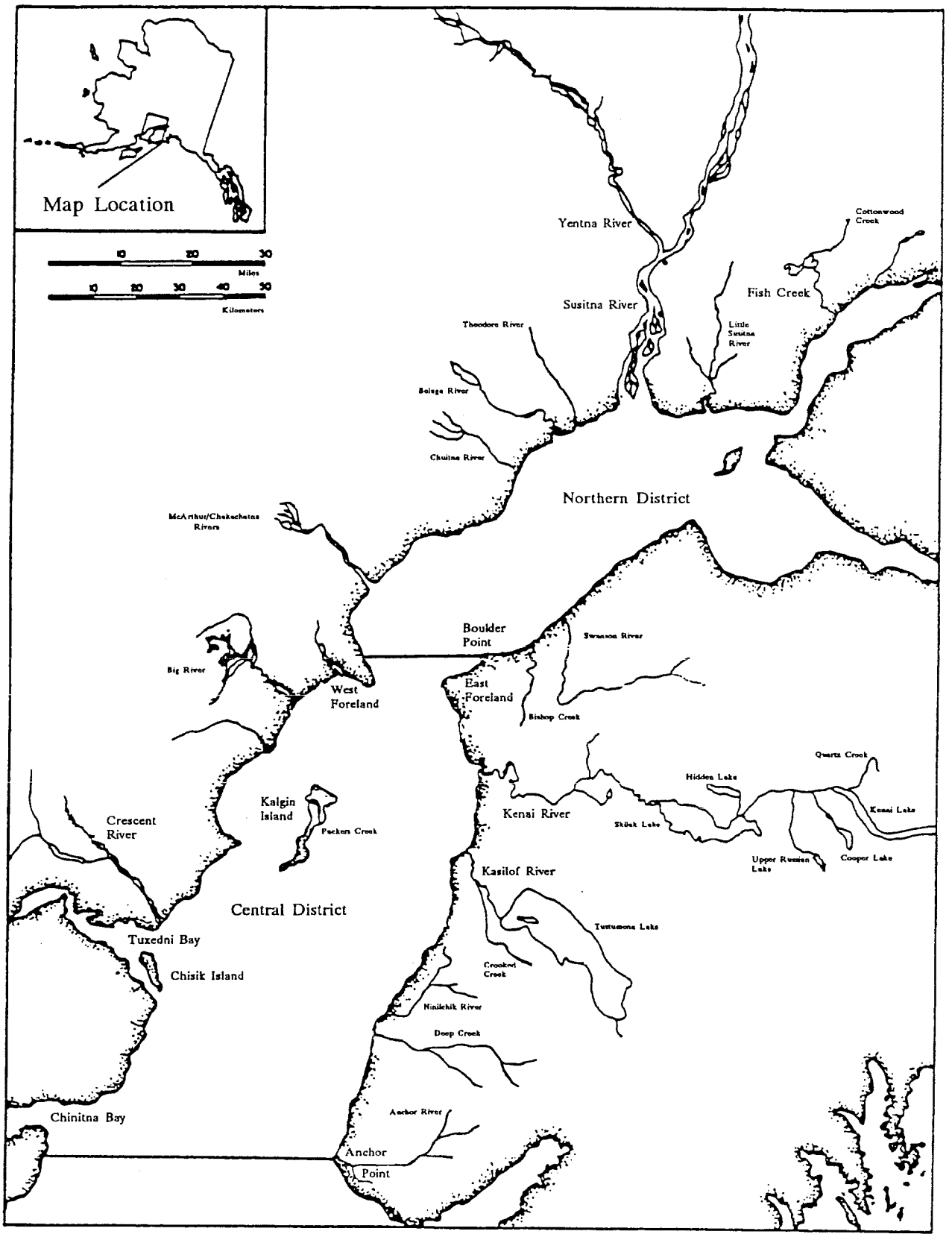

Figure 1. Map of Upper Cook Inlet showing locations of the Northern and Central Districts and the primary salmon spawning drainages.

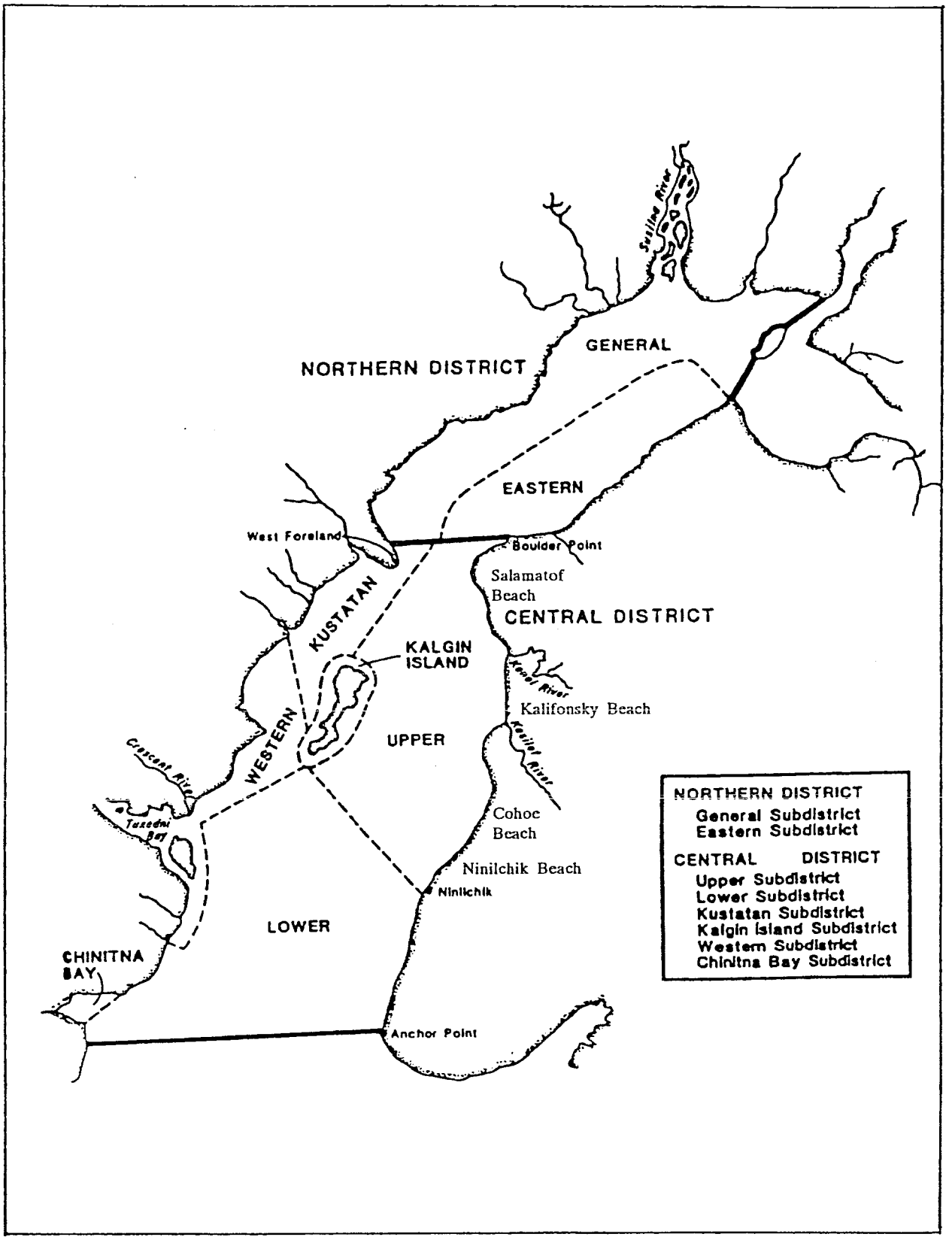

Figure 2. Map of Upper Cook Inlet showing the commercial fishing districts, subdistricts and Upper Subdistrict beach fisheries.

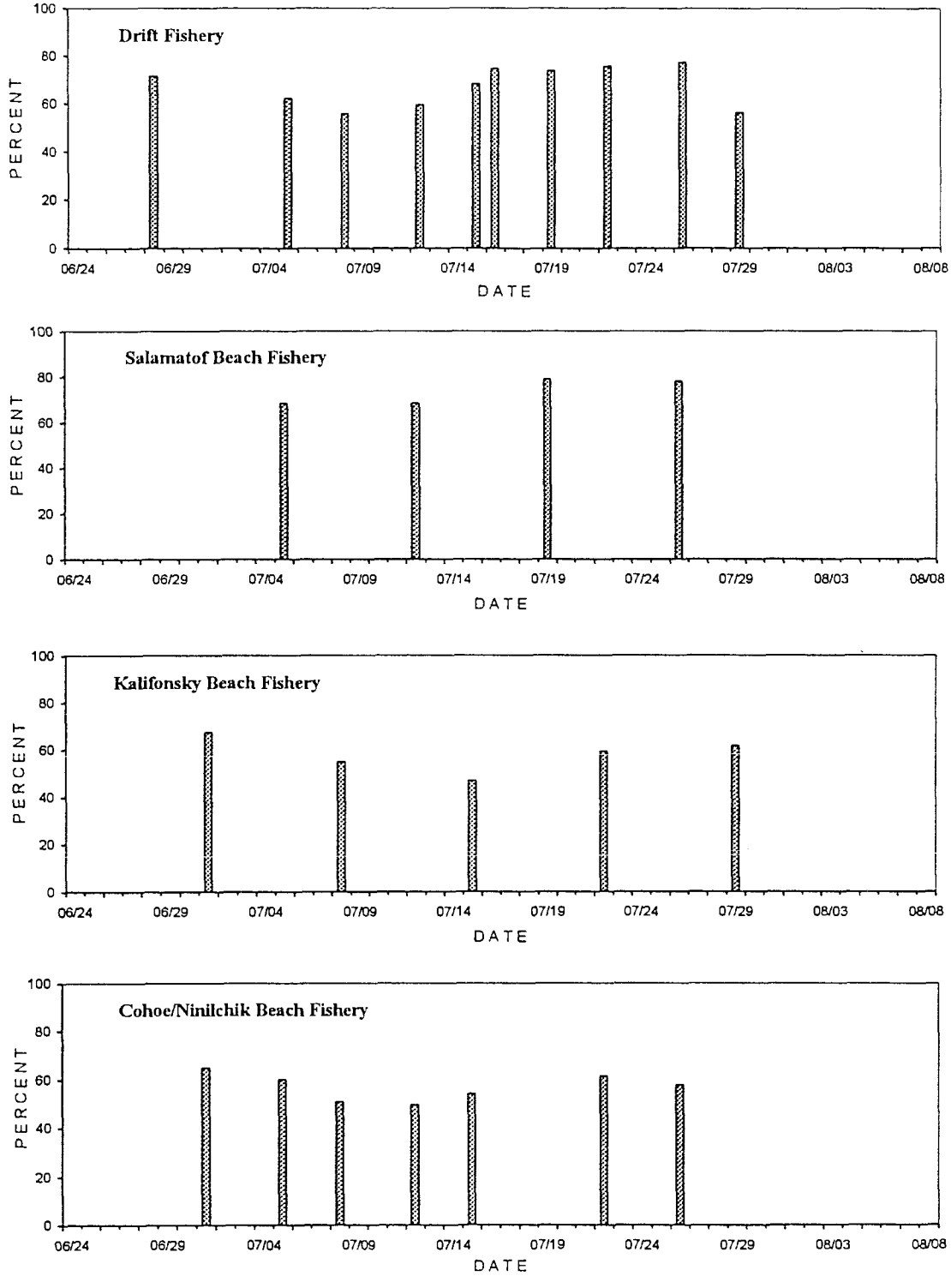

Figure 3. Trends in age-1.3 sockeye salmon composition in the Central District drift gillnet and Upper Subdistrict (Salamatof, Kalifonsky, and Cohoe/Ninilchik Beaches) set gillnet harvests, Upper Cook Inlet, Alaska, in 1996.

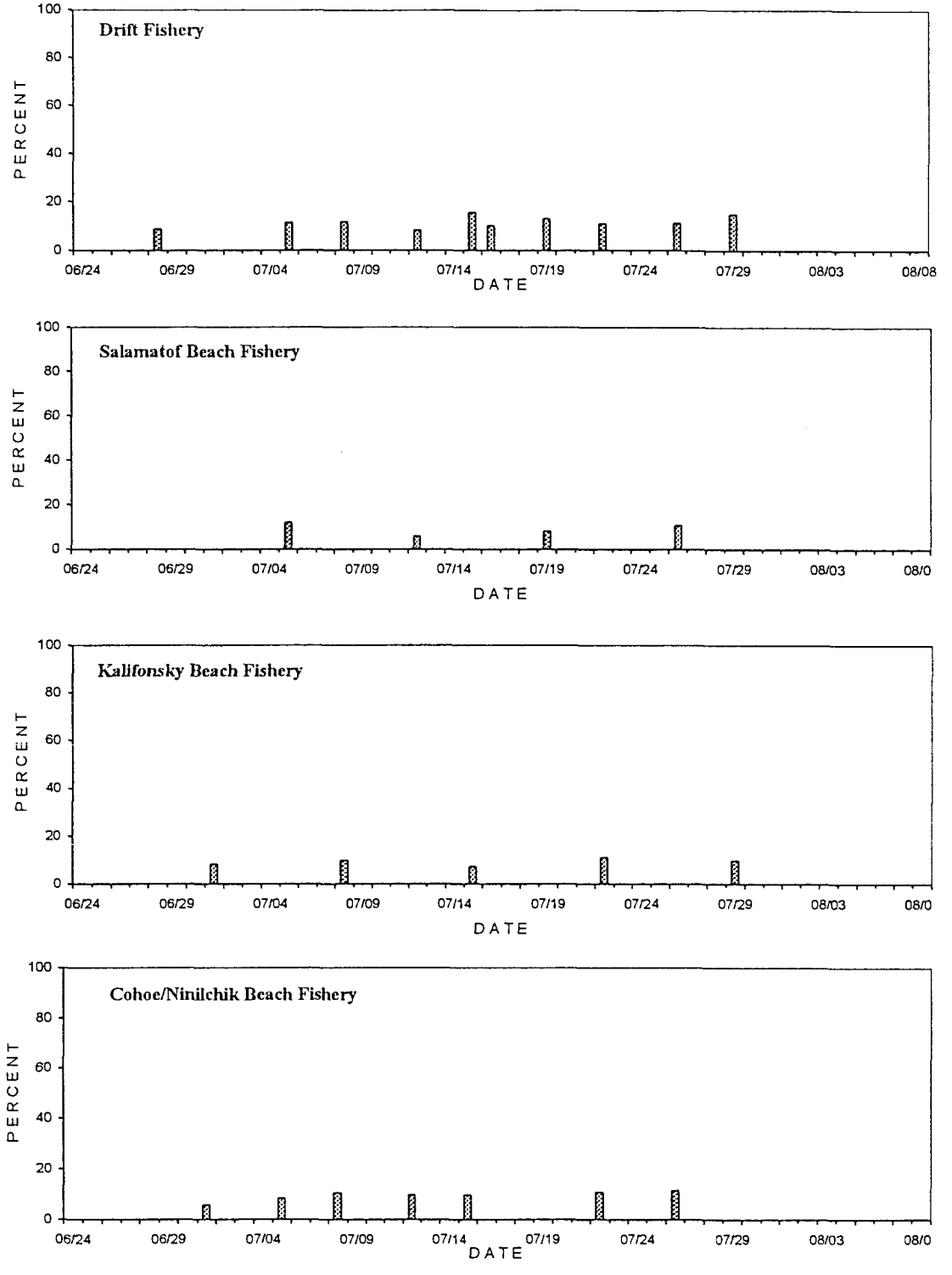

Figure 4. Trends in age-2.3 sockeye salmon composition in the Central District drift gillnet and Upper Subdistrict (Salamatof, Kalifonsky, and Cohoe/Ninilchik Beaches) set gillnet harvests, Upper Cook Inlet, Alaska, in 1996.

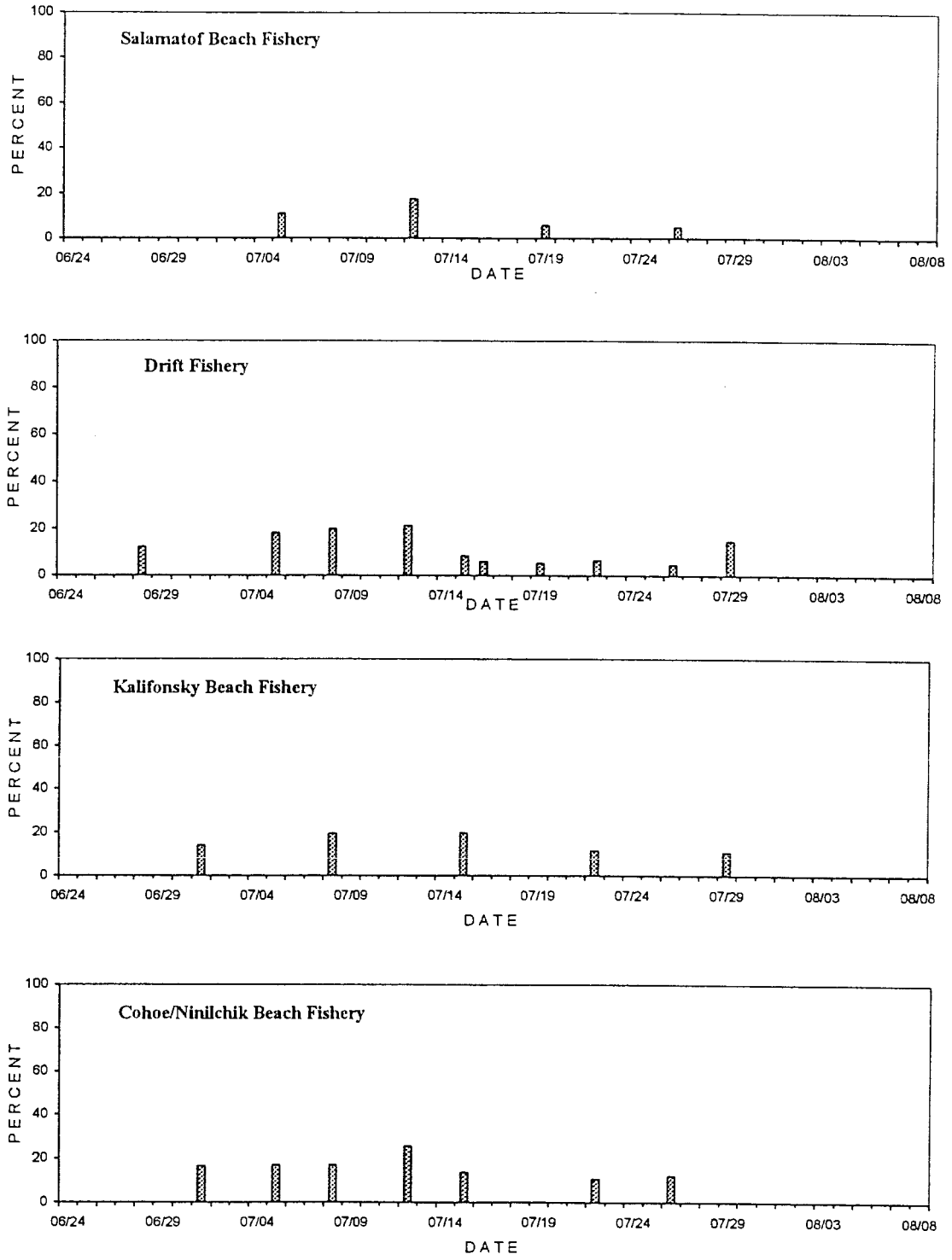

Figure 5. Trends in age-1.2 sockeye salmon composition in the Central District drift gillnet and Upper Subdistrict (Salamatof, Kalifonsky, and Cohoe/Ninilchik Beaches) set gillnet harvests, Upper Cook Inlet, Alaska, in 1996.

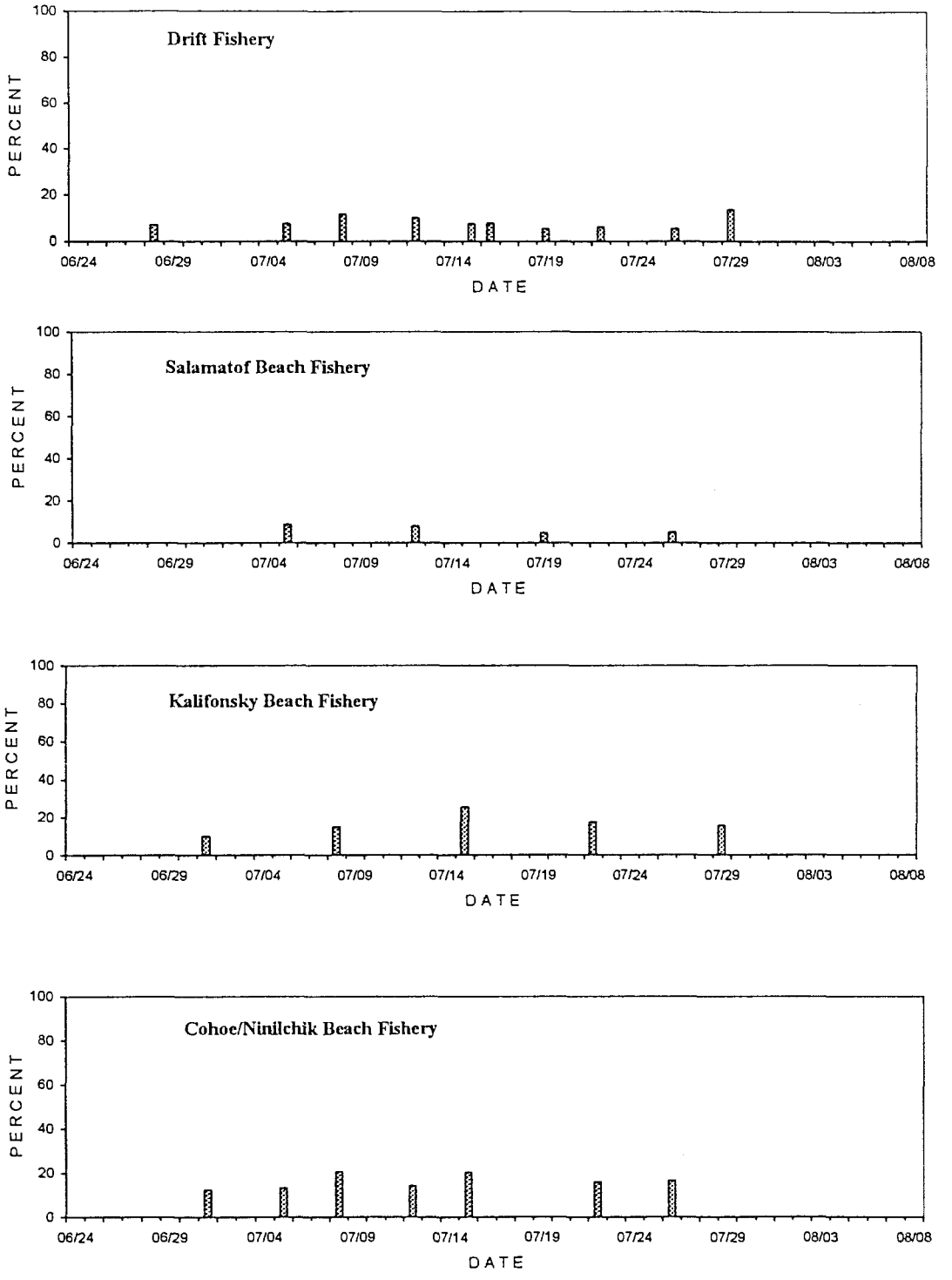

Figure 6. Trends in age-2.2 sockeye salmon composition in the Central District drift gillnet and Upper Subdistrict (Salamatof, Kalifonsky, and Cohoe/Ninilchik Beaches) set gillnet harvests, Upper Cook Inlet, Alaska, in 1996.

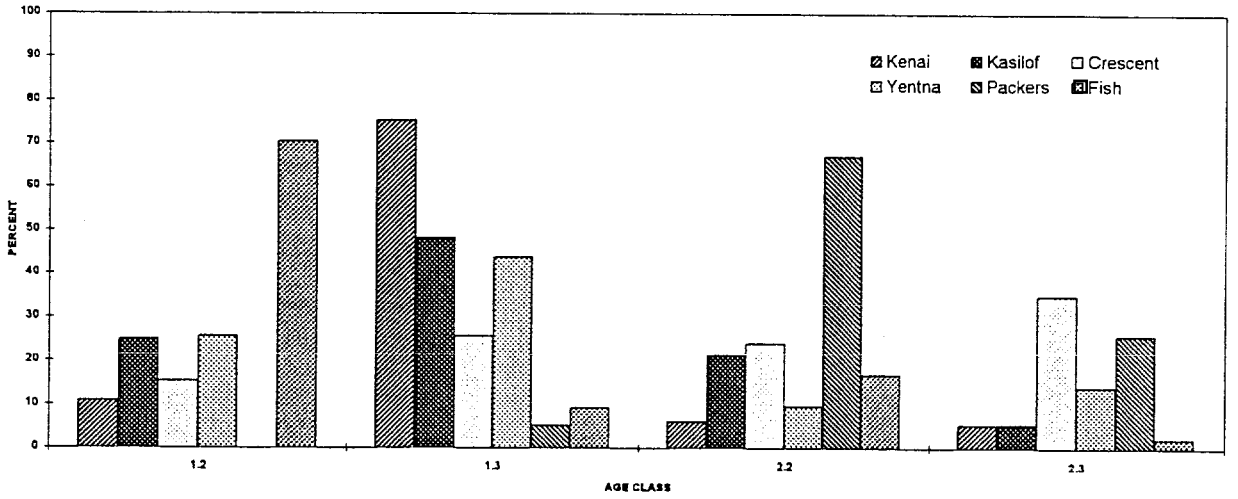

Figure 7. Age composition of sockeye salmon escapements in the Kenai, Kasilof, Crescent, and Yentna Rivers and Packers and Fish Creeks, Upper Cook Inlet, Alaska, in 1996.

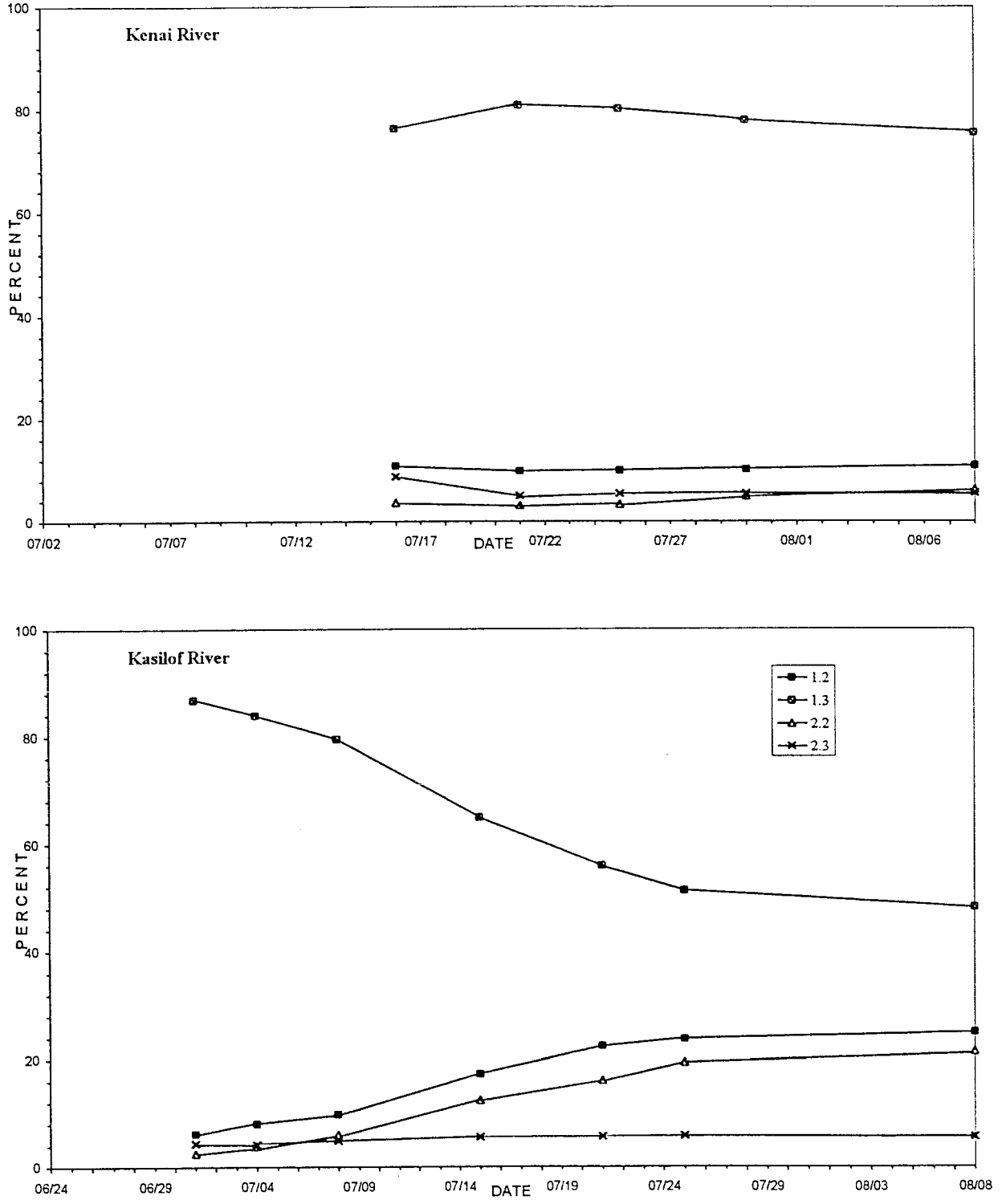

Figure 8. Age class composition trends of sockeye salmon escapements in the Kenai and Kasilof Rivers, Upper Cook Inlet, Alaska, in 1996.

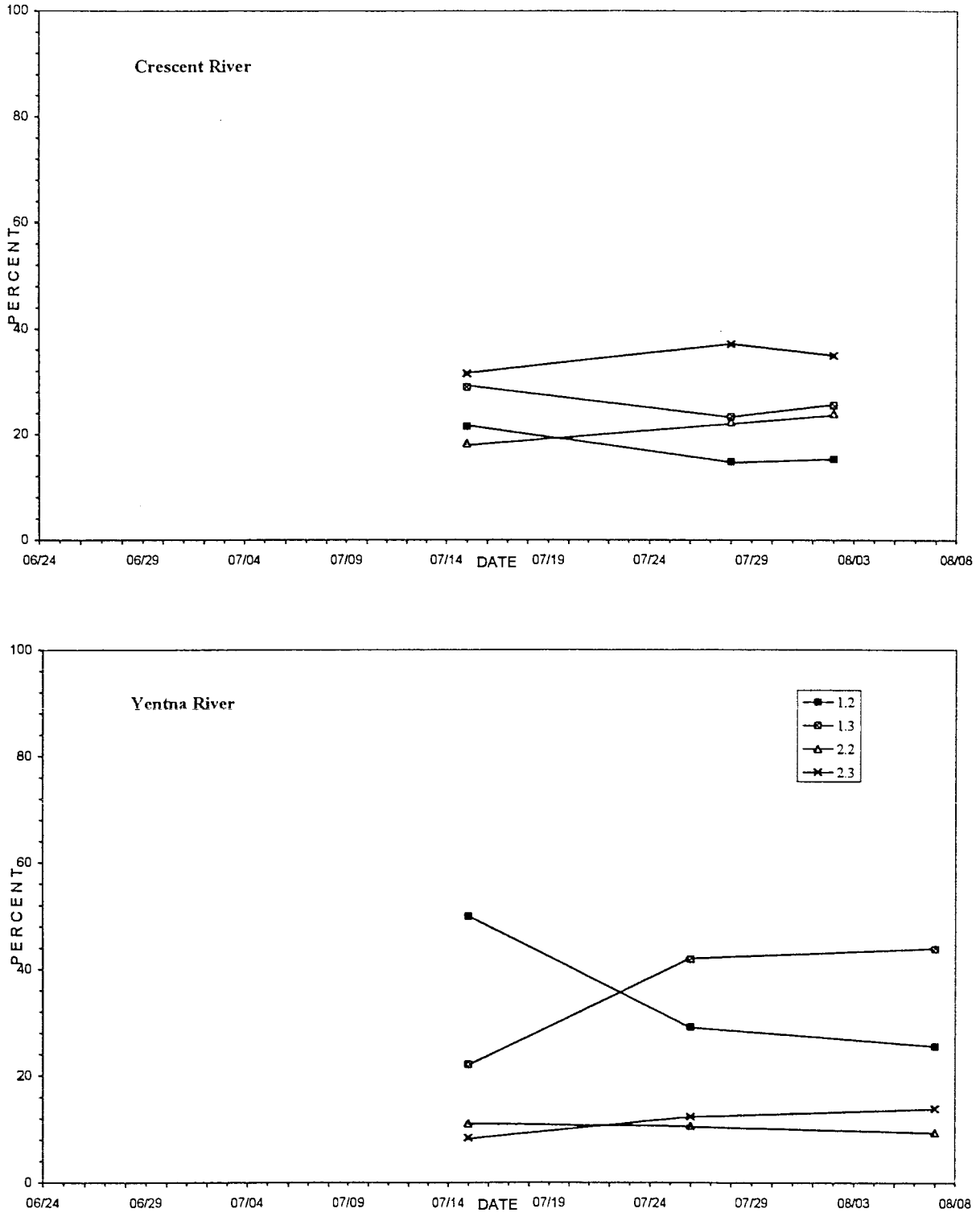

Figure 9. Age class composition trends of sockeye salmon escapements in the Crescent and Yentna Rivers, Upper Cook Inlet, Alaska, in 1996.