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Abundance, Age, Sex, and Size of Chinook, Sockeye, Coho, and Chum Salmon Returning to Upper Cook Inlet, Alaska in 1988

by

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State of Alaska Steve Cowper, Governor

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ABUNDANCE, AGE, SEX, AND SIZE OF CHINOOK, SOCKEYE, COHO, AND CHUM SALMON RETURNING TO UPPER COOK INLET, ALASKA IN 1988

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ABSTRACT

Pacific salmon (*Oncorhynchus* spp.) returning to Upper Cook Inlet in 1988 were sampled from commercial and sport harvests and escapements to estimate age, sex and size composition. Chinook salmon (*O. tshawytscha*) were represented by nine age groups of which age 1.3 and 1.4 predominated. Sockeye salmon (*O. nerka)* were characterized by 13 age groups predominated by ages 1.2, 1.3, 2.2, and 2.3. Coho salmon (*O. kisutch*) were represented by eight age groups with age groups 1.1, 2.1 and 3.1 predominating. Chum salmon (*O. keta*) included five age groups dominated by ages 0.3 and 0.4. Sex and size composition by species varied within age groups depending on the species and location. Generally, sex ratio and size composition by species and location favor males with few exceptions.

KEY WORDS: Salmon, *Oncorhynchus*, age, length, weight, commercial catch, escapement, Upper Cook Inlet, Alaska

INTRODUCTION

A variety of programs are conducted each year by the Alaska Department of Fish and Game (ADF&G) to provide information to manage the salmon resources of Upper Cook Inlet, Alaska (Figure 1). These programs include: compiling catch data by fishery; sampling commercial and sport catches and escapements for age, sex, and size data; and enumerating or indexing spawning escapements. Consolidating the information from these programs on an annual basis provides a means of assessing relative health of individual river system production and establishing and evaluating management strategies.

This report is part of a continuing series intended to provide current estimates of abundance, age, sex, and size composition of salmon returning to Upper Cook Inlet. The specific objectives are to present (1) commercial, sport, subsistence, and personal use catches; (2) estimates of river escapements; and (3) estimates of age, sex, and size composition for available catches and escapements.

Description of Fisheries

There are two primary districts and eight subdistricts for regulating the commercial fisheries in Upper Cook Inlet (Figure 2; ADF&G 1987). The Northern District includes the waters north of the approximate latitude of Boulder Point. The Central District includes the waters south of Boulder Point to the latitude of Anchor Point. The Northern District is divided into two subdistricts (General and Eastern) that were established in 1978 in which only set gill net fisheries may operate. The Central District is divided into six subdistricts (Western, Kustatan, Kalgin Island, Upper, Lower, and Chinitna Bay) that were established in 1976 in which set and drift gill net fisheries may operate. The Upper Subdistrict is further divided into three beach fisheries separated by the Kenai and Kasilof Rivers on the western shore of the Kenai Peninsula. The beach fisheries north of Anchor Point are Cohoe/Ninilchik Beach, Kalifonsky Beach, and Salamatof Beach (Figure 1). The drift fishery operates in the open waters of the Central District. Standard commercial fishery openings occur on Mondays and Fridays with the majority of areas opening on or after 25 June until closed by emergency order.

Upper Cook Inlet supports the most intensive (effort) recreational fisheries in the state (Mills 1989). Most of the sport fishing effort occurs in the Kenai River and Susitna River drainages. Other sport fisheries that receive substantial effort are Anchor River, Deep Creek, Ninilchik River, and Little Susitna River (Figure 1).

In 1981 the Alaska Board of Fisheries established a subsistence fishery in the vicinity of Tyonek (Figure 3). Effort in this fishery is directed specifically at chinook salmon with allowable harvest of 4,200.

In 1981 the Board of Fisheries also adopted a personal use dip net fishery management plan for the Kenai and Kasilof Rivers (Figure 3). The Kenai River dip net fishery opens by emergency order when an escapement of 500,000 sockeye salmon is projected. The Kasilof River dip net fishery opens by emergency order when an escapement of 150,000 sockeye salmon is projected. In 1986 the Board of Fisheries

also established a personal use dip net fishery at the mouth of Fish Creek. The Fish Creek dip net fishery opens when the sockeye salmon escapement is projected to exceed 50,000.

The Board of Fisheries also created two other personal use fisheries: the Kasilof River and the Northern and Central Districts set gill net fisheries (Figure 3). The fishery adjacent to the mouth of the Kasilof River opens on 21 June and closes by emergency order when the quota of 5,000 to 10,000 sockeye salmon is reached. The Central and Northern Districts fishery targets on coho salmon in the area north of the Kasilof River to Point Possession along the eastern shoreline of Cook Inlet. This fishery takes place on the last three weekends of September but is subject to early closure if the 2,500-coho quota is reached.

All five species of Pacific salmon (*Oncorhynchus*) are produced in Upper Cook Inlet. The major sockeye salmon producing systems in order of importance are the Kenai, Kasilof, Susitna, and Crescent Rivers. Kenai and Kasilof Rivers also provide spawning habitat for coho, pink (*O. gorbuscha*), and chinook salmon, and Susitna and Crescent Rivers provide spawning habitat for all five species (Tarbox et al. 1983). In terms of their economic value, sockeye salmon are the most important segment of the commercial catch followed by chum, coho, pink, and chinook salmon (Ruesch and Browning 1989).

METHODS

Abundance Data

Commercial Catch

Commercial catch statistics are compiled by the ADF&G, Commercial Fisheries Division from fish ticket information. Commercial catch figures presented in this report are from final fish ticket summaries, although a few minor changes may subsequently be made.

Subsistence, Personal Use and Sport Catch

Harvest information for subsistence, personal use and sport fisheries was compiled by various department staff. Catches from the Tyonek subsistence fishery represent estimates derived from returned permits (D. Foster, ADF&G, Anchorage, personal communication). The Kasilof River and Kenai River personal use dip net harvests were reported by Nelson (1988). The Kasilof personal use gill net harvest was estimated based on effort surveys and average catch (Ruesch and Browning 1989). The Fish Creek dip net fishery catch was estimated based on a cursory assessment and reported by Engel (1988). The Central and Northern District personal use coho salmon fishery was monitored by aerial survey and telephone interviews (Ruesch and Browning 1989). Major sport fishery harvests were monitored by creel censusing with interviews, postal questionnaires, or aerial surveys (Engel 1988; Mills 1989).

Escapement

The Commercial Fisheries Division uses several methods to estimate salmon escapements. Side-scanning sonar equipment is used to enumerate sockeye salmon in the Kenai, Kasilof, Crescent, and Yentna Rivers (King and Tarbox 1989). Sonar counts are assigned to species based on species proportions in fish wheel catches. The sockeye salmon count is considered an accurate estimate of escapement whereas the other species (pink, chum, coho and chinook salmon) counts are considered to be indices of abundance. Aerial surveys of principal tributaries in the Susitna River and other river systems along the west-side of Cook Inlet are conducted to provide peak index counts of sockeye salmon spawning in clearwater areas. Foot surveys of tributaries in the Kenai and Kasilof Rivers are conducted jointly by ADF&G, United States Forest Service (USFS), and United States Fish & Wildlife Service (USFWS) personnel to provide spawner distribution of sockeye salmon.

The Sport Fish Division monitored salmon escapements in selected indicator streams throughout Cook Inlet by various methods. Selected spawning areas on the west side of Cook Inlet, the Susitna River tributaries, and the Little Susitna River were surveyed by using helicopter and foot surveys to estimate chinook salmon escapements. These spawning ground counts in northern Cook Inlet streams are relative indexes of run strength rather than absolute counts (Engel 1988). Helicopter and associated foot surveys were also conducted in lower Kenai Peninsula stream index areas (Anchor River, Deep Creek, Ninilchik River) to estimate chinook escapements. These counts are considered minimal escapement estimates (Nelson 1988). The magnitude of the chinook salmon escapement in the Kenai River was estimated by mark-recapture and sonar enumeration programs in the lower river (Hammarstrom 1989). Sockeye salmon escapement in Russian River was counted by personnel at a weir site (Hammarstrom and Athons 1989). Sockeye salmon were enumerated through a weir on Swanson River (D. Faurot, USF&WS, Soldotna, personal communication).

The FRED Division operated weirs on several streams in the Cook Inlet area. Sockeye salmon escapement was monitored in Hidden Creek (G. Kyle, ADF&G, Soldotna, personal communication). Chinook salmon escapement was monitored in Crooked Creek (Kyle and Litchfield 1989). Sockeye and coho salmon escapements were enumerated through a weir on Fish Creek (Ruesch and Browning 1989).

Cook Inlet Aquaculture Association (CIAA) monitored sockeye salmon escapements into Packers Creek (located on Kalgin Island) and Chelatna Lake (a tributary of the Yentna River) with weirs operated over the duration of the run (Marcuson 1988, 1989).

Age, Sex, Length and Weight Data

Measurements

Scale samples were taken from the "preferred" area (INPFC 1963): i.e., an area on the left side of the fish approximately two rows above the lateral line transected by a diagonal extending from the posterior insertion of the dorsal fin to the anterior insertion of the anal fin. Scales were mounted on gum cards and impressions made in cellulose acetate (Clutter and Whitesel 1956). Ages of salmon were determined by examining scales for annual growth using criteria established

by Mosher (1969). Ages were recorded in European notation (Koo 1962). Sex and length information was recorded for all species sampled. Weights were taken from coho and chum salmon. Sex was determined from morphological examination of each fish. Length was measured from mid-eye to fork-of-tail in millimeters, and weight was recorded to the nearest tenth of a kilogram.

Commercial Catch and Escapement

Age, sex, length, and weight (in some cases) composition of the commercial catches and escapements by period was estimated using a stratified systematic sampling design described by Cochran (1977). A sample size of 600 sockeye salmon and 400 fish of other species was established for each commercial fishery and escapement period sampled. These goals were selected to provide sufficient numbers of fish to simultaneously estimate the proportion of each major age class within five percentage points of the true percentage, 90% of the time. In addition, sample size goals of 200 fish for length and 100 fish for weight were established to meet the same precision and accuracy criteria.

The number of time and spatial strata differed for sampling among the commercial fisheries, escapements and species. In general, the number of time strata were defined to sufficiently characterize the seasonal age composition. Spatial strata for the commercial catches were defined based on the Upper Cook Inlet management subdistrict and beach fishery designations. Sampling frequency and priority was based on the relative catch contribution of a fishery to the total Upper Cook Inlet commercial harvest and sampler availability. Sockeye salmon were sampled from seven commercial set gill net fisheries: (1) Eastern Subdistrict, (2) General Subdistrict, (3) Upper Subdistrict, (4) Cohoe/Ninilchik Beach, (5) Kalifonsky Beach, (6) Salamatof Beach, and (7) Western Subdistrict. Sockeye salmon were also sampled from the Central District drift gill net fishery. Coho salmon were sampled from the Central District drift and Upper Subdistrict set gill net fisheries. Chum salmon were sampled from only the Central District drift gill net fishery. All of the commercial catches were sampled at local processing plants. Sockeye escapements were sampled from fish wheels located in the Kenai, Kasilof, and Susitna Rivers (King and Tarbox 1989). Chinook and coho escapements were sampled for age, sex, and size composition by ADF&G, Sport Fish Division staff.

Subsistence, Personal Use and Sport Catch

The subsistence and personal use fisheries were only monitored for effort and number of fish caught; no age, sex, length or weight information was collected. Age and length information was collected from selected sport fisheries targeting on chinook salmon. Chinook salmon harvested from the Susitna River and Little Susitna River were sampled for scales and lengths (K. Hepler and D. Vincent-Lang, ADF&G, Anchorage, personal communication). Sport harvests of chinook and coho salmon taken from the Kenai River were sampled for age and length characteristics (Hammarstrom 1989). The Russian River sockeye salmon sport fishery was sampled for age and length information, and the results provided in Hammarstrom and Athons (1989).

RESULTS

Abundance Data

In 1988 commercial fisheries in Upper Cook Inlet harvested 8,569,716 salmon (Table 1) including 29,003 chinook, 6,804,941 sockeye, 559,260 coho, 469,944 pink, and 706,568 chum salmon. The Central District drift gill net fishery harvested the largest number of sockeye salmon (4,103,664 fish). A total of 2,701,277 sockeye salmon were harvested in the set gill net fisheries which included the Upper Subdistrict (2,426,416 fish), Western Subdistrict (102,057 fish), General Subdistrict (98,289 fish), Kalgin Island Subdistrict (33,747 fish), Eastern Subdistrict (31,424 fish), Kustatan Subdistrict (6,999 fish), and Chinitna Bay Subdistrict (2,345 fish). Peak harvests occurred on 11 July for sockeye salmon, 29 July for coho salmon, 22 July for pink salmon, and 15 July for chum salmon. Two peak harvests were observed for chinook salmon on 27 June and 22 July (Appendix A.1). Detailed commercial catches by area and date are reported in Appendices A.1 through A.4.

The only subsistence fishery in Upper Cook Inlet was conducted in the vicinity of the village of Tyonek; the harvest included 1,474 chinook, 53 sockeye, 185 coho, 6 pink, and 9 chum salmon (Table 2).

Personal use and selected sport fisheries provided a total harvest of 65,487 chinook, 262,506 sockeye, 98,319 coho, 8,748 pink, and 7,104 chum salmon in 1988 (Table 2). The largest personal use harvest came from the Kenai River dip net fishery (22,792 salmon). Of the selected sport fisheries, the Kenai River late run fisheries provided the largest harvest of 179,007 salmon. In both cases sockeye salmon represented the bulk of the harvests.

A total of 24 selected streams and rivers were monitored for salmon escapement in 1988 (Table 3). The largest number of chinook salmon spawners was estimated in the Kenai River (43,775 fish; early and late runs combined). A total of 42,389 chinook salmon were indexed in the Susitna River and represents a minimum number of spawners. The largest estimated number of sockeye salmon spawners (851,960 fish) occurred in the Kenai River. Large numbers of sockeye salmon were also estimated in the Kasilof River (194,600 fish), Crescent River (57,716 fish), Fish Creek (71,603 fish), and Yentna River (52,330 fish; a tributary of the Susitna River). Within the selected streams that were monitored for coho salmon, the Swanson River weir count of 23,514 fish was the largest. In the Yentna River 137,027 pink and 49,074 chum salmon were indexed. Detailed daily escapement data by species for individual rivers are presented in Appendices A.5 through A.16. More specific information is available from the authors footnoted on Table 3.

Age, Sex, and Size Data

A total of 29,426 sockeye, 5,711 chinook, 7,945 coho, and 1,811 chum salmon were sampled from the commercial and sport catches and escapements of Upper Cook Inlet in 1988 (Table 4). The commercial drift fishery accounted for 11,351 fish or 25% of the total sample collection which represented 61% of the total commercial salmon catch in 1988.

Chinook Salmon

Selected commercial harvests of chinook salmon from the Central and Northern Districts were represented by nine age groups ranging from age 1.1 to age 2.4 (Table 5). Age composition in these fisheries was comprised largely of age 1.4 (51% to 70%) and age 1.3 (14% to 33%) fish (Table 5; Appendices B.1 through B.6). Fish aged 1.4 and 1.3 accounted for 68.6% and 14.3% of the Central District, Upper Subdistrict commercial catch between 1 July and 15 August. In the Northern District, age-1.4 and age-1.3 represented 50.6% and 32.7% of the Eastern Subdistrict catch, and age-1.4 and age-1.3 accounted for 56.3% and 27.5% of the General Subdistrict catch during the same period. Sex composition in the Upper Subdistrict was 55% males and 45% females. In contrast, sex composition in the Northern District was equally divided between males and females.

Selected chinook sport harvests and escapements in Upper Cook Inlet consisted of eight age groups (Table 6; Appendices B.7 through B.15). Chinook salmon were primarily age 1.4, age 1.3 and age 1.2. Age-1.4 fish in the Kenai River represented 79.0% of the early and late run harvests. Within the Susitna River drainage, age-1.4 chinook salmon predominated (>40%) in most of the sport harvests and escapements. The exceptions were the Alexander and Willow Creeks sport fisheries and the Deshka River escapement where age-1.3 fish represented a larger percentage of the fish sampled (Table 6). Chinook salmon sampled at the Crooked Creek weir (a tributary of the Kasilof River) included 1-ocean (28.2%) and 3-ocean (30.1%) fish (Appendix B.7). Escapement samples were also collected from carcasses in three northern Cook Inlet streams (Appendix B.8) where age 1.4 (37.4% to 72.8%) and age 1.3 (24.3% to 57.5%) predominated. Male/female ratios in the sport fisheries varied from 0.9:1 to 1.3:1 with a higher percentage of males represented in most fisheries (Appendices B.10 through B.15). In the escapements, male/female ratios were slightly more variable ranging from 0.7:1 to 1.2:1 (Appendix B.8).

Length composition by age of chinook salmon sampled from selected commercial and sport fisheries and escapements is presented in Table 7. Among the commercial fisheries, mean length by age was noticeably larger in the Upper Subdistrict (overall mean length of 912 mm) catch except for age 1.1. The largest chinook salmon on average (all ages combined) were sampled from the Kenai River late run sport fishery (1,030 mm).

Sockeye Salmon

The majority (65.8%) of the sockeye salmon in the Upper Cook Inlet harvest were age 1.3 (Table 8; Appendices C.1 through C.7). Age-2.3 (13.5%), -1.2 (11.6%), and -2.2 (8.1%) fish also contributed substantially to the total harvest. Age-1.3 sockeye salmon were most prevalent in the Central District, ranging from 49.4% in the Cohoe/Ninilchik Beach fishery to 71.1% in the Salamatof Beach fishery. However, age-1.3 fish contributed 68.8% or 2.8 million fish to the total drift harvest (Table 8). Age-1.3 sockeye salmon in the Northern District comprised 22.5% of the Eastern Subdistrict and 45.9% of the General Subdistrict harvests. Age-1.2 fish contributed 29.6% and 49.4% to the harvests in the Northern District, General and Eastern Subdistricts and from 8.7% (Salamatof Beach) to 21.4% (Western Subdistrict) in the Central District. The contribution of age-2.3 fish ranged from 6.0% in the Eastern Subdistrict to 17.1% in the Western Subdistrict. Age-2.2 fish ranged from 6.6% to 20.8% of the catch. Age-0.2, -1.1,

-0.3, -2.1, -1.4, -3.2, and -2.4 fish were present in small numbers. Male/female ratios in the commercial fisheries varied from 0.8:1 to 1.4:1 with a higher percentage of males represented in most fisheries (Appendices C.1 through C.7).

Age composition of sockeye salmon in the drift gill net fishery fluctuated during the season (Appendix C.1). Age-1.2 fish comprised from 3.5% to 17.7% of the harvest from 27 June through 29 August, peaking at 17.7% during 1-3 July. Age-1.3 sockeye salmon dominated in the drift fishery and contributed from 57.4% to 83.6% to the harvest, peaking at 83.6% during 22-24 July. Age-2.3 sockeye salmon represented from 4.8% to 21.8% of the harvest, peaking during 4-7 July. Age-2.2 fish contributed less than 7.0% to the season catch. Seven other age groups were present in the catches, but contributed individually to less than 1% by period. Sex composition estimates were 48.1% males and 51.9% females for all periods combined.

Sockeye salmon harvested in the Salamatof Beach set gill net fishery were predominantly age 1.3 (71.1%) (Table 8). For the period 1-18 July, age groups 1.3 and 2.3 represented 76.1% and 12.8% of the catch (Appendix C.2). During 19 July to 15 August, age groups 1.3 and 2.3 contributed 66.1% and 13.0% to the harvest; age-1.2 and age-2.3 provided 13% of the catch. Sex composition was 51.0% males and 49.0% females for all periods combined.

In the Kalifonsky Beach set gill net fishery, age-1.3 sockeye salmon represented 62.4% with age-1.2 and -2.3 fish representing 13.9% and 13.7% of the total harvest (Table 8). Age-1.3 sockeye salmon represented 56.1% to 65.7% of the season's harvest and peaked during 12-15 July (Appendix C.3). Age-1.2 sockeye salmon comprised 8.3% to 17.2% of the harvest by period. The highest percentage occurred during 9-11 July. Age-2.3 fish comprised 10.7% to 19.1% of the catch by period peaking between 12-15 July. Sex composition was 51.9% males and 48.1% females for all periods combined.

The majority (49.4%) of the sockeye salmon in the Cohoe/Ninilchik Beach harvest were age 1.3 (Table 8; Appendix C.4). Age-1.2 (21.4%) and -2.3 (13.9%) fish also contributed to the total harvest. Age-1.2 sockeye salmon represented from 12.1% to 25.9% of the harvest by period. Age-1.3 fish represented from 42.8% to 62.8% of the harvest by period. Age-2.2 fish represented from 9.6% to 20.2% of the catch, and age-2.3 fish comprised from 8.0% to 18.0% of the harvest. Sex composition was 54.3% males and 45.7% females for all periods combined.

Age composition of sockeye salmon in the Western Subdistrict was represented by six age groups (Table 8). The sockeye harvest was represented by ages 1.3 (53.7%), 2.3 (17.1%), 1.2 (15.3%), and 2.2 (13.5%). Age-1.3 fish ranged from 39.5% to 56.1% by period (Appendix C.5). Age-1.2 fish represented 16.3% of the catch from 17 June to 14 July and 9.2% from 15 July to 12 September. Age-2.2 ranged from 11.7% to 24.4% and age-2.3 ranged from 15.5% to 26.9% during the same periods (Appendix C.5). Sex composition was 53.7% males and 46.3% females for all periods combined.

Sockeye salmon harvested in the Northern District, Eastern and General Subdistricts represented ages 1.2, 1.3, 2.2, and 2.3 (Table 8; Appendices C.6 and C.7). There were striking differences in age composition between the two areas. The major portion of the catch in the Eastern Subdistrict was age-1.2 (49.4%) fish. In the General Subdistrict, the major age group was age 1.3 (45.9%). Sex

composition was 43.5% males and 56.5% in the Eastern Subdistrict and 53.5% males and 46.5% females in the General Subdistrict for the season.

Sockeye harvested in selected commercial fisheries averaged 561 mm and 3.01 kg overall (Table 9; Appendices C.8 through C.14). Mean Length of all age groups combined ranged from 354 mm (age 1.1) to 637 mm (age 2.4). Mean weight of all age groups combined ranged from 0.72 kg (age 2.1) to 4.33 kg (age 2.4). The overall average length and weight for the major age group 1.3 was 580 mm and 3.3 kg. The largest fish on average were sampled from the drift fishery (569 mm and 3.23 kg). In contrast, the smallest fish on average (517 mm and 2.23 kg) were sampled from the Eastern Subdistrict.

The majority (57.4%) of the sockeye salmon in the Upper Cook Inlet escapements were age 1.3 (Table 10; Appendices C.15 through C.28). Age-1.3 sockeye salmon comprised the largest portion of the escapements in the mainstem Kenai River (74.2%), Crescent River (44.9%), and Yentna River (41.9%). A significant portion of the escapements in Hidden Creek (94.0%) and Fish Creek (83.1%) were represented by age-1.2 fish. Age-1.2 and -1.3 represented 33.7% and 36.4% of the escapement in the Kasilof River. Other important age groups contributing to sockeye escapements included age 2.3 in the Russian River early run (93.9%); age 2.2 in the Russian River late run (46.9%, above weir), Kasilof River (17.5%) and Packers Creek (63.6%); and age 2.3 in Crescent River (26.1%). Sex composition among the various escapements ranged from 32.9% males in Larson Creek (Susitna River drainage) to 63.9% males in Fish Creek with corresponding changes in the female components.

Sockeye salmon sampled in selected escapements averaged 516 mm and 2.34 kg overall (Table 11; Appendices C.28 through 35). Mean Length of all age groups combined ranged from 352 mm (age 3.1) to 608 mm (age 3.3). Mean weight of all age groups combined ranged from 0.72 kg (age 2.1) to 3.60 kg (age 0.3). The overall average length and weight for the major age group 1.3 was 569 mm and 3.02 kg. The largest fish on average were sampled from the Russian River early run (593 mm). In contrast, the smallest fish on average (473 mm) were sampled from the confluence of the Susitna and Yentna Rivers.

Coho Salmon

Three age groups -1.1, -2.1, and -3.1 made up the bulk of the harvests and escapements (Table 12; Appendices D.1 through D.7). The Central District drift gill net fishery harvested primarily age 1.1 (15.2%) and age 2.1 (77.0%) coho salmon. Fish aged 3.1 represented 7.8% of the drift gill net catch. The Upper Subdistrict set gill net catch was comprised of age 1.1 (6.9%), 2.1 (79.2%), and 3.1 (13.9%) fish. Coho age composition in the Western Subdistrict set gill net catch was very similar to the drift gill net catch and included age 1.1 (17.6%), age 2.1 (74.5%), age 3.1 (7.9%). Age composition in the Northern District was similar in both the Eastern and General Subdistricts with age 2.1 representing 70.2% and 80.3% of the catch, respectively (Table 12). Sex composition in the commercial fisheries ranged from 42.5% males and 57.5% females in the Eastern Subdistrict to 59.3% males and 40.7% females in the drift fishery.

Coho age composition in the escapements and sport fisheries was characterized by the three primary age groups 1.1, 2.1, and 3.1 (Table 12; Appendices D.8 through D.16). The Kenai River early run coho harvest was dominated by age 2.1 fish

(73.2%), with age 3.1 fish representing 18.0% and age 1.1 fish representing 8.5%. The Kenai River late run coho harvest was comprised of age-2.1 fish (67.3%), age-3.1 fish (9.2%), and age-1.1 fish (12.0%). The Lake Creek coho sport fishery was unique in that six age groups were found in the catch. Sex composition in the escapements and sport fisheries generally favored males with a range from 50.9% at Little Susitna River weir to 58.8% in the Yentna River. One exception, the sex composition of the Little Susitna River sport fishery was 44.0% males and 56.0% females.

Coho salmon sampled in selected commercial fisheries averaged 564 mm and 3.19 kg overall (Table 12; Appendix D.1 through D.7). Mean Length of all age groups combined ranged from 533 mm (age 2.2) to 593 mm (age 3.1). Mean weight of the primary age groups combined ranged from 2.68 kg (age 1.1) to 3.50 kg (age 3.1). The overall average length and weight for the major age group 2.1 was 565 mm and 3.24 kg. The largest fish on average (589 mm) were sampled from the Upper Subdistrict. In contrast, the smallest fish on average (549 mm) were sampled from the Eastern Subdistrict. Coho salmon averaged 602 mm in sport harvests and 584 mm in escapements (Table 12; Appendices D.8 through D.16). The range of overall mean length by age for coho salmon harvested in the sport fisheries was 265 mm to 629 mm. The overall mean length by age of coho salmon sampled from selected escapements ranged from 310 mm to 595 mm.

Chum Salmon

The predominant age groups of chum salmon in the Central District drift fishery were 0.3 (75.3%) and 0.4 (19.5%) (Table 13; Appendix E.1 and E.2). Mean lengths of ages 0.3 and 0.4 fish were 589 mm and 622 mm. Mean weights of ages 0.3 and 0.4 fish were 3.3 kg and 3.8 kg. Sex composition was 35.8% males and 64.2% females.

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TABLES AND FIGURES

Table 1. Commercial salmon catch by area and gear type, Upper Cook Inlet, Alaska, 1988.[a]

Area/Gear	Chinook	Sockeye	Coho	Pink	Chum	Total
DRIFT[b]	2,212	4,103,664	277,006	226,753	578,654	5,188,289
CENTRAL SET						
Upper	12,838	2,426,416	54,972	176,042	11,762	2,682,030
Kalgin Island	368	33,747	27,501	4,159	2,382	68,157
Kustatan	120	6,999	15,925	1,037	731	24,812
Western	627	102,057	25,391	7,490	18,122	153,687
Chinitna Bay	2	2,345	8,623	249	19,189	30,408
Subtotal	13,955	2,571,564	132,412	188,977	52,186	2,959,094
NORTHERN SET						
Eastern	1,244	31,424	26,386	7,769	5,592	72,415
General	11,592	98,289	123,356	46,441	70,136	349,814
Subtotal	12,836	129,713	149,742	54,210	75,728	422,229
SEINE	0	0	100	4	0	104
GRAND TOTAL	29,003	6,804,941	559,260	469,944	706,568	8,569,716

[a] Source: Ruesch and Browning (1989).
[b] Harvest does include Chinitna Bay Subdistrict.

Table 2. Estimated number of salmon harvested from selected subsistance, personal use, and sport fisheries in Upper Cook Inlet, Alaska, 1988.

Fishery	Species				
	Chinook[a]	Sockeye	Coho	Pink	Chum
Subsistence Catch:					
Tyonek[b]	1,474	53	185	6	9
Personal Use Catch:					
Kasilof River					
Dip Net[c]	0	3,547	1,346	200	18
Set Gill Net[b]	118	9,803			
Kenai River					
Dip Net[c]	0	16,880	3,929	1,783	200
Fish Creek					
Dip Net[d]		3,000			
Central and Northern District					
Set Gill Net[b]	2	19	2,662	38	10
Subtotal	120	33,249	7,937	2,021	228
Sport Catch:					
Central District					
Kenai River					
early run[e]	12,747		24,281		
late run[e]	17,512	150,000	11,495		
Russian River[c]	9		2,983	54	0
early run[e]		50,820			
late run[e]		19,540			
Kasilof River[c]	5,464	2,365	2,928	145	18
Anchor River[c]	976	109	2,219	109	0
Ninilchik River[c]	795	1,073	709	36	18
Deep Creek[c]	777	182	1,528	72	18
Deep Creek[cf] (marine)	4,292	55	509	182	127

- Continued -

Table 2. (p. 2 of 2)

Fishery	Species				
	Chinook	Sockeye	Coho	Pink	Chum
Sport Catch:					
Northern District					
Lake Creek[c]	2,784	291	2,110	491	346
Deshka River[c]	5,474	146	7,458	800	164
Alexander Creek[c]	4,687	55	1,965	400	18
Montana Creek[c]	1,070	364	2,219	709	928
Sheep Creek[c]	1,847	273	3,165	891	1,892
Willow Creek[c]	2,349	564	4,875	1,510	1,419
Talkeetna River[c]	1,762	1,110	2,929	182	1,255
Little Susitna River[c]	2,822	2,310	19,009	1,146	673
Subtotal	65,3672	229,257	90,382	6,727	6,876

[a] Includes chinook salmon less than 16 inches.
[b] Source: Ruesch and Browning (1989).
[c] Source: Mills (1989).
[d] Source: Engel (1988).
[e] Source: Nelson (1988).
[f] Includes charter and private boats.

Table 3. Number of spawners estimated or indexed in selected streams and rivers of Upper Cook Inlet, Alaska, 1988.

Location	Species				
	Chinook	Sockeye	Coho	Pink	Chum
Central District:					
Kenai River					
early run	7,042[a]				
late run	36,733[a]	851,960[bc]			
Russian River					
early run					
above weir		50,406[d]			
late run					
above weir		42,476[d]			
below falls		30,363[de]			
Hidden Creek		50,907[f]			
Kasilof River					
mainstem		194,600[bg]			
Crooked Creek[h]	3,475	700	600		
Crescent River[b]	549[i]	57,716	3,362[i]	85[i]	245[i]
Packers Creek		15,481[j]			
Anchor River	2,550[k]				
Ninilchik River	1,080[k]				
Deep Creek	1,040[k]				
Swanson River[l]		1,542	23,514		
Northern District:					
Susitna River					
Eastside streams					
Willow Creek	2,496[im]				
Sheep Creek	1,215[im]				
Montana Creek	2,016[im]				
Westside streams					
Alexander Creek	6,273[im]				
Deshka River	19,200[im]				
Yentna River[b]	444[i]	52,330	12,173[i]	137,027[i]	49,074[i]
Lake Creek	6,633[im]				
Talachulitna River	4,112[im]				
Northern District:					
Little Susitna River[m]	7,400[n]	2,642[i]	20,491[n]	15,644[i]	23,679[i]
Fish Creek[o]		71,603	2,162		

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Table 3. (p. 2 of 2)

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[a] Source: Hammarstrom (1989); sonar count less sport harvest.
[b] Source: King and Tarbox (1989).
[c] Sonar count less sport harvest.
[d] Source: Hammarstrom and Athons (1989); early and late run fish were differentiated based on degree of external maturation (color).
[e] Represents peak count of live and dead fish downstream from the weir.
[f] Source: G. Kyle, Alaska Department of Fish and game, Soldotna, personal communication.
[g] Sonar count less egg take.
[h] Source: Kyle and Litchfield (1989); chinook escapement discounts for sport harvest and egg take.
[i] Index count only.
[j] Source: P. Marcuson, Cook Inlet Aquaculture Association, Kenai, personal communication; weir count less egg take.
[k] Source: Nelson (1988); minimum estimate based on correlating foot surveys in lower stream index areas with helicopter surveys flown over the entire stream.
[l] Source: D. Faurot, U.S. Fish and Wildlife Service, Soldotna, personal communication.
[m] Source: Engel (1988).
[n] Weir count less sport harvest.
[o] Source: R. Chlupach, Alaska Department of Fish and Game, Big Lake, personal communication.

Table 4. Number of fish sampled from commercial and sport catches and escapements, Upper Cook Inlet, Alaska, 1988.

Sample Type/Location[a]	Species			
	Chinook	Sockeye	Coho	Chum
Commercial Catch:				
Central District				
Drift		7,800	1,740	1,811
Upper Subdistrict				
Salamatof Beach	45	1,200	20	
Kalifonsky Beach	655	3,000	420	
Cohoe/Ninilchik Beach	535	2,600	212	
Western Subdistrict		969	658	
Northern District				
Eastern Subdistrict	278	600	242	
General Subdistrict	390	600	591	
Total Commercial Catch	1,903	16,769	3,883	1,811
Sport Catch:				
Central District				
Kenai River				
Early run	560[b]		433[b]	
Late run	413[b]		566[b]	
Russian River				
Early run		263[c]		
Late run		253[c]		
Northern District				
Susitna River				
Susitna landing			261[d]	
Talkeetna landing			377[d]	
Lake Creek	207[e]		462[d]	
Alexander Creek	115[e]			
Deshka River	351[e]			
Talkeetna River	168[e]			
Sheep Creek	147[e]			
Willow Creek	514[e]			
Montana Creek	226[e]			
Little Susitna River	326[d]		375[d]	
Total Sport Catch	3,027	516	2,474	

- Continued -

Table 4. (p. 2 of 3)

Area	Species			
	Chinook	Sockeye	Coho	Chum
Escapement:				
Central District				
Kenai River				
Late run		1,799		
Russian River				
Early run				
Above weir		263[c]		
Late run				
Above weir		382[c]		
Below weir		308[c]		
Hidden Creek		214[f]		
Kasilof River				
mainstem		2,642		
Crooked Creek	173[g]			
Bear Creek		340[f]		
Glacier Flats Creek		281[f]		
Crescent River	3	867		
Packers Creek		1,459[h]		
Anchor River			276[i]	
Swanson River		573[j]	764[j]	
Northern District				
Susitna River				
Mainstem test fish		77		
Yentna River		1,847	226[d]	
Larson Creek		505		
Deshka River	77[e]			
Willow Creek	38[e]			
Montana Creek	115[e]			
Little Susitna River	375[d]		322[d]	
Fish Creek		584[k]		
Total Escapement	781	12,141	1,588	
Total Upper Cook Inlet	5,711	29,426	7,945	1,811

- Continued -

Table 4. (p. 3 of 3)

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[a] Specific areas that are not footnoted were sampled by Division of Commercial Fisheries personnel.
[b] Source: Hammarstrom (1989).
[c] Source: Hammarstrom and Athons (1989).
[d] Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.
[e] Source: K. Hepler, Alaska Department of Fish and Game, Anchorage, personal communication.
[f] Source: G. Kyle, Alaska Department of Fish and Game, Soldotna, personal communication.
[g] Source: Kyle and Litchfield (1989).
[h] Source: P. Marcuson, Cook Inlet Aquaculture Association, Soldotna, personal communication.
[i] Source: L. Larson, Alaska Department of Fish and Game, Soldotna, personal communication.
[j] Source: D. Faurot, U.S. Fish and Wildlife Service, Soldotna, personal communication.
[k] Source: R. Chlupach, Alaska Department of Fish and Game, Big Lake, personal communication.

Table 5. Estimated age composition of chinook salmon sampled in selected commercial fisheries of Upper Cook Inlet, Alaska, 1988.

Area/Fishery	Season Dates of Fishing	Total Sample Size		Age Group 1.1	1.2	0.4	1.3	2.2	1.4	2.3	1.5	2.4	Total[a]
Central District:													
Upper Subdistrict	7/01-8/15	869	No.	379	1,365	30	1,860	39	8,834	13	232	86	12,838
			%	3.22	10.70	0.23	14.27	0.35	68.58	0.12	1.84	0.69	100.00
Kalifonsky	7/01-8/15	457	No.	105	358	18	594	18	2,806	9	61	26	3,995
			%	2.63	8.96	.44	14.88	.44	70.24	.22	1.53	.66	100.00
Cohoe/Ninilchik	7/01-8/15	412	No.	259	841		906	16	4,450		146	49	6,667
			%	3.88	12.62		13.59	.24	66.75		2.19	.73	100.00
Subtotal		1,738	No.	743	2,564	48	3,360	73	16,090	22	439	161	23,500
			%	3.16	10.91	0.20	14.30	0.31	68.47	0.09	1.87	0.69	100.00
Northern District:													
Eastern Subdistrict	6/06-9/05	168	No.	7	196		407		630			7	1,244
			%	0.59	15.48		32.74		50.60			0.59	100.00
General Subdistrict	6/06-9/05	309	No.		1,726		3,190		6,527	37	75	37	11,592
			%		14.89		27.51		56.31	0.32	0.65	0.32	100.00
Subtotal		477	No.	7	1,922		3,597		7,157	37	75	44	12,836
			%	0.05	14.97		28.02		55.76	0.29	0.58	0.34	100.00
Total[b]			No.	750	4,486	48	6,957	73	23,247	59	514	205	36,336
			%	2.06	12.34	0.14	19.15	0.20	63.97	0.17	1.41	0.56	100.00

[a] Row and column totals may differ slightly due to rounding error.
[b] Total weighted by respective catch.

Table 6. Estimated age composition of chinook salmon sampled in selected sport fisheries and escapements, Upper Cook Inlet, Alaska, 1988.

Area	Total Sample Size	Age Group[a]							
		1.1	1.2	1.3	2.2	1.4	2.3	1.5	2.4
Sport Fishery:									
Kenai River									
Early[b]	560	0.2	2.0	12.1		79.0		6.7	
Late[b]	413	0.7	0.2	3.4		79.0		16.7	
Susitna River									
Alexander Creek[c]	115	4.3	20.0	40.0		35.7			
Deshka River[c]	351	1.4	11.7	24.8		59.8	0.3	1.1	0.9
Lake Creek[c]	207	0.5	4.8	16.4	0.5	75.4		1.4	1.0
Talkeetna River[c]	168		8.3	19.6		70.2		1.8	
Montana Creek[c]	226		24.3	31.0		42.9		1.3	0.4
Sheep Creek[c]	147	1.4	9.5	21.1		65.3		1.5	0.7
Willow Creek[c]	514	1.4	13.0	44.4		36.8	3.3	0.8	0.4
Little Susitna[d]	326	0.9	7.1	22.1		69.3		0.3	0.3
Escapement Survey:									
Susitna River									
Deshka River[c] (Moose Creek)	77		5.1	57.5		37.4			
Willow Creek[c]	38		2.9	24.3		72.8			
Montana Creek[c]	115		20.0	40.0		40.0			
Little Susitna[d] (weir)	375		6.7	20.0		73.3			

[a] Sum of age group percentages may differ slightly from 100% due to rounding error.
[b] Source: Hammarstrom (1989).
[c] Source: K. Hepler, Alaska Department of Fish and Game, Anchorage, personal communication.
[d] Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.

Table 7. Estimated mean length by age of chinook salmon sampled in selected commercial and sport fisheries and escapements, Upper Cook Inlet, Alaska, 1988.

Area		Age Group									Total
		1.1	1.2	0.4	1.3	2.2	1.4	2.3	1.5	2.4	
Commercial Fisheries:											
Central District											
Upper Subdistrict											
	Mean Length[a]	400	650	887	821	581	993	1,008	947	948	912
	Sample Size	28	93	2	124	3	596	1	16	6	869
Northern District											
Eastern Subdistrict											
	Mean Length	400	568		791		917			925	819
	Sample Size	1	26		55		85			1	168
General Subdistrict											
	Mean Length		616		814		944	755	978	860	859
	Sample Size		46		85		174	1	2	1	309
Sport Fisheries:											
Kenai River											
Early	Mean Length	370	634		798		979		1,099		957
	Sample Size	1	11		68		443		37		560
Late	Mean Length	367	570		832		1,035		1,080		1,030
	Sample size	3	1		14		326		69		413
Susitna River											
Alexander Creek	Mean Length	376	613		772		917				775
	Sample Size	5	23		46		41				115
Deshka River	Mean Length	413	563		748		872	790	919	940	800
	Sample Size	5	41		87		210	1	4	3	351
Lake Creek	Mean Length	380	641		807	675	954		987	925	906
	Sample Size	1	10		34	1	156		3	2	208
Talkeetna River	Mean Length		635		824		970		1,022		902
	Sample Size		14		33		118		1		168
Montana Creek	Mean Length	353	621		829		953		1,012		882
	Sample Size	2	14		31		96		3		147
Willow Creek	Mean Length	393	625		828		953	821	978	973	826
	Sample Size	7	67		218		186	17	4	2	511
Little Susitna River	Mean Length	331	605		817		939		1,065	1,010	884
	Sample Size	3	23		72		226		1	1	326
Escapement Surveys:											
Susitna River											
Deshka River (Moose Creek)	Mean Length		744		857		897				866
	Sample Size		13		146		95				254
Willow Creek	Mean Length		890		819		960				924
	Sample Size		2		17		51				70
Montana Creek	Mean Length		690		872		900				847
	Sample Size		2		4		4				10
Total[b]	Mean Length	390	624	887	815	605	965	826	1,057	944	
	Sample Size	56	386	2	1,034	4	2,807	20	140	16	

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean length weighted by respective sample location.

Table 8. Estimated age composition of sockeye salmon sampled in the major commercial fisheries of Upper Cook Inlet, Alaska, 1988.

Fishery	Total Sample Size		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[b]
Central District:														
Drift[a]	6,883	No.	4,550	1,073	18,284	407,302	1,975	2,816,529	281,853	9,137	560,385	843	1,541	4,103,472
		%	.07	.03	.36	10.37	.09	68.78	6.60	.20	13.44	.01	.04	100.00
Salamatof Beach	1,022	No.				75,581		629,821	57,671	6,078	114,040			883,191
		%				8.71		71.14	6.56	.68	12.92			100.00
Kalifonsky Beach	2,629	No.				123,736		568,908	88,540	6,739	120,781		1,923	910,628
		%				13.88		62.42	9.43	.46	13.66		.15	100.00
Cohoe/ Ninilchik Beach	2,314	No.				119,994	755	336,769	89,996	4,041	80,526		516	632,597
		%				21.35	.09	49.35	14.78	.48	13.87		.09	100.00
Western Subdistrict	823	No.			130	12,676	65	47,903	19,055		22,228			102,057
		%			.24	15.31	.12	53.71	13.49		17.13			100.00
Northern District:														
Eastern Subdistrict	520	No.		60	121	15,531	242	7,070	6,527		1,873			31,424
		%		.19	.38	49.42	.77	22.50	20.77		5.96			100.00
General Subdistrict	473	No.			1,039	29,092		45,092	6,650	623	15,793			98,289
		%			1.06	29.60		45.88	6.77	.63	16.07			100.00
Total		No.	4,550	1,133	19,574	783,912	3,037	4,452,092	550,292	26,618	915,626	843	3,980	6,761,657
		%	.07	.02	.29	11.59	.04	65.84	8.14	.39	13.54	.01	.06	100.00

[a] Chinitna Bay Subdistrict not included.

[b] Percent may differ slightly from 100% due to rounding error in calculation of age group percentage.

Table 9. Estimated mean length and weight by age of sockeye salmon sampled in the major commercial fisheries of Upper Cook Inlet, Alaska, 1988.

Fishery		Age Group 0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Central District:												
Drift												
Length[a]	Mean	491	373	572	511	417	581	520	594	576	603	569
	Sample Size	3	1	13	519	6	3,874	350	11	701	3	5,481
Weight[b]	Mean	1.82		3.73	2.24	0.80	3.40	2.50	3.98	3.29	3.70	3.23
	Sample Size	2		3	114	2	809	69	2	177	2	1,180
Salamatof Beach												
Length	Mean				501		578	519	591	578		566
	Sample Size				81		512	55	6	96		750
Weight	Mean				1.95		3.43	2.11		3.48		3.20
	Sample Size				18		122	18		24		182
Kalifonsky Beach												
Length	Mean				490		587	502	617	588	660	566
	Sample Size				310		1,411	220	12	317	4	2,274
Weight	Mean				1.87		3.32	1.84	2.30	3.48	4.95	3.03
	Sample Size				50		281	49	1	59	2	442
Cohoe/ Ninilchik Beach												
Length	Mean				493	370	580	497	629	579	649	551
	Sample Size				331	2	832	233	8	204	1	1,611
Weight	Mean				1.91	0.60	3.03	1.90		3.19		2.67
	Sample Size				94	1	217	58		72		442
Western Subdistrict												
Length	Mean			553	494	358	566	502		563		545
	Sample Size			2	47	1	315	85		113		563
Weight	Mean				1.89		3.11	1.99		3.02		2.73
	Sample Size				17		128	31		43		219
Northern District:												
Eastern Subdistrict												
Length	Mean		335	568	498	395	564	504		565		517
	Sample Size		1	2	257	4	117	108		31		520
Weight	Mean				1.89	0.70	3.00	2.07		2.91		2.23
	Sample Size				33	2	26	23		6		90
General Subdistrict												
Length	Mean			563	506		573	516	624	572		550
	Sample Size			5	140		217	32	3	76		473
Weight	Mean				2.08		3.09	2.00	3.60	2.98		2.72
	Sample Size				24		29	2	1	11		67
Total[c]	Mean Length	491	354	568	500	398	580	508	610	578	637	561
	Sample Size	3	2	22	1,685	13	7,278	1,083	40	1,538	8	11,672
	Mean Weight	1.82		3.73	2.02	0.72	3.30	2.10	3.47	3.27	4.33	3.01
	Sample Size	2		3	350	5	1,612	250	4	392	4	2,622

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg. Weight is not taken on all fish that have a length measurement, thus in some cases mean weight is not calculated.
[c] Total weighted by respective catch.

Table 10. Estimated age composition of sockeye salmon sampled in selected escapements in Upper Cook Inlet, Alaska, 1988.

Fishery	Total Sample Size		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[a]
Kenai River	1,420	No.		2,981	720	120,547	2,236	756,507	31,734		3,505	103,238				1,021,469
		%		.28	.07	11.62	.21	74.15	3.10		.35	10.21				100.00
Russian River																
Early Run	263	No.				404		1,915	756			47,331				50,406
(above weir)		%				.80		3.80	1.50			93.90				100.00
Late Run	382	No.				3,118	12,088	1,573	19,930			5,767				42,476
(above weir)		%				7.30	28.50	3.70	46.90			13.60				100.00
Late Run[b]	308	No.				881	304	27,204	304			1,579				30,363
(below weir)		%				2.90	1.00	89.60	1.00			5.20				100.00
Hidden Creek	214	No.				47,853		1,884	967			203				50,907
		%				94.00		3.70	1.90			.40				100.00
Kasilof River[c]	2,282	No.		131		68,734	223	74,307	35,715		325	24,457		110		204,000
		%		.06		33.69	.11	36.43	17.51		.16	11.99		.05		100.00
Crescent River	741	No.				5,461	51	28,498	9,290		318	14,047	51			57,716
		%				10.39	.13	44.94	17.81		.54	26.05	.13			100.00
Packers Creek	902	No.		146		264	992	1,172	12,169	162	18	3,502	159		24	18,607
		%		.78		1.55	5.10	6.87	63.64	.78	.11	20.18	.89		.11	100.00
Swanson River	573	No.		18		288	47	264	882			25	18			1,542
		%		1.20		18.70	3.00	17.10	57.20			1.60	1.20			100.00
Susitna River																
Yentna River	1,727	No.	1,303	222	1,226	14,935	614	25,014	3,056		116	5,817		26		52,330
		%	2.72	.41	2.43	33.53	1.74	41.92	6.54		.23	10.42		.06		100.00
Larson Creek[d]	413	No.														
		%		.24		82.81		7.75	8.23		.24	.73				100.00
Fish Creek	584	No.		9,686		59,465	368	981	1,103							71,603
		%		13.53		83.05	.51	1.37	1.54							100.00
Total[e]		No.	1,303	13,184	1,946	321,950	16,923	919,319	115,906	162	4,282	205,966	228	136	24	1,601,419
		%	0.08	0.82	0.12	20.10	1.06	57.41	7.24	0.01	0.27	12.86	0.02	0.01	0.00	100.00

[a] Row and column totals may differ slightly due to rounding error.
[b] Ninety fish or 0.03% of unknown age unaccounted for in age group total.
[c] Total escapement of 204,000 fish represents the expanded count to take into account the difference between the sonar estimate and the spawning ground survey estimate.
[d] A one time sample was taken on 4-5 August. No escapement project in operation.
[e] Totals weighted by respective escapements.

Table 11. Estimated mean length and weight by age of sockeye salmon sampled in selected escapements of Upper Cook Inlet, Alaska, 1988.

	Age Group													
Fishery	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
Central District:														
Kenai River														
Length[a] Mean		385	595	516	384	583	527		612	584				572
Sample Size		4	1	163	3	1,052	44		5	145				1,417
Weight[b] Mean		.80	3.60	2.00		3.44	2.29		4.22	3.71				3.26
Sample Size		1	1	91		705	28		2	103				931
Russian River														
Early Run (above weir)														
Length Mean				498		588	556			595				593
Sample Size				2		10	4			247				263
Late Run (above weir)														
Length Mean				525	385	600	548			594				510
Sample Size				29	105	14	182			52				382
Late Run (below weir)														
Length Mean				559	388	588	560			573				584
Sample Size				9	3	276	3			16				307
Hidden Creek														
Length Mean				535		574	565			595				537
Weight Mean				2.20		2.80	2.60			3.20				2.23
Sample Size				201		8	4			1				214
Kasilof River														
Length Mean		389		478	353	546	482		562	543		506		507
Sample Size		2		833	3	693	393		3	219		1		2,147
Weight Mean				1.70	.40	2.61	1.74		2.85	2.58				2.09
Sample Size				466	1	508	295		2	167				1,439
Crescent River														
Length Mean				476	338	567	491		606	572	508			547
Sample Size				77	1	333	132		4	193	1			741
Weight Mean				1.86		3.12	1.97		3.89	3.18				2.83
Sample Size				27		241	72		3	128				471
Packers Creek														
Length Mean		336		502	379	555	516	368	563	562	516		608	517
Weight Mean		.61		2.12	.92	2.78	2.22	.82	2.90	2.90	2.36		3.30	2.29
Sample Size		7		14	46	62	574	7	1	182	8		1	902

-Continued-

Table 11. (p. 2 of 2)

Fishery		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
Northern District:															
Swanson River															
Length			399		443	412	532	507			534	475			
Weight			1.10		1.50	1.10	2.40	1.90			2.30	1.60			
Sample Size			7		107	17	98	328			9	7			573
Susitna River															
Yentna River															
Length	Mean	456	325	570	471	363	568	481		584	574		603		530
	Sample Size	47	7	42	578	30	724	113		4	3		1		1,725
Weight	Mean	1.66		2.72	1.77	.53	2.90	1.83		3.07	2.86				2.44
	Sample Size	17		16	236	12	206	51		2	67				607
Confluence[c]															
Length	Mean		312	433	470	362	544	493							473
	Sample Size		2	1	38	4	12	3							60
Larson Creek															
Length	Mean		335		511		577	528		645	590				518
	Sample Size		1		350		32	33		1	2				399
Fish Creek															
Length	Mean		350		478	366	568	468							461
	Sample Size		79		485	3	8	9							584
Weight	Mean		.69		1.55	.73	2.56	1.46							1.44
	Sample Size		77		477	3	8	9							574
Total[d]	Mean Length	456	352	595	457	381	569	507	368	595	572	498	555	608	516
	Sample Size	47	109	1	2,886	215	3,322	1,822	7	18	1,069	16	2	1	9,515
	Mean Weight	1.66	0.72	3.60	1.74	0.89	3.02	2.01	0.82	3.49	2.99	2.01		3.30	2.34
	Sample Size	17	92	1	1,619	79	1,836	1,361	7	10	657	15		1	5,695

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.
[c] Sample collected from the mainstem Susitna River immediately above the confluence of the Yentna and Susitna Rivers.
[d] Total weighted by respective escapement.

Table 12. Estimated age and size composition of coho salmon sampled in selected commercial and sport fisheries and escapements of Upper Cook Inlet, Alaska, 1988.

	Total Sample Size	Age Group 1.1	2.0	2.1	3.0	3.1	2.2	4.0	4.1	Total
Commercial Fisheries:										
CENTRAL DISTRICT										
Drift[a]	944	39,151		202,713		21,140				263,004
Percent		15.15		77.01		7.84				100.00
Mean Length[b]	493	533		559		574				557
Mean Weight[c]	263	2.73		3.09		3.29				3.05
Upper Subdistrict	409	3,763		43,548		7,661				54,972
Percent		6.85		79.22		13.94				100.00
Mean Length	233	544		587		618				589
Mean Weight	104	2.56		3.57		3.94				3.55
Western Subdistrict	380	4,477		18,910		2,005				25,391
Percent		17.63		74.47		7.89				100.00
Mean Length	215	546		578		600				574
Mean Weight	140	2.82		3.50		3.65				3.39
NORTHERN DISTRICT										
Eastern Subdistrict	181	6,122		18,515		1,749				26,386
Percent		23.20		70.17		6.63				100.00
Mean Length	160	532		550		596				549
Mean Weight	82	2.31		2.96		3.17				2.82
General Subdistrict	452	15,555		99,067		8,462	272			123,356
Percent		12.61		80.31		6.86	.22			100.00
Mean Length	299	538		558		564	533			556
Mean Weight	143	2.95		3.18		3.23				3.16
Subtotal[d] Mean Length		536		565		593	533			564
Sample Size		192		1,078		129	1			1,400
Mean Weight		2.68		3.24		3.50				3.19
Sample Size		101		563		68				732
Escapement:										
Anchor River[e]										
Percent	276	43.10		53.60		3.30				100.00
Mean Length[f]	210	612		628		651				622
Swanson River										
Percent	764	24.70	0.70	62.60	1.80	10.10		0.10		100.00
Mean Length		568	310	590	324	588		310		577
Mean Weight		3.39	.58	3.75	.65	3.69		.75		

-Continued-

Table 12. (p. 2 of 2)

	Sample Size	Age Group 1.1	2.0	2.1	3.0	3.1	2.2	4.0	4.1	Total
Escapement: (continued)										
Susitna River										
Yentna River	226									
Percent		25.20		70.80		4.00				100.00
Mean Length	225	511		559		599				548
Little Susitna River	322									
Percent		14.30		77.00		8.70				100.00
Mean Length	321	589		601		604				599
Subtotal[d] Mean Length		572	310	592	324	595		310		584
Sample Size		376	5	1,005	14	119		1		1,520
Sport Fisheries:										
Kenai River										
EARLY	433									
Percent		8.50		73.20		18.00				100.00
Mean Length[g]		605		625		634				625
LATE	566									
Percent		12.00		67.30		9.20				100.00
Mean Length		646		654		655				653
Susitna River										
Susitna Landing	261									
Percent		19.90		75.50	.80	3.80				100.00
Mean Length		543		576	353	588				568
Talkeetna Landing	377									
Percent		30.20	.30	64.50		5.00				100.00
Mean Length		555	240	575		579				568
Lake Creek	462									
Percent		20.60	.20	70.80	.90	6.70		.90		100.00
Mean Length		560	290	572	344	595		354		567
Little Susitna River	375									
Percent		12.80		71.20		15.70			.30	100.00
Mean Length		593		598		610			600	599
Subtotal[d] Mean Length		578	265	605	347	629		354	600	602
Sample Size		413	2	1,728	6	312		4	1	2,466

[a] Total does not include Chinitna Bay Subdistrict.
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.
[c] Mean weight represented in kg.
[d] Subtotal weighted by respective samples.
[e] Includes samples from the sport harvest and weir.
[f] Weighted mean calculated from Appendix Table D.8 data.
[g] Weighted mean calculated from Appendix Table D.12 data.

Table 13. Estimated age and size composition of chum salmon sampled in the Central District drift gill net fishery, Upper Cook Inlet, Alaska, 1988.

	Total Sample Size	Age Group					
		0.2	0.3	0.4	1.3	0.5	Total
Number	1,507	17,370	422,444	123,607	522	9,503	573,445[a]
Percent		3.72	75.32	19.51	. 7	1.39	100.00
Mean Length	863	525	589	622		556	593
Mean Weight	435	2.72	3.25	3.76		3.83	3.35

[a] Harvest does not include Chinitna Bay Subdistrict.

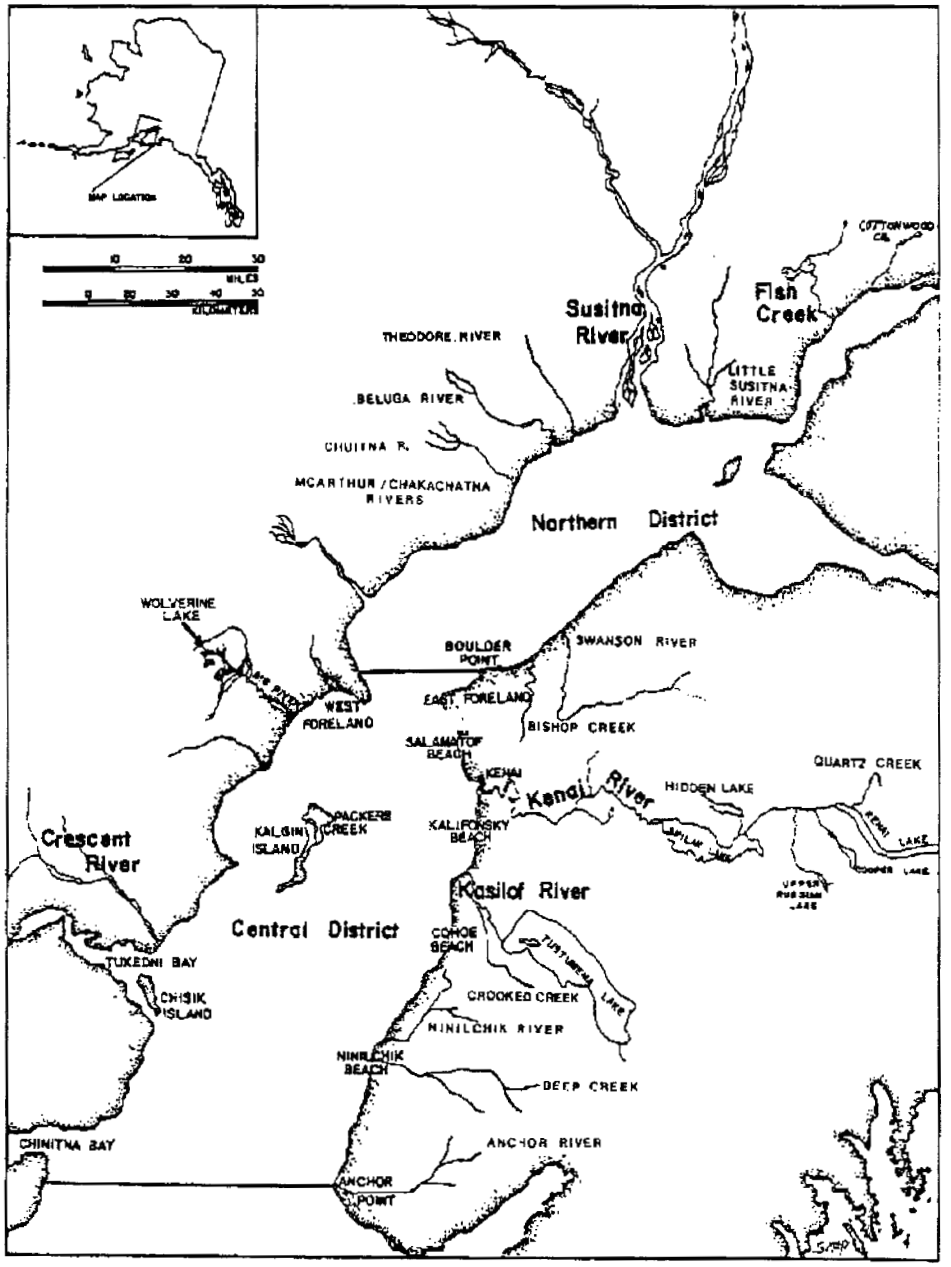

Figure 1. The Upper Cook Inlet area showing the location of the Northern and Central Districts and the primary salmon spawning drainages.

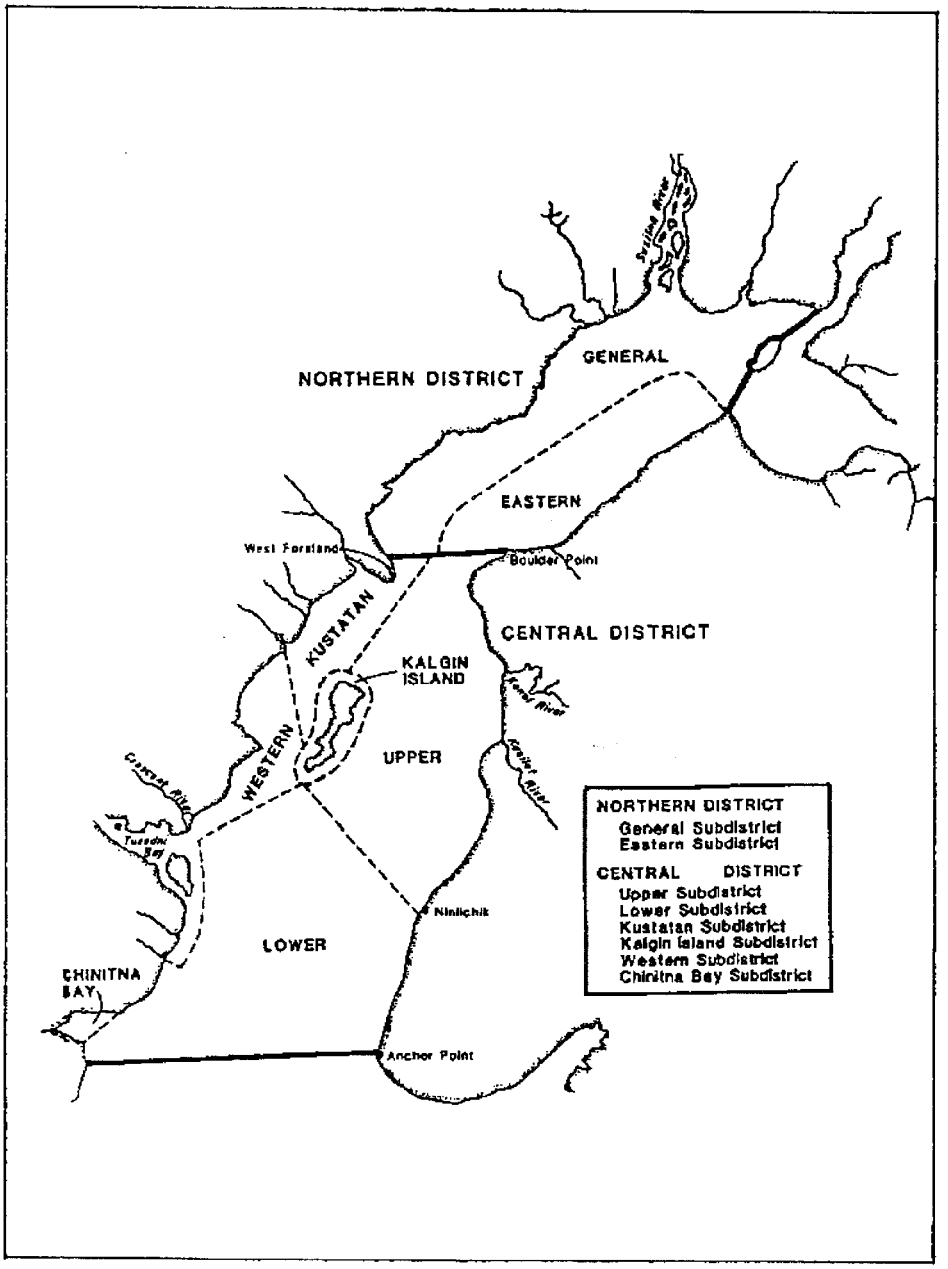

Figure 2. The Upper Cook Inlet area showing the commercial fishing districts and subdistricts.

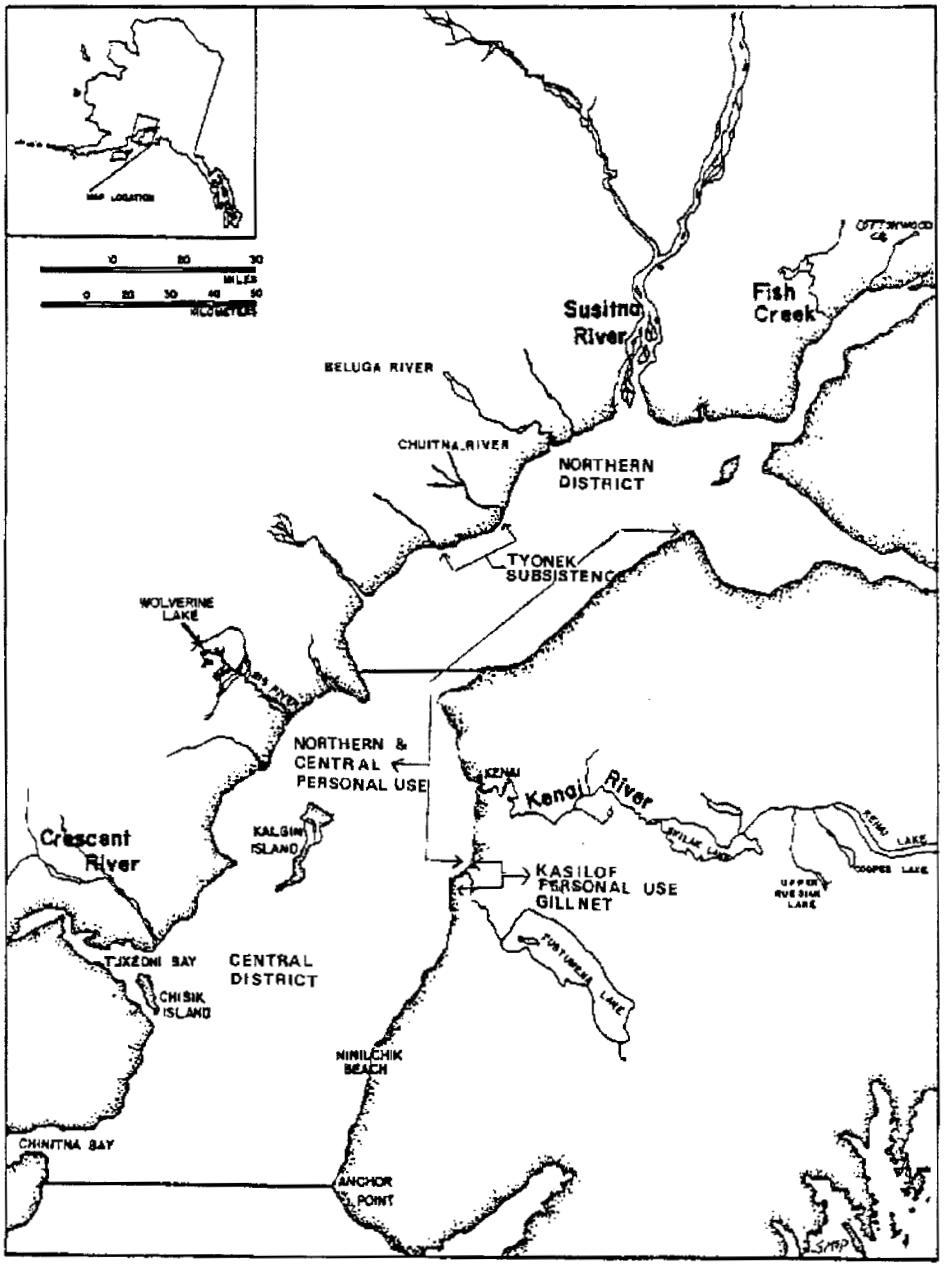

Figure 3. The Upper Cook Inlet area showing the locations of the subsistance and personal use fisheries.

APPENDICES

Appendix A.1. Upper Cook Inlet commercial harvest of chinook salmon by gear type, area and date, 1988.

			Set Net																			
			Upper Subdistrict																Northern District			
	Drift Net excluding Chinitna		Salamatof		Kalifonsky		Cohoe/Ninilchik		Total		Western		Kustatan		Kalgin		Chinitna		General		Eastern	
Date[a]	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
6-06																			2,992	2,992	519	519
6-13																			3,354	6,346	322	841
6-17											134	134								6,346		841
6-20											32	166							3,726	10,072	209	1,050
6-24											62	228								10,072		1,050
6-27	78	78									28	256	3	3	21	21			867	10,939	107	1,157
7-01	68	146	83	83	114	114	228	228	425	425	62	318	49	52	138	159			236	11,175	12	1,169
7-04	78	224	111	194	79	193	305	533	495	920	45	363	11	63	73	232			107	11,282	16	1,185
7-08	47	271	95	289	240	433	418	951	753	1,673	41	404	26	89	17	249			41	11,323	20	1,205
7-09		271		289	4	437	26	977	30	1,703	19	423		89		249				11,323		1,205
7-10	110	381		289	161	598	492	1,469	653	2,356	13	436		89		249				11,323		1,205
7-11	52	433	104	393	215	813	286	1,755	605	2,961	26	462	6	95	35	284	1	1	67	11,390	12	1,217
7-12		433	38	431	63	876	77	1,832	178	3,139	19	481		95		284		1		11,390		1,217
7-13	79	512	65	496	157	1,033	272	2,104	494	3,633	6	487		95		284		1		11,390		1,217
7-14		512		496	25	1,058	9	2,113	34	3,667	3	490		95		284		1		11,390		1,217
7-15	65	577	120	616	180	1,238	478	2,591	778	4,445	16	506	6	101	30	314		1	52	11,442	2	1,219
7-16	77	654	45	661	170	1,408	568	3,159	783	5,228		506		101		314		1		11,442		1,219
7-17	108	762	72	733	182	1,590	391	3,550	645	5,873	17	523		101		314		1		11,442		1,219
7-18	33	795	73	806	119	1,709	249	3,799	441	6,314	12	535	4	105	10	324		1	37	11,479	1	1,220
7-19	41	836	111	917	70	1,779		3,799	181	6,495	4	539		105		324		1		11,479		1,220
7-20		836		917		1,779		3,799		6,495	6	545		105		324		1		11,479		1,220
7-21		836	12	929	60	1,839	115	3,914	187	6,682	7	552		105		324		1		11,479		1,220
7-22	310	1,146	70	999	278	2,117	444	4,358	792	7,474	25	577		105	5	329		1	24	11,503	1	1,221
7-23	157	1,303	11	1,010	141	2,258	450	4,808	602	8,076		577		105		329		1		11,503		1,221
7-24	279	1,582	63	1,073	78	2,336	203	5,011	344	8,420		577		105		329		1	1	11,504		1,221
7-25	182	1,764	68	1,141	88	2,424	244	5,255	400	8,820	6	583	7	112	6	335		1		11,504		1,221
7-26	227	1,991	92	1,233	144	2,568	472	5,727	708	9,528		583		112		335		1		11,504		1,221
7-27	54	2,045	92	1,325	64	2,632		5,727	156	9,684		583		112		335		1	1	11,505		1,221
7-28	34	2,079	109	1,434	77	2,709		5,727	186	9,870		583		112		335		1	5	11,510		1,221
7-29	27	2,106	139	1,573	258	2,967	297	6,024	694	10,564	5	588	1	113	8	343		1	21	11,531	2	1,223
7-30	17	2,123	113	1,686	114	3,081		6,024	227	10,791		588		113		343		1		11,531		1,223
7-31	28	2,151	158	1,844	174	3,255		6,024	332	11,123		588		113		343		1		11,531		1,223
8-01	24	2,175	95	1,939	336	3,591	335	6,359	766	11,889	1	589	1	114	2	345		1	6	11,537	1	1,224
8-05	16	2,191	118	2,057	257	3,848	161	6,520	536	12,425	7	596	6	120	7	352		1	40	11,577	6	1,230
8-08	10	2,201	42	2,099	80	3,928	87	6,607	209	12,634	12	608		120	6	358		1	12	11,589	3	1,233
8-12	3	2,204	56	2,155	36	3,964	46	6,653	138	12,772	10	618		120	6	364		1	3	11,592		1,233
8-15	6	2,210	21	2,176	31	3,995	14	6,667	66	12,838	5	623		120	1	365	1	2		11,592	1	1,234
8-19		2,210		2,176		3,995		6,667		12,838	2	625		120	1	366		2		11,592	5	1,239
8-22		2,210		2,176		3,995		6,667		12,838		625		120		366	1	3		11,592	2	1,241
8-26	1	2,211		2,176		3,995		6,667		12,838		625		120	2	368		3		11,592	2	1,243
8-29		2,211		2,176		3,995		6,667		12,838		625		120		368		3		11,592	1	1,244
9-02		2,211		2,176		3,995		6,667		12,838	1	626		120		368		3		11,592		1,244
9-05		2,211		2,176		3,995		6,667		12,838	1	627		120		368		3		11,592		1,244

[a] Harvest by date provided by computer program from fish ticket data.

Appendix A.2. Upper Cook Inlet commercial harvest of sockeye salmon by gear type, area and date, 1988.

			Set Net																					
	Drift Net excluding Chinitna		Upper Subdistrict								Western		Kustatan		Kalgin		Chinitna		Northern District			
			Salamatof		Kalifonsky		Cohoe/Ninilchik		Total										General		Eastern	
Date[a]	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
6-06																			286	286	479	479
6-13																			845	1,131	180	659
6-17											339	339								1,131		659
6-20											540	879							107	1,238	61	720
6-24											995	1,874								1,238		720
6-27	82,364	82,364									1,974	3,848	31	31	612	612	362	362	369	1,607	736	1,456
7-01	159,582	241,946	1,878	1,878	7,016	7,016	15,874	15,874	24,768	24,768	3,146	6,994	205	236	1,112	1,724	595	957	375	1,982	481	1,937
7-04	162,297	404,243	2,841	4,719	9,025	16,041	20,574	36,448	32,440	57,208	4,742	11,736	191	427	1,144	2,868	431	1,388	633	2,615	465	2,402
7-08	392,795	797,038	2,544	7,263	8,395	24,436	24,988	61,436	35,927	93,135	3,883	15,619	251	678	554	3,422	150	1,538	784	3,399	726	3,128
7-09		797,038		7,263	3,624	28,060	4,271	65,707	7,895	101,030	2,687	18,306		678		3,422		1,538		3,399		3,128
7-10	61,741	858,779		7,263	42,004	70,064	44,185	109,892	86,189	187,219	5,581	23,887		678		3,422		1,538		3,399		3,128
7-11	805,856	1,664,635	33,777	41,040	44,157	114,221	25,327	135,219	103,261	290,480	7,985	31,872	729	1,407	1,516	4,938	57	1,595	3,090	6,489	4,494	7,622
7-12		1,664,635	57,700	98,740	41,847	156,068	19,849	155,068	119,396	409,876	5,853	37,725		1,407		4,938		1,595		6,489		7,622
7-13	118,239	1,782,874	106,981	205,721	40,450	196,518	43,731	198,799	191,162	601,038	5,062	42,787		1,407		4,938		1,595		6,489		7,622
7-14		1,782,874		205,721	1,643	198,161	1,165	199,964	2,808	603,846	2,931	45,718		1,407		4,938		1,595		6,489		7,622
7-15	595,641	2,378,515	48,326	254,047	119,752	317,913	87,798	287,762	255,876	859,722	5,897	51,615	331	1,738	2,194	7,132	82	1,677	5,017	11,506	1,515	9,137
7-16	224,969	2,603,484	23,643	277,690	55,689	373,602	55,395	343,157	134,727	994,449	1,458	53,073		1,738		7,132		1,677		11,506		9,137
7-17	235,945	2,839,429	90,704	368,394	77,548	451,150	56,680	399,837	224,932	1,219,381	7,606	60,679		1,738		7,132		1,677		11,506		9,137
7-18	357,948	3,197,377	92,226	460,620	40,129	491,279	28,941	428,778	161,296	1,380,677	8,006	68,685	1,472	3,210	5,251	12,383	173	1,850	13,361	24,867	6,450	15,587
7-19	44,528	3,241,905	61,454	522,074	34,141	525,420		428,778	95,595	1,476,272	4,374	73,059		3,210		12,383		1,850		24,867		15,587
7-20		3,241,905		522,074		525,420		428,778		1,476,272	3,455	76,514		3,210		12,383		1,850		24,867		15,587
7-21		3,241,905	41,919	563,993	62,131	587,551	25,485	454,263	129,535	1,605,807	5,711	82,225		3,210		12,383		1,850		24,867		15,587
7-22	324,299	3,566,204	79,479	643,472	107,514	695,065	67,628	521,891	254,621	1,860,428	9,024	91,249	776	3,986	4,273	16,656	21	1,871	19,826	44,693	11,984	27,571
7-23	121,865	3,688,069	38,991	682,463	41,153	736,218	30,185	552,076	110,329	1,970,757		91,249		3,986		16,656		1,871	3,676	48,369		27,571
7-24	104,354	3,792,423	40,389	722,852	21,971	758,189	12,162	564,238	74,522	2,045,279		91,249		3,986		16,656		1,871	4,621	52,990		27,571
7-25	74,226	3,866,649	16,147	738,999	16,414	774,603	9,505	573,743	42,066	2,087,345	3,065	94,314	892	4,878	3,896	20,552	53	1,924	6,896	59,886		27,571
7-26	72,816	3,939,465	24,527	763,526	25,439	800,042	17,341	591,084	67,307	2,154,652		94,314		4,878		20,552		1,924	7,331	67,217		27,571
7-27	22,177	3,961,642	18,157	781,683	17,093	817,135		591,084	35,250	2,189,902		94,314		4,878		20,552		1,924	5,713	72,930		27,571
7-28	21,871	3,983,513	23,750	805,433	28,960	846,095		591,084	52,710	2,242,612		94,314		4,878		20,552		1,924	6,345	79,275		27,571
7-29	74,574	4,058,087	26,994	832,427	27,749	873,844	20,918	612,002	75,661	2,318,273	3,245	97,559	356	5,234	3,402	23,954	12	1,936	11,677	90,952	877	28,448
7-30	5,250	4,063,337	10,253	842,680	8,744	882,588		612,002	18,997	2,337,270		97,559		5,234		23,954		1,936		90,952		28,448
7-31	2,277	4,065,614	15,631	858,311	9,731	892,319		612,002	25,362	2,362,632		97,559		5,234		23,954		1,936		90,952		28,448
8-01	20,739	4,086,353	4,221	862,532	8,530	900,849	8,034	620,036	20,785	2,383,417	572	98,131	1,041	6,275	1,885	25,839	8	1,944	1,850	92,802	349	28,797
8-05	9,022	4,095,375	13,223	875,755	5,800	906,649	7,188	627,224	26,211	2,409,628	1,283	99,414	432	6,707	1,878	27,717	14	1,958	2,811	95,613	1,101	29,898
8-08	3,558	4,098,933	2,170	877,925	2,435	909,084	4,551	631,775	9,156	2,418,784	1,138	100,552	254	6,961	1,815	29,532	14	1,972	1,671	97,284	454	30,352
8-12	977	4,099,910	3,700	881,625	835	909,919	650	632,425	5,185	2,423,969	434	100,986	11	6,972	1,480	31,012	4	1,976	294	97,578	252	30,604
8-15	3,393	4,103,303	1,566	883,191	709	910,628	172	632,597	2,447	2,426,416	491	101,477	21	6,993	876	31,888	120	2,096	336	97,914	315	30,919
8-19	47	4,103,350		883,191		910,628		632,597		2,426,416	310	101,787		6,993	800	32,688	219	2,315	70	97,984	242	31,161
8-22	3	4,103,353		883,191		910,628		632,597		2,426,416	97	101,884		6,993	272	32,960	127	2,442	109	98,093	94	31,255
8-26	29	4,103,382		883,191		910,628		632,597		2,426,416	55	101,939	6	6,999	266	33,226	2	2,444	21	98,114	76	31,331
8-29	90	4,103,472		883,191		910,628		632,597		2,426,416	63	102,002		6,999	151	33,377	37	2,481	13	98,127	34	31,365
9-02		4,103,472		883,191		910,628		632,597		2,426,416	49	102,051		6,999	80	33,457	27	2,508	159	98,286	24	31,389
9-05		4,103,472		883,191		910,628		632,597		2,426,416	2	102,053		6,999	74	33,531	28	2,536	3	98,289	24	31,413
9-09		4,103,472		883,191		910,628		632,597		2,426,416	2	102,055		6,999	158	33,689		2,536		98,289	4	31,417
9-12		4,103,472		883,191		910,628		632,597		2,426,416	2	102,057		6,999	47	33,736	1	2,537		98,289	1	31,418
9-16		4,103,472		883,191		910,628		632,597		2,426,416		102,057		6,999	11	33,747		2,537		98,289	4	31,422
9-19		4,103,472		883,191		910,628		632,597		2,426,416		102,057		6,999		33,747		2,537		98,289	2	31,424

[a] Harvest by date provided by computer program from fish ticket data.

Appendix A.3. Upper Cook Inlet commercial harvest of coho salmon by gear type, area and date, 1988.

			Set Net																			
			Upper Subdistrict																Northern District			
	Drift Net excluding Chinitna		Salamatof		Kalifonsky		Cohoe/Ninilchik		Total		Western		Kustatan		Kalgin		Chinitna		General		Eastern	
Date[a]	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
6-06																						
6-13																						
6-17											1	1										
6-20												1							2	2		
6-24											2	3								2		
6-27	1,500	1,500									4	7	1	1	9	9	2	2	18	20	1	1
7-01	2,907	4,407	23	23	9	9	13	13	45	45	22	29	30	31	99	108		2	65	85	3	4
7-04	4,425	8,832	14	37	8	17	3	16	25	70	55	84	55	86	289	397	4	6	161	246	9	13
7-08	12,409	21,241	30	67	4	21	211	227	245	315	111	195	170	256	104	501	9	15	1,639	1,885	16	29
7-09		21,241		67	1	22	2	229	3	318	67	262		256		501		15		1,885		29
7-10	1,136	22,377		67	18	40	77	306	95	413	91	353		256		501		15		1,885		29
7-11	28,608	50,985	66	133	17	57	6	312	89	502	173	526	353	609	457	958	9	24	1,088	2,973	124	153
7-12		50,985	180	313	21	78	26	338	227	729	151	677		609		958		24		2,973		153
7-13	3,734	54,719	780	1,093	26	104	233	571	1,039	1,768	179	856		609		958		24		2,973		153
7-14		54,719		1,093	3	107		571	3	1,771	169	1,025		609		958		24		2,973		153
7-15	50,813	105,532	263	1,356	281	388	139	710	683	2,454	191	1,216	126	735	1,491	2,449	23	47	916	3,889	53	206
7-16	5,894	111,426	485	1,841	123	511	78	788	686	3,140	224	1,440		735		2,449		47		3,889		206
7-17	4,976	116,402	656	2,497	231	742	95	883	982	4,122	335	1,775		735		2,449		47		3,889		206
7-18	31,812	148,214	1,067	3,564	151	893	133	1,016	1,351	5,473	503	2,278	1,687	2,422	2,465	4,914	80	127	5,815	9,704	687	893
7-19	1,630	149,844	1,153	4,717	75	968		1,016	1,228	6,701	324	2,602		2,422		4,914		127		9,704		893
7-20		149,844		4,717		968		1,016		6,701	234	2,836		2,422		4,914		127		9,704		893
7-21		149,844	194	4,911	335	1,303	68	1,084	597	7,298	442	3,278		2,422		4,914		127		9,704		893
7-22	7,284	157,128	1,303	6,214	476	1,779	453	1,537	2,232	9,530	909	4,187	2,274	4,696	2,081	6,995	53	180	39,292	48,996	2,950	3,843
7-23	1,311	158,439	268	6,482	121	1,900	789	2,326	1,178	10,708		4,187		4,696		6,995		180	516	49,512		3,843
7-24	4,661	163,100	728	7,210	72	1,972	552	2,878	1,352	12,060		4,187		4,696		6,995		180	747	50,259		3,843
7-25	2,797	165,897	676	7,886	147	2,119	743	3,621	1,566	13,626	1,024	5,211	4,794	9,490	2,900	9,895	209	389	1,963	52,222		3,843
7-26	3,763	169,660	1,095	8,981	275	2,394	1,103	4,724	2,473	16,099		5,211		9,490		9,895		389	2,091	54,313		3,843
7-27	984	170,644	454	9,435	291	2,685		4,724	745	16,844		5,211		9,490		9,895		389	1,899	56,212		3,843
7-28	973	171,617	524	9,959	576	3,261		4,724	1,100	17,944		5,211		9,490		9,895		389	2,549	58,761		3,843
7-29	43,101	214,718	1,146	11,105	820	4,081	922	5,646	2,888	20,832	1,603	6,814	1,685	11,175	1,595	11,490	459	848	14,885	73,646	738	4,581
7-30	1,639	216,357	854	11,959	1,021	5,102		5,646	1,875	22,707		6,814		11,175		11,490		848		73,646		4,581
7-31	630	216,987	1,105	13,064	1,602	6,704		5,646	2,707	25,414		6,814		11,175		11,490		848		73,646		4,581
8-01	16,622	233,609	575	13,639	1,175	7,879	1,718	7,364	3,468	28,882	738	7,552	1,250	12,425	764	12,254	434	1,282	9,052	82,698	1,083	5,664
8-05	9,619	243,228	3,615	17,254	1,368	9,247	1,973	9,337	6,956	35,838	2,737	10,289	1,304	13,729	1,308	13,562	323	1,605	16,729	99,427	1,941	7,605
8-08	6,838	250,066	2,996	20,250	1,091	10,338	2,904	12,241	6,991	42,829	2,421	12,710	1,484	15,213	2,472	16,034	292	1,897	11,192	110,619	2,166	9,771
8-12	4,317	254,383	4,543	24,793	1,262	11,600	1,455	13,696	7,260	50,089	1,990	14,700	296	15,509	1,597	17,631	819	2,716	4,113	114,732	2,281	12,052
8-15	4,002	258,385	1,855	26,648	2,092	13,692	936	14,632	4,883	54,972	1,496	16,196	215	15,724	1,719	19,350	7,595	10,311	3,087	117,819	2,467	14,519
8-19	1,010	259,395		26,648		13,692		14,632		54,972	4,205	20,401		15,724	3,262	22,612	4,732	15,043	1,171	118,990	3,122	17,641
8-22	1,104	260,499		26,648		13,692		14,632		54,972	1,287	21,688	91	15,815	1,298	23,910	2,660	17,703	1,821	120,811	2,839	20,480
8-26	1,700	262,199		26,648		13,692		14,632		54,972	563	22,251	110	15,925	958	24,868	1,406	19,109	891	121,702	2,146	22,626
8-29	663	262,862		26,648		13,692		14,632		54,972	1,491	23,742		15,925	1,141	26,009	1,630	20,739	513	122,215	1,497	24,123
9-02	101	262,963		26,648		13,692		14,632		54,972	806	24,548		15,925	519	26,528	965	21,704	477	122,692	1,142	25,265
9-05	40	263,003		26,648		13,692		14,632		54,972	260	24,808		15,925	405	26,933	960	22,664	435	123,127	678	25,943
9-09	1	263,004		26,648		13,692		14,632		54,972	315	25,123		15,925	329	27,262	41	22,705	152	123,279	243	26,186
9-12		263,004		26,648		13,692		14,632		54,972	268	25,391		15,925	183	27,445	20	22,725	42	123,321	96	26,282
9-16		263,004		26,648		13,692		14,632		54,972		25,391		15,925	56	27,501		22,725	35	123,356	48	26,330
9-19		263,004		26,648		13,692		14,632		54,972		25,391		15,925		27,501		22,725		123,356	56	26,386

[a] Harvest by date provided by computer program from fish ticket data.

Appendix A.4. Upper Cook Inlet commercial harvest of chum salmon by gear type, area and date, 1988.

			Set Net																			
	Drift Net excluding Chinitna		Upper Subdistrict																Northern District			
			Salamatof		Kalifonsky		Cohoe/Ninilchik		Total		Western		Kustatan		Kalgin		Chinitna		General		Eastern	
Date[a]	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
6-06																						
6-13																						
6-17																						
6-20											3	3							4	4		
6-24											2	5								4		
6-27	7,435	7,435									5	10	1	1	1	1	28	28	30	34	6	6
7-01	12,947	20,382	2	2	3	3	4	4	9	9	14	24		1		1	82	110	8	42	11	17
7-04	14,058	34,440	5	7	7	10		4	12	21	108	132	1	2	3	4	139	249	25	67		17
7-08	31,070	65,510	6	13		10	53	57	59	80	52	184	7	9	3	7	426	675	802	869	1	18
7-09		65,510		13		10	1	58	1	81	73	257		9		7		675		869		18
7-10	4,925	70,435		13	1	11	3	61	4	85	169	426		9		7		675		869		18
7-11	81,647	152,082	13	26	4	15	2	63	19	104	225	651	3	12	10	17	213	888	278	1,147	15	33
7-12		152,082	102	128	4	19	2	65	108	212	160	811		12		17		888		1,147		33
7-13	9,750	161,832	661	789	1	20	8	73	670	882	99	910		12		17		888		1,147		33
7-14		161,832		789		20		73		882	82	992		12		17		888		1,147		33
7-15	128,454	290,286	14	803	56	76	11	84	81	963	189	1,181		12	14	31	571	1,459	63	1,210	12	45
7-16	18,524	308,810	175	978	46	122	20	104	241	1,204	26	1,207		12		31		1,459		1,210		45
7-17	13,768	322,578	568	1,546	87	209	27	131	682	1,886	583	1,790		12		31		1,459		1,210		45
7-18	86,106	408,684	2,789	4,335	27	236	36	167	2,852	4,738	711	2,501	6	18	378	409	797	2,256	2,902	4,112	991	1,036
7-19	3,287	411,971	1,700	6,035	15	251		167	1,715	6,453	139	2,640		18		409		2,256		4,112		1,036
7-20		411,971		6,035		251		167		6,453	430	3,070		18		409		2,256		4,112		1,036
7-21		411,971	91	6,126	4	255	40	207	135	6,588	920	3,990		18		409		2,256		4,112		1,036
7-22	10,282	422,253	398	6,524	157	412	167	374	722	7,310	1,070	5,060	3	21	180	589	336	2,592	15,321	19,433	1,545	2,581
7-23	1,156	423,409	118	6,642	15	427	189	563	322	7,632		5,060		21		589		2,592	133	19,566		2,581
7-24	5,924	429,333	276	6,918		427	166	729	442	8,074		5,060		21		589		2,592	177	19,743		2,581
7-25	3,890	433,223	196	7,114	46	473	37	766	279	8,353	1,289	6,349	18	39	101	690	689	3,281	415	20,158		2,581
7-26	3,167	436,390	241	7,355	24	497	140	906	405	8,758		6,349		39		690		3,281	626	20,784		2,581
7-27	2,592	438,982	161	7,516	58	555		906	219	8,977		6,349		39		690		3,281	538	21,322		2,581
7-28	1,674	440,656	193	7,709	45	600		906	238	9,215		6,349		39		690		3,281	519	21,841		2,581
7-29	64,142	504,798	227	7,936	43	643	76	982	346	9,561	2,973	9,322	45	84	100	790	2,430	5,711	8,691	30,532	484	3,065
7-30	1,765	506,563	232	8,168	61	704		982	293	9,854		9,322		84		790		5,711		30,532		3,065
7-31	711	507,274	138	8,306	93	797		982	231	10,085		9,322		84		790		5,711		30,532		3,065
8-01	32,485	539,759	114	8,420	25	822	101	1,083	240	10,325	1,198	10,520	417	501	49	839	1,596	7,307	6,031	36,563	308	3,373
8-05	14,333	554,092	402	8,822	16	838	140	1,223	558	10,883	3,115	13,635	84	585	170	1,009	2,203	9,510	19,121	55,684	1,124	4,497
8-08	11,532	565,624	345	9,167	35	873	127	1,350	507	11,390	1,678	15,313	109	694	169	1,178	2,127	11,637	8,104	63,788	369	4,866
8-12	4,164	569,788	149	9,316	80	953	75	1,425	304	11,694	790	16,103	10	704	62	1,240	3,107	14,744	1,575	65,363	120	4,986
8-15	2,632	572,420	33	9,349	16	969	19	1,444	68	11,762	1,030	17,133	11	715	368	1,608	5,368	20,112	3,544	68,907	341	5,327
8-19	453	572,873		9,349		969		1,444		11,762	692	17,825		715	315	1,923	2,233	22,345	878	69,785	147	5,474
8-22	218	573,091		9,349		969		1,444		11,762	124	17,949	14	729	325	2,248	1,450	23,795	139	69,924	28	5,502
8-26	289	573,380		9,349		969		1,444		11,762	121	18,070	2	731	73	2,321	229	24,024	131	70,055	49	5,551
8-29	64	573,444		9,349		969		1,444		11,762	5	18,075		731	34	2,355	203	24,227	8	70,063	15	5,566
9-02		573,444		9,349		969		1,444		11,762	43	18,118		731	22	2,377	101	24,328	51	70,114	13	5,579
9-05	1	573,445		9,349		969		1,444		11,762	1	18,119		731	2	2,379	68	24,396	18	70,132	4	5,583
9-09		573,445		9,349		969		1,444		11,762	1	18,120		731	2	2,381		24,396	2	70,134	3	5,586
9-12		573,445		9,349		969		1,444		11,762	2	18,122		731	1	2,382	2	24,398		70,134	2	5,588
9-16		573,445		9,349		969		1,444		11,762		18,122		731		2,382		24,398	2	70,136	1	5,589
9-19		573,445		9,349		969		1,444		11,762		18,122		731		2,382		24,398		70,136	3	5,592

[a] Harvest by date provided by computer program from fish ticket data.

Appendix A.5. Estimated sockeye salmon escapement into the Kenai River (north and south banks combined) from 1 July to 9 August, 1988 with apportioned counts for other species.[a]

Date	Sockeye		Pink		Chum		Coho		Chinook		Total[b]	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-01 Fri	214	214									214	214
7-02 Sat	169	383									169	383
7-03 Sun	270	653							1	1	271	654
7-04 Mon	290	943							1	2	291	945
7-05 Tue	544	1,487							1	3	545	1,490
7-06 Wed	664	2,151							1	4	665	2,155
7-07 Thu	417	2,568							1	5	418	2,573
7-08 Fri	237	2,805								5	237	2,810
7-09 Sat	486	3,291							1	6	487	3,297
7-10 Sun	7,939	11,230							23	29	7,962	11,259
7-11 Mon	53,012	64,242							150	179	53,162	64,421
7-12 Tue	26,069	90,311							74	253	26,143	90,564
7-13 Wed	53,630	143,941								253	53,630	144,194
7-14 Thu	45,073	189,014							161	414	45,234	189,428
7-15 Fri	37,434	226,448							133	547	37,567	226,995
7-16 Sat	53,789	280,237								547	53,789	280,784
7-17 Sun	28,830	309,067								547	28,830	309,614
7-18 Mon	38,409	347,476								547	38,409	348,023
7-19 Tue	35,297	382,773								547	35,297	383,320
7-20 Wed	34,600	417,373								547	34,600	417,920
7-21 Thu	56,523	473,896								547	56,523	474,443
7-22 Fri	107,076	580,972	363	363						547	107,439	581,882
7-23 Sat	112,284	693,256	381	744						547	112,665	694,547
7-24 Sun	66,732	759,988		744					410	957	67,142	761,689
7-25 Mon	42,321	802,309		744						957	42,321	804,010
7-26 Tue	26,958	829,267	115	859					116	1,073	27,189	831,199
7-27 Wed	15,250	844,517	65	924			66	66		1,073	15,381	846,580
7-28 Thu	9,088	853,605	39	963			39	105		1,073	9,166	855,746
7-29 Fri	8,348	861,953	501	1,464			55	160	446	1,519	9,350	865,096
7-30 Sat	2,908	864,861	174	1,638			20	180	155	1,674	3,257	868,353
7-31 Sun	3,591	868,452	168	1,806				180	100	1,774	3,859	872,212

-Continued-

Appendix A.5. (p. 2 of 2)

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
8-01 Mon	4,356	872,808	204	2,010				180	122	1,896	4,682	876,894
8-02 Tue	5,017	877,825	234	2,244				180	141	2,037	5,392	882,286
8-03 Wed	4,028	881,853	168	2,412			31	211	15	2,052	4,242	886,528
8-04 Thu	10,387	892,240	433	2,845			79	290	39	2,091	10,938	897,466
8-05 Fri	20,523	912,763	368	3,213			92	382	92	2,183	21,075	918,541
8-06 Sat	20,928	933,691	707	3,920			141	523		2,183	21,776	940,317
8-07 Sun	19,428	953,119	1,750	5,670			460	983	276	2,459	21,914	962,231
8-08 Mon	11,440	964,559	545	6,215			241	1,224		2,459	12,226	974,457
8-09 Tue	8,710	973,269	2,546	8,761			588	1,812	955	3,414	12,799	987,256
	48,200[c]	1,021,469									48,200	1,035,456

[a] Source: King and Tarbox (1989)
[b] Daily fish targets are apportioned by species based on fishwheel catches.
[c] Escapement estimate for fish passing the enumeration site after termination of the counting project.

Appendix A.6. Salmon escapement at Russian River weir including early and late sockeye salmon runs, 1988.[a]

Date[b]	Sockeye		Pink		Chum		Coho		Chinook		Total[c]	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
EARLY RUN:												
6-17 Fri	1,552	1,552									1,552	1,552
6-18 Sat	2,706	4,258									2,706	4,258
6-19 Sun	523	4,781									523	4,781
6-20 Mon	4,858	9,639									4,858	9,639
6-21 Tue	2,555	12,194									2,555	12,194
6-22 Wed	3,283	15,477									3,283	15,477
6-23 Thu	1,221	16,698									1,221	16,698
6-24 Fri	861	17,559									861	17,559
6-25 Sat	1,032	18,591									1,032	18,591
6-26 Sun	2,369	20,960									2,369	20,960
6-27 Mon	3,479	24,439									3,479	24,439
6-28 Tue	3,109	27,548									3,109	27,548
6-29 Wed	800	28,348									800	28,348
6-30 Thu	4,824	33,172									4,824	33,172
7-01 Fri	2,276	35,448									2,276	35,448
7-02 Sat	105	35,553									105	35,553
7-03 Sun	1,854	37,407									1,854	37,407
7-04 Mon	650	38,057									650	38,057
7-05 Tue	1,400	39,457									1,400	39,457
7-06 Wed	2,350	41,807									2,350	41,807
7-07 Thu	2,579	44,386									2,579	44,386
7-08 Fri	1,122	45,508									1,122	45,508
7-09 Sat	1,419	46,927									1,419	46,927
7-10 Sun	800	47,727									800	47,727
7-11 Mon	863	48,590									863	48,590
7-12 Tue	811	49,401									811	49,401
7-13 Wed	290	49,691									290	49,691
7-14 Thu	329	50,020									329	50,020

-Continued-

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Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-15 Fri	29	50,049									29	50,049
7-16 Sat	101	50,150									101	50,150
7-17 Sun	185	50,335									185	50,335
7-18 Mon	43	50,378									43	50,378
7-19 Tue	21	50,399									21	50,399
7-20 Wed	7	50,406									7	50,406
LATE RUN:												
7-17 Sun	21	21									21	21
7-18 Mon	127	148									127	148
7-19 Tue	461	609									461	609
7-20 Wed	465	1,074									465	1,074
7-21 Thu	291	1,365									291	1,365
7-22 Fri	439	1,804									439	1,804
7-23 Sat	721	2,525									721	2,525
7-24 Sun	1,384	3,909									1,384	3,909
7-25 Mon	1,208	5,117									1,208	5,117
7-26 Tue	1,161	6,278									1,161	6,278
7-27 Wed	1,201	7,479									1,201	7,479
7-28 Thu	1,002	8,481									1,002	8,481
7-29 Fri	858	9,339									858	9,339
7-30 Sat	2,785	12,124									2,785	12,124
7-31 Sun	19	12,143									19	12,143
8-01 Mon	1,904	14,047									1,904	14,047
8-02 Tue	595	14,642									595	14,642
8-03 Wed	1,361	16,003									1,361	16,003
8-04 Thu	827	16,830									827	16,830
8-05 Fri	938	17,768									938	17,768
8-06 Sat	1,280	19,048									1,280	19,048

-Continued-

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Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
8-07 Sun	356	19,404									356	19,404
8-08 Mon	1,333	20,737									1,333	20,737
8-09 Tue	688	21,425									688	21,425
8-10 Wed	395	21,820									395	21,820
8-11 Thu	222	22,042									222	22,042
8-12 Fri	57	22,099									57	22,099
8-13 Sat	602	22,701									602	22,701
8-14 Sun	1,410	24,111									1,410	24,111
8-15 Mon	1,182	25,293									1,182	25,293
8-16 Tue	2,179	27,472									2,179	27,472
8-17 Wed	2,566	30,038									2,566	30,038
8-18 Thu	2,038	32,076									2,038	32,076
8-19 Fri	726	32,802									726	32,802
8-20 Sat	2,844	35,646									2,844	35,646
8-21 Sun	929	36,575									929	36,575
8-22 Mon	8	36,583									8	36,583
8-23 Tue	1,515	38,098									1,515	38,098
8-24 Wed	2,441	40,539									2,441	40,539
8-25 Thu	198	40,737									198	40,737
8-26 Fri	1,505	42,242									1,505	42,242
8-27 Sat	32	42,274									32	42,274
8-28 Sun	49	42,323									49	42,323
8-29 Mon	17	42,340									17	42,340
8-30 Tue	38	42,378									38	42,378
8-31 Wed	22	42,400									22	42,400
9-01 Thu	6	42,406									6	42,406
9-02 Fri	23	42,429									23	42,429
9-03 Sat	4	42,433									4	42,433

-Continued-

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Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
9-04 Sun		42,433										42,433
9-05 Mon	3	42,436									3	42,436
9-06 Tue	19	42,455									19	42,455
9-07 Wed	2	42,457									2	42,457
9-08 Thu	2	42,459									2	42,459
9-09 Fri	1	42,460									1	42,460
9-10 Sat	4	42,464									4	42,464
9-11 Sun	12	42,476									12	42,476

[a] Source: Hammarstrom and Athons (1989)
[b] Early sockeye run defined as 17 June to 20 July and late run defined as 17 July to 11 September. Differentiation between the two runs was based on subjective observation of external maturation characteristics (i.e. coloration phase).
[c] Total represents a breakdown of the early and late runs.

Appendix A.7. Salmon escapement at Hidden Creek weir, 1988.[a]

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-16 Sat	14	14									14	14
7-17 Sun	2,271	2,285									2,271	2,285
7-18 Mon	3,321	5,606									3,321	5,606
7-19 Tue	2,220	7,826									2,220	7,826
7-20 Wed	2,304	10,130									2,304	10,130
7-21 Thu	2,049	12,179									2,049	12,179
7-22 Fri	2,362	14,541									2,362	14,541
7-23 Sat	1,810	16,351									1,810	16,351
7-24 Sun	3,269	19,620									3,269	19,620
7-25 Mon	1,578	21,198									1,578	21,198
7-26 Tue	1,716	22,914									1,716	22,914
7-27 Wed	2,082	24,996									2,082	24,996
7-28 Thu	2,716	27,712									2,716	27,712
7-29 Fri	5,242	32,954									5,242	32,954
7-30 Sat	3,825	36,779									3,825	36,779
7-31 Sun	1,070	37,849									1,070	37,849
8-01 Mon	465	38,314									465	38,314
8-02 Tue	2,015	40,329									2,015	40,329
8-03 Wed	695	41,024									695	41,024
8-04 Thu	77	41,101									77	41,101
8-05 Fri	243	41,344									243	41,344
8-06 Sat	142	41,486									142	41,486
8-07 Sun	828	42,314									828	42,314
8-08 Mon	908	43,222									908	43,222
8-09 Tue	683	43,905									683	43,905
8-10 Wed	1,700	45,605									1,700	45,605
8-11 Thu	1,264	46,869									1,264	46,869
8-12 Fri	110	46,979									110	46,979
8-13 Sat	1,132	48,111									1,132	48,111
8-14 Sun	41	48,152									41	48,152
8-15 Mon	811	48,963									811	48,963
8-16 Tue	241	49,204									241	49,204
8-17 Wed	355	49,559									355	49,559

-Continued-

Appendix A.7. (p. 2 of 2)

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
8-18 Thu	336	49,895									336	49,895
8-19 Fri	224	50,119									224	50,119
8-20 Sat	622	50,741									622	50,741
8-21 Sun	71	50,812									71	50,812
8-22 Mon	85	50,897									85	50,897
8-23 Tue	10	50,907									10	50,907

[a] Source: G. Kyle, Alaska Department of Fish and Game, Soldotna, personal communication.

Appendix A.8. Estimated sockeye salmon escapement into the Kasilof River (north and south banks combined) from 15 June to 8 August, 1988 with apportioned counts for other species.[a]

Date	Sockeye		Pink		Chum		Coho		Chinook		Total[b]	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
	1,300[c]	1,300									1,300	1,300
6-15 Wed	781	2,081							8	8	789	2,089
6-16 Thu	698	2,779							8	16	706	2,795
6-17 Fri	459	3,238							5	21	464	3,259
6-18 Sat	497	3,735							6	27	503	3,762
6-19 Sun	507	4,242							6	33	513	4,275
6-20 Mon	673	4,915							8	41	681	4,956
6-21 Tue	860	5,775							10	51	870	5,826
6-22 Wed	1,218	6,993							14	65	1,232	7,058
6-23 Thu	1,088	8,081							12	77	1,100	8,158
6-24 Fri	1,816	9,897							20	97	1,836	9,994
6-25 Sat	1,803	11,700							21	118	1,824	11,818
6-26 Sun	1,805	13,505							31	149	1,836	13,654
6-27 Mon	2,505	16,010							13	162	2,518	16,172
6-28 Tue	4,178	20,188							189	351	4,367	20,539
6-29 Wed	3,585	23,773							33	384	3,618	24,157
6-30 Thu	2,429	26,202								384	2,429	26,586
7-01 Fri	1,800	28,002							46	430	1,846	28,432
7-02 Sat	741	28,743							85	515	826	29,258
7-03 Sun	1,072	29,815							122	637	1,194	30,452
7-04 Mon	4,246	34,061							74	711	4,320	34,772
7-05 Tue	1,558	35,619							60	771	1,618	36,390
7-06 Wed	3,146	38,765							55	826	3,201	39,591
7-07 Thu	7,667	46,432							56	882	7,723	47,314
7-08 Fri	3,544	49,976							27	909	3,571	50,885
7-09 Sat	7,982	57,958	72	72					235	1,144	8,289	59,174
7-10 Sun	11,401	69,359		72					500	1,644	11,901	71,075
7-11 Mon	7,581	76,940		72					53	1,697	7,634	78,709
7-12 Tue	9,110	86,050		72					324	2,021	9,434	88,143
7-13 Wed	4,991	91,041	8	80					131	2,152	5,130	93,273
7-14 Thu	2,153	93,194	136	216					87	2,239	2,376	95,649
7-15 Fri	6,897	100,091	44	260					153	2,392	7,094	102,743

-Continued-

Appendix A.8. (p. 2 of 2)

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-16 Sat	2,525	102,616	19	279					65	2,457	2,609	105,352
7-17 Sun	2,257	104,873	24	303					141	2,598	2,422	107,774
7-18 Mon	1,880	106,753	26	329					38	2,636	1,944	109,718
7-19 Tue	2,980	109,733	40	369					61	2,697	3,081	112,799
7-20 Wed	7,236	116,969	65	434					97	2,794	7,398	120,197
7-21 Thu	13,246	130,215	83	517					207	3,001	13,536	133,733
7-22 Fri	9,643	139,858	64	581					127	3,128	9,834	143,567
7-23 Sat	1,280	141,138	33	614					112	3,240	1,425	144,992
7-24 Sun	776	141,914	20	634					68	3,308	864	145,856
7-25 Mon	646	142,560	16	650					57	3,365	719	146,575
7-26 Tue	704	143,264	20	670					61	3,426	785	147,360
7-27 Wed	632	143,896	16	686			8	8	28	3,454	684	148,044
7-28 Thu	771	144,667	20	706			10	18	34	3,488	835	148,879
7-29 Fri	885	145,552	22	728			12	30	39	3,527	958	149,837
7-30 Sat	426	145,978	11	739			5	35	19	3,546	461	150,298
7-31 Sun	599	146,577	15	754			7	42	27	3,573	648	150,946
8-01 Mon	636	147,213	233	987			16	58	62	3,635	947	151,893
8-02 Tue	481	147,694	176	1,163			12	70	47	3,682	716	152,609
8-03 Wed	629	148,323	231	1,394			15	85	62	3,744	937	153,546
8-04 Thu	988	149,311	362	1,756			24	109	96	3,840	1,470	155,016
8-05 Fri	966	150,277	352	2,108			24	133	94	3,934	1,436	156,452
8-06 Sat	511	150,788	186	2,294			13	146	50	3,984	760	157,212
8-07 Sun	567	151,355	207	2,501			14	160	55	4,039	843	158,055
8-08 Mon	501	151,856	184	2,685			12	172	49	4,088	746	158,801
		204,000[d]										

[a] Source: King and Tarbox (1989)
[b] Daily total fish targets are apportioned by species based on fishwheel catches.
[c] Escapement estimated prior to 15 June.
[d] Final escapement estimate based on spawning ground surveys and weir counts.

Appendix A.9. Chinook salmon escapement at Crooked Creek, 1988.[a]

	Age				
Date	Age 1 Ocean Jack	Age 2 Ocean Jacks	Age 3 and 4 Adults	Daily	Accum[b]
6/28	24	65	91	180	156
7/1	0	0	62	62	218
7/5	67	250	172	489	640
7/7	62	233	244	539	1117
7/8	51	190	145	386	1452
7/11	87	180	246	513	1878
7/12	55	103	164	322	2145
7/13	41	77	149	267	2371
7/15	36	92	170	298	2633
7/18	105	202	150	457	2985
7/19	70	86	141	297	3212
7/20	32	59	90	181	3361
7/23	0	0	123	123	3484
7/25	50	70	49	169	3603
7/27	58	56	57	171	3716
7/29	68	44	25	137	3785
8/5	39	6	5	50	3796
Total	845	1713	2083	4641	

[a] Source: Kyle and Litchfield (1989)
[b] Does not include age 1 ocean Jacks

Appendix A.10. Estimated sockeye salmon escapement into the Crescent River (north and south banks combined) from 1-31 July, 1988 with apportioned counts for other species.[a]

Date	Sockeye		Pink		Chum		Coho		Chinook		Total[b]	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-01 Fri	490	490							6	6	496	496
7-02 Sat	1,682	2,172							23	29	1,705	2,201
7-03 Sun	6,456	8,628							89	118	6,545	8,746
7-04 Mon	4,261	12,889							59	177	4,320	13,066
7-05 Tue	2,630	15,519							37	214	2,667	15,733
7-06 Wed	4,011	19,530							56	270	4,067	19,800
7-07 Thu	3,769	23,299							52	322	3,821	23,621
7-08 Fri	4,846	28,145							67	389	4,913	28,534
7-09 Sat	3,843	31,988							53	442	3,896	32,430
7-10 Sun	1,525	33,513			13	13	4	4	13	455	1,555	33,985
7-11 Mon	987	34,500			8	21	2	6	9	464	1,006	34,991
7-12 Tue	1,558	36,058			13	34	5	11	13	477	1,589	36,580
7-13 Wed	1,735	37,793			14	48	5	16	15	492	1,769	38,349
7-14 Thu	1,934	39,727			16	64	6	22	16	508	1,972	40,321
7-15 Fri	194	39,921			2	66	1	23	1	509	198	40,519
7-16 Sat	332	40,253			3	69	1	24	3	512	339	40,858
7-17 Sun	1,153	41,406			9	78	3	27	10	522	1,175	42,033
7-18 Mon	1,739	43,145			14	92	5	32	15	537	1,773	43,806
7-19 Tue	1,379	44,524			11	103	4	36	12	549	1,406	45,212
7-20 Wed	549	45,073	6	6	5	108	11	47		549	571	45,783
7-21 Thu	1,552	46,625	12	18	18	126	30	77		549	1,612	47,395
7-22 Fri	1,148	47,773	8	26	14	140	22	99		549	1,192	48,587
7-23 Sat	1,456	49,229	12	38	16	156	28	127		549	1,512	50,099
7-24 Sun	1,833	51,062	14	52	22	178	35	162		549	1,904	52,003
7-25 Mon	1,873	52,935	14	66	22	200	36	198		549	1,945	53,948
7-26 Tue	1,353	54,288	11	77	15	215	26	224		549	1,405	55,353
7-27 Wed	1,078	55,366	8	85	12	227	21	245		549	1,119	56,472
7-28 Thu	321	55,687		85	429	656		245		549	750	57,222
7-29 Fri	654	56,341		85	873	1,529		245		549	1,527	58,749
7-30 Sat	731	57,072		85	974	2,503		245		549	1,705	60,454
7-31 Sun	644	57,716		85	859	3,362		245		549	1,503	61,957

[a] Source: King and Tarbox (1989)
[b] Daily fish targets are apportioned by species based on a combination of test fishery gill net and inriver trap catches .

Appendix A.11. Salmon escapement at Packers Creek weir, Kalgin Island, 1988.[a]

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
5-16 Mon												
5-17 Tue												
5-18 Wed												
5-19 Thu												
5-20 Fri												
5-21 Sat												
5-22 Sun												
5-23 Mon												
5-24 Tue												
5-25 Wed												
5-26 Thu	2	2									2	2
5-27 Fri	4	6									4	6
5-28 Sat	7	13									7	13
5-29 Sun		13										13
5-30 Mon	3	16									3	16
5-31 Tue	7	23									7	23
6-01 Wed	3	26									3	26
6-02 Thu	8	34									8	34
6-03 Fri	12	46									12	46
6-04 Sat	8	54									8	54
6-05 Sun	5	59									5	59
6-06 Mon	11	70									11	70
6-07 Tue	11	81									11	81
6-08 Wed	31	112									31	112
6-09 Thu	26	138									26	138
6-10 Fri	42	180									42	180
6-11 Sat	32	212									32	212
6-12 Sun	45	257									45	257
6-13 Mon	30	287									30	287
6-14 Tue	9	296									9	296
6-15 Wed	11	307									11	307
6-16 Thu	5	312									5	312
6-17 Fri	17	329									17	329

-Continued-

Appendix A.11. (p. 2 of 4)

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
6-18 Sat	15	344									15	344
6-19 Sun	133	477									133	477
6-20 Mon		477										477
6-21 Tue	26	503									26	503
6-22 Wed	24	527									24	527
6-23 Thu		527										527
6-24 Fri	98	625									98	625
6-25 Sat	49	674									49	674
6-26 Sun	41	715									41	715
6-27 Mon	6	721									6	721
6-28 Tue	52	773									52	773
6-29 Wed	48	821									48	821
6-30 Thu	41	862									41	862
7-01 Fri	51	913									51	913
7-02 Sat	60	973									60	973
7-03 Sun	12	985									12	985
7-04 Mon	8	993									8	993
7-05 Tue		993										993
7-06 Wed	25	1,018									25	1,018
7-07 Thu	43	1,061									43	1,061
7-08 Fri	26	1,087									26	1,087
7-09 Sat	31	1,118									31	1,118
7-10 Sun	12	1,130									12	1,130
7-11 Mon	22	1,152									22	1,152
7-12 Tue	17	1,169									17	1,169
7-13 Wed	8	1,177									8	1,177
7-14 Thu	46	1,223									46	1,223
7-15 Fri	65	1,288									65	1,288
7-16 Sat	638	1,926									638	1,926
7-17 Sun	280	2,206									280	2,206
7-18 Mon	393	2,599									393	2,599
7-19 Tue	548	3,147									548	3,147

-Continued-

Appendix A.11. (p. 3 of 4)

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-20 Wed	417	3,564									417	3,564
7-21 Thu	241	3,805									241	3,805
7-22 Fri	229	4,034									229	4,034
7-23 Sat	426	4,460									426	4,460
7-24 Sun	247	4,707									247	4,707
7-25 Mon	437	5,144									437	5,144
7-26 Tue	837	5,981									837	5,981
7-27 Wed	105	6,086									105	6,086
7-28 Thu	751	6,837									751	6,837
7-29 Fri	575	7,412									575	7,412
7-30 Sat	685	8,097									685	8,097
7-31 Sun	783	8,880									783	8,880
8-01 Mon	354	9,234									354	9,234
8-02 Tue	266	9,500									266	9,500
8-03 Wed	560	10,060									560	10,060
8-04 Thu	436	10,496									436	10,496
8-05 Fri	528	11,024									528	11,024
8-06 Sat	122	11,146									122	11,146
8-07 Sun	281	11,427									281	11,427
8-08 Mon	425	11,852									425	11,852
8-09 Tue	504	12,356									504	12,356
8-10 Wed	407	12,763									407	12,763
8-11 Thu	740	13,503									740	13,503
8-12 Fri	481	13,984									481	13,984
8-13 Sat	350	14,334									350	14,334
8-14 Sun	475	14,809									475	14,809
8-15 Mon	215	15,024									215	15,024
8-16 Tue	289	15,313									289	15,313
8-17 Wed	191	15,504									191	15,504
8-18 Thu	84	15,588									84	15,588
8-19 Fri	29	15,617									29	15,617
8-20 Sat	66	15,683									66	15,683
8-21 Sun	105	15,788									105	15,788

-Continued-

Appendix A.11. (p. 4 of 4)

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
8-22 Mon	429	16,217									429	16,217
8-23 Tue	197	16,414									197	16,414
8-24 Wed	240	16,654									240	16,654
8-25 Thu	105	16,759									105	16,759
8-26 Fri	324	17,083									324	17,083
8-27 Sat	191	17,274									191	17,274
8-28 Sun	188	17,462									188	17,462
8-29 Mon	297	17,759									297	17,759
8-30 Tue	155	17,914									155	17,914
8-31 Wed	69	17,983									69	17,983
9-01 Thu	98	18,081									98	18,081
9-02 Fri	65	18,146									65	18,146
9-03 Sat	36	18,182									36	18,182
9-04 Sun	48	18,230									48	18,230
9-05 Mon	98	18,328									98	18,328
9-06 Tue	59	18,387									59	18,387
9-07 Wed	8	18,395									8	18,395
9-08 Thu	36	18,431									36	18,431
9-09 Fri	60	18,491									60	18,491
9-10 Sat	12	18,503									12	18,503
9-11 Sun	29	18,532									29	18,532
9-12 Mon	34	18,566									34	18,566
9-13 Tue	20	18,586									20	18,586
9-14 Wed	20	18,606									20	18,606
9-15 Thu	1	18,607									1	18,607
9-16 Fri		18,607										18,607

[a] Source: Marcuson (1988)

Appendix A.12. Salmon escapement at Anchor River weir, 1988.[a]

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-06 Wed	1	1	1	1					1	1	3	3
7-07 Thu		1		1						1		3
7-08 Fri		1	7	8					10	11	17	20
7-09 Sat		1	15	23					3	14	18	38
7-10 Sun	1	2	14	37					24	38	39	77
7-11 Mon		2	2	39					10	48	12	89
7-12 Tue		2	6	45					2	50	8	97
7-13 Wed		2	3	48					12	62	15	112
7-14 Thu		2	2	50					6	68	8	120
7-15 Fri		2	6	56					1	69	7	127
7-16 Sat	1	3	17	73					7	76	25	152
7-17 Sun	1	4	11	84					23	99	35	187
7-18 Mon		4	9	93					16	115	25	212
7-19 Tue	2	6	7	100						115	9	221
7-20 Wed		6	2	102					5	120	7	228
7-21 Thu		6	8	110					3	123	11	239
7-22 Fri		6	13	123					4	127	17	256
7-23 Sat	1	7	5	128					3	130	9	265
7-24 Sun		7	2	130					4	134	6	271
7-25 Mon		7	11	141	2	2			11	145	24	295
7-26 Tue		7	6	147	2	4			4	149	12	307
7-27 Wed	1	8	8	155		4			5	154	14	321
7-28 Thu	1	9	7	162		4			15	169	23	344
7-29 Fri	1	10	15	177		4			30	199	46	390
7-30 Sat		10	2	179		4	1	1	11	210	14	404
7-31 Sun	2	12	30	209		4	2	3	8	218	42	446
8-01 Mon		12	8	217	1	5		3	5	223	14	460
8-02 Tue		12	13	230	1	6	4	7	3	226	21	481
8-03 Wed	2	14		230	2	8		7	9	235	13	494
8-04 Thu		14	5	235		8	3	10	4	239	12	506
8-05 Fri		14	4	239		8	1	11	1	240	6	512
8-06 Sat		14	4	243		8	2	13		240	6	518
8-07 Sun		14	18	261		8	21	34	2	242	41	559

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Appendix A.12. (p. 2 of 3)

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
8-08 Mon		14	15	276		8	17	51	1	243	33	592
8-09 Tue		14	2	278		8	28	79	1	244	31	623
8-10 Wed		14	13	291		8	5	84	1	245	19	642
8-11 Thu	7	21	60	351	1	9	141	225		245	209	851
8-12 Fri	1	22	13	364	1	10	16	241		245	31	882
8-13 Sat		22	19	383	1	11	31	272		245	51	933
8-14 Sun	2	24	12	395		11	15	287		245	29	962
8-15 Mon		24	19	414		11	55	342		245	74	1,036
8-16 Tue		24	16	430		11	21	363		245	37	1,073
8-17 Wed		24	16	446	1	12	169	532		245	186	1,259
8-18 Thu		24	10	456		12	55	587		245	65	1,324
8-19 Fri	2	26	32	488	1	13	426	1,013		245	461	1,785
8-20 Sat		26	23	511		13	200	1,213		245	223	2,008
8-21 Sun	1	27	28	539		13	147	1,360		245	176	2,184
8-22 Mon	2	29	56	595	1	14	450	1,810		245	509	2,693
8-23 Tue		29	5	600		14	10	1,820		245	15	2,708
8-24 Wed		29	25	625		14	14	1,834		245	39	2,747
8-25 Thu		29	35	660		14	306	2,140		245	341	3,088
8-26 Fri		29	5	665		14	46	2,186		245	51	3,139
8-27 Sat		29	14	679		14	20	2,206		245	34	3,173
8-28 Sun		29	2	681		14	26	2,232		245	28	3,201
8-29 Mon		29	2	683		14	21	2,253		245	23	3,224
8-30 Tue	1	30	10	693		14	56	2,309		245	67	3,291
8-31 Wed		30	7	700		14	17	2,326		245	24	3,315
9-01 Thu		30	9	709		14	179	2,505		245	188	3,503
9-02 Fri		30	5	714	1	15	11	2,516		245	17	3,520
9-03 Sat		30	7	721		15	2	2,518		245	9	3,529
9-04 Sun		30	3	724		15	1	2,519		245	4	3,533
9-05 Mon		30	2	726		15	4	2,523		245	6	3,539
9-06 Tue		30	3	729	1	16	3	2,526		245	7	3,546
9-07 Wed		30	3	732	1	17	6	2,532		245	10	3,556
9-08 Thu		30	14	746		17	6	2,538		245	20	3,576

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Appendix A.12. (p. 3 of 3)

Date	Sockeye		Pink		Chum		Coho		Chinook	Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily Cumulative	Daily	Cumulative
9-09 Fri	30		6	752	1	18	10	2,548	245	17	3,593
9-10 Sat	30		2	754	2	20	13	2,561	245	17	3,610
9-11 Sun	30		8	762		20	53	2,614	245	61	3,671
9-12 Mon	30		1	763		20	84	2,698	245	85	3,756
9-13 Tue	30		3	766	3	23	12	2,710	245	18	3,774
9-14 Wed	30		3	769		23	3	2,713	245	6	3,780
9-15 Thu	30		5	774		23	12	2,725	245	17	3,797
9-16 Fri	30		2	776		23	1	2,726	245	3	3,800
9-17 Sat	30		1	777		23	3	2,729	245	4	3,804
9-18 Sun	30			777		23	10	2,739	245	10	3,814
9-19 Mon	30			777		23	4	2,743	245	4	3,818
9-20 Tue	30			777		23	13	2,756	245	13	3,831
9-21 Wed	30			777		23	1	2,757	245	1	3,832
9-22 Thu	30			777		23	1	2,758	245	1	3,833
9-23 Fri	30			777		23		2,758	245		3,833
9-24 Sat	30			777		23		2,758	245		3,833
9-25 Sun	30			777		23		2,758	245		3,833
9-26 Mon	30			777		23		2,758	245		3,833
9-27 Tue	30			777		23	5	2,763	245	5	3,838
9-28 Wed	30			777		23	3	2,766	245	3	3,841
9-29 Thu	30			777		23		2,766	245		3,841
9-30 Fri	30			777		23		2,766	245		3,841
10-01 Sat	30			777		23		2,766	245		3,841
10-02 Sun	30			777		23	2	2,768	245	2	3,843
10-03 Mon	30			777		23	10	2,778	245	10	3,853
10-04 Tue	30			777		23	26	2,804	245	26	3,879
10-05 Wed	30			777	1	24	1	2,805	245	2	3,881

[a] Source: S. Hammarstrom, Alaska Department of Fish and Game, Soldotna, personal communication.

Appendix A.13. Total daily weir count of anadromous and resident fish species, Swanson River, Alaska, 1988.[a]

Date	Coho salmon	Sockeye salmon	Chinook salmon	Pink salmon	Rainbow trout	Dolly Varden	Longnose sucker
May							
21	0	0	0	0	0	0	0
22	0	0	0	0	1	0	0
23	0	0	0	0	2	0	0
24	0	0	0	0	2	0	0
25	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0
27	0	0	0	0	1	0	0
28	0	0	0	0	1	0	0
29	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0
31	0	0	0	0	3	0	0
June							
1	0	0	0	0	1	0	0
2	0	0	0	0	0	0	0
3	0	0	0	0	3	0	0
4	0	1	0	0	0	0	1
5	0	0	0	0	0	0	1
6	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0
9	0	0	0	0	1	0	0
10	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0
12	0	20	0	0	0	0	0
13	0	6	0	0	0	0	0
14	0	2	0	0	0	0	0
15	0	5	0	0	0	0	1
16	0	15	0	0	0	0	0
17	0	16	0	0	0	0	0
18	0	6	0	0	0	0	0
19	0	5	0	0	0	0	0
20	0	8	0	0	0	0	0
21	0	20	0	0	0	0	0
22	0	48	0	0	0	0	0
23	0	15	0	0	0	0	0
24	0	5	0	0	0	0	0
25	0	143	0	0	0	1	0
26	0	30	0	0	0	0	0
27	0	2	1	0	0	0	0
28	0	0	1	0	0	0	0
29	0	20	2	0	0	0	0
30	0	8	1	0	0	0	0

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Appendix A.13. (p. 2 of 4)

Date	Coho salmon	Sockeye salmon	Chinook salmon	Pink salmon	Rainbow trout	Dolly Varden	Longnose sucker
July							
1	0	14	0	0	0	0	0
2	0	0	0	0	10	0	
3	0	5	0	0	0	0	0
4	0	1	0	0	0	0	0
5	0	7	0	0	0	0	0
6	0	1	0	0	0	0	0
7	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0
9	0	2	0	0	0	0	0
10	0	15	0	0	0	0	0
11	0	13	0	0	0	0	1
12	0	13	0	0	0	0	0
13	0	1	0	0	0	0	0
14	0	7	0	0	0	0	0
15	0	6	0	0	0	0	0
16	1	9	0	0	0	1	0
17	0	6	0	0	0	0	0
18	0	4	0	0	0	0	0
19	0	12	0	0	0	0	0
20	0	7	0	0	0	1	0
21	0	16	0	0	0	0	0
22	1	42	0	0	0	0	0
23	3	78	0	0	0	0	0
24	3	24	0	0	0	0	0
25	17	29	0	0	0	0	0
26	10	28	0	0	0	0	0
27	22	25	0	0	0	0	0
28	29	27	0	0	0	0	0
29	34	37	0	0	0	0	0
30	29	47	0	0	0	0	0
31	25	43	0	0	0	0	0
August							
1	27	31	0	0	0	0	0
2	80	58	0	0	0	0	0
3	46	45	0	0	0	0	1
4	85	57	0	3	0	0	0
5	100	52	0	3	0	0	0
6	272	76	0	2	0	0	0
7	240	72	0	9	0	0	0
8	379	39	0	8	0	0	0
9	165	16	0	0	0	0	0
10	235	9	0	3	0	0	0

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Appendix A.13. (p. 3 of 4)

Date	Coho salmon	Sockeye salmon	Chinook salmon	Pink salmon	Rainbow trout	Dolly Varden	Longnose sucker
August							
11	409	22	0	7	0	0	0
12	769	17	0	3	0	0	0
13	658	15	0	3	0	0	0
14	508	13	0	2	0	0	0
15	654	10	0	0	0	0	0
16	672	5	0	0	0	0	0
17	685	4	0	3	0	0	0
18	1789	13	0	6	0	0	0
19	563	3	0	3	0	0	0
20	632	7	0	3	0	0	0
21	1322	5	0	1	0	0	0
22	1907	3	0	1	0	0	0
23	899	16	0	4	0	0	0
24	1564	9	0	3	0	0	0
25	842	3	0	2	0	0	0
26	1689	4	0	2	0	0	0
27	439	3	0	0	0	0	0
28	288	1	0	0	0	0	0
29	554	1	0	0	0	0	0
30	381	0	0	1	0	0	0
31	271	11	0	0	0	0	0
September							
1	977	3	0	0	0	0	0
2	497	0	0	0	0	0	0
3	576	4	0	0	0	0	0
4	94	2	0	0	0	0	0
5	129	2	0	0	0	0	0
6	345	0	0	0	0	0	0
7	71	0	0	0	0	0	0
8	244	1	0	0	0	0	0
9	163	1	0	0	0	0	0
10	252	0	0	0	0	0	0
11	92	0	0	0	0	0	0
12	181	1	0	0	0	0	0
13	77	1	0	0	0	0	0
14	275	0	0	0	0	0	0
15	44	0	0	0	0	0	0
16	17	2	0	0	0	0	0
17	24	0	0	0	0	0	0
18	12	0	0	0	0	0	0
19	13	0	0	0	0	0	0
20	33	0	0	0	0	0	0

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Appendix A.13. (p. 4 of 4)

Date	Coho salmon	Sockeye salmon	Chinook salmon	Pink salmon	Rainbow trout	Dolly Varden	Longnose sucker
September							
21	36	0	0	0	0	0	0
22	20	1	0	0	0	0	0
23	19	0	0	0	0	0	0
24	13	0	0	0	0	0	0
25	5	0	0	0	0	0	0
26	7	0	0	0	0	0	0
TOTAL	23,514	1,542	5	72	15	3	5

[a] Source: D. Faurot, U.S. Fish and Wildlife Service, Soldotna, personal communication.

Appendix A.14. Estimated sockeye salmon escapement into Yentna River (north and south banks combined) from 7 July to 11 August, 1988 with apportioned counts for other species.[a]

Date	Sockeye		Pink		Chum		Coho		Chinook		Total[b]	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-07 Thu	208	208	3	3	16	16	10	10	24	24	261	261
7-08 Fri	187	395	4	7	13	29	10	20	22	46	236	497
7-09 Sat	253	648	5	12	16	45	14	34	27	73	315	812
7-10 Sun	189	837	3	15	16	61	10	44	23	96	241	1,053
7-11 Mon	169	1,006	3	18	13	74	7	51	21	117	213	1,266
7-12 Tue	159	1,165	3	21	12	86	7	58	19	136	200	1,466
7-13 Wed	162	1,327	13	34	6	92	8	66	8	144	197	1,663
7-14 Thu	196	1,523	17	51	6	98	9	75	3	147	231	1,894
7-15 Fri	246	1,769	21	72	8	106	11	86	3	150	289	2,183
7-16 Sat	260	2,029	12	84	6	112	11	97	1	151	290	2,473
7-17 Sun	198	2,227	9	93	5	117	6	103	1	152	219	2,692
7-18 Mon	190	2,417	22	115	8	125	2	105	1	153	223	2,915
7-19 Tue	2,305	4,722	129	244	76	201	90	195	2	155	2,602	5,517
7-20 Wed	5,567	10,289	424	668	290	491	64	259	64	219	6,409	11,926
7-21 Thu	3,806	14,095	1,154	1,822	768	1,259	146	405	16	235	5,890	17,816
7-22 Fri	1,787	15,882	805	2,627	484	1,743	13	418	14	249	3,103	20,919
7-23 Sat	3,743	19,625	1,759	4,386	390	2,133	39	457	14	263	5,945	26,864
7-24 Sun	5,704	25,329	3,917	8,303	739	2,872	682	1,139	75	338	11,117	37,981
7-25 Mon	7,628	32,957	9,345	17,648	2,232	5,104	371	1,510	13	351	19,589	57,570
7-26 Tue	7,366	40,323	13,958	31,606	2,384	7,488	550	2,060		351	24,258	81,828
7-27 Wed	2,616	42,939	14,757	46,363	3,462	10,950	543	2,603	28	379	21,406	103,234
7-28 Thu	1,949	44,888	16,536	62,899	5,197	16,147	891	3,494		379	24,573	127,807
7-29 Fri	1,492	46,380	17,840	80,739	4,083	20,230	891	4,385		379	24,306	152,113
7-30 Sat	1,530	47,910	9,923	90,662	5,852	26,082	1,624	6,009		379	18,929	171,042
7-31 Sun	1,110	49,020	8,325	98,987	4,458	30,540	695	6,704		379	14,588	185,630
8-01 Mon	510	49,530	6,283	105,270	4,405	34,945	1,127	7,831	59	438	12,384	198,014
8-02 Tue	710	50,240	7,897	113,167	1,853	36,798	641	8,472		438	11,101	209,115
8-03 Wed	492	50,732	7,118	120,285	1,970	38,768	498	8,970		438	10,078	219,193
8-04 Thu	274	51,006	4,313	124,598	829	39,597	504	9,474		438	5,920	225,113
8-05 Fri	354	51,360	3,024	127,622	2,054	41,651	712	10,186	6	444	6,150	231,263

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Appendix A.14. (p. 2 of 2)

Date	Sockeye		Pink		Chum		Coho		Chinook	Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily Cumulative	Daily	Cumulative
8-06 Sat	131	51,491	2,713	130,335	928	42,579	410	10,596	444	4,182	235,445
8-07 Sun	239	51,730	2,416	132,751	808	43,387	242	10,838	444	3,705	239,150
8-08 Mon	178	51,908	1,837	134,588	1,700	45,087	432	11,270	444	4,147	243,297
8-09 Tue	122	52,030	1,091	135,679	1,768	46,855	355	11,625	444	3,336	246,633
8-10 Wed	95	52,125	598	136,277	1,390	48,245	326	11,951	444	2,409	249,042
8-11 Thu	205	52,330	750	137,027	829	49,074	222	12,173	444	2,006	251,048

[a] Source: King and Tarbox (1989)
[b] Daily fish targets are apportioned by species based on fishwheel catches.

Appendix A.15. Daily log of escapement of salmon counted at the tower on upper Lake Creek, 1988.[a]

	Daily Counts			Cumulative Counts		
Date	King	Sockeye	Pink	King	Sockeye	Pink
7/19	3	0	0	3	0	0
20	4	0	0	7	0	0
21	5	0	0	12	0	0
22	2	0	0	14	0	0
23	3	0	0	17	0	0
24	-1	0	0	16	0	0
25	11	0	0	27	0	0
26	-11	0	0	16	0	0
27	-6	0	0	10	0	0
28	3	7	2	13	7	2
29	11	5	0	24	12	2
30	3	5	1	27	17	3
8/01	7	47	178	36	97	229
2	9	44	897	45	141	1126
3	1	25	863	46	166	1989
4	4	18	1639	50	184	3628
5	1	10	2093	51	194	5721
6	1	1	1072	52	195	6793
7	5	4	2102	57	199	8875
8	-1	2	1326	56	201	10221
9	6	3	1562	62	204	11783
10	8	3	557	70	207	12340
11	0	1	1134	70	208	13474
12	7	2	662	77	210	14136
13	3	3	520	80	213	14656
14	0	1	280	80	214	14936
15	5	2	100	85	216	15036
16	4	0	115	89	216	15151
17	0	1	62	89	217	15213
18	1	0	89	90	217	15302
19	0	0	20	90	217	15322
20	1	0	19	91	217	15341
21	0	0	6	91	217	15347
22	0	0	6	91	217	15353
23	0	0	2	91	217	15355
24	0	0	6	91	217	15361

[a] Source: Marcuson (1989)

Appendix A.16. Salmon escapement at Little Susitna weir, 1988.[a]

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
6-02 Thu	9	9							9	9	18	18
6-03 Fri	25	34							5	14	30	48
6-04 Sat	113	147							38	52	151	199
6-05 Sun	157	304			1	1			99	151	257	456
6-06 Mon	14	318				1			17	168	31	487
6-07 Tue	8	326				1			24	192	32	519
6-08 Wed	55	381				1			39	231	94	613
6-09 Thu	87	468				1			555	786	642	1,255
6-10 Fri	130	598				1			1,359	2,145	1,489	2,744
6-11 Sat	112	710				1			277	2,422	389	3,133
6-12 Sun	108	818				1			656	3,078	764	3,897
6-13 Mon	61	879				1			172	3,250	233	4,130
6-14 Tue	44	923				1			91	3,341	135	4,265
6-15 Wed	30	953				1			298	3,639	328	4,593
6-16 Thu	35	988				1			34	3,673	69	4,662
6-17 Fri	18	1,006				1			195	3,868	213	4,875
6-18 Sat	38	1,044				1			612	4,480	650	5,525
6-19 Sun	8	1,052				1			587	5,067	595	6,120
6-20 Mon	31	1,083				1			34	5,101	65	6,185
6-21 Tue	41	1,124				1			152	5,253	193	6,378
6-22 Wed	15	1,139				1			31	5,284	46	6,424
6-23 Thu	15	1,154				1			64	5,348	79	6,503
6-24 Fri	10	1,164				1			234	5,582	244	6,747
6-25 Sat	6	1,170				1			207	5,789	213	6,960
6-26 Sun	8	1,178				1			174	5,963	182	7,142
6-27 Mon	4	1,182				1			318	6,281	322	7,464
6-28 Tue	3	1,185				1			131	6,412	134	7,598
6-29 Wed	2	1,187				1			41	6,453	43	7,641
6-30 Thu		1,187				1			88	6,541	88	7,729
7-01 Fri		1,187				1			61	6,602	61	7,790
7-02 Sat		1,187				1			180	6,782	180	7,970
7-03 Sun	2	1,189				1			145	6,927	147	8,117
7-04 Mon	2	1,191			1	2			42	6,969	45	8,162

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Appendix A.16. (p. 2 of 4)

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-05 Tue	1	1,192				2			141	7,110	142	8,304
7-06 Wed		1,192				2			14	7,124	14	8,318
7-07 Thu	1	1,193				2			5	7,129	6	8,324
7-08 Fri		1,193				2			5	7,134	5	8,329
7-09 Sat		1,193			1	3			58	7,192	59	8,388
7-10 Sun	6	1,199			19	22			202	7,394	227	8,615
7-11 Mon	7	1,206			18	40			51	7,445	76	8,691
7-12 Tue	1	1,207			9	49	1	1	4	7,449	15	8,706
7-13 Wed		1,207				49		1	5	7,454	5	8,711
7-14 Thu		1,207			12	61		1	5	7,459	17	8,728
7-15 Fri		1,207			10	71		1	7	7,466	17	8,745
7-16 Sat	7	1,214	1	1	100	171	5	6	22	7,488	135	8,880
7-17 Sun	125	1,339		1	123	294		6	49	7,537	297	9,177
7-18 Mon	29	1,368	2	3	89	383	1	7	10	7,547	131	9,308
7-19 Tue	52	1,420		3	84	467	11	18	8	7,555	155	9,463
7-20 Wed	72	1,492	4	7	171	638	6	24	4	7,559	257	9,720
7-21 Thu	15	1,507	1	8	161	799	9	33	25	7,584	211	9,931
7-22 Fri	20	1,527	62	70	667	1,466	90	123	13	7,597	852	10,783
7-23 Sat	22	1,549	103	173	1,007	2,473	84	207	18	7,615	1,234	12,017
7-24 Sun	137	1,686	82	255	807	3,280	12	219		7,615	1,038	13,055
7-25 Mon	69	1,755	103	358	1,648	4,928	2	221		7,615	1,822	14,877
7-26 Tue	110	1,865	317	675	2,743	7,671	704	925	22	7,637	3,896	18,773
7-27 Wed	111	1,976	559	1,234	1,845	9,516	338	1,263	9	7,646	2,862	21,635
7-28 Thu	76	2,052	887	2,121	1,723	11,239	128	1,391	26	7,672	2,840	24,475
7-29 Fri	58	2,110	861	2,982	1,251	12,490	135	1,526	3	7,675	2,308	26,783
7-30 Sat	26	2,136	456	3,438	2,254	14,744	84	1,610	2	7,677	2,822	29,605
7-31 Sun	82	2,218	2,691	6,129	1,237	15,981	163	1,773	2	7,679	4,175	33,780
8-01 Mon	124	2,342	553	6,682	729	16,710	60	1,833	5	7,684	1,471	35,251
8-02 Tue	48	2,390	185	6,867	301	17,011	128	1,961	3	7,687	665	35,916
8-03 Wed	48	2,438	106	6,973	542	17,553	86	2,047		7,687	782	36,698
8-04 Thu	55	2,493	672	7,645	787	18,340	344	2,391	3	7,690	1,861	38,559
8-05 Fri	19	2,512	633	8,278	700	19,040	406	2,797	5	7,695	1,763	40,322

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Appendix A.16. (p. 3 of 4)

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
8-06 Sat	38	2,550	1,056	9,334	844	19,884	1,161	3,958	4	7,699	3,103	43,425
8-07 Sun	49	2,599	1,888	11,222	891	20,775	1,429	5,387	5	7,704	4,262	47,687
8-08 Mon	8	2,607	748	11,970	543	21,318	298	5,685	2	7,706	1,599	49,286
8-09 Tue	11	2,618	547	12,517	553	21,871	366	6,051	2	7,708	1,479	50,765
8-10 Wed		2,618	777	13,294	510	22,381	573	6,624	1	7,709	1,861	52,626
8-11 Thu	4	2,622	440	13,734	227	22,608	589	7,213		7,709	1,260	53,886
8-12 Fri	3	2,625	905	14,639	295	22,903	2,198	9,411		7,709	3,401	57,287
8-13 Sat	5	2,630	306	14,945	151	23,054	1,849	11,260		7,709	2,311	59,598
8-14 Sun	2	2,632	295	15,240	88	23,142	1,301	12,561		7,709	1,686	61,284
8-15 Mon	4	2,636	140	15,380	84	23,226	1,520	14,081	1	7,710	1,749	63,033
8-16 Tue	1	2,637	71	15,451	55	23,281	433	14,514	1	7,711	561	63,594
8-17 Wed		2,637	61	15,512	33	23,314	470	14,984		7,711	564	64,158
8-18 Thu		2,637	19	15,531	40	23,354	47	15,031		7,711	106	64,264
8-19 Fri		2,637	7	15,538	18	23,372	31	15,062		7,711	56	64,320
8-20 Sat		2,637	35	15,573	59	23,431	76	15,138		7,711	170	64,490
8-21 Sun		2,637	8	15,581	35	23,466	126	15,264		7,711	169	64,659
8-22 Mon	2	2,639	11	15,592	39	23,505	223	15,487		7,711	275	64,934
8-23 Tue	1	2,640	7	15,599	34	23,539	607	16,094		7,711	649	65,583
8-24 Wed		2,640	4	15,603	25	23,564	592	16,686		7,711	621	66,204
8-25 Thu		2,640	5	15,608	8	23,572	41	16,727		7,711	54	66,258
8-26 Fri		2,640	11	15,619	22	23,594	523	17,250		7,711	556	66,814
8-27 Sat		2,640	4	15,623	10	23,604	748	17,998		7,711	762	67,576
8-28 Sun		2,640	8	15,631	10	23,614	1,173	19,171		7,711	1,191	68,767
8-29 Mon		2,640	4	15,635	9	23,623	840	20,011		7,711	853	69,620
8-30 Tue		2,640	2	15,637	5	23,628	411	20,422		7,711	418	70,038
8-31 Wed		2,640	2	15,639	6	23,634	245	20,667		7,711	253	70,291
9-01 Thu		2,640	2	15,641	3	23,637	69	20,736		7,711	74	70,365
9-02 Fri		2,640		15,641	5	23,642	23	20,759		7,711	28	70,393
9-03 Sat		2,640		15,641	4	23,646	35	20,794		7,711	39	70,432
9-04 Sun		2,640		15,641	1	23,647	49	20,843		7,711	50	70,482
9-05 Mon		2,640	2	15,643	16	23,663	398	21,241		7,711	416	70,898
9-06 Tue	2	2,642		15,643	7	23,670	62	21,303	1	7,712	72	70,970
9-07 Wed		2,642	1	15,644	2	23,672	76	21,379		7,712	79	71,049

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Appendix A.16. (p. 4 of 4)

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
9-08 Thu	2,642		15,644		3	23,675	20	21,399	7,712		23	71,072
9-09 Fri	2,642		15,644		3	23,678	8	21,407	7,712		11	71,083
9-10 Sat	2,642		15,644			23,678	22	21,429	7,712		22	71,105
9-11 Sun	2,642		15,644		1	23,679	3	21,432	7,712		4	71,109
9-12 Mon	2,642		15,644			23,679	6	21,438	7,712		6	71,115

[a] Source: L. Bartlett, Alaska Department of Fish and Game, Palmer, personal communication.

Appendix A.17. Salmon escapement at Fish Creek weir, 1988.[a]

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-08 Fri	1	1									1	1
7-09 Sat	73	74									73	74
7-10 Sun	291	365									291	365
7-11 Mon	2	367									2	367
7-12 Tue		367										367
7-13 Wed	2	369									2	369
7-14 Thu	106	475									106	475
7-15 Fri	2,572	3,047									2,572	3,047
7-16 Sat	647	3,694									647	3,694
7-17 Sun	488	4,182									488	4,182
7-18 Mon	940	5,122									940	5,122
7-19 Tue	301	5,423									301	5,423
7-20 Wed	7,732	13,155									7,732	13,155
7-21 Thu	8,899	22,054									8,899	22,054
7-22 Fri	12,954	35,008					6	6			12,960	35,014
7-23 Sat	5,891	40,899					1	7			5,892	40,906
7-24 Sun	571	41,470						7			571	41,477
7-25 Mon	23	41,493						7			23	41,500
7-26 Tue	166	41,659						7			166	41,666
7-27 Wed		41,659						7				41,666
7-28 Thu		41,659						7				41,666
7-29 Fri	109	41,768						7			109	41,775
7-30 Sat	678	42,446					1	8			679	42,454
7-31 Sun	4,152	46,598						8			4,152	46,606
8-01 Mon	1,317	47,915						8			1,317	47,923
8-02 Tue	2,399	50,314						8			2,399	50,322
8-03 Wed	5,267	55,581					13	21			5,280	55,602
8-04 Thu	2,530	58,111					15	36			2,545	58,147
8-05 Fri	734	58,845					7	43			741	58,888
8-06 Sat	809	59,654					7	50			816	59,704
8-07 Sun	456	60,110					1	51			457	60,161
8-08 Mon	2,601	62,711					9	60			2,610	62,771
8-09 Tue	529	63,240					1	61			530	63,301

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Appendix A.17. (p. 2 of 2)

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
8-10 Wed	1,962	65,202					20	81			1,982	65,283
8-11 Thu	1,245	66,447					109	190			1,354	66,637
8-12 Fri	491	66,938					101	291			592	67,229
8-13 Sat	661	67,599					34	325			695	67,924
8-14 Sun	228	67,827					9	334			237	68,161
8-15 Mon	37	67,864						334			37	68,198
8-16 Tue	38	67,902					3	337			41	68,239
8-17 Wed	113	68,015					1	338			114	68,353
8-18 Thu	54	68,069					1	339			55	68,408
8-19 Fri	119	68,188					1	340			120	68,528
8-20 Sat	64	68,252						340			64	68,592
8-21 Sun	33	68,285						340			33	68,625
8-22 Mon	1,158	69,443					32	372			1,190	69,815
8-23 Tue	237	69,680					30	402			267	70,082
8-24 Wed	246	69,926					6	408			252	70,334
8-25 Thu	53	69,979					14	422			67	70,401
8-26 Fri	55	70,034					7	429			62	70,463
8-27 Sat	11	70,045					10	439			21	70,484
8-28 Sun	20	70,065					9	448			29	70,513
8-29 Mon	55	70,120					6	454			61	70,574
8-30 Tue	22	70,142					5	459			27	70,601
8-31 Wed	9	70,151						459			9	70,610
9-01 Thu	15	70,166					4	463			19	70,629
9-02 Fri	3	70,169					9	472			12	70,641
9-03 Sat	45	70,214					10	482			55	70,696
9-04 Sun	34	70,248					3	485			37	70,733
9-05 Mon	10	70,258					12	497			22	70,755
9-06 Tue	9	70,267					9	506			18	70,773
9-07 Wed	8	70,275					5	511			13	70,786
9-08 Thu	13	70,288					4	515			17	70,803
9-09 Fri	15	70,303					7	522			22	70,825
9-10 Sat	1,300	71,603					1,640	2,162			2,940	73,765

[a] Source: R. Chlupach, Alaska Department of Fish and Game, Big Lake, personal communication.

Appendix B.1. Age and sex composition of chinook salmon harvested in the Upper Subdistrict set gill net fishery of the Central District, Upper Cook Inlet, Alaska, 1988.

	Age Group									
	1.1	1.2	0.4	1.3	2.2	1.4	2.3	1.5	2.4	Total
Sample Period 1 1 July- 18 July										
Males	276	223		354	13	2,179		66	26	3,137
Percent	4.37	3.53		5.61	.21	34.51		1.04	.42	49.69
Std. Error	.97	1.09		.85		.29		2.03	3.22	.21
Sample Size	21	17		27	1	166		5	2	239
Females	53	486	13	446	26	2,048	13	66	26	3,177
Percent	.83	7.69	.21	7.07	.42	32.43	.21	1.04	.42	50.31
Std. Error	2.27	.72		.75	3.22	.30		2.03	3.22	.21
Sample Size	4	37	1	34	2	156	1	5	2	242
Both Sexes	328	709	13	801	39	4,227	13	131	53	6,314
Percent	5.20	11.23	.21	12.68	.62	66.94	.21	2.08	.83	100.00
Std. Error	.89	.58		.55	2.62	.15		1.43	2.27	
Sample Size	25	54	1	61	3	322	1	10	4	481
Sample Period 2 19 July- 15 August										
Males	50	437		757		2,724		50		4,019
Percent	.77	6.70		11.60		41.75		.77		61.60
Std. Error	2.92	.96		.71		.30		2.92		.20
Sample Size	3	26		45		162		3		239
Females		219	17	303		1,883		50	34	2,505
Percent		3.35	.26	4.64		28.87		.77	.52	38.40
Std. Error		1.38		1.17		.40		2.92	3.58	.33
Sample Size		13	1	18		112		3	2	149
Both Sexes	50	656	17	1,059		4,607		101	34	6,524
Percent	.77	10.05	.26	16.24		70.62		1.55	.52	100.00
Std. Error	2.92	.77		.59		.17		2.06	3.58	
Sample Size	3	39	1	63		274		6	2	388
All Periods Combined										
Males	326	660		1,111	13	4,903		116	26	7,156
Percent	2.76	4.95		8.29	.12	37.74		.92	.23	55.01
Std. Error	3.85	3.58		3.54	4.55	2.71		3.38	4.55	2.27
Sample Size	24	43		72	1	328		8	2	478
Females	53	704	30	749	26	3,931	13	116	60	5,682
Percent	.46	5.75	.23	5.98	.23	30.84	.12	.92	.46	44.99
Std. Error	4.54	3.40	3.48	3.30	4.55	2.83	4.55	3.38	3.47	2.51
Sample Size	4	50	2	52	2	268	1	8	4	391
Both Sexes	379	1,365	30	1,860	39	8,834	13	232	86	12,838
Percent	3.22	10.70	.23	14.27	.35	68.58	.12	1.84	.69	100.00
Std. Error	3.91	3.21	3.48	3.22	4.55	1.91	4.55	3.36	3.40	
Sample Size	28	93	2	124	3	596	1	16	6	869

Appendix B.2. Estimated length by age and sex of chinook salmon harvested in the Upper Subdistrict set gill net fishery of the Central District, Upper Cook Inlet, Alaska, 1988.

	Age Group									
	1.1	1.2	0.4	1.3	2.2	1.4	2.3	1.5	2.4	Total
Sample Period 1: 1 July - 18 July										
Males										
Mean Length[a]	387	630		808	385	1,011		1,063	885	903
Std. Error	6	15		23		6		33	108	5
Sample Size	21	17		27	1	166		5	2	239
Females										
Mean Length	436	638	945	803	679	960	1,008	980	1,063	879
Std. Error	40	13		15	29	6		27	62	5
Sample Size	4	37	1	34	2	156	1	5	2	242
Both Sexes										
Mean Length	394	636	945	805	581	986	1,008	1,022	974	891
Std. Error	8	10		13	29	4		21	62	4
Sample Size	25	54	1	61	3	322	1	10	4	481
Sample Period 2: 19 July - 15 August										
Males										
Mean Length	435	662		826		1,012		734		928
Std. Error	3	13		11		7		345		7
Sample Size	3	26		45		162		3		239
Females										
Mean Length		670	842	854		981		962	910	936
Std. Error		15		13		6		9	1	5
Sample Size		13	1	18		112		3	2	149
Both Sexes										
Mean Length	435	665	842	834		999		848	910	931
Std. Error	3	10		9		5		173	1	5
Sample Size	3	39	1	63		274		6	2	388
All Periods Combined:										
Males										
Mean Length	394	651		820	385	1,011		921	885	917
Std. Error	5	10		11		4		150	108	4
Sample Size	24	43		72	1	328		8	2	478
Females										
Mean Length	436	648	887	823	679	970	1,008	973	976	904
Std. Error	40	10		10	29	4		16	27	4
Sample Size	4	50	2	52	2	268	1	8	4	391
Both Sexes										
Mean Length	400	650	887	821	581	993	1,008	947	948	912
Std. Error	7	7		8	29	3		75	38	3
Sample Size	28	93	2	124	3	596	1	16	6	869

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix B.3. Age, sex and length composition of chinook salmon harvested in the Kalifonsky Beach set gill net fishery, Upper Cook Inlet, Alaska, 1988.

	Age Group									
	1.1	1.2	0.4	1.3	2.2	1.4	2.3	1.5	2.4	Total
Sample Period: 1 July - 15 August										
Males	96	184		376		1,512		26		2,194
Percent	2.41	4.60		9.41		37.86		.66		54.92
Std. Error	1.39	1.00		.68		.28		2.69		.20
Sample Size	11	21		43		173		3		251
Mean Length[a]	395	664		841		1,014		1,073		928
Std. Error	10	16		8		6		41		5
Sample Size	11	21		43		173		3		251
Females	9	175	17	219	17	1,294	9	35	26	1,801
Percent	.22	4.38	.44	5.47	.44	32.39	.22	.88	.66	45.08
Std. Error		1.02	3.30	.91	3.30	.32		2.33	2.69	.24
Sample Size	1	20	2	25	2	148	1	4	3	206
Mean Length	407	655	894	826	679	976	1,008	973	981	920
Std. Error		18	51	19	29	5		26	72	5
Sample Size	1	20	2	25	2	148	1	4	3	206
Both Sexes	105	358	18	594	18	2,806	9	61	26	3,995
Percent	2.63	8.96	.44	14.88	.44	70.24	.22	1.53	.66	100.00
Std. Error	1.33	.70	3.30	.52	3.30	.14		1.75	2.69	
Sample Size	12	41	2	68	2	321	1	7	3	457
Mean Length	396	660	894	835	679	996	1,008	1,015	981	925
Std. Error	10	12	51	9	29	4		23	72	3
Sample Size	12	41	2	68	2	321	1	7	3	457

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix B.4. Age, sex and length composition of chinook salmon harvested in the Cohoe/Ninilchik Beach set gill net fishery, Upper Cook Inlet, Alaska, 1988.

	Age Group							
	1.1	1.2	1.3	2.2	1.4	1.5	2.4	Total
Sample Period: 1 July - 15 August								
Males	210	356	469	16	2,508	81	32	3,673
Percent	3.16	5.34	7.04	.24	37.62	1.21	.49	55.10
Std. Error	1.34	1.02	.88		.31	2.19	3.48	.22
Sample Size	13	22	29	1	155	5	2	227
Mean Length[a]	391	635	787	385	1,009	860	885	902
Std. Error	8	13	23		6	205	108	7
Sample Size	13	22	29	1	155	5	2	227
Females	49	485	437		1,942	65	16	2,994
Percent	.73	7.28	6.55		29.13	.97	.24	44.90
Std. Error	2.83	.87	.92		.38	2.45		.27
Sample Size	3	30	27		120	4	1	185
Mean Length	445	641	815		961	975	1,001	880
Std. Error	55	13	13		8	26		6
Sample Size	3	30	27		120	4	1	185
Both Sexes	259	841	906	16	4,450	146	49	6,667
Percent	3.88	12.62	13.59	.24	66.75	2.19	.73	100.00
Std. Error	1.21	.64	.61		.17	1.62	2.83	
Sample Size	16	52	56	1	275	9	3	412
Mean Length	401	638	801	385	988	911	923	892
Std. Error	12	9	14		5	114	108	5
Sample Size	16	52	56	1	275	9	3	412

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix B.5. Age, sex, and length composition of chinook salmon harvested in the Eastern Subdistrict set gill net fishery of the Northern District, Upper Cook Inlet, Alaska, 1988.

	Age Group					
	1.1	1.2	1.3	1.4	2.4	Total
Sample Period:	6 June - 5 September					
Males	7	111	185	304		607
Percent	.59	8.93	14.88	24.40		48.80
Std. Error		1.90	1.42	1.05		.61
Sample Size	1	15	25	41		82
Mean Length[a]	400	548	797	936		816
Std. Error		17	13	10		7
Sample Size	1	15	25	41		82
Females		81	222	326	7	637
Percent		6.55	17.86	26.19	.59	51.20
Std. Error		2.25	1.28	1.00		.58
Sample Size		11	30	44	1	86
Mean Length		595	787	898	925	821
Std. Error		15	11	8		6
Sample Size		11	30	44	1	86
Both Sexes[b]	7	193	407	630	7	1,244
Percent	.59	15.48	32.74	50.60	.59	100.00
Std. Error		1.39	.85	.59		
Sample Size	1	26	55	85	1	168
Mean Length	400	568	791	917	925	819
Std. Error		11	8	6		5
Sample Size	1	26	55	85	1	168

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Total by age group may differ slightly due to rounding error.

Appendix B.6. Age, sex, and length composition of chinook salmon harvested in the General Subdistrict set gill net fishery of the Northern District, Upper Cook Inlet, Alaska, 1988.

	Age Group						
	1.2	1.3	1.4	2.3	1.5	2.4	Total
Sample Period: 6 June - 5 September							
Males	1,276	1,576	3,001				5,853
Percent	11.00	13.59	25.89				50.49
Std. Error	.92	.82	.55				.32
Sample Size	34	42	80				156
Mean Length[a]	603	808	975				849
Std. Error	8	10	7				5
Sample Size	34	42	80				156
Females	450	1,614	3,526	37	75	37	5,739
Percent	3.88	13.92	30.42	.32	.65	.32	49.51
Std. Error	1.61	.80	.49		4.01		.33
Sample Size	12	43	94	1	2	1	153
Mean Length	650	819	917	755	978	860	868
Std. Error	14	26	6		48		8
Sample Size	12	43	94	1	2	1	153
Both Sexes	1,726	3,190	6,527	37	75	37	11,592
Percent	14.89	27.51	56.31	.32	.65	.32	100.00
Std. Error	.77	.53	.29		4.01		
Sample Size	46	85	174	1	2	1	309
Mean Length	616	814	944	755	978	860	859
Std. Error	7	14	5		48		5
Sample Size	46	85	174	1	2	1	309

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix B.7. Age, length and weight composition of adult chinook salmon sampled at the Crooked Creek weir, 1988.[a]

		Ocean Age-Class			
Sample Size		1-Ocean	2-Ocean	3-Ocean	4-Ocean
173	%	28.2	24.9	30.1	16.8
Mean Length (cm)		36	62	77	89
Std. Error		2.9	5.0	5.0	6.2
Mean Weight (kg)		0.7	3.7	7.3	10.2

[a] Source: Kyle and Litchfield (1989)

Appendix B.8. Sex and age composition of chinook salmon sampled from escapement carcass surveys in northern Cook Inlet, 1988.[a]

Fishery	Sex		Age Group 1.5	2.4	1.4	2.3	1.3	2.2	1.2	1.1	Total
Deshka River (Moose Creek)											
	Male	Percent	0.0	0.0	17.7	0.0	32.3	0.0	3.5	0.0	53.5
	Female	Percent	0.0	0.0	19.7	0.0	25.2	0.0	1.6	0.0	46.5
(n = 77)[b]	Combined	Percent	0.0	0.0	37.4	0.0	57.5	0.0	5.1	0 0	100.0
		Std Err	0.00	0.00	0.03	0.00	0.03	0.00	0.01	0.00	
Willow Creek											
	Male	Percent	0.0	0.0	31.4	0.0	11.4	0.0	0.0	0.0	42.9
	Female	Percent	0.0	0.0	41.4	0.0	12.9	0.0	2.9	0.0	57.1
(n = 38)[b]	Combined	Percent	0.0	0.0	72.8	0.0	24.3	0.0	2.9	0.0	100.0
		Std Err	0.00	0.00	0.05	0.00	0.05	0.00	0.02	0.00	
Montana Creek											
	Male	Percent	0.0	0.0	0.0	0.0	20.0	0.0	20.0	0.0	40.0
	Female	Percent	0.0	0.0	40.0	0.0	20.0	0.0	0.0	0.0	60.0
(n = 115)[b]	Combined	Percent	0.0	0.0	40.0	0.0	40.0	0.0	20.0	0.0	100.0
		Std Err	0.00	0.00	0.16	0.00	0.16	0.0	0.13	0.00	

[a] Source: K. Hepler, Alaska Department of Fish and Game, Anchorage, personal communication.
[b] Sample size.

Appendix B.9. Length composition by age group and sex of chinook salmon sampled from escapement carcass surveys in northern Cook Inlet, 1988.[a]

			Age Group							
Fishery	Sex		1.5	2.4	1.4	2.3	1.3	2.2	1.2	1.1
Deshka River (Moose Creek)										
	Male	Mean length[b]	0	0	935	0	873	0	709	0
		Standard Error	0	0	8	0	10	0	39	0
		Sample Size	0	0	45	0	82	0	9	0
	Female	Mean length	0	0	862	0	837	0	823	0
		Standard Error	0	0	8	0	7	0	32	0
		Sample Size	0	0	50	0	64	0	4	0
Willow Creek										
	Male	Mean length	0	0	998	0	814	0	0	0
		Standard Error	0	0	22	0	37	0	0	0
		Sample Size	0	0	22	0	8	0	0	0
	Female	Mean length	0	0	932	0	823	0	890	0
		Standard Error	0	0	11	0	16	0	30	0
		Sample Size	0	0	29	0	9	0	2	0
Montana Creek										
	Male	Mean length	0	0	0	0	925	0	690	0
		Standard Error	0	0	0	0	25	0	60	0
		Sample Size	0	0	0	0	2	0	2	0
	Female	Mean length	0	0	900	0	818	0	0	0
		Standard Error	0	0	21	0	8	0	0	0
		Sample Size	0	0	4	0	2	0	0	0

[a] Source: K. Hepler, Alaska Department of Fish and Game, Anchorage, personal communication.
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix B.10. Age, sex and length composition of chinook salmon sampled at the Little Susitna River weir, 1988.[a]

Sex		Age Group 1.2	1.3	1.4	TOTAL
Female					
	Sample Number	2	37	164	203
	% of Sample	0.5	9.9	43.7	54.1
	Std. Error	0.00	0.02	0.03	0.03
	Mean length[b]	655	817	916	895
	Std. Error	5.00	10.45	4.09	4.96
	Sample Size	2	37	164	203
	Minimum	650	660	700	650
	Maximum	660	940	1050	1050
Male					
	Sample Number	23	38	111	172
	% of Sample	6.1	10.1	29.6	45.9
	Std. Error	0.01	0.02	0.02	0.03
	Mean length	616	813	975	891
	Std. Error	12.06	12.98	5.96	10.91
	Sample Size	23	38	111	172
	Minimum	470	560	790	470
	Maximum	710	990	1090	1090
Both Sexes					
	Sample Number	25	75	275	375
	% of Sample	6.7	20.0	73.3	100.0
	Std. Error	0.01	0.02	0.02	
	Mean length	619	815	940	893
	Std. Error	11.28	8.30	3.84	5.67
	Sample Size	25	75	275	375
	Minimum	470	560	700	470
	Maximum	710	990	1090	1090

[a] Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix B.11. Age composition of chinook salmon sampled from the harvest during the early and late runs of the fishery for chinook salmon in the Kenai River, 1988.[a]

RUN	Sex		Age Group 1.1	1.2	1.3	1.4	1.5	Total
EARLY:	Male	Percent	0.2	1.6	7.3	26.2	5.5	40.8
(n=560)[b]	Female	Percent	0.0	0.4	4.8	52.8	1.2	59.2
	Combined	Percent	0.2	2.0	12.1	79.0	6.7	
		St. Error	0.2	0.6	1.4	1.7	1.1	
LATE:	Male	Percent	0.7	0.2	2.4	35.4	7.5	46.2
(n=413)[b]	Female	Percent	0.0	0.0	1.0	43.6	9.2	53.8
	Combined	Percent	0.7	0.2	3.4	79.0	16.7	
		St. Error	0.4	0.2	0.9	2.0	0.8	

[a] Source: Hammarstrom (1989)
[b] n = sample size.

Appendix B.12. Mean length by age group of chinook salmon caught during the early and late run sport fisheries in the Kenai River, 1988.[a]

		Age Group				
		1.1	1.2	1.3	1.4	1.5
EARLY RUN:						
Male	Mean Length[b]	370	631	772	1010	1104
	Standard Error		18	8	6	7
	Sample Size	1	9	41	147	31
Female	Mean Length		650	837	963	1073
	Standard Error		60	8	3	34
	Sample Size		2	27	296	6
LATE RUN:						
Male	Mean Length	367	570	820	1059	1120
	Standard Error	30		20	6	10
	Sample Size	3	1	10	146	31
Female	Mean Length			862	1016	1048
	Standard Error			48	4	8
	Sample Size			4	180	38

[a] Source: Hammarstrom (1989)
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix B.13. Sex and age composition of chinook salmon sampled from sport fisheries in northern Cook Inlet, 1988.[a]

			Age Group								
Fishery	Sex		1.5	2.4	1.4	2.3	1.3	2.2	1.2	1.1	Total
Alexander Creek											
Downstream											
	Male	Percent	0.0	0.0	6.5	0.0	18.2	0.0	24.7	5.2	54.5
	Female	Percent	0.0	0.0	35.1	0.0	9.1	0.0	1.3	0.0	45.5
(n = 77)[b]	Combined	Percent	0.0	0.0	41.6	0.0	27.3	0.0	26.0	5.2	100.0
		Std Err	0.00	0.00	0.06	0.00	0.05	0.00	0.05	0.03	
Upstream											
	Male	Percent	0.0	0.0	2.6	0.0	31.6	0.0	7.9	2.6	44.7
	Female	Percent	0.0	0.0	21.1	0.0	34.2	0.0	0.0	0.0	55.3
(n = 38)[b]	Combined	Percent	0.0	0.0	23.7	0.0	65.8	0.0	7.9	2.6	100.0
		Std Err	0.00	0.00	0.07	0.00	0.08	0.00	0.04	0.03	
Locations Combined											
	Male	Percent	0.0	0.0	5.2	0.0	22.6	0.0	19.1	4.3	51.3
	Female	Percent	0.0	0.0	30.4	0.0	17.4	0.0	0.9	0.0	48.7
(n = 115)[b]	Combined	Percent	0.0	0.0	35.7	0.0	40.0	0.0	20.0	4.3	100.0
		Std Err	0.00	0.00	0.04	0.00	0.05	0.00	0.04	0.02	
Deshka River											
Downstream											
	Male	Percent	0.8	0.0	25.0	0.0	13.5	0.0	9.4	1.6	50.4
	Female	Percent	0.8	0.4	37.3	0.4	10.7	0.0	0.0	0.0	49.6
(n = 244)[b]	Combined	Percent	1.6	0.4	62.3	0.4	24.2	0.0	9.4	1.6	100.0
		Std Err	0.01	0.00	0.03	0.00	0.03	0.00	0.02	0.01	
Upstream											
	Male	Percent	0.0	0.9	17.8	0.0	18.7	0.0	16.8	0.9	55.1
	Female	Percent	0.0	0.9	36.4	0.0	7.5	0.0	0.0	0.0	44.9
(n = 107)[b]	Combined	Percent	0.0	1.9	54.2	0.0	26.2	0.0	16.8	0.9	100.0
		Std Err	0.00	0.01	0.05	0.00	0.04	0.00	0.04	0.01	
Locations Combined											
	Male	Percent	0.6	0.3	22.8	0.0	15.1	0.0	11.7	1.4	51.9
	Female	Percent	0.6	0.6	37.0	0.3	9.7	0.0	0.0	0.0	48.1
(n = 351)[b]	Combined	Percent	1.1	0.9	59.8	0.3	24.8	0.0	11.7	1.4	100.0
		Std Err	0.01	0.00	0.03	0.00	0.02	0.00	0.02	0.01	
Lake Creek											
	Male	Percent	0.5	1.0	30.9	0.0	8.2	0.5	3.4	0.5	44.9
	Female	Percent	1.0	0.0	44.4	0.0	8.2	0.0	1.4	0.0	55.1
(n = 207)[b]	Combined	Percent	1.4	1.0	75.4	0.0	16.4	0.5	4.8	0.5	100.0
		Std Err	0.01	0.01	0.03	0.00	0.03	0.00	0.01	0.00	

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Appendix B.13. (p. 2 of 2)

Fishery	Sex		Age Group 1.5	2.4	1.4	2.3	1.3	2.2	1.2	1.1	Total
Talkeetna River											
	Male	Percent	1.2	0.0	31.5	0.0	13.1	0.0	8.3	0.0	54.2
	Female	Percent	0.6	0.0	38.7	0.0	6.5	0.0	0.0	0.0	45.8
(n = 168)[b]	Combined	Percent	1.8	0.0	70.2	0.0	19.6	0.0	8.3	0.0	100.0
		Std Err	0.01	0.00	0.04	0.00	0.03	0.00	0.02	0.00	
Montana Creek											
	Male	Percent	0.0	0.0	10.2	0.0	23.0	0.0	23.0	0.0	56.2
	Female	Percent	1.3	0.4	32.7	0.0	8.0	0.0	1.3	0.0	43.8
(n = 226)[b]	Combined	Percent	1.3	0.4	42.9	0.0	31.0	0.0	24.3	0.0	100.0
		Std Err	0.01	0.00	0.03	0.00	0.03	0.00	0.03	0.00	
Sheep Creek											
	Male	Percent	0.7	0.7	25.9	0.0	15.6	0.0	9.5	1.4	53.7
	Female	Percent	1.4	0.0	39.5	0.0	5.4	0.0	0.0	0.0	46.3
(n = 147)[b]	Combined	Percent	2.0	0.7	65.3	0.0	21.1	0.0	9.5	1.4	100.0
		Std Err	0.01	0.01	0.04	0.00	0.03	0.00	0.02	0.01	
Willow Creek: Mouth											
	Male	Percent	0.0	0.0	13.0	1.6	26.4	0.0	14.4	1.6	57.1
	Female	Percent	0.5	0.5	18.5	1.9	19.8	0.0	1.4	0.3	42.9
(n = 368)[b]	Combined	Percent	0.5	0.5	31.5	3.5	46.2	0.0	15.8	1.9	100.0
		Std Err	0.00	0.00	0.02	0.01	0.03	0.00	0.02	0.01	
Parks Highway Bridge											
	Male	Percent	1.4	0.0	16.4	0.7	24.7	0.0	5.5	0.0	48.6
	Female	Percent	0.0	0.0	33.6	2.1	15.1	0.0	0.7	0.0	51.4
(n = 146)[b]	Combined	Percent	1.4	0.0	50.0	2.7	39.7	0.0	6.2	0.0	100.0
		Std Err	0.01	0.00	0.04	0.01	0.04	0.00	0.02	0.00	
Locations Combined											
	Male	Percent	0.4	0.0	14.0	1.4	25.9	0.0	11.9	1.2	54.7
	Female	Percent	0.4	0.4	22.8	1.9	18.5	0.0	1.2	0.2	45.3
(n = 514)[b]	Combined	Percent	0.8	0.4	36.8	3.3	44.4	0.0	13.0	1.4	100.0
		Std Err	0.00	0.00	0.02	0.01	0.02	0.00	0.01	0.01	

[a] Source: K. Hepler, Alaska Department of Fish and Game, Anchorage, personal communication.
[b] n = sample size.

Appendix B.14. Mean length by sex and age group of chinook salmon sampled from sport fisheries in northern Cook Inlet, 1988.[a]

Fishery	Sex		Age Group 1.5	2.4	1.4	2.3	1.3	2.2	1.2	1.1
Alexander Creek - downstream										
	Male	Mean length[b]	0	0	932	0	737	0	591	338
		Standard Error	0	0	71	0	18	0	18	14
		Sample Size	0	0	5	0	14	0	19	4
	Female	Mean length	0	0	916	0	812	0	800	0
		Standard Error	0	0	13	0	20	0	0	0
		Sample Size	0	0	27	0	7	0	1	0
Alexander Creek - upstream										
	Male	Mean length	0	0	900	0	763	0	668	530
		Standard Error	0	0	0	0	15	0	54	0
		Sample Size	0	0	1	0	12	0	3	1
	Female	Mean length	0	0	909	0	797	0	0	0
		Standard Error	0	0	18	0	10	0	0	0
		Sample Size	0	0	8	0	13	0	0	0
Alexander Creek - all sites										
	Male	Mean length	0	0	927	0	749	0	605	376
		Standard Error	0	0	58	0	12	0	18	40
		Sample Size	0	0	6	0	26	0	22	5
	Female	Mean length	0	0	915	0	802	0	800	0
		Standard Error	0	0	11	0	9	0	0	0
		Sample Size	0	0	35	0	20	0	1	0
Deshka River - downstream										
	Male	Mean length	933	0	906	0	734	0	562	420
		Standard Error	18	0	10	0	14	0	18	50
		Sample Size	2	0	61	0	33	0	23	4
	Female	Mean length	905	1,050	858	790	769	0	0	0
		Standard Error	25	0	6	0	12	0	0	0
		Sample Size	2	1	91	1	26	0	0	0
Deshka River - upstream										
	Male	Mean length	0	915	870	0	723	0	564	385
		Standard Error	0	0	32	0	24	0	14	0
		Sample Size	0	1	19	0	20	0	18	1
	Female	Mean length	0	855	854	0	796	0	0	0
		Standard Error	0	0	8	0	28	0	0	0
		Sample Size	0	1	39	0	8	0	0	0
Deshka River - all sites										
	Male	Mean length	933	915	897	0	730	0	563	413
		Standard Error	18	0	11	0	13	0	12	39
		Sample Size	2	1	80	0	53	0	41	5
	Female	Mean length	905	953	857	790	775	0	0	0
		Standard Error	25	98	5	0	11	0	0	0
		Sample Size	2	2	130	1	34	0	0	0

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Appendix B.14. (p. 2 of 2)

Fishery	Sex		Age Group 1.5	2.4	1.4	2.3	1.3	2.2	1.2	1.1
Lake Creek										
	Male	Mean length	1,005	925	1,001	0	748	675	630	380
		Standard Error	0	95	9	0	35	0	15	0
		Sample Size	1	2	64	0	17	1	7	1
	Female	Mean length	978	0	922	0	866	0	667	0
		Standard Error	18	0	11	0	21	0	9	0
		Sample Size	2	0	92	0	17	0	3	0
Talkeetna River										
	Male	Mean length	1,065	0	1,009	0	818	0	635	0
		Standard Error	15	0	10	0	26	0	13	0
		Sample Size	2	0	53	0	22	0	14	0
	Female	Mean length	935	0	939	0	837	0	0	0
		Standard Error	0	0	8	0	13	0	0	0
		Sample Size	1	0	65	0	11	0	0	0
Montana Creek										
	Male	Mean length	973	915	980	0	822	0	621	353
		Standard Error	0	0	18	0	22	0	23	3
		Sample Size	1	1	38	0	23	0	14	2
	Female	Mean length	1,031	0	935	0	850	0	0	0
		Standard Error	69	0	17	0	17	0	0	0
		Sample Size	2	0	58	0	8	0	0	0
Willow Creek - mouth										
	Male	Mean length	0	0	962	794	814	0	616	348
		Standard Error	0	0	16	23	10	0	18	8
		Sample Size	0	0	48	6	97	0	53	6
	Female	Mean length	955	973	946	842	836	0	666	660
		Standard Error	50	18	8	34	8	0	40	0
		Sample Size	2	2	67	7	73	0	5	1
Willow Creek - bridge										
	Male	Mean length	1,000	0	1,004	815	843	0	639	0
		Standard Error	40	0	21	0	18	0	21	0
		Sample Size	2	0	22	1	36	0	8	0
	Female	Mean length	0	0	929	827	835	0	810	0
		Standard Error	0	0	20	13	13	0	0	0
		Sample Size	0	0	49	3	22	0	1	0
Willow Creek - all sites										
	Male	Mean length	1,000	0	975	797	822	0	619	348
		Standard Error	40	0	13	20	9	0	16	8
		Sample Size	2	0	70	7	133	0	61	6
	Female	Mean length	955	973	939	838	836	0	690	660
		Standard Error	50	18	9	23	7	0	40	0
		Sample Size	2	2	116	10	95	0	6	1

[a] Source: K. Hepler, Alaska Department of Fish and Game, Anchorage, personal communication.
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix B.15. Age, sex and length composition of chinook salmon sampled from the sport fishery, Little Susitna River, 1988.[a]

	Age Group						
	1.1	1.2	1.3	1.4	1.5	2.4	TOTAL
Females							
Sample Number		3	41	129		1	174
% of Sample		0.9	12.6	39.6		0.3	53.4
Std. Error		0.01	0.02	0.03		0.00	0.03
Mean length[b]		691	810	907		1010	881
Std. Error		60.02	9.49	5.80			6.17
Sample Size		3	41	129		1	174
Minimum		615	675	670		1010	615
Maximum		810	995	1110		1010	1110
Males							
Sample Number	3	20	31	97	1		152
% of Sample	0.9	6.1	9.5	29.8	0.3		46.6
Std. Error	0.01	0.01	0.02	0.03	0.00		0.03
Mean length	331	592	826	982	1065		887
Std. Error	29.20	16.12	13.85	6.26			13.74
Sample Size	3	20	31	97	1		152
Minimum	300	410	690	660	1065		300
Maximum	390	700	1040	1130	1065		1130
Both Sexes							
Sample Number	3	23	72	226	1	1	326
% of Sample	0.9	7.1	22.1	69.3	0.3	0.3	100.0
Std. Error	0.01	0.01	0.02	0.03	0.00	0.00	
Mean length	331	605	817	939	1065	1010	884
Std. Error	29.20	16.98	8.04	4.92			7.19
Sample Size	3	23	72	226	1	1	326
Minimum	300	410	675	660	1065	1010	300
Maximum	390	810	1040	1130	1065	1010	1130

[a] Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix C.1. Age and sex composition of sockeye salmon harvested in the Central District drift gill net fishery, Upper Cook Inlet, Alaska, 1988.[a]

	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: 27 - 30 June												
Males	159		159	4,929		27,190	3,180	159	5,565			41,341
Percent	.19		.19	5.98		33.01	3.86	.19	6.76			50.19
Std. Error				.77		.28	.96		.72			.19
Sample Size	1		1	31		171	20	1	35			260
Females			477	3,657		29,416	954		6,519			41,023
Percent			.58	4.44		35.71	1.16		7.92			49.81
Std. Error			2.53	.90		.26	1.78		.66			.19
Sample Size			3	23		185	6		41			258
Both Sexes	159		636	8,586		56,605	4,134	159	12,084			82,364
Percent	.19		.77	10.42		68.73	5.02	.19	14.67			100.00
Std. Error			2.19	.57		.13	.84		.47			
Sample Size	1		4	54		356	26	1	76			518
Sample Period 2: 1 - 3 July												
Males			291	16,890		43,099	6,115		13,687			80,082
Percent			.18	10.58		27.01	3.83		8.58			50.18
Std. Error				.53		.30	.91		.60			.18
Sample Size			1	58		148	21		47			275
Females	291		582	11,357		51,253	3,494		12,522			79,500
Percent	.18		.36	7.12		32.12	2.19		7.85			49.82
Std. Error			3.02	.66		.27	1.22		.63			.18
Sample Size	1		2	39		176	12		43			273
Both Sexes	291		874	28,247		94,351	9,610		26,209			159,582
Percent	.18		.55	17.70		59.12	6.02		16.42			100.00
Std. Error			2.46	.39		.15	.72		.41			
Sample Size	1		3	97		324	33		90			548
Sample Period 3: 4 - 7 July												
Males			599	11,678		40,724	5,989	299	15,571		299	75,160
Percent			.37	7.20		25.09	3.69	.18	9.59		.18	46.31
Std. Error			3.03	.66		.32	.94		.57			.20
Sample Size			2	39		136	20	1	52		1	251
Females				7,486		52,402	6,887	599	19,763			87,137
Percent				4.61		32.29	4.24	.37	12.18			53.69
Std. Error				.84		.27	.88	3.03	.50			.17
Sample Size				25		175	23	2	66			291
Both Sexes			599	19,164		93,126	12,876	898	35,334		299	162,297
Percent			.37	11.81		57.38	7.93	.55	21.77		.18	100.00
Std. Error			3.03	.50		.16	.63	2.47	.35			
Sample Size			2	64		311	43	3	118		1	542
Sample Period 4: 8 - 10 July												
Males			843	34,575		124,808	21,082		29,515	843		211,667
Percent			.19	7.61		27.46	4.64		6.49	.19		46.57
Std. Error				.65		.30	.84		.70			.20
Sample Size			1	41		148	25		35	1		251
Females	843	843	4,216	26,142		166,129	16,866		27,829			242,869
Percent	.19	.19	.93	5.75		36.55	3.71		6.12			53.43
Std. Error			1.92	.75		.24	.95		.73			.17
Sample Size	1	1	5	31		197	20		33			288
Both Sexes	843	843	5,060	60,717		290,937	37,948		57,344	843		454,536
Percent	.19	.19	1.11	13.36		64.01	8.35		12.62	.19		100.00
Std. Error			1.75	.47		.14	.61		.49			
Sample Size	1	1	6	72		345	45		68	1		539
Sample Period 5: 11 - 12 July												
Males				58,309		189,877	44,853		52,328			345,367
Percent				7.24		23.56	5.57		6.49			42.86
Std. Error				.66		.33	.76		.70			.21
Sample Size				39		127	30		35			231
Females			2,990	26,912		291,543	29,902	1,495	107,647			460,489
Percent			.37	3.34		36.18	3.71	.19	13.36			57.14
Std. Error			3.04	1.00		.25	.95		.47			.16
Sample Size			2	18		195	20	1	72			308
Both Sexes			2,990	85,220		481,420	74,755	1,495	159,975			805,856
Percent			.37	10.58		59.74	9.28	.19	19.85			100.00
Std. Error			3.04	.54		.15	.58		.37			
Sample Size			2	57		322	50	1	107			539

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	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 6: 13 - 14 July												
Males				4,983		36,468	3,851	227	8,154			53,683
Percent				4.21		30.84	3.26	.19	6.90			45.40
Std. Error				.91		.29	1.04		.70			.21
Sample Size				22		161	17	1	36			237
Females				5,210		47,114	4,530		7,701			64,556
Percent				4.41		39.85	3.83		6.51			54.60
Std. Error				.89		.24	.96		.73			.17
Sample Size				23		208	20		34			285
Both Sexes				10,193		83,583	8,381	227	15,856			118,239
Percent				8.62		70.69	7.09	.19	13.41			100.00
Std. Error				.62		.12	.69		.49			
Sample Size				45		369	37	1	70			522
Sample Period 7: 15 - 16 July												
Males	3,256		1,628	47,218		270,280	32,564	1,628	30,936			387,510
Percent	.40		.20	5.75		32.94	3.97	.20	3.77			47.22
Std. Error	3.14			.80		.28	.98		1.00			.21
Sample Size	2		1	29		166	20	1	19			238
Females			4,885	39,077		304,472	22,795	1,628	60,243			433,100
Percent			.60	4.76		37.10	2.78	.20	7.34			52.78
Std. Error			2.56	.89		.26	1.17		.70			.19
Sample Size			3	24		187	14	1	37			266
Both Sexes	3,256		6,513	86,294		574,753	55,359	3,256	91,179			820,610
Percent	.40		.79	10.52		70.04	6.75	.40	11.11			100.00
Std. Error	3.14		2.22	.58		.13	.74	3.14	.56			
Sample Size	2		4	53		353	34	2	56			504
Sample Period 8: 17 July												
Males			849	9,336		75,961	7,639		15,277			109,061
Percent			.36	3.96		32.19	3.24		6.47			46.22
Std. Error			2.99	.89		.26	.98		.68			.19
Sample Size			2	22		179	18		36			257
Females				6,365		97,603	5,092	424	17,399			126,884
Percent				2.70		41.37	2.16	.18	7.37			53.78
Std. Error				1.08		.21	1.21		.64			.17
Sample Size				15		230	12	1	41			299
Both Sexes			849	15,701		173,564	12,731	424	32,676			235,945
Percent			.36	6.65		73.56	5.40	.18	13.85			100.00
Std. Error			2.99	.67		.11	.75		.45			
Sample Size			2	37		409	30	1	77			556
Sample Period 9: 18 July												
Males				18,982		101,690	15,592	678	21,016			157,958
Percent				5.30		28.41	4.36	.19	5.87			44.13
Std. Error				.80		.30	.89		.76			.21
Sample Size				28		150	23	1	31			233
Females			678	8,813		152,535	11,525		26,439			199,990
Percent			.19	2.46		42.61	3.22		7.39			55.87
Std. Error				1.19		.22	1.04		.67			.17
Sample Size			1	13		225	17		39			295
Both Sexes			678	27,795		254,224	27,117	678	47,455			357,948
Percent			.19	7.77		71.02	7.58	.19	13.26			100.00
Std. Error				.65		.12	.66		.48			
Sample Size			1	41		375	40	1	70			528
Sample Period 10: 19 - 21 July												
Males				1,381		16,223	1,122		3,279			22,005
Percent				3.10		36.43	2.52		7.36			49.42
Std. Error				1.08		.26	1.21		.69			.20
Sample Size				16		188	13		38			255
Females			86	863		16,741	1,640		3,193			22,523
Percent			.19	1.94		37.60	3.68		7.17			50.58
Std. Error				1.38		.25	.99		.70			.19
Sample Size			1	10		194	19		37			261
Both Sexes			86	2,244		32,965	2,761		6,472			44,528
Percent			.19	5.04		74.03	6.20		14.53			100.00
Std. Error				.84		.11	.75		.47			
Sample Size			1	26		382	32		75			516

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Appendix C.1. (p. 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
Sample Period 11: 22 - 24 July												
Males				11,132		220,612	1,012		25,300			258,055
Percent				2.02		40.07	.18		4.60			46.88
Std. Error				1.28		.22			.84			.20
Sample Size				11		218	1		25			255
Females				8,096		239,840	12,144	1,012	30,359		1,012	292,463
Percent				1.47		43.57	2.21	.18	5.51		.18	53.13
Std. Error				1.50		.21	1.22		.76			.17
Sample Size				8		237	12	1	30		1	289
Both Sexes				19,228		460,452	13,156	1,012	55,659		1,012	550,518
Percent				3.49		83.64	2.39	.18	10.11		.18	100.00
Std. Error				.97		. 8	1.17		.55			
Sample Size				19		455	13	1	55		1	544
Sample Period 12: 25 - 28 July												
Males				15,924	1,517	68,246	10,616		8,341			104,645
Percent				8.33	.79	35.71	5.56		4.37			54.76
Std. Error				.66	2.22	.27	.82		.93			.18
Sample Size				42	4	180	28		22			276
Females				8,720		64,455	6,445	758	6,066			86,445
Percent				4.56		33.73	3.37	.40	3.17			45.24
Std. Error				.91		.28	1.06	3.14	1.10			.22
Sample Size				23		170	17	2	16			228
Both Sexes				24,645	1,517	132,701	17,062	758	14,408			191,090
Percent				12.90	.79	69.44	8.93	.40	7.54			100.00
Std. Error				.52	2.22	.13	.63	3.14	.69			
Sample Size				65	4	350	45	2	38			504
Sample Period 13: 29 July- 29 August												
Males		229		13,533	229	44,268	3,670		4,129		229	66,287
Percent		.19		11.28	.19	36.90	3.06		3.44		.19	55.26
Std. Error				.54		.25	1.08		1.01			.17
Sample Size		1		59	1	193	16		18		1	289
Females				5,734	229	43,580	2,294	229	1,606			53,672
Percent				4.78	.19	36.33	1.91	.19	1.34			44.74
Std. Error				.85		.25	1.37		1.64			.21
Sample Size				25	1	190	10	1	7			234
Both Sexes		229		19,267	459	87,848	5,964	229	5,734		229	119,959
Percent		.19		16.06	.38	73.23	4.97	.19	4.78		.19	100.00
Std. Error				.44	3.09	.12	.84		.85			
Sample Size		1		84	2	383	26	1	25		1	523
All Periods Combined:												
Males	3,415	229	4,369	248,869	1,746	1,259,446	157,285	2,991	233,098	843	529	1,912,821
Percent	. 4	. 1	.12	6.35	. 7	31.45	3.66	. 7	6.23	. 1	. 3	48.06
Std. Error	4.24	4.37	2.14	1.54	3.90	1.28	1.72	2.68	1.45	4.30	3.08	1.12
Sample Size	3	1	8	437	5	2,165	252	5	429	1	2	3,308
Females	1,135	843	13,915	158,432	229	1,557,083	124,568	6,146	327,287		1,012	2,190,651
Percent	. 3	. 1	.25	4.02	. 1	37.32	2.93	.13	7.21		. 1	51.94
Std. Error	3.38	4.30	2.25	1.59	4.37	1.22	1.59	1.89	1.71		4.28	1.07
Sample Size	2	1	17	277	1	2,569	202	9	496		1	3,575
Both Sexes	4,550	1,073	18,284	407,302	1,975	2,816,529	281,853	9,137	560,385	843	1,541	4,103,472
Percent	. 7	. 3	.36	10.37	. 9	68.78	6.60	.20	13.44	. 1	. 4	100.00
Std. Error	3.30	3.51	2.13	1.50	3.55	.85	1.61	1.93	1.52	4.30	3.01	
Sample Size	5	2	25	714	6	4,734	454	14	925	1	3	6,883

[a] Harvest does not include Chinitna Bay Subdistrict.

Appendix C.2. Age and sex composition of sockeye salmon harvested in the Salamatof Beach set gill net fishery, Upper Cook Inlet, Alaska, 1988.

	Age Group					
	1.2	1.3	2.2	1.4	2.3	Total
Sample Period 1: 1 - 18 July						
Males	14,311	171,726	14,311	1,789	29,515	231,652
Percent	3.11	37.28	3.11	.39	6.41	50.29
Std. Error	1.08	.25	1.08	3.11	.74	.19
Sample Size	16	192	16	2	33	259
Females	6,261	178,882	12,522	1,789	29,515	228,968
Percent	1.36	38.83	2.72	.39	6.41	49.71
Std. Error	1.65	.24	1.16	3.11	.74	.20
Sample Size	7	200	14	2	33	256
Both Sexes	20,571	350,608	26,832	3,578	59,031	460,620
Percent	4.47	76.12	5.83	.78	12.82	100.00
Std. Error	.90	.11	.78	2.19	.51	
Sample Size	23	392	30	4	66	515
Sample Period 2: 19 July- 15 August						
Males	25,004	148,358	10,835	833	33,339	218,370
Percent	5.92	35.11	2.56	.20	7.89	51.68
Std. Error	.79	.27	1.22		.67	.19
Sample Size	30	178	13	1	40	262
Females	30,005	130,855	20,003	1,667	21,670	204,201
Percent	7.10	30.97	4.73	.39	5.13	48.32
Std. Error	.71	.29	.88	3.13	.85	.20
Sample Size	36	157	24	2	26	245
Both Sexes	55,009	279,214	30,839	2,500	55,009	422,571
Percent	13.02	66.07	7.30	.59	13.02	100.00
Std. Error	.51	.14	.70	2.56	.51	
Sample Size	66	335	37	3	66	507
All Periods Combined:						
Males	39,315	320,085	25,146	2,622	62,854	450,022
Percent	4.50	36.20	2.84	.29	7.14	50.98
Std. Error	3.16	2.50	3.11	3.32	3.02	2.19
Sample Size	46	370	29	3	73	521
Females	36,266	309,737	32,525	3,456	51,186	433,169
Percent	4.21	34.93	3.72	.39	5.77	49.02
Std. Error	3.62	2.53	3.15	3.12	3.07	2.23
Sample Size	43	357	38	4	59	501
Both Sexes	75,581	629,821	57,671	6,078	114,040	883,191
Percent	8.71	71.14	6.56	.68	12.92	100.00
Std. Error	3.23	1.66	3.03	3.16	2.92	
Sample Size	89	727	67	7	132	1,022

Appendix C.3. Age and sex composition of sockeye salmon harvested in the Kalifonsky Beach set gill net fishery, Upper Cook Inlet, Alaska, 1988.

	Age Group						
	1.2	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 1: 1 - 8 July							
Males	2,260	7,110	1,177		1,177		11,724
Percent	9.25	29.09	4.82		4.82		47.98
Std. Error	.60	.30	.86		.86		.20
Sample Size	48	151	25		25		249
Females	1,271	8,804	895		1,742		12,712
Percent	5.20	36.03	3.66		7.13		52.02
Std. Error	.82	.26	.99		.70		.19
Sample Size	27	187	19		37		270
Both Sexes	3,531	15,914	2,072		2,919		24,436
Percent	14.45	65.13	8.48		11.95		100.00
Std. Error	.47	.14	.63		.52		
Sample Size	75	338	44		62		519
Sample Period 2: 9 - 11 July							
Males	9,165	23,422	7,298		8,826		48,711
Percent	10.21	26.09	8.13		9.83		54.25
Std. Error	.56	.32	.64		.57		.17
Sample Size	54	138	43		52		287
Females	6,280	26,986	2,885		4,922		41,074
Percent	6.99	30.06	3.21		5.48		45.75
Std. Error	.69	.29	1.04		.78		.21
Sample Size	37	159	17		29		242
Both Sexes	15,445	50,409	10,184		13,748		89,785
Percent	17.20	56.14	11.34		15.31		100.00
Std. Error	.41	.17	.53		.44		
Sample Size	91	297	60		81		529
Sample Period 3: 12 - 15 July							
Males	11,914	64,567	7,686	384	23,828	384	108,764
Percent	5.85	31.70	3.77	.19	11.70	.19	53.40
Std. Error	.76	.28	.95		.52		.18
Sample Size	31	168	20	1	62	1	283
Females	4,996	69,178	5,765		14,989		94,928
Percent	2.45	33.96	2.83		7.36		46.60
Std. Error	1.19	.26	1.11		.67		.20
Sample Size	13	180	15		39		247
Both Sexes	16,910	133,745	13,451	384	38,817	384	203,692
Percent	8.30	65.66	6.60	.19	19.06	.19	100.00
Std. Error	.63	.14	.71		.39		
Sample Size	44	348	35	1	101	1	530

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Appendix C.3. (p. 2 of 2)

	Age Group						
	1.2	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 4: 16 - 22 July							
Males	27,247	103,968	12,906	2,151	24,379	717	171,368
Percent	7.22	27.57	3.42	.57	6.46	.19	45.44
Std. Error	.68	.31	1.01	2.51	.72		.21
Sample Size	38	145	18	3	34	1	239
Females	29,398	126,912	29,398	2,151	17,925		205,784
Percent	7.79	33.65	7.79	.57	4.75		54.56
Std. Error	.65	.27	.65	2.51	.85		.17
Sample Size	41	177	41	3	25		287
Both Sexes	56,645	230,880	42,304	4,302	42,304	717	377,152
Percent	15.02	61.22	11.22	1.14	11.22	.19	100.00
Std. Error	.45	.15	.53	1.77	.53		
Sample Size	79	322	59	6	59	1	526
Sample Period 5: 23 July- 15 August							
Males	15,603	83,351	9,033	1,642	15,192	821	125,642
Percent	7.24	38.67	4.19	.76	7.05	.38	58.29
Std. Error	.68	.24	.91	2.17	.69	3.08	.16
Sample Size	38	203	22	4	37	2	306
Females	15,603	54,609	11,497	411	7,801		89,921
Percent	7.24	25.33	5.33	.19	3.62		41.71
Std. Error	.68	.33	.80		.98		.23
Sample Size	38	133	28	1	19		219
Both Sexes	31,205	137,960	20,530	2,053	22,993	821	215,563
Percent	14.48	64.00	9.52	.95	10.67	.38	100.00
Std. Error	.46	.14	.59	1.94	.55	3.08	
Sample Size	76	336	50	5	56	2	525
All Periods Combined:							
Males	66,189	282,417	38,101	4,178	73,402	1,923	466,209
Percent	7.95	30.62	4.87	.30	7.99	.15	51.88
Std. Error	2.21	1.91	2.13	2.84	2.17	2.62	1.60
Sample Size	209	805	128	8	210	4	1,364
Females	57,548	286,491	50,439	2,562	47,380		444,419
Percent	5.93	31.80	4.56	.15	5.67		48.12
Std. Error	2.50	1.96	2.68	3.72	2.25		1.69
Sample Size	156	836	120	4	149		1,265
Both Sexes	123,736	568,908	88,540	6,739	120,781	1,923	910,628
Percent	13.88	62.42	9.43	.46	13.66	.15	100.00
Std. Error	2.24	1.43	2.33	3.08	2.12	2.62	
Sample Size	365	1,641	248	12	359	4	2,629

Appendix C.4. Age and sex composition of sockeye salmon harvested in the Cohoe/Ninilchik Beach set gill net fishery, Upper Cook Inlet, Alaska, 1988.

	Age Group							
	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 1: 1 - 8 July								
Males	9,060		15,100	5,005	173	5,522		34,860
Percent	14.75		24.58	8.15	.28	8.99		56.74
Std. Error	.34		.25	.47	2.65	.45		.12
Sample Size	105		175	58	2	64		404
Females	4,228		14,151	2,675		5,522		26,576
Percent	6.88		23.03	4.35		8.99		43.26
Std. Error	.52		.26	.66		.45		.16
Sample Size	49		164	31		64		308
Both Sexes	13,288		29,251	7,680	173	11,045		61,436
Percent	21.63		47.61	12.50	.28	17.98		100.00
Std. Error	.27		.15	.37	2.65	.30		
Sample Size	154		339	89	2	128		712
Sample Period 2: 9 - 11 July								
Males	9,413		15,366	6,921		5,260	138	37,099
Percent	12.76		20.83	9.38		7.13	.19	50.28
Std. Error	.49		.37	.58		.68		.19
Sample Size	68		111	50		38	1	268
Females	9,690		16,196	5,952	138	4,707		36,684
Percent	13.13		21.95	8.07	.19	6.38		49.72
Std. Error	.48		.35	.63		.72		.19
Sample Size	70		117	43	1	34		265
Both Sexes	19,103		31,562	12,874	138	9,967	138	73,783
Percent	25.89		42.78	17.45	.19	13.51	.19	100.00
Std. Error	.32		.22	.41		.47		
Sample Size	138		228	93	1	72	1	533
Sample Period 3: 12 - 18 July								
Males	19,978		93,783	13,873	1,665	23,307		152,606
Percent	6.81		31.95	4.73	.57	7.94		51.98
Std. Error	.70		.28	.85	2.50	.64		.18
Sample Size	36		169	25	3	42		275
Females	15,538		90,454	14,428	555	19,978		140,953
Percent	5.29		30.81	4.91	.19	6.81		48.02
Std. Error	.80		.28	.83		.70		.20
Sample Size	28		163	26	1	36		254
Both Sexes	35,516		184,237	28,302	2,220	43,285		293,559
Percent	12.10		62.76	9.64	.76	14.74		100.00
Std. Error	.51		.15	.58	2.17	.45		
Sample Size	64		332	51	4	78		529
Sample Period 4: 19 July- 15 August								
Males	27,931		55,862	21,514	755	10,191	377	116,630
Percent	13.70		27.41	10.56	.37	5.00	.19	57.22
Std. Error	.46		.30	.54	3.04	.81		.16
Sample Size	74		148	57	2	27	1	309
Females	24,156	755	35,857	19,627	755	6,039		87,189
Percent	11.85	.37	17.59	9.63	.37	2.96		42.78
Std. Error	.51	3.04	.40	.57	3.04	1.06		.21
Sample Size	64	2	95	52	2	16		231
Both Sexes	52,087	755	91,719	41,141	1,510	16,230	377	203,819
Percent	25.56	.37	45.00	20.19	.74	7.96	.19	100.00
Std. Error	.32	3.04	.20	.37	2.14	.63		
Sample Size	138	2	243	109	4	43	1	540
All Periods Combined:								
Males	66,382		180,111	47,314	2,592	44,281	516	341,195
Percent	12.23		26.06	8.21	.30	7.39	.9	54.28
Std. Error	2.23		2.23	2.34	3.06	2.49	3.35	1.71
Sample Size	283		603	190	7	171	2	1,256
Females	53,613	755	156,658	42,683	1,448	36,246		291,402
Percent	9.12	.9	23.29	6.57	.17	6.48		45.72
Std. Error	2.33	4.30	2.32	2.45	2.82	2.54		1.86
Sample Size	211	2	539	152	4	150		1,058
Both Sexes	119,994	755	336,769	89,996	4,041	80,526	516	632,597
Percent	21.35	.9	49.35	14.78	.48	13.87	.9	100.00
Std. Error	2.13	4.30	1.74	2.28	2.88	2.41	3.35	
Sample Size	494	2	1,142	342	11	321	2	2,314

Appendix C.5. Age and sex composition of sockeye salmon harvested in the Western Subdistrict set gill net fishery of the Central District, Upper Cook Inlet, Alaska, 1988.

	Age Group						
	0.3	1.2	2.1	1.3	2.2	2.3	Total
Sample Period 1: 17 June - 14 July							
Males		4,286	65	12,533	2,922	3,896	23,703
Percent		9.38	.14	27.41	6.39	8.52	51.85
Std. Error		.44		.23	.54	.47	.14
Sample Size		66	1	193	45	60	365
Females	130	3,182		13,118	2,403	3,182	22,015
Percent	.28	6.96		28.69	5.26	6.96	48.15
Std. Error	2.66	.52		.22	.60	.52	.15
Sample Size	2	49		202	37	49	339
Both Sexes	130	7,468	65	25,651	5,325	7,078	45,718
Percent	.28	16.34	.14	56.11	11.65	15.48	100.00
Std. Error	2.66	.32		.13	.39	.33	
Sample Size	2	115	1	395	82	109	704
Sample Period 2: 15 July - 12 September							
Males		3,787		13,256	9,469	9,942	36,455
Percent		6.72		23.53	16.81	17.65	64.71
Std. Error		3.13		1.51	1.87	1.82	.62
Sample Size		8		28	20	21	77
Females		1,420		8,995	4,261	5,208	19,884
Percent		2.52		15.97	7.56	9.24	35.29
Std. Error		5.23		1.93	2.94	2.63	1.14
Sample Size		3		19	9	11	42
Both Sexes		5,208		22,252	13,730	15,150	56,339
Percent		9.24		39.50	24.37	26.89	100.00
Std. Error		2.63		1.04	1.48	1.39	
Sample Size		11		47	29	32	119
All Periods Combined:							
Males		8,074	65	25,790	12,391	13,839	60,158
Percent		8.99	.12	26.85	7.90	9.84	53.71
Std. Error		4.57	3.77	4.41	6.45	6.06	3.46
Sample Size		74	1	221	65	81	442
Females	130	4,602		22,113	6,664	8,390	41,899
Percent	.24	6.32		26.85	5.59	7.29	46.29
Std. Error	3.76	3.76		3.91	5.79	5.59	3.78
Sample Size	2	52		221	46	60	381
Both Sexes	130	12,676	65	47,903	19,055	22,228	102,057
Percent	.24	15.31	.12	53.71	13.49	17.13	100.00
Std. Error	3.76	4.12	3.77	3.57	5.83	5.45	
Sample Size	2	126	1	442	111	141	823

Appendix C.6. Age and sex composition of sockeye salmon harvested in the Eastern Subdistrict set gill net fishery of the Northern District, Upper Cook Inlet, Alaska, 1988.

	Age Group							
	1.1	0.3	1.2	2.1	1.3	2.2	2.3	Total
Sample Period: 6 June- 19 September								
Males	60		6,043	121	3,868	2,659	906	13,657
Percent	.19		19.23	.38	12.31	8.46	2.88	43.46
Std. Error			.39	3.09	.51	.63	1.12	.22
Sample Size	1		100	2	64	44	15	226
Females		121	9,488	121	3,203	3,868	967	17,767
Percent		.38	30.19	.38	10.19	12.31	3.08	56.54
Std. Error		3.09	.29	3.09	.57	.51	1.08	.17
Sample Size		2	157	2	53	64	16	294
Both Sexes	60	121	15,531	242	7,070	6,527	1,873	31,424
Percent	.19	.38	49.42	.77	22.50	20.77	5.96	100.00
Std. Error		3.09	.19	2.18	.36	.38	.76	
Sample Size	1	2	257	4	117	108	31	520

Appendix C.7. Age and sex composition of sockeye salmon harvested in the General Subdistrict set gill net fishery of the Northern District, Upper Cook Inlet, Alaska, 1988.

	Age Group						
	0.3	1.2	1.3	2.2	1.4	2.3	Total
Sample Period: 6 June- 19 September							
Males	623	17,040	22,650	3,948	623	7,689	52,573
Percent	.63	17.34	23.04	4.02	.63	7.82	53.49
Std. Error	2.65	.46	.39	1.03	2.65	.73	.20
Sample Size	3	82	109	19	3	37	253
Females	416	12,052	22,442	2,701		8,104	45,716
Percent	.42	12.26	22.83	2.75		8.25	46.51
Std. Error	3.24	.57	.39	1.26		.71	.23
Sample Size	2	58	108	13		39	220
Both Sexes	1,039	29,092	45,092	6,650	623	15,793	98,289
Percent	1.06	29.60	45.88	6.77	.63	16.07	100.00
Std. Error	2.05	.33	.23	.78	2.65	.48	
Sample Size	5	140	217	32	3	76	473

Appendix C.8. Estimated length and weight by age and sex of sockeye salmon harvested in the Central District drift gill net fishery, Upper Cook Inlet, Alaska, 1988.

	Age Group										
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 1: 27 - 30 June											
Males											
Mean Length[a]	466		542	500		551	490	595	567		544
Std. Error				8		3	18		13		3
Sample Size	1		1	9		75	4	1	6		97
Mean Weight[b]	2.80			2.26		2.94	2.05	4.30	2.93		2.85
Std. Error				.11		.08	.05		.13		.06
Sample Size	1			7		40	2	1	3		54
Females											
Mean Length				482		552	479		550		546
Std. Error				20		3	13		5		3
Sample Size				6		68	2		25		101
Mean Weight				2.20		2.84	1.90		2.74		2.76
Std. Error						.08			.12		.06
Sample Size				2		33	1		14		50
Both Sexes											
Mean Length	466		542	493		552	486	595	553		545
Std. Error				9		2	13		5		2
Sample Size	1		1	15		143	6	1	31		198
Mean Weight	2.80			2.24		2.89	2.00	4.30	2.78		2.80
Std. Error				.11		.06	.05		.10		.04
Sample Size	1			9		73	3	1	17		104
Sample Period 2: 1 - 3 July											
Males											
Mean Length				496		563	499		564		545
Std. Error				6		4	8		7		3
Sample Size				19		55	8		15		97
Mean Weight				1.96		2.96	2.20		3.06		2.72
Std. Error				.11		.14	.17		.12		.08
Sample Size				7		25	5		14		51
Females											
Mean Length				487		559	553		556		550
Std. Error				4		3	13		6		2
Sample Size				10		54	3		20		87
Mean Weight				1.73		2.85	2.80		2.72		2.69
Std. Error				.03		.08			.10		.06
Sample Size				3		26	1		15		45
Both Sexes											
Mean Length				493		561	513		560		547
Std. Error				4		3	7		4		2
Sample Size				29		109	11		35		184
Mean Weight				1.88		2.91	2.36		2.87		2.70
Std. Error				.07		.08	.17		.08		.05
Sample Size				10		51	6		29		96
Sample Period 3: 4 - 7 July											
Males											
Mean Length			579	522		566	495		558	590	553
Std. Error			3	18		4	6		8		4
Sample Size			2	13		45	6		22	1	89
Mean Weight			3.60	2.31		3.16	2.05		2.90	3.70	2.91
Std. Error			.10	.23		.12	.15		.35		.11
Sample Size			2	9		25	2		6	1	45
Females											
Mean Length				508		561	524		568		557
Std. Error				12		3	10		7		3
Sample Size				5		58	6		24		93
Mean Weight				2.03		2.97	2.20		3.25		2.94
Std. Error				.23		.07			.20		.07
Sample Size				3		32	1		11		47
Both Sexes											
Mean Length			579	518		563	509		563	590	555
Std. Error			3	13		3	6		5		2
Sample Size			2	18		103	12		46	1	182
Mean Weight			3.60	2.23		3.05	2.13		3.08	3.70	2.93
Std. Error			.10	.18		.07	.15		.20		.06
Sample Size			2	12		57	3		17	1	92

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	Age Group										
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 4: 8 - 10 July											
Males											
Mean Length				516		585	515		555		564
Std. Error				8		5	18		11		4
Sample Size				19		60	6		10		95
Mean Weight				2.55		3.82	2.60		3.12		3.42
Std. Error				.19		.14	.31		.21		.10
Sample Size				8		27	3		5		43
Females											
Mean Length				524		581	523		556		567
Std. Error				11		3	17		13		3
Sample Size				11		62	8		6		87
Mean Weight				2.48		3.53	3.20		2.90		3.32
Std. Error				.22		.07	.61		.44		.08
Sample Size				8		36	3		4		51
Both Sexes											
Mean Length				519		583	519		555		565
Std. Error				7		3	12		9		2
Sample Size				30		122	14		16		182
Mean Weight				2.52		3.67	2.94		3.04		3.37
Std. Error				.14		.08	.37		.21		.07
Sample Size				16		63	6		9		94
Sample Period 5: 11 - 12 July											
Males											
Mean Length				518		588	518		588		567
Std. Error				7		3	5		6		2
Sample Size				39		127	30		35		231
Mean Weight				2.43		3.78			4.28		3.61
Std. Error				.19		.14			.13		.10
Sample Size				8		16			6		30
Females											
Mean Length			576	535		572	531	606	573		567
Std. Error			8	7		2	5		3		1
Sample Size			2	18		195	20	1	72		308
Mean Weight			3.80			3.38	2.44		3.27		3.29
Std. Error						.08	.12		.16		.07
Sample Size			1			32	5		15		53
Both Sexes											
Mean Length			576	524		578	523	606	578		567
Std. Error			8	5		1	4		3		1
Sample Size			2	57		322	50	1	107		539
Mean Weight			3.80	2.43		3.54	2.44		3.60		3.42
Std. Error				.19		.07	.12		.12		.06
Sample Size			1	8		48	5		21		83
Sample Period 6: 13 - 14 July											
Males											
Mean Length				505		594	519	620	583		579
Std. Error				8		2	10		8		2
Sample Size				22		161	17	1	36		237
Mean Weight				2.20		3.95	2.60		3.91		3.68
Std. Error				.20		.11			.21		.09
Sample Size				5		30	2		7		44
Females											
Mean Length				516		578	524		564		567
Std. Error				4		1	6		4		1
Sample Size				23		208	20		34		285
Mean Weight				2.30		3.44	2.60		3.27		3.27
Std. Error				.10		.08	.20		.16		.06
Sample Size				2		34	3		6		45
Both Sexes											
Mean Length				511		585	522	620	574		573
Std. Error				4		1	6		4		1
Sample Size				45		369	37	1	70		522
Mean Weight				2.25		3.66	2.60		3.60		3.46
Std. Error				.11		.07	.20		.13		.05
Sample Size				7		64	5		13		89

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	Age Group										
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 7: 15 - 16 July											
Males											
Mean Length	494		574	504		589	506	540	585		570
Std. Error	28			6		2	10		7		2
Sample Size	2		1	29		166	20	1	19		238
Mean Weight	1.70			2.20		3.57	2.95		2.70		3.26
Std. Error				.25		.13	.19		.30		.10
Sample Size	1			5		27	4		2		39
Females											
Mean Length			567	505		570	523	613	561		561
Std. Error			2	4		2	9		4		1
Sample Size			3	24		187	14	1	37		266
Mean Weight				1.82		2.90	2.17		2.67		2.73
Std. Error				.09		.07	.37		.14		.06
Sample Size				6		36	3		7		52
Both Sexes											
Mean Length	494		569	505		579	513	577	569		565
Std. Error	28		2	4		1	7		4		1
Sample Size	2		4	53		353	34	2	56		504
Mean Weight	1.70			2.03		3.22	2.63		2.68		2.98
Std. Error				.14		.07	.19		.14		.06
Sample Size	1			11		63	7		9		91
Sample Period 8: 17 July											
Males											
Mean Length			591	509		598	522		602		586
Std. Error			1	8		2	10		4		2
Sample Size			2	22		179	18		36		257
Mean Weight				1.70		3.72			3.55		3.51
Std. Error				.21		.12			.17		.10
Sample Size				4		28			11		43
Females											
Mean Length				529		577	555	622	579		574
Std. Error				9		1	10		4		1
Sample Size				15		230	12	1	41		299
Mean Weight				3.80		3.14			3.40		3.21
Std. Error						.08			.16		.07
Sample Size				1		40			8		49
Both Sexes											
Mean Length			591	517		586	535	622	590		579
Std. Error			1	6		1	7		3		1
Sample Size			2	37		409	30	1	77		556
Mean Weight				2.55		3.39			3.47		3.35
Std. Error				.21		.07			.12		.06
Sample Size				5		68			19		92
Sample Period 9: 18 July											
Males											
Mean Length				499		598	533	574	595		579
Std. Error				7		2	8		7		2
Sample Size				28		150	23	1	31		233
Mean Weight				2.50		3.70	2.12		3.91		3.43
Std. Error				.30		.12	.21		.27		.10
Sample Size				4		25	5		7		41
Females											
Mean Length			570	523		576	526		578		571
Std. Error				4		1	7		4		1
Sample Size			1	13		225	17		39		295
Mean Weight				2.10		3.13	2.15		3.40		3.06
Std. Error				.06		.07	.12				.05
Sample Size				4		33	8		1		46
Both Sexes											
Mean Length			570	507		585	530	574	585		574
Std. Error				5		1	6		4		1
Sample Size			1	41		375	40	1	70		528
Mean Weight				2.37		3.36	2.13		3.63		3.22
Std. Error				.21		.06	.13		.27		.05
Sample Size				8		58	13		8		87

-Continued-

	Age Group										
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 10: 19 - 21 July											
Males											
Mean Length				511		612	516		606		600
Std. Error				10		3	11		7		2
Sample Size				16		188	13		38		255
Mean Weight				2.18		4.08	1.93		3.98		3.84
Std. Error				.23		.10	.39		.19		.08
Sample Size				4		32	3		8		47
Females											
Mean Length			564	501		572	533		585		568
Std. Error				14		2	11		5		2
Sample Size			1	10		193	19		37		260
Mean Weight						3.11	1.90		3.40		3.06
Std. Error						.07			.12		.05
Sample Size						31	1		7		39
Both Sexes											
Mean Length			564	507		592	526		595		584
Std. Error				8		2	8		4		2
Sample Size			1	26		381	32		75		515
Mean Weight				2.18		3.59	1.91		3.69		3.45
Std. Error				.23		.06	.39		.11		.05
Sample Size				4		63	4		15		86
Sample Period 11: 22 - 24 July											
Males											
Mean Length				484		602	538		610		598
Std. Error				11		2			5		2
Sample Size				11		218	1		25		255
Mean Weight						4.03			4.07		4.03
Std. Error						.08			.13		.07
Sample Size						33			3		36
Females											
Mean Length				500		577	528	611	582	614	574
Std. Error				9		1	9		4		1
Sample Size				8		237	12	1	30	1	289
Mean Weight						3.11	2.44		3.20		3.09
Std. Error						.07	.21		.15		.06
Sample Size						43	5		6		54
Both Sexes											
Mean Length				491		589	528	611	595	614	585
Std. Error				7		1	9		3		1
Sample Size				19		455	13	1	55	1	544
Mean Weight						3.55	2.44		3.60		3.53
Std. Error						.05	.21		.10		.05
Sample Size						76	5		9		90
Sample Period 12: 25 - 28 July											
Males											
Mean Length				486	395	604	500		607		573
Std. Error				5	16	2	11		7		2
Sample Size				42	4	180	28		22		276
Mean Weight				1.66	.80	3.81	2.68		3.25		3.28
Std. Error				.26		.09	.46		.56		.09
Sample Size				7	1	27	5		4		44
Females											
Mean Length				508		575	512	630	582		565
Std. Error				5		2	9	4	6		2
Sample Size				23		170	17	2	16		228
Mean Weight				1.65		2.93	1.67	3.80	3.00		2.72
Std. Error				.10		.10	.27				.08
Sample Size				4		29	3	1	2		39
Both Sexes											
Mean Length				494	395	590	505	630	596		569
Std. Error				4	16	1	8	4	5		1
Sample Size				65	4	350	45	2	38		504
Mean Weight				1.66	.80	3.38	2.30	3.80	3.14		3.03
Std. Error				.17		.06	.30		.56		.06
Sample Size				11	1	56	8	1	6		83

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Appendix C.8. (p. 5 of 5)

	Age Group										
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 13: 29 July- 29 August											
Males											
Mean Length		373		524	384	590	530		587	605	571
Std. Error				5		2	10		10		2
Sample Size		1		59	1	193	16		18	1	289
Mean Weight				2.24	.80	3.69	2.50		3.35	3.70	3.30
Std. Error				.26		.13	.06		.15		.11
Sample Size				9	1	32	3		4	1	50
Females											
Mean Length				510	601	568	528	568	578		560
Std. Error				6		2	6		7		2
Sample Size				25	1	190	10	1	7		234
Mean Weight				2.18		2.96	2.70		3.30		2.88
Std. Error				.03		.07					.06
Sample Size				4		37	1		1		43
Both Sexes											
Mean Length		373		519	493	579	529	568	584	605	566
Std. Error				4		1	7		7		1
Sample Size		1		84	2	383	26	1	25	1	523
Mean Weight				2.22	.80	3.33	2.58		3.34	3.70	3.11
Std. Error				.18		.08	.06		.15		.06
Sample Size				13	1	69	4		5	1	93
All Periods Combined:											
Males											
Mean Length	491	373	576	509	393	591	514	562	584	593	573
Std. Error	28		2	3	16	1	4		2		1
Sample Size	3	1	6	328	5	1,797	190	4	313	2	2,649
Mean Weight	1.82		3.60	2.28	.80	3.71	2.57	4.30	3.56	3.70	3.44
Std. Error			.10	.08		.04	.10		.07		.03
Sample Size	2		2	77	2	367	34	1	80	2	567
Females											
Mean Length			571	515	601	573	527	612	570	614	566
Std. Error			3	3		1	4	4	2		1
Sample Size			7	191	1	2,077	160	7	388	1	2,832
Mean Weight			3.80	2.14		3.15	2.44	3.80	3.10		3.04
Std. Error				.07		.03	.15		.07		.02
Sample Size			1	37		442	35	1	97		613
Both Sexes											
Mean Length	491	373	572	511	417	581	520	594	576	603	569
Std. Error	28		3	2	16	1	3	4	1		0
Sample Size	3	1	13	519	6	3,874	350	11	701	3	5,481
Mean Weight	1.82		3.73	2.24	.80	3.40	2.50	3.98	3.29	3.70	3.23
Std. Error			.10	.06		.02	.09		.05		.02
Sample Size	2		3	114	2	809	69	2	177	2	1,180

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix C.9. Estimated length and weight by age and sex of sockeye salmon harvested in the Salamatof Beach set gill net fishery, Upper Cook Inlet, Alaska, 1988.

	Age Group					
	1.2	1.3	2.2	1.4	2.3	Total
Sample Period 1:	1 - 18 July					
Males						
Mean Length[a]	505	588	530	611	579	574
Std. Error	10	3	12		8	2
Sample Size	13	91	10	1	13	128
Mean Weight[b]	2.20	3.72	2.20		3.74	3.45
Std. Error	.33	.09	.24		.21	.08
Sample Size	4	42	4		5	55
Females						
Mean Length	487	565	519	584	571	562
Std. Error	1	2	8	22	5	2
Sample Size	2	86	8	2	17	115
Mean Weight	1.70	2.94	1.93		3.28	2.90
Std. Error		.08	.18		.19	.07
Sample Size	1	28	4		6	39
Both Sexes						
Mean Length	502	577	525	593	574	568
Std. Error	9	2	8	22	5	2
Sample Size	15	177	18	3	30	243
Mean Weight	2.13	3.34	2.08		3.48	3.19
Std. Error	.33	.06	.15		.14	.05
Sample Size	5	70	8		11	94
Sample Period 2:	19 July- 15 August					
Males						
Mean Length	505	591	517	548	590	577
Std. Error	9	2	14		5	2
Sample Size	30	178	13	1	40	262
Mean Weight	1.86	3.95	2.30		3.72	3.59
Std. Error	.16	.10	.80		.27	.09
Sample Size	7	31	2		6	46
Females						
Mean Length	498	565	510	606	569	550
Std. Error	5	2	7	6	4	2
Sample Size	36	157	24	2	26	245
Mean Weight	1.85	3.06	2.06		3.10	2.79
Std. Error	.09	.09	.13		.14	.06
Sample Size	6	21	8		7	42
Both Sexes						
Mean Length	501	578	513	587	582	564
Std. Error	5	1	7	6	4	1
Sample Size	66	335	37	3	66	507
Mean Weight	1.85	3.53	2.14		3.48	3.20
Std. Error	.09	.07	.29		.17	.05
Sample Size	13	52	10		13	88

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Appendix C.9. (p. 2 of 2)

	Age Group					
	1.2	1.3	2.2	1.4	2.3	Total
All Periods Combined:						
Males						
Mean Length	505	589	525	592	585	576
Std. Error	7	2	9		5	2
Sample Size	43	269	23	2	53	390
Mean Weight	2.03	3.83	2.24		3.73	3.52
Std. Error	.18	.07	.33		.18	.06
Sample Size	11	73	6		11	101
Females						
Mean Length	497	565	514	591	570	556
Std. Error	4	1	5	15	4	1
Sample Size	38	243	32	4	43	360
Mean Weight	1.83	2.99	2.00		3.21	2.84
Std. Error	.09	.06	.11		.12	.05
Sample Size	7	49	12		13	81
Both Sexes						
Mean Length	501	578	519	591	578	566
Std. Error	4	1	5	15	3	1
Sample Size	81	512	55	6	96	750
Mean Weight	1.95	3.43	2.11		3.48	3.20
Std. Error	.12	.04	.16		.11	.04
Sample Size	18	122	18		24	182

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix C.10. Estimated length and weight by age and sex of sockeye salmon harvested in the Kalifonsky Beach set gill net fishery, Upper Cook Inlet, Alaska, 1988.

	Age Group						
	1.2	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 1: 1 - 8 July							
Males							
Mean Length[a]	493	582	525		587		557
Std. Error	10	5	13		14		4
Sample Size	14	42	10		6		72
Mean Weight[b]	2.21	3.30	2.46		3.20		2.96
Std. Error	.24	.14	.25				.10
Sample Size	7	25	5		2		39
Females							
Mean Length	518	569	515		571		563
Std. Error	7	3	8		7		3
Sample Size	6	66	6		14		92
Mean Weight	1.75	3.08	1.93		2.95		2.90
Std. Error	.05	.10	.18		.21		.08
Sample Size	2	31	3		8		44
Both Sexes							
Mean Length	500	574	521		576		560
Std. Error	7	3	9		6		2
Sample Size	20	108	16		20		164
Mean Weight	2.07	3.17	2.26		3.03		2.93
Std. Error	.17	.08	.17		.21		.06
Sample Size	9	56	8		10		83
Sample Period 2: 9 - 11 July							
Males							
Mean Length	476	563	494		562		536
Std. Error	4	3	5		5		2
Sample Size	54	138	43		52		287
Mean Weight	1.86	3.07	1.94		3.07		2.67
Std. Error	.14	.16	.12		.22		.09
Sample Size	8	30	10		10		58
Females							
Mean Length	486	563	503		556		546
Std. Error	5	2	8		5		2
Sample Size	37	159	17		29		242
Mean Weight	1.74	2.85			2.80		2.66
Std. Error	.05	.11			.22		.08
Sample Size	7	23			6		36
Both Sexes							
Mean Length	480	563	496		560		541
Std. Error	3	2	4		4		1
Sample Size	91	297	60		81		529
Mean Weight	1.81	2.95	1.94		2.97		2.67
Std. Error	.09	.10	.12		.16		.06
Sample Size	15	53	10		16		94

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Appendix C.10. (p. 2 of 3)

	Age Group						
	1.2	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 3: 12 - 15 July							
Males							
Mean Length	493	593	513	544	592	663	576
Std. Error	5	3	8		5		2
Sample Size	31	168	20	1	62	1	283
Mean Weight	2.70	3.70	2.50	2.30	3.75		3.51
Std. Error	.23	.11	.23		.24		.09
Sample Size	3	31	5	1	6		46
Females							
Mean Length	507	577	520		583		571
Std. Error	8	2	11		4		2
Sample Size	13	180	15		39		247
Mean Weight	2.10	3.17			3.15		3.11
Std. Error		.07			.41		.09
Sample Size	1	39			4		44
Both Sexes							
Mean Length	497	585	516	544	589	663	574
Std. Error	4	2	6		3		1
Sample Size	44	348	35	1	101	1	530
Mean Weight	2.52	3.43	2.50	2.30	3.52		3.33
Std. Error	.23	.07	.23		.22		.06
Sample Size	4	70	5	1	10		90
Sample Period 4: 16 - 22 July							
Males							
Mean Length	489	606	512	651	615	666	583
Std. Error	5	3	10	11	6		2
Sample Size	38	145	18	3	34	1	239
Mean Weight	1.80	3.74	2.21		4.17		3.37
Std. Error	.24	.12	.32		.17		.09
Sample Size	8	23	7		3		41
Females							
Mean Length	489	581	495	586	581		556
Std. Error	4	2	5	33	8		2
Sample Size	41	177	41	3	25		287
Mean Weight	1.49	2.87	1.59		3.04		2.50
Std. Error	.09	.10	.07		.27		.07
Sample Size	8	20	13		7		48
Both Sexes							
Mean Length	489	592	500	619	600	666	568
Std. Error	3	2	5	17	5		1
Sample Size	79	322	59	6	59	1	526
Mean Weight	1.64	3.26	1.78		3.69		2.90
Std. Error	.13	.08	.11		.15		.06
Sample Size	16	43	20		10		89

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	Age Group						
	1.2	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 5: 23 July- 15 August							
Males							
Mean Length	492	603	496	629	592	655	581
Std. Error	6	4	9	13	7	20	3
Sample Size	38	203	22	4	37	2	306
Mean Weight	2.02	3.80	1.68		3.69	4.95	3.42
Std. Error	.11	.12	.11		.29	.85	.09
Sample Size	6	36	4		9	2	57
Females							
Mean Length	490	573	500	620	566		549
Std. Error	4	2	6		8		2
Sample Size	38	133	28	1	19		219
Mean Weight		3.00	1.60		2.80		2.76
Std. Error		.12	.10		.17		.09
Sample Size		23	2		4		29
Both Sexes							
Mean Length	491	591	498	627	583	655	567
Std. Error	4	2	5	13	5	20	2
Sample Size	76	336	50	5	56	2	525
Mean Weight	2.02	3.48	1.64		3.39	4.95	3.17
Std. Error	.11	.09	.07		.20	.85	.07
Sample Size	6	59	6		13	2	86
All Periods Combined:							
Males							
Mean Length	489	598	505	632	596	660	575
Std. Error	3	2	4	9	3	20	1
Sample Size	175	696	113	8	191	4	1,187
Mean Weight	2.04	3.68	2.10	2.30	3.79	4.95	3.33
Std. Error	.11	.07	.12		.12	.85	.05
Sample Size	32	145	31	1	30	2	241
Females							
Mean Length	491	576	500	592	576		557
Std. Error	3	1	3	33	4		1
Sample Size	135	715	107	4	126		1,087
Mean Weight	1.61	2.97	1.60		3.01		2.70
Std. Error	.07	.05	.06		.17		.04
Sample Size	18	136	18		29		201
Both Sexes							
Mean Length	490	587	502	617	588	660	566
Std. Error	2	1	3	13	2	20	1
Sample Size	310	1,411	220	12	317	4	2,274
Mean Weight	1.87	3.32	1.84	2.30	3.48	4.95	3.03
Std. Error	.08	.04	.07		.10	.85	.03
Sample Size	50	281	49	1	59	2	442

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix C.11. Estimated length and weight by age and sex of sockeye salmon harvested in the Cohoe/Ninilchik Beach set gill net fishery, Upper Cook Inlet, Alaska, 1988.

	Age Group							
	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 1: 1 - 8 July								
Males								
Mean Length[a]	485		544	489		542		520
Std. Error	3		3	5		5		2
Sample Size	58		92	26		27		203
Mean Weight[b]	3.49		4.42	2.81		4.63		3.98
Std. Error	.26		.27	.42		.50		.17
Sample Size	28		43	15		13		99
Females								
Mean Length	478		540	489		548		527
Std. Error	4		3	6		5		2
Sample Size	26		85	14		32		157
Mean Weight	2.47		3.70	3.69		3.75		3.51
Std. Error	.31		.24	.53		.33		.16
Sample Size	12		33	7		16		68
Both Sexes								
Mean Length	482		542	489		546		523
Std. Error	3		2	4		4		1
Sample Size	84		177	40		59		360
Mean Weight	3.17		4.07	3.12		4.15		3.77
Std. Error	.21		.18	.33		.29		.12
Sample Size	40		76	22		29		167
Sample Period 2: 9 - 11 July								
Males								
Mean Length	498		567	497		560		539
Std. Error	8		6	7		10		4
Sample Size	19		38	14		14		85
Mean Weight	2.12		3.27	2.04		3.21		2.80
Std. Error	.23		.15	.12		.19		.09
Sample Size	9		21	5		10		45
Females								
Mean Length	490		553	502		554		526
Std. Error	6		4	7		12		3
Sample Size	26		42	19		10		97
Mean Weight	1.71		2.47	1.98		3.00		2.22
Std. Error	.09		.10	.09		.42		.07
Sample Size	14		24	8		3		49
Both Sexes								
Mean Length	493		560	500		558		532
Std. Error	5		4	5		7		2
Sample Size	45		80	33		24		182
Mean Weight	1.88		2.85	2.01		3.12		2.49
Std. Error	.11		.09	.07		.21		.06
Sample Size	23		45	13		13		94
Sample Period 3: 12 - 18 July								
Males								
Mean Length	517		604	503	625	601		583
Std. Error	5		2	7	10	6		2
Sample Size	36		169	25	3	42		275
Mean Weight	2.00		2.97	1.53		2.64		2.66
Std. Error	.09		.16	.14		.29		.11
Sample Size	9		15	7		8		39
Females								
Mean Length	499		580	504	647	583		564
Std. Error	6		2	6		4		2
Sample Size	28		163	26	1	36		254
Mean Weight	1.53		2.56	1.50		3.13		2.42
Std. Error	.04		.11	.14		.23		.08
Sample Size	9		21	11		8		49
Both Sexes								
Mean Length	509		592	503	631	593		574
Std. Error	4		2	5	10	4		1
Sample Size	64		332	51	4	78		529
Mean Weight	1.79		2.77	1.51		2.87		2.54
Std. Error	.06		.10	.10		.19		.07
Sample Size	18		36	18		16		88

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Appendix C.11. (p. 2 of 2)

	Age Group							
	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 4: 19 July- 15 August								
Males								
Mean Length	487		586	495	621	580	649	545
Std. Error	3		3	4	34	7		2
Sample Size	74		148	57	2	27	1	309
Mean Weight	1.76		3.54	2.00		3.60		2.83
Std. Error	.17		.11	.31		.10		.09
Sample Size	9		37	3		10		59
Females								
Mean Length	481	370	556	494	633	564		521
Std. Error	3	13	3	5	21	11		2
Sample Size	64	2	95	52	2	16		231
Mean Weight	1.53	.60	2.84	1.85		3.38		2.27
Std. Error	.20		.08	.25		.32		.09
Sample Size	4	1	23	2		4		34
Both Sexes								
Mean Length	484	370	574	494	627	574	649	535
Std. Error	2	13	2	3	20	6		1
Sample Size	138	2	243	109	4	43	1	540
Mean Weight	1.65	.60	3.27	1.93		3.52		2.59
Std. Error	.13		.07	.20		.13		.06
Sample Size	13	1	60	5		14		93
All Periods Combined:								
Males								
Mean Length	497		590	497	624	585	649	559
Std. Error	2		2	3	12	4		1
Sample Size	187		447	122	5	110	1	872
Mean Weight	2.14		3.30	1.94		3.15		2.87
Std. Error	.09		.09	.16		.16		.06
Sample Size	55		116	30		41		242
Females								
Mean Length	488	370	568	498	639	571		543
Std. Error	2	13	1	3	21	3		1
Sample Size	144	2	385	111	3	94		739
Mean Weight	1.64	.60	2.72	1.86		3.25		2.45
Std. Error	.09		.07	.12		.16		.05
Sample Size	39	1	101	28		31		200
Both Sexes								
Mean Length	493	370	580	497	629	579	649	551
Std. Error	2	13	1	2	11	3		1
Sample Size	331	2	832	233	8	204	1	1,611
Mean Weight	1.91	.60	3.03	1.90		3.19		2.67
Std. Error	.07		.06	.10		.11		.04
Sample Size	94	1	217	58		72		442

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix C.12. Estimated length and weight by age and sex of sockeye salmon harvested in the Western Subdistrict set gill net fishery of the Central District, Upper Cook Inlet, Alaska, 1988.

	Age Group						
	0.3	1.2	2.1	1.3	2.2	2.3	Total
Sample Period 1: 17 June - 14 July							
Males							
Mean Length[a]		490	358	578	505	589	554
Std. Error		8		2	6	4	2
Sample Size		25	1	130	33	43	232
Mean Weight[b]		2.03		3.38	2.27	3.53	3.02
Std. Error		.18		.07	.17	.12	.06
Sample Size		6		47	6	14	73
Females							
Mean Length	553	495		557	510	561	544
Std. Error	1	6		2	5	4	2
Sample Size	2	11		138	23	38	212
Mean Weight		1.76		2.86	2.09	2.93	2.63
Std. Error		.09		.04	.06	.12	.03
Sample Size		5		46	7	10	68
Both Sexes							
Mean Length	553	492	358	567	507	576	549
Std. Error	1	5		1	4	3	1
Sample Size	2	36	1	268	56	81	444
Mean Weight		1.91		3.11	2.19	3.26	2.83
Std. Error		.11		.04	.10	.08	.03
Sample Size		11		93	13	24	141
Sample Period 2: 15 July - 12 September							
Males							
Mean Length		497		572	503	563	544
Std. Error		9		4	7	5	3
Sample Size		8		28	20	21	77
Mean Weight		1.96		3.37	1.91	3.09	2.77
Std. Error		.18		.11	.13	.13	.06
Sample Size		5		21	13	14	53
Females							
Mean Length		502		556	495	544	536
Std. Error		17		4	8	5	3
Sample Size		3		19	9	11	42
Mean Weight		1.60		2.70	1.92	2.56	2.42
Std. Error				.08	.13	.10	.05
Sample Size		1		14	5	5	25
Both Sexes							
Mean Length		498		565	500	556	541
Std. Error		8		3	5	4	2
Sample Size		11		47	29	32	119
Mean Weight		1.86		3.10	1.91	2.91	2.64
Std. Error		.18		.07	.10	.09	.05
Sample Size		6		35	18	19	78

-Continued-

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	Age Group						
	0.3	1.2	2.1	1.3	2.2	2.3	Total
All Periods Combined:							
Males							
Mean Length		493	358	575	503	570	548
Std. Error		6		2	5	4	2
Sample Size		33	1	158	53	64	309
Mean Weight		2.00		3.37	1.99	3.21	2.87
Std. Error		.13		.06	.11	.10	.05
Sample Size		11		68	19	28	126
Females							
Mean Length	553	497		557	500	550	540
Std. Error	1	7		2	5	3	2
Sample Size	2	14		157	32	49	254
Mean Weight		1.71		2.79	1.98	2.70	2.53
Std. Error		.09		.04	.09	.08	.03
Sample Size		6		60	12	15	93
Both Sexes							
Mean Length	553	494	358	566	502	563	545
Std. Error	1	5		2	4	3	1
Sample Size	2	47	1	315	85	113	563
Mean Weight		1.89		3.11	1.99	3.02	2.73
Std. Error		.09		.04	.08	.07	.03
Sample Size		17		128	31	43	219

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix C.13. Estimated length and weight by age and sex of sockeye salmon harvested in the Eastern Subdistrict set gill net fishery of the Northern District, Upper Cook Inlet, Alaska, 1988.

	Age Group							
	1.1	0.3	1.2	2.1	1.3	2.2	2.3	Total
Sample period:	6 June- 19 September							
Males								
Mean Length[a]	335		497	362	574	508	578	524
Std. Error			3	23	3	6	7	2
Sample Size	1		100	2	64	44	15	226
Mean Weight[b]			1.93	.60	3.38	2.22	3.27	2.48
Std. Error			.13		.14	.12	.07	.07
Sample Size			16	1	16	9	3	45
Females								
Mean Length		568	499	428	551	502	553	512
Std. Error		23	2	63	3	3	8	1
Sample Size		2	157	2	53	64	16	294
Mean Weight			1.87	.80	2.55	1.97	2.57	2.05
Std. Error			.08		.13	.13	.18	.06
Sample Size			17	1	10	14	3	45
Both Sexes								
Mean Length	335	568	498	395	564	504	565	517
Std. Error		23	2	34	2	3	5	1
Sample Size	1	2	257	4	117	108	31	520
Mean Weight			1.89	.70	3.00	2.07	2.91	2.23
Std. Error			.07		.10	.09	.10	.05
Sample Size			33	2	26	23	6	90

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix C.14. Estimated length and weight by age and sex of sockeye salmon harvested in the General Subdistrict set gill net fishery of the Northern Subdistrict, Upper Cook Inlet, Alaska, 1988.

	Age Group						
	0.3	1.2	1.3	2.2	1.4	2.3	Total
Sample period:	6 June- 19 September						
Males							
Mean Length[a]	566	508	586	519	624	577	554
Std. Error	10	4	3	8	11	7	2
Sample Size	3	82	109	19	3	37	253
Mean Weight[b]		2.17	3.42	2.00	3.60	2.98	2.84
Std. Error		.15	.15	.20		.26	.09
Sample Size		15	15	2	1	5	38
Females							
Mean Length	559	503	561	512		567	544
Std. Error	26	4	2	6		3	2
Sample Size	2	58	108	13		39	220
Mean Weight		1.96	2.75			2.98	2.57
Std. Error		.09	.08			.10	.05
Sample Size		9	14			6	29
Both Sexes							
Mean Length	563	506	573	516	624	572	550
Std. Error	12	3	2	5	11	4	1
Sample Size	5	140	217	32	3	76	473
Mean Weight		2.08	3.09	2.00	3.60	2.98	2.72
Std. Error		.10	.09	.20		.14	.06
Sample Size		24	29	2	1	11	67

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix C.15. Age and sex composition of sockeye salmon escapement in the Kenai River, Upper Cook Inlet, Alaska, 1988.

	Age Group								
	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 1: 1 - 17 July									
Males		720	20,893		77,807	3,602		11,527	114,549
Percent		.23	6.76		25.17	1.17		3.73	37.06
Std. Error			.87		.40	2.15		1.18	.30
Sample Size		1	29		108	5		16	159
Females			17,290		146,248	4,323	720	25,936	194,518
Percent			5.59		47.32	1.40	.23	8.39	62.94
Std. Error			.96		.25	1.96		.77	.18
Sample Size			24		203	6	1	36	270
Both Sexes		720	38,183		224,056	7,925	720	37,463	309,067
Percent		.23	12.35		72.49	2.56	.23	12.12	100.00
Std. Error			.62		.14	1.44		.63	
Sample Size		1	53		311	11	1	52	429
Sample Period 2: 18 - 22 July									
Males			4,758		91,088	4,758	1,360	17,674	119,638
Percent			1.75		33.50	1.75	.50	6.50	44.00
Std. Error			1.87		.35	1.87	3.53	.95	.28
Sample Size			7		134	7	2	26	176
Females			6,798		122,357	3,399	680	19,033	152,267
Percent			2.50		45.00	1.25	.25	7.00	56.00
Std. Error			1.56		.28	2.22		.91	.22
Sample Size			10		180	5	1	28	224
Both Sexes			11,556		213,445	8,157	2,039	36,707	271,905
Percent			4.25		78.50	3.00	.75	13.50	100.00
Std. Error			1.19		.13	1.42	2.88	.63	
Sample Size			17		314	12	3	54	400
Sample Period 3: 23 July - 10 August									
Males	2,236		32,050	2,236	138,634	5,963	745	8,199	190,062
Percent	.51		7.28	.51	31.47	1.35	.17	1.86	43.15
Std. Error	2.37		.60	2.37	.25	1.44		1.23	.19
Sample Size	3		43	3	186	8	1	11	255
Females	745		38,758		180,373	9,689		20,870	250,435
Percent	.17		8.80		40.95	2.20		4.74	56.85
Std. Error			.54		.20	1.13		.76	.15
Sample Size	1		52		242	13		28	336
Both Sexes	2,981		70,807	2,236	319,006	15,652	745	29,068	440,497
Percent	.68		16.07	.51	72.42	3.55	.17	6.60	100.00
Std. Error	2.05		.39	2.37	.10	.88		.64	
Sample Size	4		95	3	428	21	1	39	591
All Periods Combined:									
Males	2,236	720	57,701	2,236	307,529	14,323	2,105	37,400	424,250
Percent	.21	.7	5.56	.21	30.14	1.41	.21	3.73	41.55
Std. Error	4.10	4.82	2.80	4.10	2.22	2.66	3.53	2.85	2.03
Sample Size	3	1	79	3	428	20	3	53	590
Females	745		62,846		448,978	17,411	1,400	65,839	597,219
Percent	.7		6.06		44.01	1.69	.14	6.48	58.45
Std. Error	4.11		2.80		1.98	2.74	3.47	2.62	1.71
Sample Size	1		86		625	24	2	92	830
Both Sexes	2,981	720	120,547	2,236	756,507	31,734	3,505	103,238	1,021,469
Percent	.28	.7	11.62	.21	74.15	3.10	.35	10.21	100.00
Std. Error	4.10	4.82	2.68	4.10	1.35	2.64	3.19	2.59	
Sample Size	4	1	165	3	1,053	44	5	145	1,420

Appendix C.16. Estimated age and sex composition of sockeye salmon in the early run through the Russian River weir, Upper Cook Inlet, Alaska, 1988.[a]

	Age Group					
	2.3	1.3	2.2	1.2	2.1	Total
17 - 27 June (sample size = 135)						
Females						
Percent	61.5	3.7	0.0	0.0	0.0	65.2
Number	15,030	904	0	0	0	15,934
Males						
Percent	34.1	0.7	0.0	0.0	0.0	34.8
Number	8,334	171	0	0	0	8,505
Sexes Combined						
Percent	95.6	4.4	0.0	0.0	0.0	100.0
Number	23,364	1,075	0	0	0	24,439
Standard Error	435	1,430	0	0	0	
28 June- 20 July (sample size = 128)						
Females						
Percent	49.2	2.3	2.3	0.8	0.0	54.6
Number	12,776	597	597	208	0	14,178
Males						
Percent	43.0	0.8	0.8	0.8	0.0	45.4
Number	11,166	208	208	2080	0	11,790
Sexes Combined						
Percent	92.2	3.1	3.1	1.6	0.0	100.0
Number	23,942	805	805	416	0	25,968
Standard Error	1,617	401	401	290	0	
Early Run Total						
Females						
Percent	55.5	3.0	1.1	0.4	0	60.0
Number	27,975	1,512	554	202	0.0	30,243
Males						
Percent	38.1	0.8	0.4	0.4	0	40.0
Number	19,356	403	202	202	0.0	20,163
Sexes Combined						
Percent	93.9	3.8	1.5	0.8	0	100
Number	47,331	1,915	756	404	0.0	50,406
Standard Error	2,160	598	379	277	0	

[a] Source: Hammarstrom and Athons (1989)

Appendix C.17. Estimated age and sex composition of sockeye salmon in the late run through the Russian River weir, Upper Cook Inlet, Alaska, 1988.[a]

	Age Group					
	2.3	1.3	2.2	1.2	2.1	Total
17 July- 1 August (sample size = 122)						
Females						
Percent	14.8	3.3	37.7	5.7	0.0	61.5
Number	2,079	464	5,294	801	0	8,638
Males						
Percent	12.3	5.7	18.9	1.6	0.0	38.5
Number	1,728	801	2,655	225	0	5,409
Sexes Combined						
Percent	27.1	9.0	56.6	7.3	0.0	100.0
Number	3,807	1,265	7,949	1,026	0	14,047
Standard Error	615	372	792	355	0	
2 - 16 August (sample size = 131)						
Females						
Percent	5.3	1.5	36.6	13.0	0.0	56.4
Number	712	201	4,914	1,745	0	7,572
Males						
Percent	8.4	0.8	27.5	0.8	6.1	43.6
Number	1,128	107	3,692	107	819	5,853
Sexes Combined						
Percent	13.7	2.3	64.1	13.8	6.1	100.0
Number	1,840	308	8,606	1,852	819	13,425
Standard Error	418	176	770	408	280	
17 August- 11 September (sample size = 129)						
Females						
Percent	0.0	0.0	12.4	0.8	0.0	13.2
Number	0	0	1,860	120	0	1,980
Males						
Percent	0.8	0.0	10.1	0.8	75.2	86.8
Number	120	0	1,515	120	11,269	13,024
Sexes Combined						
Percent	0.8	0.0	22.5	1.6	75.2	100.0
Number	120	0	3,375	240	11,269	15,004
Standard Error	118	0	590	166	570	

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	Age Group					
	2.3	1.3	2.2	1.2	2.1	Total
Late Run Total						
Females						
Percent	6.6	1.6	28.4	6.2	0.0	42.8
Number	2,791	665	12,068	2,666	0	18,190
Males						
Percent	7.0	2.1	18.5	1.1	28.5	57.2
Number	2,976	908	7,862	452	12,088	24,286
Sexes Combined						
Percent	13.6	3.7	46.9	7.3	28.5	100.0
Number	5,767	1,573	19,930	3,118	12,088	42,476
Standard Error	753	412	1,252	566	635	

[a] Source: Hammarstrom and Athons (1989)

Appendix C.18. Estimated age and sex composition of sockeye salmon in the late run which spawned downstream from the Russian River weir, Upper Cook Inlet, Alaska, 1988.[a]

	Age Group					
	2.3	1.3	2.2	1.2	2.1	Total
Sample size = 308						
Females						
Percent	4.9	48.4	1.0	1.0	0.0	55.3
Number	1,488	14,695	304	304	0	16,791
Males						
Percent	0.3	41.2	0.0	1.9	1.0	44.7
Number	91	12,509	0	577	304	13,572
Sexes Combined						
Percent	5.2	89.6	1.0	2.9	1.0	100.0
Number	1,579	27,204	304	881	304	30,363
Standard Error	384	1,209	172	291	172	

[a] Source: Hammarstrom and Athons (1989)

Appendix C.19. Age and size composition of sockeye salmon escapement in Hidden Lake, Kenai River drainage, Upper Cook Inlet, Alaska, 1988.[a]

	Age Group				
	1.2	1.3	2.2	2.3	Total
Sample Size	201	8	4	1	214
Percent	94.0	3.7	1.9	0.4	100.0
Number	47,853	1,884	967	203	50,907
Mean					
length (mm)	535	574	565	595	
weight (kg)	2.2	2.8	2.6	3.2	

[a] Source: G. Kyle, Alaska Department of Fish and Game, Soldotna, personal communication.

Appendix C.20. Age and sex composition of sockeye salmon escapement in the Kasilof River, Upper Cook Inlet, Alaska, 1988.

	Age Group								
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 1: 15 June - 8 July									
Males		5,982		11,541	3,176	159	5,029	53	25,941
Percent		11.97		23.09	6.36	.32	10.06	.11	51.91
Std. Error		.29		.19	.41	1.88	.32		.10
Sample Size		113		218	60	3	95	1	490
Females		4,288		13,500	2,224		4,023		24,035
Percent		8.58		27.01	4.45		8.05		48.09
Std. Error		.35		.17	.49		.36		.11
Sample Size		81		255	42		76		454
Both Sexes		10,270		25,041	5,400	159	9,053	53	49,976
Percent		20.55		50.11	10.81	.32	18.11	.11	100.00
Std. Error		.21		.11	.30	1.88	.23		
Sample Size		194		473	102	3	171	1	944
Sample Period 2: 9 - 15 July									
Males		7,802		7,526	6,241		1,836		23,405
Percent		15.57		15.02	12.45		3.66		46.70
Std. Error		.43		.44	.49		.94		.20
Sample Size		85		82	68		20		255
Females		7,985	92	9,729	6,150		2,754		26,710
Percent		15.93	.18	19.41	12.27		5.49		53.30
Std. Error		.42		.37	.49		.76		.17
Sample Size		87	1	106	67		30		291
Both Sexes		15,787	92	17,256	12,391		4,589		50,115
Percent		31.50	.18	34.43	24.73		9.16		100.00
Std. Error		.27		.25	.32		.58		
Sample Size		172	1	188	135		50		546
Sample Period 3: 16 July - 8 August									
Males	131	10,915	65	2,288	4,052		458		17,909
Percent	.25	21.09	.13	4.42	7.83		.88		34.60
Std. Error	2.51	.24		.59	.43		1.34		.17
Sample Size	2	167	1	35	62		7		274
Females		21,046	65	3,595	8,235		915		33,856
Percent		40.66	.13	6.94	15.91		1.77		65.40
Std. Error		.15		.46	.29		.94		.9
Sample Size		322	1	55	126		14		518
Both Sexes	131	31,961	131	5,882	12,288		1,373		51,765
Percent	.25	61.74	.25	11.36	23.74		2.65		100.00
Std. Error	2.51	.10	2.51	.35	.23		.77		
Sample Size	2	489	2	90	188		21		792
All Periods Combined:									
Males	131	24,699	65	21,355	13,470	159	7,323	53	67,255
Percent	.9	15.99	.4	14.68	8.33	.13	5.35	.4	44.65
Std. Error	3.55	2.01	3.55	2.11	2.25	3.25	2.38	3.25	1.59
Sample Size	2	365	1	335	190	3	122	1	1,019
Females		33,319	157	26,824	16,608		7,692		84,601
Percent		21.47	.9	18.23	10.30		5.26		55.35
Std. Error		2.01	2.90	2.03	2.23		2.25		1.41
Sample Size		490	2	416	235		120		1,263
Both Sexes	131	58,019	223	48,179	30,079	159	15,015	53	151,856
Percent	.9	37.47	.13	32.91	18.62	.13	10.60	.4	100.00
Std. Error	3.55	1.63	2.73	1.77	2.06	3.25	2.19	3.25	
Sample Size	2	855	3	751	425	3	242	1	2,282
Estimated residual		10,715		26,128	5,636	166	9,442	57	52,144[a]
Grand Total	131	68,734	223	74,307	35,715	325	24,457	110	204,000
Percent	.6	33.69	.11	36.43	17.51	.16	11.99	.5	100.00

[a] Total represents the difference between the sonar count (during project operation) and spawning ground survey count. Assumed that fish entered prior to project initiation thus period one age composition was applied to total.

Appendix C.21. Age, length and weight composition of adult sockeye salmon sampled from Bear Creek and Glacier Flats Creek, Kasilof River drainage, Upper Cook Inlet, Alaska, 1988.[a]

Location	Age Group 1.2	1.3	2.2	2.3	Sample Size
Bear Creek					
%	38	33	16	12	340
Mean Length[b]	477	541	484		
SD[c]	19	24	21		
Mean Weight[d]	1.6	2.4	1.7		
SD	.3	.4	.3		
Sample Size	133	111	56		
Glacier Flats Creek					
%	30	45	17	8	281
Mean Length	476	551	479		
SD	20	22	24		
Mean Weight	1.6	2.6	1.6		
SD	.3	.3	.3		
Sample Size	83	127	49		

[a] Source: G. Kyle, Alaska Department of Fish and Game, Soldotna, personal communication.
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.
[c] Standard Deviation
[d] Mean weight represented in kg.

Appendix C.22. Age and sex composition of sockeye salmon escapement in Crescent River, Upper Cook Inlet, Alaska, 1988.

	Age Group							
	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Sample Period 1: 1 - 13 July								
Males	1,938		10,875	2,907	215	3,984		19,919
Percent	5.13		28.77	7.69	.57	10.54		52.71
Std. Error	1.23		.45	.99	3.76	.83		.27
Sample Size	18		101	27	2	37		185
Females	969		10,983	1,938		3,984		17,874
Percent	2.56		29.06	5.13		10.54		47.29
Std. Error	1.76		.45	1.23		.83		.30
Sample Size	9		102	18		37		166
Both Sexes	2,907		21,857	4,845	215	7,968		37,793
Percent	7.69		57.83	12.82	.57	21.08		100.00
Std. Error	.99		.24	.74	3.76	.55		
Sample Size	27		203	45	2	74		351
Sample Period 2: 14 - 31 July								
Males	1,533	51	4,802	2,299	102	3,729	51	12,567
Percent	7.69	.26	24.10	11.54	.51	18.72	.26	63.08
Std. Error	.89		.46	.71	3.57	.53		.20
Sample Size	30	1	94	45	2	73	1	246
Females	1,022		1,839	2,146		2,350		7,356
Percent	5.13		9.23	10.77		11.79		36.92
Std. Error	1.10		.80	.74		.70		.34
Sample Size	20		36	42		46		144
Both Sexes	2,554	51	6,641	4,444	102	6,079	51	19,923
Percent	12.82	.26	33.33	22.31	.51	30.51	.26	100.00
Std. Error	.67		.36	.48	3.57	.39		
Sample Size	50	1	130	87	2	119	1	390
All Periods Combined:								
Males	3,471	51	15,677	5,206	318	7,713	51	32,486
Percent	6.48	.13	26.32	9.72	.54	14.84	.13	58.16
Std. Error	3.61	5.06	3.40	3.55	3.96	3.42	5.06	2.55
Sample Size	48	1	195	72	4	110	1	431
Females	1,991		12,822	4,084		6,334		25,230
Percent	3.91		18.62	8.10		11.20		41.84
Std. Error	3.60		3.91	3.52		3.63		2.99
Sample Size	29		138	60		83		310
Both Sexes	5,461	51	28,498	9,290	318	14,047	51	57,716
Percent	10.39	.13	44.94	17.81	.54	26.05	.13	100.00
Std. Error	3.51	5.06	2.83	3.36	3.96	3.25	5.06	
Sample Size	77	1	333	132	4	193	1	741

Appendix C.23. Age and sex composition of sockeye salmon escapement in Packers Creek, Kalgin Island, Upper Cook Inlet, Alaska, 1988.

	Age Group										
	1.1	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	3.3	Total
Sample Period 1: 26 May - 3 August											
Males	74	129	351	351	2,344	18	18	978	55		4,319
Percent	.73	1.28	3.49	3.49	23.30	.18	.18	9.72	.55		42.94
Std. Error	2.13	1.61	.97	.97	.33			.56	2.47		.21
Sample Size	4	7	19	19	127	1	1	53	3		234
Females		111	18	701	2,953			1,901	55		5,741
Percent		1.10	.18	6.97	29.36			18.90	.55		57.06
Std. Error		1.74		.67	.28			.38	2.47		.16
Sample Size		6	1	38	160			103	3		311
Both Sexes	74	240	369	1,052	5,298	18	18	2,880	111		10,060
Percent	.73	2.39	3.67	10.46	52.66	.18	.18	28.62	1.10		100.00
Std. Error	2.13	1.17	.94	.54	.17			.29	1.74		
Sample Size	4	13	20	57	287	1	1	156	6		545
Sample Period 2: 4 August - 16 September											
Males	72	24	599	48	2,705	144		144			3,735
Percent	.84	.28	7.00	.56	31.65	1.68		1.68			43.70
Std. Error	3.04		1.02	3.73	.41	2.14		2.14			.32
Sample Size	3	1	25	2	113	6		6			156
Females			24	72	4,166			479	48	24	4,812
Percent			.28	.84	48.74			5.60	.56	.28	56.30
Std. Error				3.04	.29			1.15	3.73		.25
Sample Size			1	3	174			20	2	1	201
Both Sexes	72	24	622	120	6,871	144		622	48	24	8,547
Percent	.84	.28	7.28	1.40	80.39	1.68		7.28	.56	.28	100.00
Std. Error	3.04		1.00	2.35	.14	2.14		1.00	3.73		
Sample Size	3	1	26	5	287	6		26	2	1	357
All Periods Combined:											
Males	146	153	949	399	5,050	162	18	1,122	55		8,054
Percent	.78	.89	4.88	2.33	26.61	.78	.11	6.54	.33		43.24
Std. Error	3.38	3.68	3.57	3.76	2.92	4.68	4.28	3.61	4.27		2.53
Sample Size	7	8	44	21	240	7	1	59	3		390
Females		111	42	773	7,119			2,380	103	24	10,553
Percent		.67	.22	4.55	37.03			13.64	.55	.11	56.76
Std. Error		4.26	3.52	3.78	2.67			3.25	3.35	5.29	2.21
Sample Size		6	2	41	334			123	5	1	512
Both Sexes	146	264	992	1,172	12,169	162	18	3,502	159	24	18,607
Percent	.78	1.55	5.10	6.87	63.64	.78	.11	20.18	.89	.11	100.00
Std. Error	3.38	3.88	3.56	3.68	1.84	4.68	4.28	3.11	3.37	5.29	
Sample Size	7	14	46	62	574	7	1	182	8	1	902

Appendix C.24. Age composition, mean length, and mean weight of adult sockeye salmon sampled at the weir, Swanson River, Alaska, 1988.[a]

			Length (mm)		Weight (g)	
Age	N	%	Mean	SD	Mean	SD
1.1	7	1.2	399.3		1078.6	
1.2	107	18.7	443.3	46.7	1496.6	572.3
1.3	98	17.1	531.5	27.6	2399.1	438.8
2.1	17	3.0	411.8	50.7	1065.3	448.8
2.2	328	57.2	506.7	31.3	1897.8	405.6
2.3	9	1.6	533.7		2280.6	
3.2	7	1.2	475.0		1642.9	

[a] Source: D. Faurot, U.S. Fish and Wildlife Service, Soldotna, personal communication.

Appendix C.25. Age and sex composition of sockeye salmon escapement in the Yentna River, Susitna River drainage, Upper Cook Inlet, Alaska, 1988.

	Age Group										
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 1: 7 - 20 July											
Males	320		115	2,969	154	1,536	627	13	486		6,219
Percent	3.11		1.12	28.86	1.49	14.93	6.09	.12	4.73		60.45
Std. Error	.69		1.17	.20	1.01	.30	.49		.56		.10
Sample Size	25		9	232	12	120	49	1	38		486
Females	13		166	1,024	13	1,996	230	13	614		4,070
Percent	.12		1.62	9.95	.12	19.40	2.24	.12	5.97		39.55
Std. Error			.97	.37		.25	.82		.49		.15
Sample Size	1		13	80	1	156	18	1	48		318
Both Sexes	333		282	3,993	166	3,532	857	26	1,101		10,289
Percent	3.23		2.74	38.81	1.62	34.33	8.33	.25	10.70		100.00
Std. Error	.68		.74	.16	.97	.17	.41	2.49	.36		
Sample Size	26		22	312	13	276	67	2	86		804
Sample Period 2: 21 - 26 July											
Males	707	64	450	4,759		9,004	772	64	2,187		18,008
Percent	2.36	.21	1.50	15.85		29.98	2.57	.21	7.28		59.96
Std. Error	1.38		1.74	.49		.33	1.32		.76		.17
Sample Size	11	1	7	74		140	12	1	34		280
Females			257	1,865		7,396	900		1,608		12,026
Percent			.86	6.21		24.63	3.00		5.35		40.04
Std. Error			2.30	.83		.37	1.22		.90		.26
Sample Size			4	29		115	14		25		187
Both Sexes	707	64	707	6,624		16,400	1,672	64	3,794		30,034
Percent	2.36	.21	2.36	22.06		54.60	5.57	.21	12.63		100.00
Std. Error	1.38		1.38	.40		.20	.88		.56		
Sample Size	11	1	11	103		255	26	1	59		467
Sample Period 3: 27 July - 11 August											
Males	211	132	105	2,686	342	2,765	369	26	553	26	7,215
Percent	1.75	1.10	.88	22.37	2.85	23.03	3.07	.22	4.61	.22	60.09
Std. Error	1.64	2.08	2.33	.41	1.28	.40	1.23		1.00		.18
Sample Size	8	5	4	102	13	105	14	1	21	1	274
Females	53	26	132	1,633	105	2,317	158		369		4,792
Percent	.44	.22	1.10	13.60	.88	19.30	1.32		3.07		39.91
Std. Error	3.30		2.08	.55	2.33	.45	1.90		1.23		.27
Sample Size	2	1	5	62	4	88	6		14		182
Both Sexes	263	158	237	4,318	448	5,082	527	26	922	26	12,007
Percent	2.19	1.32	1.97	35.96	3.73	42.32	4.39	.22	7.68	.22	100.00
Std. Error	1.46	1.90	1.55	.29	1.11	.26	1.02		.76		
Sample Size	10	6	9	164	17	193	20	1	35	1	456
All Periods Combined:											
Males	1,238	196	671	10,414	496	13,304	1,767	103	3,226	26	31,442
Percent	2.55	.35	1.16	23.62	1.45	21.13	4.34	.17	5.39	.6	60.22
Std. Error	2.87	3.48	3.23	2.37	3.37	2.78	2.52	3.14	3.16	4.68	1.86
Sample Size	44	6	20	408	25	365	75	3	93	1	1,040
Females	65	26	555	4,521	118	11,709	1,289	13	2,591		20,888
Percent	.17	.6	1.27	9.90	.29	20.79	2.20	.6	5.04		39.78
Std. Error	3.82	4.68	2.62	2.54	4.17	2.72	3.29	3.52	2.98		2.29
Sample Size	3	1	22	171	5	359	38	1	87		687
Both Sexes	1,303	222	1,226	14,935	614	25,014	3,056	116	5,817	26	52,330
Percent	2.72	.41	2.43	33.53	1.74	41.92	6.54	.23	10.42	.6	100.00
Std. Error	2.80	3.57	2.90	2.24	3.48	2.21	2.75	2.87	2.98	4.68	
Sample Size	47	7	42	579	30	724	113	4	180	1	1,727

Appendix C.26. Age, sex, length and weight composition of sockeye salmon captured by fishwheel in the mainstem Susitna River immediately above the confluence of the Yentna and Susitna Rivers, 1988.

	Age Group						
	1.1	0.3	1.2	2.1	1.3	2.2	Total
Sample Period:	7/17- 8/ 8						
Male							
Percent	3.33	1.67	33.33	6.67	11.67	1.67	58.33
Std. Error	8.98		2.36	6.24	4.59		1.41
Sample Size	2	1	20	4	7	1	35
Mean Length[a]	312	433	455	362	555	506	457
Std. Error	4		14	19	23		9
Sample Size	2	1	20	4	7	1	35
Mean Weight[b]			1.22				1.22
Std. Error			.10				.10
Sample Size			2				2
Female							
Percent			30.00		8.33	3.33	41.67
Std. Error			2.55		5.53	8.98	1.97
Sample Size			18		5	2	25
Mean Length			486		530	487	495
Std. Error			8		20	13	7
Sample Size			18		5	2	25
Mean Weight			1.22				1.22
Std. Error							
Sample Size							
Both Sexes							
Percent	3.33	1.67	63.33	6.67	20.00	5.00	100.00
Std. Error	8.98		1.27	6.24	3.33	7.26	
Sample Size	2	1	38	4	12	3	60
Mean Length	312	433	470	362	544	493	473
Std. Error	4		8	19	16	13	6
Sample Size	2	1	38	4	12	3	60
Mean Weight			1.22				1.22
Std. Error			.10				.05
Sample Size			2				2

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix C.27. Age, sex, and length composition of sockeye salmon escapement in Larson Creek, Susitna River drainage, Upper Cook Inlet, Alaska, 1988.

	Age Group						
	1.1	1.2	1.3	2.2	1.4	2.3	Total
Sample Period: 4 - 5 August							
Males							
Percent		25.18	3.39	3.63	.24	.48	32.93
Std. Error		.42	1.29	1.25		3.47	.35
Sample Size		104	14	15	1	2	136
Mean Length[a]		537	597	554	645	625	546
Std. Error		3	11	10			3
Sample Size		99	14	14	1	1	129
Females							
Percent	.24	57.63	4.36	4.60		.24	67.07
Std. Error		.21	1.13	1.10			.17
Sample Size	1	238	18	19		1	277
Mean Length	335	500	562	510		555	505
Std. Error		1	7	5			1
Sample Size	1	231	18	19		1	270
Both Sexes							
Percent	.24	82.81	7.75	8.23	.24	.73	100.00
Std. Error		.11	.84	.81		2.83	
Sample Size	1	342	32	34	1	3	413
Mean Length	335	511	577	528	645	590	518
Std. Error		1	6	5			1
Sample Size	1	330	32	33	1	2	399

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix C.28. Age, sex, length and weight composition of sockeye salmon escapement in Fish Creek, Upper Cook Inlet, Alaska, 1988.[a]

	Age Group					
	1.1	1.2	2.1	1.3	2.2	Total
Sample period:	8 July -	10 September				
Males	9,563	34,821	368	368	613	45,733
Percent	13.36	48.63	.51	.51	.86	63.87
Std. Error	.44	.18	2.38	2.38	1.84	.13
Sample Size	78	284	3	3	5	373
Mean Length[b]	350	469	366	582	451	444
Std. Error	4	2	1	5	11	1
Sample Size	78	284	3	3	5	373
Mean Weight[c]	.68	1.49	.73	2.83	1.29	1.32
Std. Error	.02	.02	.06	.03	.12	.01
Sample Size	76	278	3	3	5	365
Females	123	24,644		613	490	25,870
Percent	.17	34.42		.86	.68	36.13
Std. Error		.24		1.84	2.06	.23
Sample Size	1	201		5	4	211
Mean Length	346	489		560	489	490
Std. Error		2		14	31	2
Sample Size	1	201		5	4	211
Mean Weight	1.60	1.64		2.40	1.68	1.66
Std. Error		.02		.19	.28	.02
Sample Size	1	199		5	4	209
Both Sexes	9,686	59,465	368	981	1,103	71,603
Percent	13.53	83.05	.51	1.37	1.54	100.00
Std. Error	.43	. 8	2.38	1.45	1.37	
Sample Size	79	485	3	8	9	584
Mean Length	350	478	366	568	468	461
Std. Error	4	1	1	9	15	1
Sample Size	79	485	3	8	9	584
Mean Weight	.69	1.55	.73	2.56	1.46	1.44
Std. Error	.02	.01	.06	.12	.14	.01
Sample Size	77	477	3	8	9	574

[a] Source: R. Chlupach, Alaska Department of Fish and Game, Big Lake, personal communication.
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.
[c] Mean weight represented in kg.

Appendix C.29. Estimated age and sex composition of sockeye salmon harvested during the Russian River recreational fishery, 1988.[a]

Component	Age Group 2.3	1.3	2.2	1.2	2.1	Total
Early Run[b] (sample size = 263)						
Females						
Percent	55.5	3.0	1.1	0.4	0.0	60.0
Number	30,404	1,643	603	219	0	32,870
Males						
Percent	38.4	0.8	0.4	0.4	0.0	40.0
Number	21,036	438	219	219	0	21,912
Sexes Combined						
Percent	93.9	3.8	1.5	0.8	0.0	100.0
Number	51,440	2,081	882	438	0	54,782
Standard Error	4,660	674	416	302	0	
Late Run[c] (sample size = 253)						
Females						
Percent	5.1	9.9	30.8	5.5	0.0	51.3
Number	996	1,934	6,017	1,074	0	10,022
Males						
Percent	10.3	10.7	25.3	2.4	0.0	48.7
Number	2,012	2,090	4,943	469	0	9,514
Sexes Combined						
Percent	15.4	20.6	56.1	7.9	0.0	100.0
Number	3,008	4,024	10,960	1,543	0	19,536
Standard Error	521	612	1,155	360	0	

[a] Source: Hammarstrom and Athons (1989)
[b] Assumes the age/sex composition of the harvest is similar to the escapement.
[c] Assumes the age/sex composition of the harvest at the confluence area is representative of the total late run harvest.

Appendix C.30. Estimated length and weight by age and sex of sockeye salmon escapement in the Kenai River, Upper Cook Inlet, Alaska, 1988.

	Age Group								
	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 1: 1 - 17 July									
Males									
Mean Length[a]		595	530		600	542		589	584
Std. Error			15		3	7		8	3
Sample Size		1	29		108	5		16	159
Mean Weight[b]		3.60	2.51		3.85	2.58		3.59	3.54
Std. Error			.17		.06	.20		.17	.05
Sample Size		1	29		104	4		16	154
Females									
Mean Length			519		581	551	600	580	575
Std. Error			6		5	3		4	4
Sample Size			23		202	6	1	36	268
Mean Weight			2.12		3.27	2.70	3.70	4.52	3.32
Std. Error			.05		.04	.20		1.25	.17
Sample Size			21		195	6	1	33	256
Both Sexes									
Mean Length		595	525		588	547	600	583	579
Std. Error			8		4	3		3	3
Sample Size		1	52		310	11	1	52	427
Mean Weight		3.60	2.33		3.47	2.65	3.70	4.23	3.40
Std. Error			.10		.03	.14		.87	.11
Sample Size		1	50		299	10	1	49	410
Sample Period 2: 18 - 22 July									
Males									
Mean Length			514		601	540	630	597	595
Std. Error			18		2	9	20	4	2
Sample Size			7		134	7	2	26	176
Mean Weight			2.13		3.99	2.57	4.50	3.95	3.86
Std. Error			.21		.06	.09		.12	.05
Sample Size			7		121	7	1	23	159
Females									
Mean Length			498		573	509	600	575	568
Std. Error			15		2	12		5	2
Sample Size			10		180	5	1	28	224
Mean Weight			1.85		3.17	1.96		3.20	3.09
Std. Error			.16		.03	.05		.12	.03
Sample Size			10		168	5		22	205
Both Sexes									
Mean Length			505		585	527	620	585	580
Std. Error			12		1	7	20	3	1
Sample Size			17		314	12	3	54	400
Mean Weight			1.97		3.52	2.32	4.50	3.56	3.43
Std. Error			.13		.03	.06		.09	.03
Sample Size			17		289	12	1	45	364
Sample Period 3: 23 July - 10 August									
Males									
Mean Length	388		517	384	595	508	604	604	575
Std. Error	16		10	12	2	27		5	3
Sample Size	3		43	3	186	8	1	11	255
Mean Weight			1.75		3.76	2.37		3.75	3.37
Std. Error			.15		.08	.03		.85	.08
Sample Size			10		44	3		2	59
Females									
Mean Length	378		510		564	522		575	555
Std. Error			5		1	6		6	1
Sample Size	1		51		242	13		28	335
Mean Weight	.80		1.89		3.08	1.93		3.00	2.84
Std. Error			.08		.05	.29		.17	.04
Sample Size	1		14		73	3		7	98
Both Sexes									
Mean Length	385		513	384	578	517	604	584	563
Std. Error	16		5	12	1	11		5	1
Sample Size	4		94	3	428	21	1	39	590
Mean Weight	.80		1.83		3.38	2.10		3.21	3.06
Std. Error			.08		.05	.18		.27	.04
Sample Size	1		24		117	6		9	157

-Continued-

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	Age Group								
	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
All Periods Combined:									
Males									
Mean Length	388	595	521	384	598	527	621	596	583
Std. Error	16		8	12	1	12	20	3	2
Sample Size	3	1	79	3	428	20	3	53	590
Mean Weight		3.60	2.06		3.85	2.49	4.50	3.80	3.55
Std. Error			.10		.04	.06		.20	.04
Sample Size		1	46		269	14	1	41	372
Females									
Mean Length	378		511		572	527	600	577	565
Std. Error			4		2	4		3	1
Sample Size	1		84		624	24	2	92	827
Mean Weight	.80		1.95		3.17	2.13	3.70	3.66	3.06
Std. Error			.06		.02	.17		.50	.06
Sample Size	1		45		436	14	1	62	559
Both Sexes									
Mean Length	385	595	516	384	583	527	612	584	572
Std. Error	16		4	12	1	6	20	2	1
Sample Size	4	1	163	3	1,052	44	5	145	1,417
Mean Weight	.80	3.60	2.00		3.44	2.29	4.22	3.71	3.26
Std. Error			.06		.02	.10		.33	.04
Sample Size	1	1	91		705	28	2	103	931

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix C.31. Mean length at age by sex of early and late run sockeye salmon in the Russian River, 1988.[a]

Component		Age Class 2.3	1.3	2.2	1.2	2.1
Early Run:						
Above weir site						
Female	Mean Length[b]	593	583	548	515	
	Std Error	1.9	10.3	7.3		
	Sample Size	146	8	3	1	
Male	Mean Length	597	608	580	480	
	Std Error	2.1	17.5			
	Sample Size	101	2	1	1	
Late Run:						
Above weir site						
Female	Mean Length	584	583	545	523	
	Std Error	5.7	9.3	2.4	3.0	
	Sample Size	25	6	110	25	
Male	Mean Length	604	613	552	538	385
	Std Error	5.1	8.6	3.7	12.7	1.7
	Sample Size	27	8	72	4	105
Below weir site[c]						
Female	Mean Length	570	568	560	522	
	Std Error	4.6	1.8	11.6	13.6	
	Sample Size	15	149	3	3	
Male	Mean Length	610	612		577	388
	Std Error		1.9		9.8	4.4
	Sample Size	1	127		6	3
Confluence Harvest[d]						
Female	Mean Length	580	581	557	539	
	Std Error	4.5	4.6	2.3	3.5	
	Sample Size	13	25	78	14	
Male	Mean Length	603	596	559	553	
	Std Error	4.6	5.4	3.1	13.6	
	Sample Size	26	27	64	6	

[a] Source: Hammarstrom and Athons (1989)
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.
[c] Fish that spawned downstream from Russian River Falls.
[d] Confluence of the Russian and Kenai Rivers.

Appendix C.32. Estimated length and weight by age and sex of sockeye salmon escapement in the Kasilof River, Upper Cook Inlet, Alaska, 1988.

	Age Group								
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 1: 15 June - 8 July									
Males									
Mean Length[a]		492		554	499	562	550	506	533
Std. Error		3		2	4	4	2		1
Sample Size		102		195	43	3	77	1	421
Mean Weight[b]		1.96		2.81	2.05	2.85	2.77		2.52
Std. Error		.04		.03	.07	.15	.05		.02
Sample Size		61		148	23	2	61		295
Females									
Mean Length		490		549	489		545		533
Std. Error		3		1	5		2		1
Sample Size		71		221	27		71		390
Mean Weight		1.89		2.70	1.79		2.56		2.46
Std. Error		.04		.12	.09		.05		.07
Sample Size		51		166	16		52		285
Both Sexes									
Mean Length		491		551	495	562	548	506	533
Std. Error		2		1	3	4	2		1
Sample Size		173		416	70	3	148	1	811
Mean Weight		1.93		2.75	1.95	2.85	2.67		2.49
Std. Error		.03		.07	.05	.15	.03		.04
Sample Size		112		314	39	2	113		580
Sample Period 2: 9 - 15 July									
Males									
Mean Length		485		547	487		532		509
Std. Error		3		3	3		6		2
Sample Size		84		81	68		20		253
Mean Weight		1.85		2.61	1.83		2.53		2.14
Std. Error		.04		.04	.05		.08		.02
Sample Size		58		58	51		19		186
Females									
Mean Length		480	358	542	482		543		509
Std. Error		2		2	2		5		1
Sample Size		87	1	106	67		30		291
Mean Weight		1.64		2.36	1.65		2.48		1.99
Std. Error		.03		.04	.04		.08		.02
Sample Size		56		85	51		21		213
Both Sexes									
Mean Length		482	358	544	485		539		509
Std. Error		2		2	2		4		1
Sample Size		171	1	187	135		50		544
Mean Weight		1.74		2.47	1.74		2.50		2.06
Std. Error		.02		.03	.03		.06		.02
Sample Size		114		143	102		40		399
Sample Period 3: 16 July - 8 August									
Males									
Mean Length	389	470	355	539	475		530		480
Std. Error	34	2		6	3		9		2
Sample Size	2	167	1	35	62		7		274
Mean Weight		1.64		2.60	1.77		2.30		1.81
Std. Error		.03		.11	.07		.12		.03
Sample Size		111		21	52		5		189
Females									
Mean Length		473	343	525	475		532		480
Std. Error		1		3	2		5		1
Sample Size		322	1	55	126		14		518
Mean Weight		1.59	.40	2.26	1.60		2.17		1.68
Std. Error		.02		.05	.02		.10		.01
Sample Size		129	1	30	102		9		271
Both Sexes									
Mean Length	389	472	349	531	475		531		480
Std. Error	34	1		3	1		5		1
Sample Size	2	489	2	90	188		21		792
Mean Weight		1.61	.40	2.39	1.66		2.21		1.72
Std. Error		.02		.05	.03		.08		.01
Sample Size		240	1	51	154		14		460

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Appendix C.32. (p. 2 of 2)

	Age Group								
	1.1	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
All Periods Combined:									
Males									
Mean Length	389	480	355	550	486	562	544	506	511
Std. Error	34	1		1	2	4	2		1
Sample Size	2	353	1	311	173	3	104	1	948
Mean Weight		1.79		2.72	1.86	2.85	2.68		2.20
Std. Error		.02		.02	.03	.15	.04		.01
Sample Size		230		227	126	2	85		670
Females									
Mean Length		477	352	543	479		543		505
Std. Error		1		1	1		2		1
Sample Size		480	2	382	220		115		1,199
Mean Weight		1.64	.40	2.52	1.64		2.49		2.00
Std. Error		.02		.06	.02		.04		.02
Sample Size		236	1	281	169		82		769
Both Sexes									
Mean Length	389	478	353	546	482	562	543	506	507
Std. Error	34	1		1	1	4	2		1
Sample Size	2	833	3	693	393	3	219	1	2,147
Mean Weight		1.70	.40	2.61	1.74	2.85	2.58		2.09
Std. Error		.01		.04	.02	.15	.03		.01
Sample Size		466	1	508	295	2	167		1,439

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix C.33. Estimated length and weight by age and sex of sockeye salmon escapement in Crescent River, Upper Cook Inlet, Alaska, 1988.

	Age Group							
	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Sample Period 1: 1 - 13 July								
Males								
Mean Length[a]	460		578	470	607	580		551
Std. Error	5		3	9	4	6		2
Sample Size	18		101	27	2	37		185
Mean Weight[b]	1.81		3.55	1.85	4.10	3.53		3.13
Std. Error	.14		.05	.12		.12		.04
Sample Size	7		91	23	1	32		154
Females								
Mean Length	481		549	498		552		540
Std. Error	7		2	6		3		2
Sample Size	9		102	18		37		166
Mean Weight	1.83		2.76	1.99		2.81		2.64
Std. Error	.09		.04	.07		.04		.03
Sample Size	7		79	17		34		137
Both Sexes								
Mean Length	467		563	481	607	566		546
Std. Error	4		2	6	4	3		1
Sample Size	27		203	45	2	74		351
Mean Weight	1.82		3.15	1.91	4.10	3.17		2.90
Std. Error	.10		.03	.08		.06		.03
Sample Size	14		170	40	1	66		291
Sample Period 2: 14 - 31 July								
Males								
Mean Length	482	338	588	508	604	590	508	560
Std. Error	5		3	5	6	4		2
Sample Size	30	1	94	45	2	73	1	246
Mean Weight	1.89		3.20	2.12	3.45	3.45		2.92
Std. Error	.11		.08	.13	.05	.08		.05
Sample Size	10		51	15	2	43		121
Females								
Mean Length	491		560	495		561		532
Std. Error	5		4	4		4		2
Sample Size	20		36	42		46		144
Mean Weight	1.93		2.57	1.96		2.76		2.36
Std. Error	.09		.06	.09		.09		.04
Sample Size	3		20	17		19		59
Both Sexes								
Mean Length	486	338	580	502	604	579	508	550
Std. Error	4		2	3	6	3		1
Sample Size	50	1	130	87	2	119	1	390
Mean Weight	1.91		3.03	2.04	3.45	3.18		2.71
Std. Error	.07		.06	.08	.05	.06		.03
Sample Size	13		71	32	2	62		180
All Periods Combined:								
Males								
Mean Length	470	338	581	487	606	585	508	555
Std. Error	4		2	5	3	3		2
Sample Size	48	1	195	72	4	110	1	431
Mean Weight	1.85		3.44	1.97	3.89	3.49		3.05
Std. Error	.09		.04	.09	.05	.07		.03
Sample Size	17		142	38	3	75		275
Females								
Mean Length	486		550	496		556		538
Std. Error	4		2	4		2		1
Sample Size	29		138	60		83		310
Mean Weight	1.88		2.73	1.97		2.79		2.56
Std. Error	.06		.04	.06		.04		.02
Sample Size	10		99	34		53		196
Both Sexes								
Mean Length	476	338	567	491	606	572	508	547
Std. Error	3		1	3	3	2		1
Sample Size	77	1	333	132	4	193	1	741
Mean Weight	1.86		3.12	1.97	3.89	3.18		2.83
Std. Error	.06		.03	.06	.05	.04		.02
Sample Size	27		241	72	3	128		471

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix C.34. Estimated length and weight by age and sex of sockeye salmon escapement in Packers Creek, Kalgin Island, Upper Cook Inlet, Alaska, 1988.

	Age Group										
	1.1	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	3.3	Total
Sample Period 1: 26 May - 3 August											
Males											
Mean Length[a]	334	508	364	570	516	398	563	566	533		516
Std. Error	9	28	4	6	4			4	22		2
Sample Size	4	7	19	19	127	1	1	53	3		234
Mean Weight[b]	.60	2.24	.81	3.14	2.39	1.00	2.90	3.07	2.73		2.44
Std. Error	.04	.28	.03	.11	.06			.07	.39		.04
Sample Size	4	7	19	19	127	1	1	53	3		234
Females											
Mean Length		528	370	545	521			557	498		535
Std. Error		11		4	2			2	21		1
Sample Size		6	1	38	160			103	3		311
Mean Weight		2.27	.90	2.57	2.24			2.78	2.13		2.45
Std. Error		.16		.06	.03			.04	.18		.02
Sample Size		6	1	38	160			103	3		311
Both Sexes											
Mean Length	334	517	364	553	519	398	563	560	516		527
Std. Error	9	16	4	3	2			2	15		1
Sample Size	4	13	20	57	287	1	1	156	6		545
Mean Weight	.60	2.25	.81	2.76	2.31	1.00	2.90	2.88	2.43		2.45
Std. Error	.04	.17	.03	.06	.03			.03	.21		.02
Sample Size	4	13	20	57	287	1	1	156	6		545
Sample Period 2: 4 August - 16 September											
Males											
Mean Length	337	350	385	586	513	364		591			486
Std. Error	3		4	19	4	11		10			3
Sample Size	3	1	25	2	113	6		6			156
Mean Weight	.63	.80	.95	3.25	2.24	.80		3.40			2.00
Std. Error	.03		.04	.35	.06	.05		.21			.05
Sample Size	3	1	25	2	113	6		6			156
Females											
Mean Length			472	560	515			568	515	608	521
Std. Error				8	2			3	5		1
Sample Size			1	3	174			20	2	1	201
Mean Weight			1.70	2.70	2.10			2.90	2.20	3.30	2.19
Std. Error				.10	.02			.06	.40		.02
Sample Size			1	3	174			20	2	1	201
Both Sexes											
Mean Length	337	350	388	570	514	364		574	515	608	506
Std. Error	3		4	9	2	11		3	5		2
Sample Size	3	1	26	5	287	6		26	2	1	357
Mean Weight	.63	.80	.98	2.92	2.16	.80		3.02	2.20	3.30	2.11
Std. Error	.03		.04	.15	.03	.05		.07	.40		.02
Sample Size	3	1	26	5	287	6		26	2	1	357
All Periods Combined:											
Males											
Mean Length	336	484	377	572	515	368	563	569	533		502
Std. Error	5	28	3	6	3	11		3	22		2
Sample Size	7	8	44	21	240	7	1	59	3		390
Mean Weight	.61	2.01	.90	3.15	2.31	.82	2.90	3.11	2.73		2.23
Std. Error	.03	.28	.03	.10	.04	.05		.07	.39		.03
Sample Size	7	8	44	21	240	7	1	59	3		390
Females											
Mean Length		528	428	546	517			559	506	608	529
Std. Error		11		4	1			2	11		1
Sample Size		6	2	41	334			123	5	1	512
Mean Weight		2.27	1.36	2.58	2.16			2.80	2.16	3.30	2.34
Std. Error		.16		.06	.02			.03	.21		.01
Sample Size		6	2	41	334			123	5	1	512
Both Sexes											
Mean Length	336	502	379	555	516	368	563	562	516	608	517
Std. Error	5	16	3	3	1	11		2	11		1
Sample Size	7	14	46	62	574	7	1	182	8	1	902
Mean Weight	.61	2.12	.92	2.78	2.22	.82	2.90	2.90	2.36	3.30	2.29
Std. Error	.03	.17	.03	.05	.02	.05		.03	.19		.02
Sample Size	7	14	46	62	574	7	1	182	8	1	902

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix C.35. Estimated length and weight by age and sex of sockeye salmon escapement in the Yentna River, Susitna River drainage, Upper Cook Inlet, Alaska, 1988.

	Age Group										
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
Sample Period 1: 7 - 20 July											
Males											
Mean Length[a]	448		540	458	353	576	465	640	587		497
Std. Error	4		9	2	5	3	5		6		1
Sample Size	25		9	232	12	120	49	1	37		485
Mean Weight[b]	1.54		2.34	1.59	.62	3.28	1.62	4.26	3.42		2.15
Std. Error	.05		.34	.03	.04	.07	.07		.13		.03
Sample Size	16		7	172	11	86	34	1	28		355
Females											
Mean Length	469		562	479	354	560	492	458	552		533
Std. Error			3	3		2	11		4		2
Sample Size	1		13	79	1	156	18	1	48		317
Mean Weight	1.70		2.76	1.81	.50	2.87	1.89	2.92	2.81		2.52
Std. Error			.10	.06		.03	.15		.07		.03
Sample Size	1		9	64	1	120	17	1	39		252
Both Sexes											
Mean Length	449		553	464	353	567	472	549	567		511
Std. Error	4		4	2	5	2	5		3		1
Sample Size	26		22	311	13	276	67	2	85		802
Mean Weight	1.55		2.59	1.65	.61	3.05	1.69	3.59	3.08		2.30
Std. Error	.05		.15	.03	.04	.04	.06		.07		.02
Sample Size	17		16	236	12	206	51	2	67		607
Sample Period 2: 21 - 26 July											
Males											
Mean Length	452	324	595	472		585	481	600	588		545
Std. Error	16		8	5		2	19		5		2
Sample Size	11	1	7	74		140	12	1	34		280
Females											
Mean Length			551	480		549	492		563		536
Std. Error			16	4		2	7		4		2
Sample Size			4	29		115	14		25		187
Both Sexes											
Mean Length	452	324	579	474		569	487	600	578		542
Std. Error	16		8	4		2	10		3		2
Sample Size	11	1	11	103		255	26	1	59		467
Sample Period 3: 27 July - 11 August											
Males											
Mean Length	456	326	569	460	357	579	475	578	582	603	511
Std. Error	14	6	27	6	6	3	14		8		3
Sample Size	8	5	4	102	13	105	14	1	21	1	274
Females											
Mean Length	540	322	559	493	401	550	487		546		524
Std. Error	25		11	7	54	3	5		9		3
Sample Size	2	1	5	62	4	88	6		14		182
Both Sexes											
Mean Length	473	326	564	472	367	566	478	578	567	603	516
Std. Error	13	6	13	4	13	2	10		6		2
Sample Size	10	6	9	164	17	193	20	1	35	1	456
All Periods Combined:											
Males											
Mean Length	452	325	581	465	356	583	474	599	587	603	528
Std. Error	10	6	7	3	4	2	9		4		1
Sample Size	44	6	20	408	25	365	75	3	92	1	1,039
Mean Weight	1.66		2.69	1.75	.54	2.92	1.79	3.09	2.90		2.37
Std. Error	.05		.34	.03	.04	.07	.07		.13		.01
Sample Size	16		7	172	11	86	34	1	28		355
Females											
Mean Length	526	322	556	485	395	551	491	458	558		533
Std. Error	25		8	3	54	2	5		3		1
Sample Size	3	1	22	170	5	359	38	1	87		686
Mean Weight	1.70		2.76	1.81	.50	2.87	1.89	2.92	2.81		2.55
Std. Error			.10	.06		.03	.15		.07		.01
Sample Size	1		9	64	1	120	17	1	39		252
Both Sexes											
Mean Length	456	325	570	471	363	568	481	584	574	603	530
Std. Error	9	6	5	2	10	1	6		3		1
Sample Size	47	7	42	578	30	724	113	4	179	1	1,725
Mean Weight	1.66		2.72	1.77	.53	2.90	1.83	3.07	2.86		2.44
Std. Error	.05		.15	.03	.04	.04	.06		.07		.00
Sample Size	17		16	236	12	206	51	2	67		607

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix D.1. Age and sex composition of coho salmon harvested in the Central District drift gill net fishery, Upper Cook Inlet, Alaska, 1988.[a]

	Age Group			
	1.1	2.1	3.1	Total
Sample Period 1: 27 June - 15 July				
Males	10,233	43,279	3,624	57,137
Percent	9.70	41.01	3.43	54.14
Std. Error	.62	.24	1.07	.19
Sample Size	48	203	17	268
Females	6,822	37,736	3,838	48,395
Percent	6.46	35.76	3.64	45.86
Std. Error	.77	.27	1.04	.22
Sample Size	32	177	18	227
Both Sexes	17,056	81,014	7,462	105,532
Percent	16.16	76.77	7.07	100.00
Std. Error	.46	.11	.73	
Sample Size	80	380	35	495
Sample Period 2: 22 July - 9 September				
Males	12,626	81,016	8,768	102,409
Percent	8.02	51.45	5.57	65.03
Std. Error	.75	.22	.92	.16
Sample Size	36	231	25	292
Females	9,469	40,683	4,910	55,063
Percent	6.01	25.84	3.12	34.97
Std. Error	.88	.38	1.24	.30
Sample Size	27	116	14	157
Both Sexes	22,095	121,699	13,678	157,472
Percent	14.03	77.28	8.69	100.00
Std. Error	.55	.12	.72	
Sample Size	63	347	39	449

-Continued-

Appendix D.1. (p. 2 of 2)

	Age Group			
	1.1	2.1	3.1	Total
All Periods Combined:				
Males	22,859	124,294	12,392	159,546
Percent	8.90	45.97	4.45	59.32
Std. Error	3.15	2.46	3.49	2.10
Sample Size	84	434	42	560
Females	16,292	78,419	8,748	103,458
Percent	6.25	31.04	3.39	40.68
Std. Error	3.22	2.73	3.25	2.55
Sample Size	59	293	32	384
Both Sexes	39,151	202,713	21,140	263,004
Percent	15.15	77.01	7.84	100.00
Std. Error	3.05	1.60	3.29	
Sample Size	143	727	74	944

[a] Harvest does not include Chinitna Bay Subdistrict.

Appendix D.2. Estimated length and weight by age and sex of coho salmon harvested in the Central District drift gill net fishery, Upper Cook Inlet, Alaska, 1988.[a]

	Age Group			
	1.1	2.1	3.1	Total
Sample Period 1: 27 June - 15 July				
Males				
Mean Length[b]	523	547	547	543
Std. Error	7	4	13	3
Sample Size	28	112	9	149
Mean Weight[c]	2.58	2.95	2.75	2.87
Std. Error	.18	.13	.28	.10
Sample Size	12	47	4	63
Females				
Mean Length	531	552	564	550
Std. Error	10	5	20	5
Sample Size	15	59	7	81
Mean Weight	2.47	2.86	3.00	2.82
Std. Error	.18	.12	.30	.10
Sample Size	9	37	5	51
Both Sexes				
Mean Length	526	549	556	546
Std. Error	6	3	12	3
Sample Size	43	171	16	230
Mean Weight	2.54	2.91	2.88	2.85
Std. Error	.13	.09	.21	.07
Sample Size	21	84	9	114

-Continued-

Appendix D.2. (p. 2 of 3)

	Age Group			
	1.1	2.1	3.1	Total
Sample Period 2: 22 July - 9 September				
Males				
Mean Length	539	572	589	569
Std. Error	8	4	12	3
Sample Size	21	138	15	174
Mean Weight	2.87	3.35	3.59	3.31
Std. Error	.18	.11	.39	.09
Sample Size	11	77	7	95
Females				
Mean Length	535	554	574	552
Std. Error	11	5	15	4
Sample Size	14	69	6	89
Mean Weight	2.90	2.92	3.40	2.96
Std. Error	.24	.10	.29	.09
Sample Size	4	45	5	54
Both Sexes				
Mean Length	537	566	583	564
Std. Error	7	3	9	3
Sample Size	35	207	21	263
Mean Weight	2.88	3.21	3.52	3.19
Std. Error	.15	.08	.27	.07
Sample Size	15	122	12	149

-Continued-

Appendix D.2. (p. 3 of 3)

	Age Group			
	1.1	2.1	3.1	Total
All Periods Combined:				
Males				
Mean Length	532	563	577	560
Std. Error	5	3	9	2
Sample Size	49	250	24	323
Mean Weight	2.74	3.21	3.34	3.15
Std. Error	.13	.08	.29	.07
Sample Size	23	124	11	158
Females				
Mean Length	533	553	569	551
Std. Error	7	4	12	3
Sample Size	29	128	13	170
Mean Weight	2.72	2.89	3.22	2.89
Std. Error	.16	.08	.21	.06
Sample Size	13	82	10	105
Both Sexes				
Mean Length	533	559	574	557
Std. Error	4	2	7	2
Sample Size	78	378	37	493
Mean Weight	2.73	3.09	3.29	3.05
Std. Error	.10	.06	.19	.05
Sample Size	36	206	21	263

[a] Harvest does not include Chinitna Bay Subdistrict.
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.
[c] Mean weight represented in kg.

Appendix D.3. Age and sex composition of coho salmon harvested in the Upper Subdistrict set gill net fishery of the Central District, Upper Cook Inlet, Alaska, 1988.

	Age Group			
	1.1	2.1	3.1	Total
Sample period:	1 July - 15 August			
Males	1,613	24,999	4,973	31,585
Percent	2.93	45.48	9.05	57.46
Std. Error	1.41	.27	.78	.21
Sample Size	12	186	37	235
Females	2,150	18,548	2,688	23,387
Percent	3.91	33.74	4.89	42.54
Std. Error	1.21	.34	1.08	.28
Sample Size	16	138	20	174
Both Sexes	3,763	43,548	7,661	54,972
Percent	6.85	79.22	13.94	100.00
Std. Error	.90	.13	.61	
Sample Size	28	324	57	409

Appendix D.4. Estimated length and weight by age and sex of coho salmon harvested in the Upper Subdistrict set gill net fishery of the Central District, Upper Cook Inlet, Alaska, 1988.

	Age Group			
	1.1	2.1	3.1	Total
Sample period:	1 July - 15 August			
Males				
Mean Length[a]	572	590	618	594
Std. Error	6	4	6	3
Sample Size	5	118	29	152
Mean Weight[b]	3.30	3.73	4.13	3.77
Std. Error	.15	.11	.21	.09
Sample Size	3	62	12	77
Females				
Mean Length	522	583	617	581
Std. Error	14	6	8	5
Sample Size	7	59	15	81
Mean Weight	2.00	3.35	3.58	3.25
Std. Error	.40	.19	.32	.16
Sample Size	2	19	6	27
Both Sexes				
Mean Length	544	587	618	589
Std. Error	8	3	5	3
Sample Size	12	177	44	233
Mean Weight	2.56	3.57	3.94	3.55
Std. Error	.24	.10	.18	.09
Sample Size	5	81	18	104

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix D.5. Age, sex and size composition of coho salmon harvested in the Western Subdistrict set gill net fishery of the Central District, Upper Cook Inlet, Alaska, 1988.

	Age Group			
	1.1	2.1	3.1	Total
Sample period:	17 June - 12 September			
Males	2,740	10,691	935	14,366
Percent	10.79	42.11	3.68	56.58
Std. Error	.76	.31	1.35	.23
Sample Size	41	160	14	215
Mean Length[a]	542	584	604	577
Std. Error	10	4	12	4
Sample Size	20	106	8	134
Mean Weight[b]	2.92	3.65	3.60	3.51
Std. Error	.16	.10	.42	.08
Sample Size	14	67	3	84
Females	1,737	8,219	1,069	11,025
Percent	6.84	32.37	4.21	43.42
Std. Error	.97	.38	1.26	.30
Sample Size	26	123	16	165
Mean Length	552	571	595	570
Std. Error	8	5	11	4
Sample Size	11	59	11	81
Mean Weight	2.66	3.31	3.69	3.24
Std. Error	.16	.09	.23	.07
Sample Size	7	41	8	56
Both Sexes	4,477	18,910	2,005	25,391
Percent	17.63	74.47	7.89	100.00
Std. Error	.57	.15	.90	
Sample Size	67	283	30	380
Mean Length	546	578	600	574
Std. Error	7	3	8	3
Sample Size	31	165	19	215
Mean Weight	2.82	3.50	3.65	3.39
Std. Error	.11	.07	.23	.06
Sample Size	21	108	11	140

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix D.6. Age, sex and size composition of coho salmon harvested in the Eastern Subdistrict set gill net fishery of the Northern District, Upper Cook Inlet, Alaska, 1988.

	Age Group			
	1.1	2.1	3.1	Total
Sample period:	27 June- 19 September			
Males	2,333	8,309	583	11,225
Percent	8.84	31.49	2.21	42.54
Std. Error	1.77	.81	3.68	.64
Sample Size	16	57	4	77
Mean Length[a]	529	555	613	553
Std. Error	11	8	22	6
Sample Size	15	53	4	72
Mean Weight[b]	2.50	3.09	3.90	3.01
Std. Error	.18	.18	1.10	.15
Sample Size	10	23	2	35
Females	3,789	10,206	1,166	15,161
Percent	14.36	38.67	4.42	57.46
Std. Error	1.35	.70	2.57	.48
Sample Size	26	70	8	104
Mean Length	534	546	588	546
Std. Error	8	5	31	5
Sample Size	23	60	5	88
Mean Weight	2.19	2.86	2.80	2.69
Std. Error	.26	.13	.58	.12
Sample Size	13	31	3	47
Both Sexes	6,122	18,515	1,749	26,386
Percent	23.20	70.17	6.63	100.00
Std. Error	1.01	.36	2.07	
Sample Size	42	127	12	181
Mean Length	532	550	596	549
Std. Error	6	4	22	4
Sample Size	38	113	9	160
Mean Weight	2.31	2.96	3.17	2.82
Std. Error	.17	.11	.53	.09
Sample Size	23	54	5	82

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix D.7. Age, sex and size composition of coho salmon harvested in the General Subdistrict set gill net fishery of the Northern District, Upper Cook Inlet, Alaska, 1988.

	Age Group				
	1.1	2.1	3.1	2.2	Total
Sample period:	22 July - 8 August				
Males	8,462	53,487	4,095	272	66,316
Percent	6.86	43.36	3.32	.22	53.76
Std. Error	.82	.25	1.19		.21
Sample Size	31	196	15	1	243
Mean Length[a]	533	565	570	533	561
Std. Error	9	3	9		3
Sample Size	17	133	8	1	159
Mean Weight[b]	3.01	3.27	3.46		3.25
Std. Error	.09	.07	.28		.06
Sample Size	9	68	5		82
Females	7,093	45,580	4,367		57,040
Percent	5.75	36.95	3.54		46.24
Std. Error	.90	.29	1.15		.24
Sample Size	26	167	16		209
Mean Length	544	551	558		551
Std. Error	8	4	7		3
Sample Size	16	112	12		140
Mean Weight	2.87	3.08	3.01		3.05
Std. Error	.22	.10	.20		.09
Sample Size	7	46	8		61
Both Sexes	15,555	99,067	8,462	272	123,356
Percent	12.61	80.31	6.86	.22	100.00
Std. Error	.58	.11	.82		
Sample Size	57	363	31	1	452
Mean Length	538	558	564	533	556
Std. Error	6	2	6		2
Sample Size	33	245	20	1	299
Mean Weight	2.95	3.18	3.23		3.16
Std. Error	.11	.06	.17		.05
Sample Size	16	114	13		143

[a] Mean length represents mid-eye to fork-of-tail measurement in mm.
[b] Mean weight represented in kg.

Appendix D.8. Age, sex and length composition of coho salmon mortalities collected from the sport harvest and at the weir on the Anchor River during 1988.[a]

Component	Age Group 1.1	2.1	3.1	Total
Males				
Percent	25.7	29.7	1.1	56.5
Number	71	82	3	156
Mean Length[b]	610.3	628.1	648.3	
Standard Error	6.7	5.3	6.7	
Sample Size	71	82	3	
Females				
Percent	17.4	23.9	2.2	43.5
Number	48	66	6	120
Mean Length	624.1	627.5	655.0	
Standard Error	4.7	4.1	15.6	
Sample Size	14	38	2	
Sexes Combined				
Percent	43.1	53.6	3.3	100.0
Number	119	148	9	276

[a] Source: L. Larson, Alaska Department of Fish and Game, Soldotna, personal communication.
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix D.9. Age composition, mean length, and mean weight of adult coho salmon sampled at the weir, Swanson River, Alaska, 1988.[a]

			Length (mm)		Weight (g)	
Age	N	%	Mean	SD	Mean	SD
1.1	189	24.7	568.1	49.1	3393.1	866.2
2.0[b]	5	0.7	310.0		585.0	
2.1	478	62.6	589.7	51.1	3758.7	793.0
3.0[b]	14	1.8	323.6	20.1	651.8	99.3
3.1	77	10.1	588.4	45.1	3696.1	821.2
4.0[b]	1	0.1	310.0		750.0	

[a] Source: D. Faurot, U.S. Fish and Wildlife Service, Soldotna, personal communication.
[b] Returning adults that spent less than one year in the ocean (Jacks).

Appendix D.10. Estimates of age, sex and length composition of coho salmon sampled in the Yentna River escapement during 1988.[a]

	Age Group			
	1.1	2.1	3.1	TOTAL
Females				
Sample Number	22	67	4	93
% of Sample	9.7	29.6	1.8	41.2
Std. Error	0.02	0.03	0.01	0.03
Mean Length[b]	538.32	559.85	600.00	556.48
Std. Error	8.87	4.91	8.66	4.31
Sample Size	22	67	4	93
Minimum	450	420	575	420
Maximum	605	625	615	625
Males				
Sample Number	35	93	5	133
% of Sample	15.5	41.2	2.2	58.8
Std. Error	0.02	0.03	0.01	0.03
Mean Length	492.65	557.63	598.00	542.42
Std. Error	11.01	4.33	4.64	4.92
Sample Size	34	93	5	132
Minimum	315	440	580	315
Maximum	580	630	605	630
All				
Sample Number	57	160	9	226
% of Sample	25.2	70.8	4.0	100.0
Std. Error	0.03	0.03	0.01	
Mean Length	510.59	558.56	598.89	548.24
Std. Error	8.06	3.24	4.31	3.42
Sample Size	56	160	9	225
Minimum	315	420	575	315
Maximum	605	630	615	630

[a] Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix D.11. Estimates of age, sex and length composition of coho salmon sampled at the Little Susitna River escapement weir site, 1988.[a]

	Age Group			
	1.1	2.1	3.1	TOTAL
Females				
Sample Number	24	118	16	158
% of Sample	7.5	36.6	5.0	49.1
Std. Error	0.01	0.03	0.01	0.03
Mean Length[b]	585.42	591.97	590.62	590.83
Std. Error	3.61	2.83	6.42	2.28
Sample Size	24	117	16	157
Minimum	540	490	530	490
Maximum	610	660	630	660
Males				
Sample Number	22	130	12	164
% of Sample	6.8	40.4	3.7	50.9
Std. Error	0.01	0.03	0.01	0.03
Mean Length	592.73	608.69	621.67	607.50
Std. Error	6.39	2.76	6.94	2.45
Sample Size	22	130	12	164
Minimum	550	500	580	500
Maximum	660	680	670	680
All				
Sample Number	46	248	28	322
% of Sample	14.3	77.0	8.7	100.0
Std. Error	0.02	0.02	0.02	
Mean Length	588.91	600.77	603.93	599.35
Std. Error	3.59	2.04	5.50	1.74
Sample Size	46	247	28	321
Minimum	540	490	530	490
Maximum	660	680	670	680

[a] Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix D.12. Estimates of age, sex and length composition of coho salmon harvested in the early and late run sport fisheries of the Kenai River, 1988.[a]

			Age Group			
RUN	Sex		1.1	2.1	3.1	Total
EARLY	Male	Percent	3.5	43.6	11.5	58.7
		Mean Length[b]	619	633	639	
		Standard Error	16	3	5	
		Sample Size	15	189	50	
(n=433)[c]	Female	Percent	5.1	29.6	6.5	41.3
		Mean Length	596	612	626	
		Standard Error	8	4	6	
		Sample Size	22	128	28	
	Combined	Percent	8.5	73.2	18.0	
		St. Error	0.01	0.02	0.02	
LATE	Male	Percent	6.9	37.3	11.3	55.7
		Mean Length	654	658	657	
		Standard Error	6	3	6	
		Sample Size	39	209	64	
(n=566)[c]	Female	Percent	5.1	30.0	9.2	44.3
		Mean Length	636	648	653	
		Standard Error	7	3	6	
		Sample Size	29	169	51	
	Combined	Percent	12.0	67.3	9.2	
		St. Error	0.01	0.02	0.02	

[a] Source: Hammarstrom (1989)
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.
[c] n = sample size.

Appendix D.13. Estimates of age, sex and length composition of coho salmon sampled in the Susitna River fishery exiting at Susitna Landing during 1988.[a]

	Age Group				
	1.1	2.1	3.0	3.1	TOTAL
Females					
Sample Number	27	78		5	110
% of Sample	10.3	29.9		1.9	42.1
Std. Error	0.02	0.03		0.01	0.03
Mean Length[b]	544.07	576.09		568.00	567.86
Std. Error	9.20	3.65		15.70	3.71
Sample Size	27	78		5	110
Minimum	405	470		525	405
Maximum	615	640		615	640
Males					
Sample Number	25	119	2	5	151
% of Sample	9.6	45.6	0.8	1.9	57.9
Std. Error	0.02	0.03	0.01	0.01	0.03
Mean Length	542.20	576.22	352.50	607.00	568.64
Std. Error	11.20	3.95	12.50	10.20	4.32
Sample Size	25	119	2	5	151
Minimum	410	400	340	575	340
Maximum	605	645	365	635	645
All					
Sample Number	52	197	2	10	261
% of Sample	19.9	75.5	0.8	3.8	100.0
Std. Error	0.02	0.03	0.01	0.01	
Mean Length	543.17	576.17	352.50	587.50	568.31
Std. Error	7.13	2.78	12.50	10.96	2.94
Sample Size	52	197	2	10	261
Minimum	405	400	340	525	340
Maximum	615	645	365	635	645

[a] Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix D.14. Estimates of age, sex and length composition of coho salmon sampled in the Susitna River fishery exiting at Talkeetna Landing during 1988.[a]

	Age Group				
	1.1	2.0	2.1	3.1	TOTAL
Females					
Sample Number	59		114	7	180
% of Sample	15.6		30.2	1.9	47.7
Std. Error	0.02		0.02	0.01	0.03
Mean Length[b]	555.93		569.74	584.29	565.78
Std. Error	4.66		3.16	15.10	2.63
Sample Size	59		114	7	180
Minimum	410		440	510	410
Maximum	610		650	630	650
Males					
Sample Number	55	1	129	12	197
% of Sample	14.6	0.3	34.2	3.2	52.3
Std. Error	0.02	0.00	0.02	0.01	0.03
Mean Length	553.82	240.00	579.61	575.83	570.46
Std. Error	7.11		5.18	16.72	4.45
Sample Size	55	1	129	12	197
Minimum	420	240	80	430	80
Maximum	650	240	650	650	650
All					
Sample Number	114	1	243	19	377
% of Sample	30.2	0.3	64.5	5.0	100.0
Std. Error	0.02	0.00	0.02	0.01	
Mean Length	554.91	240.00	574.98	578.95	568.22
Std. Error	4.17		3.14	11.70	2.64
Sample Size	114	1	243	19	377
Minimum	410	240	80	430	80
Maximum	650	240	650	650	650

[a] Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix D.15. Estimates of age, sex and length composition of coho salmon sampled in the Lake Creek fishery during 1988.[a]

	Age Group						
	1.1	2.0	2.1	3.0	3.1	4.0	TOTAL
Female							
Sample Number	51		162		10		223
% of Sample	11.0		35.1		2.2		48.3
Std. Error	0.01		0.02		0.01		0.02
Mean Length[b]	560.69		567.22		572.50		565.96
Std. Error	3.95		2.22		8.54		1.89
Sample Size	51		162		10		223
Minimum	490		475		525		475
Maximum	620		630		615		630
Males							
Sample Number	44	1	165	4	21	4	239
% of Sample	9.5	0.2	35.7	0.9	4.5	0.9	51.7
Std. Error	0.01	0.00	0.02	0.00	0.01	0.00	0.02
Mean Length	560.00	290.00	576.91	343.75	606.00	353.75	567.51
Std. Error	7.06		3.09	4.27	5.88	13.75	3.93
Sample Size	44	1	165	4	21	4	239
Minimum	425	290	435	335	560	330	290
Maximum	620	290	640	355	645	390	645
All							
Sample Number	95	1	327	4	31	4	462
% of Sample	20.6	0.2	70.8	0.9	6.7	0.9	100.0
Std. Error	0.02	0.00	0.02	0.00	0.01	0.00	
Mean Length	560.37	290.00	572.11	343.75	595.19	353.75	566.77
Std. Error	3.88		1.93	4.27	5.55	13.75	2.23
Sample Size	95	1	327	4	31	4	462
Minimum	425	290	435	335	525	330	290
Maximum	620	290	640	355	645	390	645

[a] Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix D.16. Estimates of age, sex and length composition of coho salmon sampled from the sport fishery in the Little Susitna River, 1988.[a]

	Age Group				
	11	21	31	41	TOTAL
Females					
Sample Number	26	148	35	1	210
% of Sample	6.9	39.5	9.3	0.3	56.0
Std. Error	0.01	0.03	0.02	0.00	0.03
Mean Length[b]	592.50	594.80	604.43	600.00	596.15
Std. Error	6.57	2.65	5.09		2.21
Sample Size	26	147	35	1	209
Minimum	500	450	520	600	450
Maximum	650	685	660	600	685
Males					
Sample Number	22	119	24		165
% of Sample	5.9	31.7	6.4		44.0
Std. Error	0.01	0.02	0.01		0.03
Mean Length	592.86	601.51	618.12		602.84
Std. Error	7.85	3.74	7.38		3.12
Sample Size	21	119	24		164
Minimum	520	450	510		450
Maximum	670	670	670		670
All					
Sample Number	48	267	59	1	375
% of Sample	12.8	71.2	15.7	0.3	100.0
Std. Error	0.02	0.02	0.02	0.00	
Mean Length	592.66	597.80	610.00	600.00	599.09
Std. Error	5.00	2.23	4.31		1.85
Sample Size	47	266	59	1	373
Minimum	500	450	510	600	450
Maximum	670	685	670	600	685

[a] Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.

Appendix E.1. Age and sex composition of chum salmon harvested in the Central District drift gill net fishery, Upper Cook Inlet, Alaska, 1988.[a]

	Age Group					
	0.2	0.3	0.4	1.3	0.5	Total
Sample Period 1: 27 June - 17 July						
Males	3,654	91,345	35,494		2,088	132,581
Percent	1.13	28.32	11.00		.65	41.10
Std. Error	1.51	.26	.46		2.00	.19
Sample Size	7	175	68		4	254
Females	1,044	129,449	53,241	522	5,742	189,997
Percent	.32	40.13	16.50	.16	1.78	58.90
Std. Error	2.84	.20	.36		1.20	.14
Sample Size	2	248	102	1	11	364
Both Sexes	4,698	220,794	88,735	522	7,830	322,578
Percent	1.46	68.45	27.51	.16	2.43	100.00
Std. Error	1.33	.11	.26		1.03	
Sample Size	9	423	170	1	15	618
Sample Period 2: 18 - 25 July						
Males	938	22,192	4,063		313	27,505
Percent	.85	20.06	3.67		.28	24.86
Std. Error	3.06	.56	1.45			.49
Sample Size	3	71	13		1	88
Females	1,250	70,950	10,627		313	83,140
Percent	1.13	64.12	9.60		.28	75.14
Std. Error	2.64	.21	.87			.16
Sample Size	4	227	34		1	266
Both Sexes	2,188	93,142	14,690		625	110,645
Percent	1.98	84.18	13.28		.56	100.00
Std. Error	1.99	.12	.72		3.75	
Sample Size	7	298	47		2	354
Sample Period 3: 26 July - 5 September						
Males	5,242	40,101	6,290		262	51,895
Percent	3.74	28.60	4.49		.19	37.01
Std. Error	.95	.30	.86			.24
Sample Size	20	153	24		1	198
Females	5,242	68,407	13,891		786	88,327
Percent	3.74	48.79	9.91		.56	62.99
Std. Error	.95	.19	.56		2.49	.14
Sample Size	20	261	53		3	337
Both Sexes	10,484	108,508	20,181		1,048	140,222
Percent	7.48	77.38	14.39		.75	100.00
Std. Error	.66	.10	.46		2.15	
Sample Size	40	414	77		4	535

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Appendix E.1. (p. 2 of 2)

	Age Group					
	0.2	0.3	0.4	1.3	0.5	Total
All Periods Combined:						
Males	9,833	153,637	45,848		2,663	211,981
Percent	1.99	26.48	6.97		.40	35.83
Std. Error	2.75	2.34	3.03		3.23	2.19
Sample Size	30	399	105		6	540
Females	7,536	268,806	77,759	522	6,841	361,464
Percent	1.73	48.84	12.54	. 7	1.00	64.17
Std. Error	3.13	1.89	2.71	4.02	3.39	1.62
Sample Size	26	736	189	1	15	967
Both Sexes	17,370	422,444	123,607	522	9,503	573,445
Percent	3.72	75.32	19.51	. 7	1.39	100.00
Std. Error	2.81	1.38	2.61	4.02	3.33	
Sample Size	56	1,135	294	1	21	1,507

[a] Harvest does not include Chinitna Bay Subdistrict.

Appendix E.2. Estimated length and weight by age and sex of chum salmon harvested in the Central District drift gill net fishery, Upper Cook Inlet, Alaska, 1988.[a]

	Age Group					
	0.2	0.3	0.4	1.3	0.5	Total
Sample Period 1: 27 June - 17 July						
Males						
Mean Length[b]	563	610	632		628	615
Std. Error	7	4	5		18	3
Sample Size	3	83	33		3	122
Mean Weight[c]	3.20	3.90	4.27		4.00	3.98
Std. Error	.20	.13	.15		.40	.10
Sample Size	2	33	15		2	52
Females						
Mean Length	554	593	629		612	601
Std. Error		3	5		17	2
Sample Size	2	154	61		5	222
Mean Weight	2.60	3.24	3.65		3.84	3.37
Std. Error		.05	.08		.27	.04
Sample Size	1	82	41		5	129
Both Sexes						
Mean Length	561	600	630		616	607
Std. Error	7	2	4		13	2
Sample Size	5	237	94		8	344
Mean Weight	3.07	3.51	3.90		3.88	3.62
Std. Error	.20	.06	.08		.23	.05
Sample Size	3	115	56		7	181
Sample Period 2: 18 - 25 July						
Males						
Mean Length		589	621			567
Std. Error		4	17			4
Sample Size		33	4			37
Mean Weight		3.32	4.20			3.46
Std. Error		.14				.12
Sample Size		12	1			13
Females						
Mean Length	570	578	590			577
Std. Error		2	5			2
Sample Size	1	119	15			135
Mean Weight	2.40	2.80	3.00			2.82
Std. Error		.05	.18			.05
Sample Size	1	64	7			72
Both Sexes						
Mean Length	326	580	598			574
Std. Error		2	6			2
Sample Size	1	152	19			172
Mean Weight	2.40	2.92	3.33			2.97
Std. Error		.05	.18			.05
Sample Size	1	76	8			85

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Appendix E.2. (p. 2 of 2)

	Age Group					
	0.2	0.3	0.4	1.3	0.5	Total
Sample Period 3: 26 July - 5 September						
Males						
Mean Length	555	574	601			572
Std. Error	4	3	8			3
Sample Size	14	89	16			119
Mean Weight	2.72	2.99	3.60			3.04
Std. Error	.08	.06	.18			.05
Sample Size	5	46	6			57
Females						
Mean Length	546	578	602		590	580
Std. Error	8	2	5			2
Sample Size	12	176	39		1	228
Mean Weight	2.50	2.98	3.42		3.30	3.02
Std. Error	.07	.05	.13			.04
Sample Size	4	88	19		1	112
Both Sexes						
Mean Length	550	576	601		443	577
Std. Error	5	2	4			2
Sample Size	26	265	55		1	347
Mean Weight	2.61	2.98	3.48		3.30	3.03
Std. Error	.05	.04	.10			.03
Sample Size	9	134	25		1	169
All Periods Combined:						
Males						
Mean Length	505	598	627		493	598
Std. Error	4	3	4		18	2
Sample Size	17	205	53		3	278
Mean Weight	2.92	3.58	4.17		4.00	3.68
Std. Error	.09	.08	.13		.40	.06
Sample Size	7	91	22		2	122
Females						
Mean Length	551	585	618		581	590
Std. Error	8	2	4		17	1
Sample Size	15	449	115		6	585
Mean Weight	2.50	3.06	3.52		3.77	3.16
Std. Error	.07	.03	.07		.27	.03
Sample Size	6	234	67		6	313
Both Sexes						
Mean Length	525	589	622		556	593
Std. Error	4	1	3		13	1
Sample Size	32	654	168		9	863
Mean Weight	2.72	3.25	3.76		3.83	3.35
Std. Error	.06	.04	.06		.23	.03
Sample Size	13	325	89		8	435

[a] Harvest does not include Chinitna Bay Subdistrict.
[b] Mean length represents mid-eye to fork-of-tail measurement in mm.
[c] Mean weight represented in kg.

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