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Abundance, Age, Sex and Size of Chinook, Sockeye, Coho, and Chum Salmon Returning to Upper Cook Inlet, Alaska in 1989

by

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The Technical Fishery Report Series was established in 1987, replacing the Technical Data Report Series. The scope of this new series has been broadened to include reports that may contain data analysis, although data oriented reports lacking substantial analysis will continue to be included. The new series maintains an emphasis on timely reporting of recently gathered information, and this may sometimes require use of data subject to minor future adjustments. Reports published in this series are generally interim, annual, or iterative rather than final reports summarizing a completed study or project. They are technically oriented and intended for use primarily by fishery professionals and technically oriented fishing industry representatives. Publications in this series have received several editorial reviews and at least one *blind* peer review refereed by the division's editor and have been determined to be consistent with the division's publication policies and standards.

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ABSTRACT

Pacific salmon (*Oncorhynchus* spp.) returning to Upper Cook Inlet in 1989 were sampled from commercial harvests, sport catches, and spawning escapements to estimate age, sex and size composition. Chinook salmon (*O. tshawytscha*) were represented by eight age groups of which ages 1.3 and 1.4 predominated. Sockeye salmon (*O. nerka*) were characterized by 13 age groups of which the predominant age groups were age 1.2, 1.3, 2.2, and 2.3. Coho salmon (*O. kisutch*) were represented by seven age groups with age groups 1.1, 2.1, and 3.1 predominating. Chum salmon (*O. keta*) were only sampled in the Susitna River and included six age groups with the dominant age groups represented by age 0.3 and 0.4. Generally, sex ratio and size composition by species and location favored males.

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

INTRODUCTION

The Upper Cook Inlet, Alaska commercial salmon harvest is composed of mixed species and stocks returning to spawn in various rivers and lakes (Figure 1). Sockeye salmon *Oncorhynchus nerka* are the most abundant species harvested followed by chum *O. keta*, pink *O. gorbuscha* (even-year), coho *O. kisutch*, pink (odd-year), and chinook *O. tshawytscha* salmon. These resources are managed using a variety of information collected annually including catch estimates for each species and fishery; age, sex, and size data for commercial harvests, sport catches, and spawning escapements; actual and relative abundance estimates of spawning escapements.

In 1978 the Alaska Department of Fish and Game (ADF&G) initiated a comprehensive catch and escapement sampling program for sockeye salmon in Upper Cook Inlet. In 1983, the program was expanded to include age-weight-length (AWL) sampling of commercial catches and escapements of chinook, chum, and coho salmon. This report is part of a continuing series intended to provide annual estimates of abundance, age, sex, and size composition of salmon stocks returning to Upper Cook Inlet. Program objectives are to (1) estimate commercial, sport, subsistence, and personal use salmon catches; (2) estimates of salmon escapement; and (3) estimate age, sex, and size composition for monitored catches and escapements.

Description of Fisheries

Two primary fisheries districts and eight subdistricts are used for the regulation of Upper Cook Inlet commercial fisheries (Figure 2; ADF&G 1989). 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) in which only set gill net fisheries are allowed to operate. The Central District is divided into six subdistricts (Western, Kustatan, Kalgin Island, Upper, Lower, and Chinitna Bay) in which both set and drift gill net fisheries can occur (Figure 1). The Upper Subdistrict is further divided into three set gill net fisheries separated by the Kenai and Kasilof Rivers on the western shore of the Kenai Peninsula (Cohoe/Ninilchik Beach, Kalifonsky Beach, and Salamatof Beach; Figure 1). In addition, a drift gill net fishery can operate in all open waters of the Central District. These districts and subdistricts were initially established in 1976. Fishing is typically open in these areas on Mondays and Fridays (12 hours) between late June and mid August.

Upper Cook Inlet also supports the largest sport fisheries in the State (Mills 1990). Most sport fishing effort occurs in the Kenai and Susitna River drainages. Other sport fisheries that receive substantial effort are Anchor River, Ninilchik River, Deep Creek, and Little Susitna River (Figure 1).

The Alaska Board of Fisheries (BOF) has created one subsistence and five personal use fisheries in Upper Cook Inlet. A subsistence chinook salmon fishery, with an allowable harvest of 4,200 fish, was established in the vicinity of Tyonek in 1981 (Figure 3). A personal use dip net fishery management plan for sockeye

salmon in the Kenai and Kasilof Rivers was approved in 1981 (Figure 3). The Kenai River dip net fishery begins when an escapement of 700,000 sockeye salmon is projected. The Kasilof River dip net fishery begins when an escapement of 150,000 sockeye salmon is projected. In 1986 a personal use dip net fishery was established at the mouth of Fish Creek for sockeye salmon. The Fish Creek dip net fishery begins when the sockeye salmon escapement is projected to exceed 50,000. In 1982 the Board of Fisheries created a personal use set gill net fishery adjacent to the mouth of the Kasilof River which opens on 21 June; it is closed by emergency order when the quota of 5,000 to 10,000 sockeye salmon is reached. Created by the Board of Fisheries in the spring of 1983, a Central and Northern Districts personal use gill net fishery for coho salmon was initiated in the area north of the Kasilof River to Point Possession along the eastern shoreline of Cook Inlet. It takes place on the last three weekends of September and is closed when 2,500 coho salmon are caught.

METHODS

Abundance Data

Commercial Harvest

Commercial catch statistics presented in this report were compiled from final ADF&G fish ticket summaries.

Subsistence, Personal Use and Sport Harvest

Catches from the Tyonek subsistence fishery were compiled from returned permits (R. Stanek, ADF&G, Anchorage, personal communication). The Kasilof and Kenai River personal use dip net harvests were reported by Nelson (1990). The harvest estimate for the Kasilof personal use gill net fishery was reported in Ruesch (1990). The Fish Creek dip net fishery catch was estimated by Sport Fish personnel. The Central and Northern District personal use coho salmon fishery was monitored by aerial survey and telephone interviews (Ruesch 1990). Major sport fishery harvests were monitored by creel census, interviews or aerial surveys (L. Bartlett, ADF&G, Palmer, personal communication).

Escapement

The ADF&G, Division of Commercial Fisheries used Bendix Corporation side-scanning sonar equipment to enumerate returns of sockeye salmon to the Kenai, Kasilof, Crescent, and Yentna Rivers (B. King, ADF&G, Soldotna, personal communication). Proportions of species found in fish wheel catches were multiplied by the sonar count to estimate the counts for each species. Aerial and ground surveys of

tributaries in the Kenai, Kasilof, Susitna and Westside Rivers were conducted by ADF&G, U.S. Forest Service and U.S. Fish and Wildlife Service personnel. The ADF&G Division of Sport Fish monitored salmon escapements in indicator streams throughout Cook Inlet using a variety of methods. Chinook salmon escapements were indexed by aerial and ground survey for several Cook Inlet west-side streams, Susitna River tributaries, and the Little Susitna River (L. Engel, ADF&G, Palmer, personal communication). Helicopter and ground surveys were conducted in lower Kenai Peninsula chinook salmon stream index areas (Anchor River, Deep Creek, Ninilchik River; Nelson 1990). Chinook salmon escapement into the Kenai River was estimated by mark-recapture procedures and sonar enumeration programs in the lower river. Sockeye salmon escapement in Russian River was determined from weir counts (Carlon and Vincent-Lang 1990). Sockeye and coho salmon were enumerated at a weir on Swanson River. Chinook salmon escapement was monitored through a weir in Crooked Creek. Escapement of sockeye salmon and coho salmon was determined at a weir on Fish Creek (R. Chlupach, ADF&G, Big Lake, personal communication). Cook Inlet Aquaculture Association (CIAA) personnel monitored sockeye salmon escapements using weirs on Hidden and Packers Creeks located on Kalgin Island and Judd and Chelatna Lakes, tributary lakes of the Yentna River.

Age, Sex, and Size Data

Measurements

Scales were taken from the left side of sampled fish approximately two rows above the lateral line along a diagonal extending from the posterior insertion of the dorsal fin (INPFC 1963). 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 marks using criteria established by Mosher (1969). Ages were recorded in European notation (Koo 1962). Sex and length information was recorded for all species sampled. Length was measured from mid-eye to fork-of-tail in millimeters (nearest 5 mm for chinook salmon). Weight, when taken, was recorded to the nearest .1 kg.

Commercial Harvest and Escapement

Age, sex and size composition of the commercial catch was estimated using a stratified systematic sampling design (Cochran 1977). Based on current work (Thompson 1987), a minimum sample size of 400 readable scales was set for each species and strata to simultaneously estimate the proportion of each major age class in the harvest within five percentage points of their true values 90% of the time. A sample size of 600 fish per strata for sockeye salmon harvested in the commercial fisheries was set to account for unreadable scales and stock identification needs (B. Cross, ADF&G, Anchorage, personal communication). In addition, sample size goals for estimating length (200 fish) and weight (100 fish) of each species were established to meet the same accuracy and precision standards outlined above.

The number of temporal and spatial strata selected for sampling differed among commercial fisheries, escapements and species. In general, the number of temporal strata was set to detect changes in seasonal age composition. Spatial strata for commercial harvests were defined based on Upper Cook Inlet district or subdistrict designations. Frequency and priority of sampling were based on the relative catch contribution of a fishery to the total Upper Cook Inlet commercial harvest. Spatial strata for the escapements were defined by geographical location relative to commercial and sport fisheries.

Subsistence, Personal Use and Sport Harvest

Age and size information of the harvests were obtained for selected sport salmon fisheries. Bartlett (ADF&G, Palmer, personal communication) sampled chinook and coho salmon harvests from the Susitna and Little Susitna Rivers; Hammarstrom (ADF&G, Soldotna, personal communication) sampled Kenai River chinook and coho salmon sport harvests; Carlon and Vincent-Lang (1990) sampled Russian River sockeye salmon sport harvests.

Age and size information were not obtained from subsistence and personal use fisheries.

RESULTS AND DISCUSSION

Abundance Data

Commercial fishermen in Upper Cook Inlet harvested 5,566,098 salmon in 1989 comprising 26,742 chinook, 5,010,698 sockeye, 339,201 coho, 122,027 chum, and 67,430 pink salmon (Table 1; Appendices A.1 through A.5). Most commercial fishing occurred between 26 June and 15 September. However, the Kustatan Subdistrict sockeye fishery began on 26 May, and the Northern District chinook fishery began on 5 June. The Upper Cook Inlet subsistence fishery, conducted in the vicinity of the village of Tyonek, harvested 1,198 chinook, 40 sockeye, and 2 coho salmon (Table 2).

Personal use and monitored sport fisheries provided a harvest of 46,992 chinook, 347,390 sockeye and 47,411 coho salmon (Table 2). The largest personal use harvest, 60,960 sockeye salmon, resulted from the Kenai River dip net fishery. The largest sport catch of chinook salmon, 9,375 fish, was reported from the Kasilof River, and the largest sport harvest of sockeye salmon, 279,650 fish, was reported from the Kenai River.

The greatest estimated numbers of sockeye salmon spawners occurred in the Kenai River (1,343,042 fish), the Kasilof River (150,372 fish), Crescent River (70,532 fish), Packers Creek (22,304 fish), Yentna River (96,212 fish), and Fish Creek

(67,224 fish; Table 3, Appendices A.6 - A.14). A total of 208,901 sockeye spawned in other monitored streams and rivers.

Most chinook salmon spawners entered the following rivers: Kenai (30,644 spawners, early and late runs combined), Susitna (12,261 spawners), Little Susitna (4,367 spawners), and Kasilof (3,975 spawners; Table 3 and Appendices A.15 through A.18) Rivers.

The Swanson River accounted for 20,841 coho salmon (Appendix A.19). The Yentna River sonar count of 25,637 fish was the greatest index of abundance (Appendix A.10). The Yentna River index of pink and chum salmon was 173,493 and 63,172 fish (Appendix A.10), respectively.

Age, Sex, and Size Data

A total of 25,719 sockeye salmon, 6,135 chinook salmon, 7,529 coho salmon, and 418 chum salmon were sampled in Upper Cook Inlet catches and escapements (Table 4).

Chinook Salmon

Commercial harvests of chinook salmon from the Central (Upper Subdistrict) and Northern (Eastern and General Subdistricts) Districts were represented by six age groups (Table 5). Three age groups dominated the season catch: age-1.4 (31% to 53%), age-1.3 (21% to 34%), and age-1.2 (15% to 33%) fish (Table 5). Some spatial differences were noted in age composition. Age-1.4 and -1.3 fish accounted for 53% and 21% of the Central District catch during 3 July through 14 August (Appendix B.1), while in the Northern District, age-1.4 and -1.3 fish represented 31% and 34% of the Eastern Subdistrict catch (Appendix B.2), and 50% and 34% of the General Subdistrict catch (Appendix B.3) during the period 5-19 June. The catch for this period represents most of the chinook salmon caught during the entire season. Male to female sex ratios ranged from 1.1:1 in the General Subdistrict to 1.9:1 in the Eastern Subdistrict catch.

Sport harvest and escapement samples from Upper Cook Inlet consisted of two or three major age groups with a total of eight age groups represented (Table 6; Appendices B.4 - B.8). Age-1.4 chinook salmon in the Kenai River sport harvest represented 63% of the early and 72% of the late run harvests, (Appendix B.4). In the Susitna River drainage age-1.4 chinook salmon were generally most abundant, ranging from 21% to 72% in sport harvests (Appendix B.5). Escapement samples collected from the Little Susitna River were similar to the sport harvest from that system: i.e., age-1.4 (74.7%) and age-1.3 (14.9%) chinook salmon were most abundant (Table 6 and Appendix B.6). A lower percentage of age-1.4 chinook salmon were found in early run than in late run samples from the Kenai River sport fishery (Table 6).

Estimates of male to female sex ratios were 1:1 in the early and 0.75:1 in the late Kenai River runs (Appendix B.7). The sex ratio of chinook salmon in the Little Susitna River was 0.62:1 (Appendix B.8).

Chinook mean length estimates from commercial catch samples were generally less than estimates from associated sport fishery and escapement samples (Table 7; Appendices B.9 - B.17). The overall mean length of 950 mm for the early Kenai River sport fishery was similar to that estimated from escapement samples (962 mm). In contrast, overall mean length for the late run sport fishery was 1,033 mm, much greater than the 976 mm found for the escapement.

Sockeye Salmon

Sockeye salmon were represented by ages 1.3 (67%), 1.2 (16%), 2.3 (10%), and 2.2 (4%) in the Upper Cook Inlet commercial sockeye salmon harvest (Table 8). Age-1.3 sockeye salmon were most abundant in commercial harvests taken in the Central District, ranging from 68% for the Kalifonsky Beach fishery to 81% for the Western Subdistrict fishery. The percentage of age-1.3 sockeye salmon harvested in the Northern District ranged from 42% in the Eastern Subdistrict to 67% in the General Subdistrict. Age-1.2 sockeye salmon contributed 39% to commercial harvests from the Eastern and 16% to the General Subdistricts. Age-1.2 fish also accounted for 8% to 21% of harvests from the Central District. Age-2.3 sockeye salmon contributed from 6% in the Eastern Subdistrict to 13% in the Salamatof Beach fishery. Age-2.2 sockeye salmon contributed from 1% in the Western Subdistrict to 8% in the Eastern Subdistrict commercial fisheries. Other minor age groups of sockeye salmon harvested commercially included 0.2, 1.1, 0.3, 2.1, 0.4, and 1.4 (Table 8).

Sockeye salmon harvested in the Salamatof Beach set gill net fishery were characterized by six age groups, although age 1.3 (71%) represented the major contributor (Table 8). During 3 July through 14 August, age-1.3 sockeye salmon represented between 67% and 75% of the catch (Appendix C.1). Five other age groups also contributed to the season harvest: age-2.3 (13%), -1.2 (11%), -2.2 (4%), -1.4 (0.4%), and -2.1 (0.1%). Sex composition varied slightly by period, but the overall male to female ratio was about 1:1.

In the Kalifonsky Beach set gill net fishery, age-1.3 sockeye salmon represented most of the total harvest (68%), with the remainder composed of age-1.2 (21%), -2.3 (6%), and -2.2 (4%) sockeye salmon (Table 8). Age-1.3 sockeye salmon represented 62% to 74% of the harvest over the course of commercial fishing season with peak representation in catches made 3-5 July (Appendix C.2). Age-1.2 sockeye salmon comprised 14% to 28% of harvests over the season with peak representation during 11-17 July. Age-2.3 sockeye salmon ranged from 4% to 8% of the catch by period with the peak percentage occurring during 18-24 July. Sex composition ranged from a male to female ratio of 2.4:1 (11-17 July) to 0.96:1 (18-24 July): the overall ratio was 1.4:1.

The Cohoe/Ninilchik Beach fishery was characterized by 10 age groups of which age-1.3 (70%), -1.2 (14%), and -2.3 (10%) sockeye salmon predominated (Table 8). Age-1.2 sockeye salmon represented from 9% to 25% of the harvest during the five

time periods comprising the season, age-1.3 fish represented from 59% to 74% of the harvest by period, age-2.2 fish represented from 3% to 9% of the catch, and age-2.3 fish comprised 8% to 10% of the harvest (Appendix C.3). Male to female sex ratios ranged from 1.7:1 (7-13 July) to 1.0:1 (14-20 July); the overall ratio was 1.4:1.

Six age groups of sockeye salmon occurred in catches from the Western Subdistrict (Table 8 and Appendix C.4). Four age groups represented most of the harvest: age 1.3 (81%), 2.3 (10%), 1.2 (8%), and 2.2 (1%). The male to female ratio was 0.08:1.

Only one sample was collected from the Kalgin Island Subdistrict catch (Table 8 and Appendix C.5). Age-1.3 (36%), -1.2 (22%), and -2.3 (17%) sockeye salmon represented most of the catch taken on 28 July. The male to female ratio was 0.78:1.

Sockeye salmon harvested in the Northern District included age-1.2, -1.3, -2.2, and -2.3 fish (Table 8). Age distribution of the catch in the Eastern Subdistrict was primarily age 1.2 (39%) and age 1.3 (42%; Appendix C.6). Age-1.2 sockeye salmon comprised from 35% to 42% of the harvest over the season. Age-1.3 sockeye salmon represented 39% to 44% of the harvest over the season. In the General Subdistrict, age-1.2 fish and -1.3 represented 16% and 67% of the season total catch (Appendix C.7). During the commercial fishing season age-1.2 fish contributed between 14% and 18% to the catch. Age-1.3 fish contributed between 51% and 77% to the season catch. Sex composition in the Eastern Subdistrict for the season was 45% males and 56% females with females representing higher percentages in the harvest by period (Appendix C.6). In contrast, the season sex composition in the General Subdistrict was 60% males and 40% females with males representing higher percentages by time period (Appendix A.7).

Sockeye salmon harvested commercially in Upper Cook Inlet in 1989 averaged 498 mm and 576 mm for the major age groups 1.2 and 1.3, respectively (Table 9; Appendices C.8 - C.14). In general, fish caught in the Salamatof Beach commercial set gill net fishery were larger (overall mean length 579 mm) on the average than fish in other commercial fisheries.

Age-2.3 fish contributed 67% and age -2.2, 73% to the harvests of the early and late runs in the Russian River recreational sport fishery (Table 10). Sex composition in the sport harvests for both runs favored females; 58% and 55%, respectively.

Age-1.3 sockeye salmon comprised the largest portion of the escapements in the mainstem Kenai River (75%), Crescent River (81%), and Yentna River (64%; Table 11; Appendices C.15 through C.18). Age-1.2 fish formed the largest component of the escapements in Hidden Creek (43%; Appendix C.19) and Fish Creek (62%; Appendix C.20). Age-1.2 represented 44% and age-1.3 fish 46% of the escapement in the Kasilof River (Appendix C.21). Other age groups contributing to sockeye escapements included: age-2.3 fish in the early Russian River run (94%; Appendix C.22), age-2.2 fish in the late Russian River run above the weir (63%; Appendix C.23), age -1.3 fish in the late run Russian River run below the weir (75%; Appendix C.24), age-1.2 fish in Judd Lake (52%; Appendix C.25), age-1.3 fish in the Crescent River test fishery (74%; Appendix C.26), and age-1.2 fish in Packers

Creek (Appendix C.27). The percentage of male and female sockeye salmon in the escapements was generally close to 50% and varied by only 5% except for Hidden Creek, early run Russian River and Crescent River test fishery which had the same percentages of males (58%) and females (42%; Appendices C.15 through C.27).

Mean length of age-1.3 sockeye salmon in escapements of Upper Cook Inlet ranged from 544 mm in Fish Creek to 675 mm in the late Russian River run (Table 12). Mean lengths of other age groups were: 1.2 (471 mm to 577 mm), 2.2 (487 mm to 558 mm), and 2.3 (527 mm to 625 mm; Appendices C.28 - C.35).

Coho Salmon

Three age groups, -1.1, -2.1, and -3.1, accounted for most of the commercial harvest, sport catch, and escapements (Table 13). Age-1.1 coho salmon comprised 16%, age-2.1 66%, and -3.1 12% of the Upper Subdistrict set gill net catch (Appendix D.1). Coho age composition in the Western Subdistrict set gill net catch was: 36% age-1.1, 58% age-2.1, and 1% age-3.1 (Appendix D.2). Catches in the General Subdistrict were represented primarily by age-2.1 (69%) and age-1.1 (21%) coho salmon (Appendix D.3).

Age-2.1 coho salmon contributed 80% to the Kenai River early and 70% to the late-run sport harvests. Sex composition in the early and late run harvests was similar with an overall male to female ratio of 1:1 (Appendix D.4).

Coho age composition of escapements varied by river system (Table 13). Age-2.1 coho salmon represented the bulk of the escapement in the Anchor, Swanson, and Yentna Rivers, and Fish Creek (Appendix D.5 through D.8), while age-1.1 coho salmon represented 94% of the escapement in the Little Susitna River (Appendix D.9). Male to female sex ratios were generally close to 1:1 in all areas sampled except the Little Susitna River where males outnumbered females 1.7:1 (Appendices D.1 through D.9).

Mean lengths of coho salmon harvested commercially in Upper Cook Inlet were larger, on average, for all age groups combined in the Upper Subdistrict (559 mm) than in the Western (537 mm) or General (542 mm) Subdistricts (Table 13 and Appendices D.10 through D.14). Mean length of coho salmon were generally larger in escapements than in associated commercial or sport harvests (Appendices D.15 - - D.19).

Chum Salmon

The predominant ages of chum salmon in the mainstem Susitna River at river mile 80, the only area where sampling was conducted, were 0.3 (60%) and 0.4 (36%; Table 14). Mean lengths of age-0.3 chum salmon were 605 mm and of age -0.4 619 mm.

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Table 1. Commercial salmon catch by area and gear type, Upper Cook Inlet, Alaska, 1989. (Source: Ruesch 1990).

Area/Gear	Chinook	Sockeye	Coho	Pink	Chum	Total
Central District:						
DRIFT[a]	0	3	743	1	72	819
SET						
Upper	10,919	4,543,066	81,744	37,971	12,302	4,686,002
Kalgin Island	661	87,650	36,660	2,633	1,718	129,325
Kustatan	1,144	40,256	17,468	587	194	59,649
Western	1,272	55,856	23,342	1,899	17,797	100,166
Chinitna Bay	12	3,066	3,534	461	7,996	15,069
Subtotal	14,011	4,729,894	162,748	43,551	40,007	4,990,211
SEINE	0	0	0	0	0	0
Northern District:						
SET						
Eastern	2,398	79,533	41,758	3,147	17,906	144,742
General	10,333	201,268	133,952	20,731	64,042	430,326
Subtotal	12,731	280,801	175,710	23,878	81,948	575,068
TOTAL	26,742	5,010,698	339,201	67,430	122,027	5,566,098

[a] Drift catch from Chinitna Bay Subdistrict.

Table 2. Estimated number of salmon harvested from selected subsistance, personal use, and sport fisheries in Upper Cook Inlet, Alaska, 1989.

Fishery	Species		
	Chinook[a]	Sockeye	Coho
Subsistence Catch:			
Tyonek[b]	1,198	40	2
Personal Use Catch:			
Kasilof River			
Dip Net[c]			
Set Gill Net[d]	186	9,928	
Kenai River			
Dip Net[e]		60,960	
Kenaitze[e]	95	2,212	1,814
Fish Creek			
Dip Net[f]		8,000	
Central and Northern District			
Set Gill Net[d]			2,376
Subtotal	281	81,100	4,190
Sport Catch:			
Central District			
Kenai River			
early run[e]	7,256		27,026
late run[e]	9,127	279,650	16,195
Russian River			
early run[e]		11,290	
late run[e]		55,210	
Kasilof River			
Crooked Creek	9,375[g]		

- Continued -

Table 2. (p. 2 of 2)

Fishery	Species		
	Chinook[a]	Sockeye	Coho
Sport Catch:			
Northern District			
Lake Creek[f]	2,812		
Deshka River[f]	5,036		
Alexander Creek[f]	4,519		
Montana Creek[f]	2,221		
Sheep Creek[f]	855		
Willow Creek[f]	2,570		
Talkeetna River[f]	548		
Little Susitna River[f]	2,265[g]		
Subtotal	46,584	346,150	43,221
Total	48,063	427,290	47,413

[a] Includes chinook salmon less than 16 inches.
[b] Source: R. Stanek, Alaska Department of Fish and Game, Anchorage, personal communication.
[c] Source: Nelson (1990). Fishery did not open; projection of minimum escapement could not be made until after the historic closure date of the fishery.
[d] Source: Ruesch (1990).
[e] Source: Nelson (1990).
[f] Source: L. Engel, Alaska Department of Fish and Game, Palmer, personal communication.
[g] Harvest includes catches from boat and shore anglers.

Table 3. Number of spawners estimated or indexed in selected streams and rivers of Upper Cook Inlet, Alaska, 1989.

Location	Species				
	Chinook	Sockeye	Coho	Pink	Chum
Central District:					
Kenai River					
early run	10,736[a]				
late run	19,908[a]	1,343,042[bc]			
Russian River					
early run					
above weir		15,338[d]			
late run					
above weir		138,318[d]			
below falls		28,480[de]			
Hidden Creek		7,770[f]			
Kasilof River					
mainstem		150,372[bg]			
Crooked Creek[h]	3,975				
Crescent River[b]	134[i]	70,532	17[i]	357[i]	4,397[i]
Packers Creek[f]		22,304	14		
Anchor River	1,060[a]				
Ninilchik River	400[a]				
Deep Creek	650[a]				
Swanson River[j]			20,841		
Northern District:					
Susitna River					
Eastside streams					
Willow Creek	5,060[ik]				
Sheep Creek	610[ik]				
Montana Creek	2,701[ik]				
Westside streams					
Alexander Creek	3,497[ik]				
Yentna River[b]	393[l]	96,212	25,637[l]	173,493[l]	63,172[l]
Judd Lake[f]		12,792			
Northern District:					
Little Susitna River[k]	4,367[l]	6,203[l]	15,855[m]	57[l]	13,876[l]
Fish Creek[n]		67,224	3,479		

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Table 3. (p. 2 of 2)

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[a] Source: Nelson (1990).
[b] Source: B. King, Alaska Department of Fish and Game, Soldotna, personal communition.
[c] Sonar count less sport harvest.
[d] Source: J. Carlon, Alaska Department of Fish and Game, Soldotna, personal communication. 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: M. Schollenberger, Cook Inlet Aquaculture Association, Soldotna, personal communication.
[g] Sonar count less egg take.
[h] Source: G. Kyle, Alaska Department of Fish and Game, Soldotna, personal communication.
[i] Index count only.
[j] Source: R. Jones, U.S. Fish and Wildlife Service, Soldotna, personal communication.
[k] Source: L. Bartlett, Alaska Department of Fish and Game, Palmer, personal communication.
[l] Weir count.
[m] Weir count less sport harvest.
[n] Source: R. Chlupach, Alaska Department of Fish and Game, Big Lake, personal communication.

Table 4. Number of salmon sampled from commercial and sport catches and escapements in Upper Cook Inlet, Alaska, 1989.

Sample Type/Location[a]	Species			
	Chinook[b]	Sockeye	Coho[b]	Chum
Commercial Catch:				
Central District				
Drift[c]				
Upper Subdistrict	695[d]		1,603	
Salamatof Beach	96	2,320		
Kalifonsky Beach	176	3,000		
Cohoe/Ninilchik Beach	41	2,979		
Western Subdistrict		782	440	
Kalgin Island		541		
Northern District				
Eastern Subdistrict	355	1,438		
General Subdistrict	349	1,781	1,200	
Total Commercial Catch	1,712	12,841	3,243	
Sport Catch:				
Central District				
Kenai River				
Early run	181		118	
Late run	96		158	
Russian River				
Early run		255[b]		
Late run		366[b]		
Northern District				
Susitna River				
Alexander Creek	369			
Deshka River	307			
Lake Creek	298			
Talkeetna River	341			
Montana Creek	261			
Sheep Creek	257			
Willow Creek	368			
Little Susitna River	255		1,186[e]	
Total Sport Catch	2,733	621	1,462	

- Continued -

Table 4. (p. 2 of 3)

Sample Type/Location	Species			
	Chinook	Sockeye	Coho	Chum
Escapement:				
Central District				
Kenai River				
Early run	679[f]			
Late run	612[f]	2,721		
Russian River				
Early run				
Above weir		255[b]		
Late run				
Above weir		342[b]		
Below weir		131[b]		
Hidden Creek		644[g]		
Kasilof River				
mainstem		1,592		
Crooked Creek	31[h]			
Crescent River		881		
Test Fishery		297[i]		
Packers Creek		887[g]		
Anchor River			117	
Swanson River			203[j]	
Northern District				
Susitna River				
Mainstem test fish		1,419		418
Yentna River		1,988	1,568	
Judd		179[g]		
Chelatna Lake (Lake Creek)		349[g]		
Little Susitna River	368		589	
Fish Creek		572[h]	347[h]	
Total Escapement	1,690	12,257	2,824	418
Total Upper Cook Inlet	6,135	25,719	7,529	418

- Continued -

Table 4. (p. 3 of 3)

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[a] Specific areas that are not footnoted were sampled by Commercial Fisheries Division, Alaska Department of Fish and Game.
[b] Sport catch and escapement samples provided by Sport Fish Division, Alaska Department of Fish and Game.
[c] Drift fishery closed due to oil deposits found in the Central District.
[d] Represents mutually exclusive samples that were pooled from the three beach fisheries during the season.
[e] Represents samples from the weir and sport catch.
[f] Test fish samples from drift gillnetting in lower river.
[g] Samples collected by Cook Inlet Aquaculture Association.
[h] Samples collected by FRED Division, Alaska Department of Fish and Game.
[i] Samples collected by private contractor.
[j] Sample collected by U.S. Fish and Wildlife Service.

Table 5. Estimated age composition of chinook salmon sampled in selected commercial fisheries of Upper Cook Inlet, Alaska, 1989.

Area/Fishery[a]	Season Dates of Fishing	Total Sample Size		Age Group 1.1	1.2	1.3	2.2	1.4	1.5	Total[b]
Central District:										
Upper Subdistrict	7/03-8/14	854	No.	100	1,906	2,313	34	5,608	958	10,919
			%	0.94	15.11	21.08	0.23	53.28	9.37	100.00
Northern District:										
Eastern Subdistrict	6/05-6/19[c]	323	No.		683	703		653	46	2,085
			%		32.80	33.70		31.30	2.20	100.00
General Subdistrict	6/05-6/19[c]	349	No.	54	1,365	3,009		4,527	27	8,983
			%	0.60	15.20	33.50		50.40	0.30	100.00
Total[d]			No.	154	3,954	6,025	34	10,788	1,031	21,987
			%	0.70	17.98	27.40	0.15	49.07	4.70	100.00

[a] Sexes combined.
[b] Row and column totals may differ slightly due to rounding error.
[c] Early June fishery only.
[d] Total weighted by respective catch.

Table 6. Estimated age composition of chinook salmon sampled in selected sport fisheries and escapements, Upper Cook Inlet, Alaska, 1989.

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]	181	1.1	3.3	26.5		63.0		6.1	
Late[b]	96		1.0	10.4		71.9		15.6	
Susitna River									
Alexander Creek[c]	369	1.1	42.0	34.4		21.9	0.5		
Deshka River[c]	307	1.6	25.4	25.1	0.3	44.6	1.6	1.0	0.3
Lake Creek[c]	298	0.3	25.2	14.4		57.4	0.7	2.0	
Talkeetna River[c]	341	0.3	22.3	19.6		55.4		2.3	
Montana Creek[c]	261	5.0	24.9	23.4		45.6		1.1	
Sheep Creek[c]	257	0.8	16.0	17.1		59.9	0.8	4.3	1.2
Willow Creek[c]	368		7.3	18.3		72.8		0.8	0.8
Little Susitna[c]	255	1.6	5.1	16.9		70.2	0.4	5.9	
Escapement Survey:									
Kenai River[d]									
Early[b]	679		4.0	15.0		71.1		9.4	0.4[e]
Late[b]	612		10.1	12.3		64.5		12.1	0.9
Little Susitna[c]	368		6.8	14.9		74.7		3.5	

[a] Sum of age group percentages may differ slightly from 100% due to rounding error. Sexes combined.
[b] Source: S. Hammarstrom, Alaska Department of Fish and Game, Soldotna, personal communication.
[c] Source: L. Bartlett, Alaska Department of Fish and Game, Palmer, personal communication.
[d] Drift gill net test fishery in lower river.
[e] Age groups 2.4 and 2.5 combined.

Table 7. Estimated mean length of chinook salmon sampled in selected commercial and sport fisheries and escapements, Upper Cook Inlet, Alaska, 1989.[a]

Area	Age Group 1.1	1.2	1.3	2.2	1.4	2.3	1.5	2.4	Total
Commercial Fisheries:									
Central District									
Upper Subdistrict									
Mean Length	451	673	825	895	992		1,037		898
Std. Error	76	13	11		6		17		5
Sample Size	8	129	178	1	455		80		851
Northern District									
Eastern Subdistrict									
Mean Length		565	764		895		1,053		746
Std. Error		5	7		10		42		9
Sample Size		106	109		101		7		323
General Subdistrict									
Mean Length	374	598	784		913		926		819
Std. Error	24	12	8		6				8
Sample Size	2	53	117		176		1		349
Sport Fisheries:									
Kenai River[b]									
Early									
Mean Length	548	686	863		990		1,129		950
Std. Error	13	18	10		6		16		
Sample Size	2	6	48		114		11		181
Late									
Mean Length		726	926		1,033		1,126		1,033
Std. Error			32		6		14		
Sample Size		1	10		69		15		95

- Continued -

Table 7. (p. 2 of 3)

Area	Age Group 1.1	1.2	1.3	2.2	1.4	2.3	1.5	2.4	Total
Susitna River									
Alexander Creek[c]									
Mean Length	361	584	776		885	840			715
Sample Size	4	153	126		80	1			364
Lake Creek[c]									
Mean Length	380	581	819		945	895	1,018		833
Sample Size	1	75	42		168	2	6		
Talkeetna River[c]									
Mean Length	290	567	767		893		966		797
Sample Size	1	63	48		158		8		278
Willow Creek[c]									
Mean Length		578	804		926		951	935	878
Sample Size		36	90		357		4	4	491
Little Susitna River[d]									
Mean Length	360	578	824		948	910	1,020		904
Sample Size	3	12	41		161	1	14		232
Escapement Surveys:									
Kenai River									
Early									
Mean Length		650	786		998		1,102	730	962
Std. Error		5	8		4		11		5
Sample Size		27	102		483		64	1	679
Late									
Mean Length		664	1,019		1,103		1,084		976
Std. Error		6					7		6
Sample Size		62	75		395		74		612

- Continued -

Table 7. (p. 3 of 3)

Area	Age Group 1.1	1.2	1.3	2.2	1.4	2.3	1.5	2.4	Total
Little Susitna River									
Mean Length		627	838		947		1,019		911
Sample Size		25	54		275		13		367

[a] Length measured mid-eye to fork-of-tail in mm. Sexes combined.
[b] Mean estimated using mean length by sex and weighting by sample size by age group from Appendix B.8.
[c] Mean estimated using mean length by sex and weighting by sample size by age group from Appendix B.10.
[d] Mean estimated using mean length by sex and weighting by sample size by age group from Appendix B.12.

Table 8. Estimated age composition of sockeye salmon sampled in the major commercial fisheries of Upper Cook Inlet, Alaska, 1989.

	Age Group											
Fishery[a]	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	Total
Central District:												
Salamatof Beach												
Number				180,077	1,587		1,299,516	76,350	5,536	244,474		1,807,540
Percent				10.99	.10		71.31	4.17	.39	13.05		100.00
Std. Error				2.43	3.38		1.38	2.56	2.39	2.52		
Sample Size				224	2		1,454	85	8	266		2,039
Kalifonsky Beach												
Number	1,069			423,403	1,069		1,189,339	56,283	7,739	118,074		1,796,976
Percent	. 4			21.37	. 4		68.43	3.54	.34	6.25		100.00
Std. Error	4.49			2.17	4.49		1.44	2.47	3.19	2.48		
Sample Size	1			574	1		1,838	95	9	168		2,686
Cohoe/ Ninilchik Beach												
Number	561	1,406	1,406	123,398	3,557	845	648,170	58,459	5,073	95,675		938,550
Percent	. 4	. 8	. 8	14.20	.19	. 4	69.50	5.82	.43	9.62		100.00
Std. Error	4.53	3.21	3.21	2.25	4.19	4.42	1.40	2.84	3.57	2.52		
Sample Size	1	2	2	366	5	1	1,791	150	11	248		2,577
Western Subdistrict												
Number		85		4,264			45,026	597	256	5,628		55,856
Percent		.15		7.63			80.61	1.07	.46	10.08		100.00
Std. Error				.53			. 7	1.47	2.25	.46		
Sample Size		1		50			528	7	3	66		655
Kalgin Island												
Percent	.22	1.76	.22	22.47	1.32		35.68	19.60	.22	16.96	1.54	100.00
Std. Error		1.64		.41	1.90		.30	.45		.49	1.76	
Sample Size	1	8	1	102	6		162	89	1	77	7	454

-Continued-

Table 8. (p. 2 of 2)

Fishery[a]	Age Group 0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	Total
Northern District:												
Eastern Subdistrict												
Number	258	4,559	371	29,604	326		32,074	7,142	258	4,941		79,533
Percent	.26	4.23	.35	39.17	.43		41.67	8.02	.26	5.61		100.00
Std. Error	3.86	3.88	4.01	2.62	3.27		2.57	3.44	3.86	3.47		
Sample Size	3	49	4	454	5		483	93	3	65		1,159
General Subdistrict												
Number	104	385	405	30,852	963		146,402	6,770	245	15,141		201,268
Percent	.14	.14	.14	16.05	.36		66.88	5.54	.14	10.58		100.00
Std. Error	4.45	4.74	4.74	2.70	4.72		1.52	2.63	3.85	2.62		
Sample Size	2	2	2	223	5		929	77	2	147		1,389
Total[b]												
Number	1,992	6,435	2,182	791,598	7,502	845	3,360,527	205,601	19,107	483,933		4,879,723[c]
Percent	. 4	.13	. 5	16.22	.15	. 2	68.87	4.21	.39	9.92	1.54[d]	100.00

[a] Sexes combined.
[b] Total depicts only those fisheries sampled which represents 97% of total Upper Cook Inlet catch.
[c] Column total slightly different from row total due to rounding error in calculation of age group contribution.
[d] Percentage not incorporated in total due to no catch breakdown by age in Kalgin Island Subdistrict.

Table 9. Estimated mean length of sockeye salmon sampled in the major commercial fisheries of Upper Cook Inlet, Alaska, 1989.

	Age Group											
Fishery[a]	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	Total
Central District:												
Salamatof Beach												
Mean Length[b]				505	570		590	525	642	589		579
Std. Error				3			1	4	7	2		1
Sample Size				224	2		1,454	85	8	266		2,039
Kalifonsky Beach												
Mean Length	501			490	578		573	511	574	581		552
Std. Error				2			1	5	22	3		1
Sample Size	1			574	1		1,837	95	9	167		2,684
Cohoe/ Ninilchik Beach												
Mean Length	501	569	528	495	565	620	576	507	604	574		561
Std. Error				3	11		1	9	8	5		1
Sample Size	1	2	2	365	5	1	1,786	149	11	248		2,570
Western Subdistrict												
Mean Length		538		513			564	509	599	574		560
Std. Error				6			1	16	7	3		1
Sample Size		1		50			528	7	3	66		655
Kalgin Island												
Mean Length	535	463	589	511	418		576	520	634	561	519	543
Std. Error		29		4	46		3	3		3	6	2
Sample Size	1	8	1	101	6		162	88	1	77	7	452
Northern District:												
Eastern Subdistrict												
Mean Length	451	375	586	497	423		569	505	563	566		524
Std. Error		6	15	2	10		2	4		4		1
Sample Size	3	49	4	453	5		483	93	3	65		1,158

- Continued -

Table 9. (p. 2 of 2)

Fishery[a]	Age Group 0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	Total
General Subdistrict												
Mean Length	491	530	571	513	532		571	509	610	565		559
Std. Error	44			3	17		1	6		2		1
Sample Size	2	2	2	223	5		929	77	2	147		1,389
Total[c]												
Mean Length	484	400	570	498	493	620	576	512	602	576	519	557
Sample Size	8	62	9	1,990	24	1	7,179	594	37	1,036	7	10,947

[a] Sexes combined.
[b] Length measured mid-eye to fork-of-tail in mm.
[c] Total weighted by sample size for each fishery.

Table 10. Estimated age and sex composition of sockeye salmon harvested during the Russian River recreational fishery, 1989. (Source: J. Carlon, Alaska Department of Fish and Game, Soldotna, personal communication).

Component	Age Group 2.3	1.3	2.2	1.2	2.1	Total
Early Run[a] (n[b] = 255)						
Females						
Percent	36.4	10.4	10.7	0.0	0.0	57.5
Number	5,583	1,595	1,641	0	0	8,819
Males						
Percent	30.9	5.2	5.5	0.9	0.0	42.5
Number	4,739	798	844	138	0	6,519
Sexes Combined						
Percent	67.3	15.6	16.2	0.9	0.0	100.0
Number	10,322	2,393	2,485	138	0	15,338
Standard Error	668	287	287	63	0	
Late Run[c] (n = 366)						
Females						
Percent	6.6	3.0	44.2	1.4	0.0	55.2
Number	3,644	1,656	24,402	773	0	30,475
Males						
Percent	10.7	2.7	28.4	0.8	2.2	48.7
Number	5,907	1,491	15,680	442	1,215	24,735
Sexes Combined						
Percent	17.3	5.7	72.6	2.2	2.2	100.0
Number	9,551	3,147	40,082	1,215	1,215	55,210
Standard Error	1,298	706	3,227	432	432	

[a] Assumes the age/sex composition of the harvest is similar to the escapement.
[b] n = sample number.
[c] Assumes the age/sex composition of the harvest at the confluence area is representative of the total late run harvest.

Table 11. Estimated age composition of sockeye salmon sampled in selected escapements in Upper Cook Inlet, Alaska, 1989.

	Age Group													
Fishery[a]	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
Kenai River														
Number	655	1,966	2,055	145,962	8,364	1,199,495	68,215		16,078	154,596		655		1,598,042
Percent	.4	.13	.13	9.05	.48	75.30	4.13		1.01	9.67		.4		100.00
Std. Error	3.40	3.40	2.65	2.03	3.67	1.04	2.37		2.09	2.00		3.40		
Sample Size	1	3	3	206	11	1,713	94		23	220		1		2,275
Russian River[b]														
Early above weir														
Number				134		2,388	2,496			10,320				15,338
Percent				.80		3.80	1.50			93.90				100.00
Std. Error				85		357	373			636				
Sample Size														255
Late above weir														
Number				1,943	47,152	1,269	86,685			1,269				138,318
Percent				1.40	34.10	.90	62.70			.90				
Std. Error				566	635	412	1,252			753				
Sample Size														342
Late below weir														
Number				4,329		21,303	1,082			1,766				28,480
Percent				15.20		74.80	3.80			6.20				
Std. Error				930		1,750	481			611				
Sample Size														131
Hidden Creek														
Number		12		3,378	25	3,167	1,126			62				7,770
Percent		.16		43.47	.32	40.76	14.49			.80				100.00
Std. Error				.18	2.82	.19	.39			1.78				
Sample Size		1		273	2	256	91			5				628
Kasilof River														
Number		234		70,482		71,574	8,563		220	6,667				157,739
Percent		.16		44.00		46.30	5.18		.16	4.19				100.00
Std. Error		5.04		2.04		1.96	3.05		5.01	2.98				
Sample Size		2		535		563	63		2	51				1,216
Crescent River														
Number				1,841		57,259	388		388	10,560		97		70,532
Percent				2.61		81.18	.55		.55	14.97		.14		100.00
Std. Error				.84		.7	1.85		1.85	.33				
Sample Size				19		591	4		4	109		1		728
Packers Creek														
Number		3,094		8,498	2,092	971	4,667	30		2,258	634	30	31	22,304
Percent		13.92		38.06	9.41	4.37	20.87	.14		10.10	2.86	.14	.14	100.00
Std. Error		3.49		2.91	3.61	3.70	3.32	5.21		3.57	4.23	5.21	5.22	
Sample Size		102		279	69	32	153	1		74	21	1	1	733

-Continued-

Table 11. (p. 2 of 2)

Fishery[a]	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
Susitna River														
Mainstem[c]														
Percent		.43	.17	28.66		65.95	3.25			1.54				100.00
Std. Error		3.10	4.34	2.50		1.70	3.05			2.91				
Sample Size		5	2	335		771	38			18				1,169
Yentna River														
Number	154	1,128	210	25,831	176	61,669	2,750		439	3,855				96,212
Percent	.15	1.32	.22	27.17	.22	63.51	3.01		.37	4.04				100.00
Std. Error	3.40	3.87	2.77	2.37	4.91	1.67	2.82		4.01	2.91				
Sample Size	2	18	3	370	3	865	41		5	55				1,362
Judd Lake														
Number				2,575		6,440	1,974			1,803				12,792
Percent				20.13		50.34	15.43			14.09				100.00
Std. Error				.35		.34	.44			.34				
Sample Size				30		75	23			21				149
Fish Creek														
Number	136	4,500		41,862	1,909	13,636	3,409			1,773				67,224
Percent	.20	6.69		62.27	2.84	20.28	5.07			2.64				100.00
Std. Error		.76		.16	1.19	.40	.88			1.23				
Sample Size	1	33		307	14	100	25			13				493

[a] Sexes combined.
[b] Source: J. Carlon, Alaska Department of Fish and Game, Soldotna, personal communication.
[c] Samples taken in vicinity of Sunshine Station (river mile 80) in the Susitna River mainstem.

Table 12. Estimated mean length of sockeye salmon sampled in escapements of Upper Cook Inlet, Alaska, 1989.

	Age Group													
Fishery[a]	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
Kenai River														
Mean Length[b]	405	350	562	493	394	587	510		605	589		578		574
Std. Error		22	18	4	10	1	4		6	2				1
Sample Size	1	3	3	206	11	1,712	94		23	220		1		2,274
Russian River[c]														
Early (above weir)														
Mean Length				570		605	550			612				
Sample Size				2		39	43			171				255
Late (above weir)														
Mean Length				492	403	675	518			625				
Sample Size				4	136	2	198			2				342
Late (below weir)														
Mean Length				577		585	534			598				
Sample Size				20		98	5			8				131
Hidden Creek														
Mean Length		390		548	520	577	542			559				559
Std. Error				2		2	3			10				1
Sample Size		1		273	2	256	91			5				628
Kasilof River														
Mean Length		424		480		546	487		560	527				512
Std. Error		67		1		1	3		10	4				1
Sample Size		2		535		562	63		2	51				1,215
Crescent River														
Mean Length				531		578	558		590	586		615		578
Std. Error				10		1	28		17	2				1
Sample Size				19		591	4		4	109		1		728
Packers Creek														
Mean Length		360		490	357	556	505	520		557	505	600	535	473
Std. Error		3		2	3	5	3			3	5			1
Sample Size		102		279	69	32	153	1		74	21	1	1	733

-Continued-

Table 12. (p. 2 of 2)

Fishery[a]	Age Group													Total
	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	
Susitna River														
Mainstem[d]														
Mean Length		383	552	510		574	514			577				553
Std. Error		16		3		1	8			4				1
Sample Size		5	2	335		771	38			18				1,169
Yentna River														
Mean Length	480	354	555	471	394	563	501		587	560				534
Std. Error		12		3	61	1	7		8	3				1
Sample Size	2	18	3	368	3	864	41		5	55				1,359
Judd Lake														
Mean Length				482		575	524			575				548
Std. Error				5		3	6			3				2
Sample Size				30		75	23			21				149
Fish Creek														
Mean Length	455	395		494	414	544	489			553				496
Std. Error		9		4	10	3	7			9				3
Sample Size	1	33		307	14	100	25			13				493

[a] Sexes combined.
[b] Length measured mid-eye to fork-of-tail in mm.
[c] Source: J. Carlon, Alaska Department of Fish and Game, Soldotna, personal communication. Mean estimated using mean length by sex and weighting by sample size by age group from Appendix C.19.
[d] Samples taken from vicinity of Sunshine Station (river mile 80) in the Susitna River mainstem.

Table 13. Estimated age and size composition of coho salmon sampled in selected commercial and sport fisheries and escapements of Upper Cook Inlet, Alaska, 1989.

Location[a]	Sample Size	Age Group									
		Unaged	1.0	1.1	2.0	1.2	2.1	3.0	3.1	4.0	Total
Commercial Fisheries[b]:											
CENTRAL DISTRICT											
Upper Subdistrict											
Percent		6.0		16.4			66.1		11.5		100.0
Std. Error		0.63		0.98			1.26		0.84		
Sample Size		86		233			941		163		1423
Mean Length[c]		571		517			561		590		559
Std. Error		5.84		3.59			1.62		3.96		1.49
Sample Size		53		146			639		120		958
Western Subdistrict											
Percent		4.5		36.1			58.0		1.4		100.0
Std. Error		0.99		2.29			2.36		0.55		
Sample Size		20		159			255		6		440
Mean Length		563		518			546		583		537
Std. Error		2.18		3.56			2.87		9.62		2.31
Sample Size		16		128			212		5		361
NORTHERN DISTRICT											
General Subdistrict											
Percent		3.6		21.3			69.1		6.1		100.0
Std. Error		0.57		1.27			1.43		0.74		
Sample Size		37		221			719		63		1040
Mean Length		538		508			551		576		542
Std. Error		8.58		4.12			2.01		6.83		1.91
Sample Size		15		107			362		27		511
Sport Fisheries:											
Kenai River[d]											
EARLY	118[e]										
Percent				4.2			79.7		16.1		100.0
Std. Error				1.86			3.72		3.40		
Mean Length[f]				526			582		618		
LATE	158[e]										
Percent				2.5			70.3		27.2		100.0
Std. Error				1.25			3.65		3.53		
Mean Length[f]				572			613		630		
Little Susitna River[b]											
Percent			0.2	94.8			5.0		0.1		100.0
Std. Error				0.01			0.01				
Sample Size			2	1124			59		1		1186
Mean Length			620	584			612		660		586
Std. Error			25.00	1.35			5.08		1.32		
Sample Size			2	1099			59		1		1161
Escapement:											
Anchor River											
Percent[d]				37.6			59.8		2.6		100.0
Sample Size				44			70		3		117
Mean Length[b]				576			579		625		580
Std. Error				8.2			6.0		40.0		4.8
Sample Size				44			70		3		117
Swanson River[b]											
Percent				32.0	1.0		59.6	0.5	6.9		100.0
Std. Error				0.03	0.01		0.03		0.02		
Sample Size				65	2		121	1	14		203
Mean Length				522	468		570	420	610		556
Std. Error				5.41	32.50		2.78		8.34		3.21
Sample Size				65	2		121	1	14		203

-Continued-

Table 13. (p. 2 of 2)

Location[a]	Sample Size	Age Group									Total
		Unaged	1.0	1.1	2.0	1.2	2.1	3.0	3.1	4.0	
Escapement: (continued)											
Yentna River[b]											
Percent			0.1	26.4			64.5		8.8	0.2	100.0
Std. Error				0.01			0.01		0.01		
Sample Size			1	414			1012		138	3	1568
Mean Length			495	511			551		581	325	542
Std. Error			2.61	1.34			3.45		5.00	1.29	
Sample Size			1	414			1011		138	3	1567
Little Susitna River[b]											
Percent				93.9			6.1				100.0
Std. Error				1.0			1.0				
Sample Size				553			36				589
Mean Length				604			623				
Std. Error				2.1			9.1				
Sample Size				347			24				
Fish Creek											
Percent				19.6		1.03	67.0		12.4		100.0
Std. Error				1.04		5.05	0.36		1.37		
Sample Size				38		2	130		24		194
Mean Length				526		547	541		550		539
Std. Error				8			4		13		4
Sample Size				38		2	130		24		194
Mean Weight[g]				2.30		2.60	2.53		2.79		2.51
Std. Error				0.11			0.07		0.18		0.06
Sample Size				38		2	130		24		194

[a] Sexes combined in all samples.
[b] Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.
[c] Length measured mid-eye to fork-of-tail in mm.
[d] Source: L. Larson, Alaska Department of Fish and Game, Soldotna, personal communication.
[e] Sample size not broken down by age and sex.
[f] Mean estimated using mean length by sex and weighting by sample size within an age group from Appendix D.8.
[g] Weight measured in kg.

Table 14. Estimated age and length composition of chum salmon captured by fishwheel in the vicinity of Sunshine Station (river mile 80) in the Susitna River mainstem, Upper Cook Inlet, Alaska, 1989.

	Age Group						
	0.2	0.3	0.4	1.3	0.5	1.4	Total
Sample period:	14 July - 2 August						
Males							
Percent	.26	37.24	22.45	.26	1.02	.51	61.73
Std. Error		.33	.47		2.51	3.56	.20
Sample Size	1	146	88	1	4	2	242
Mean Length[a]	518	609	627	548	634	596	615
Std. Error		2	3		19	2	2
Sample Size	1	146	88	1	4	2	242
Females							
Percent		22.96	13.78	.51	.77	.26	38.27
Std. Error		.47	.64	3.56	2.90		.32
Sample Size		90	54	2	3	1	150
Mean Length		598	605	584	637	642	601
Std. Error		3	5	15	12		2
Sample Size		90	54	2	3	1	150
Both Sexes							
Percent	.26	60.20	36.22	.77	1.79	.77	100.00
Std. Error		.21	.34	2.90	1.89	2.90	
Sample Size	1	236	142	3	7	3	392
Mean Length	518	605	619	571	636	613	610
Std. Error		2	3	15	12	2	1
Sample Size	1	236	142	3	7	3	392

[a] Length measured mid-eye to fork-of-tail in mm.

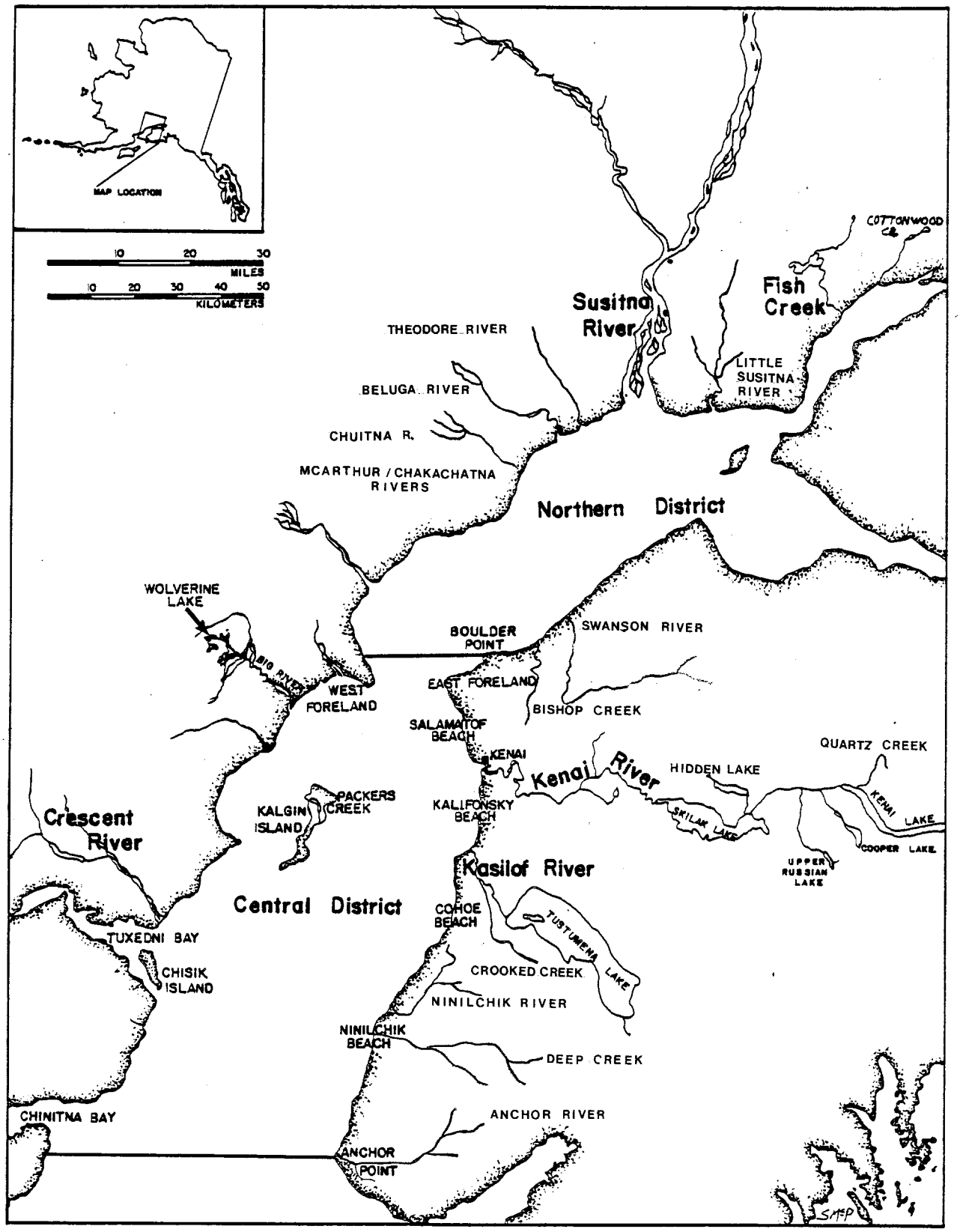

Figure 1. The Upper Cook Inlet area showing the locations of the Northern and Central Districts and the primary salmon spawning drainages.

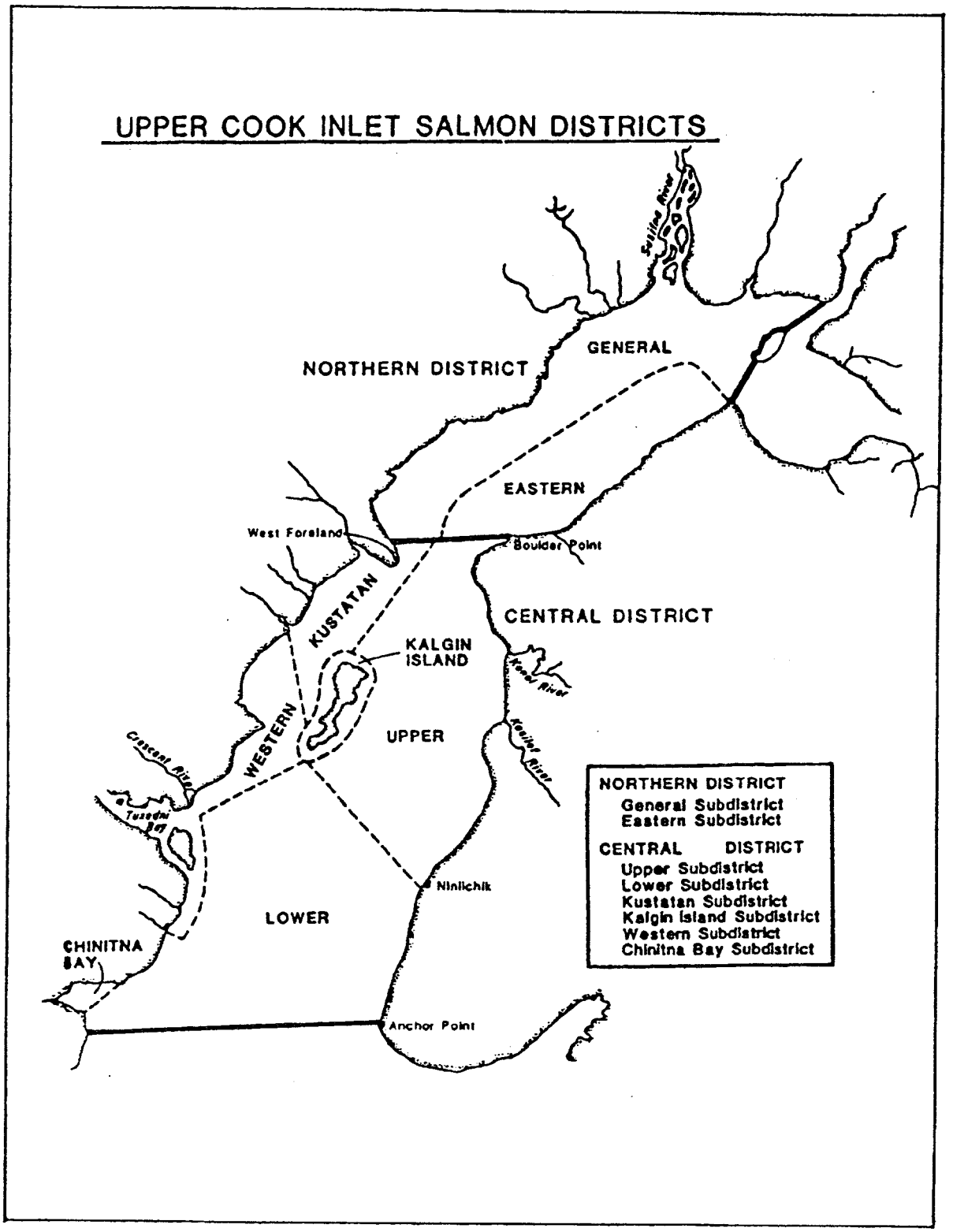

Figure 2. The Upper Cook Inlet area showing the commercial fishing districts and subdistricts.

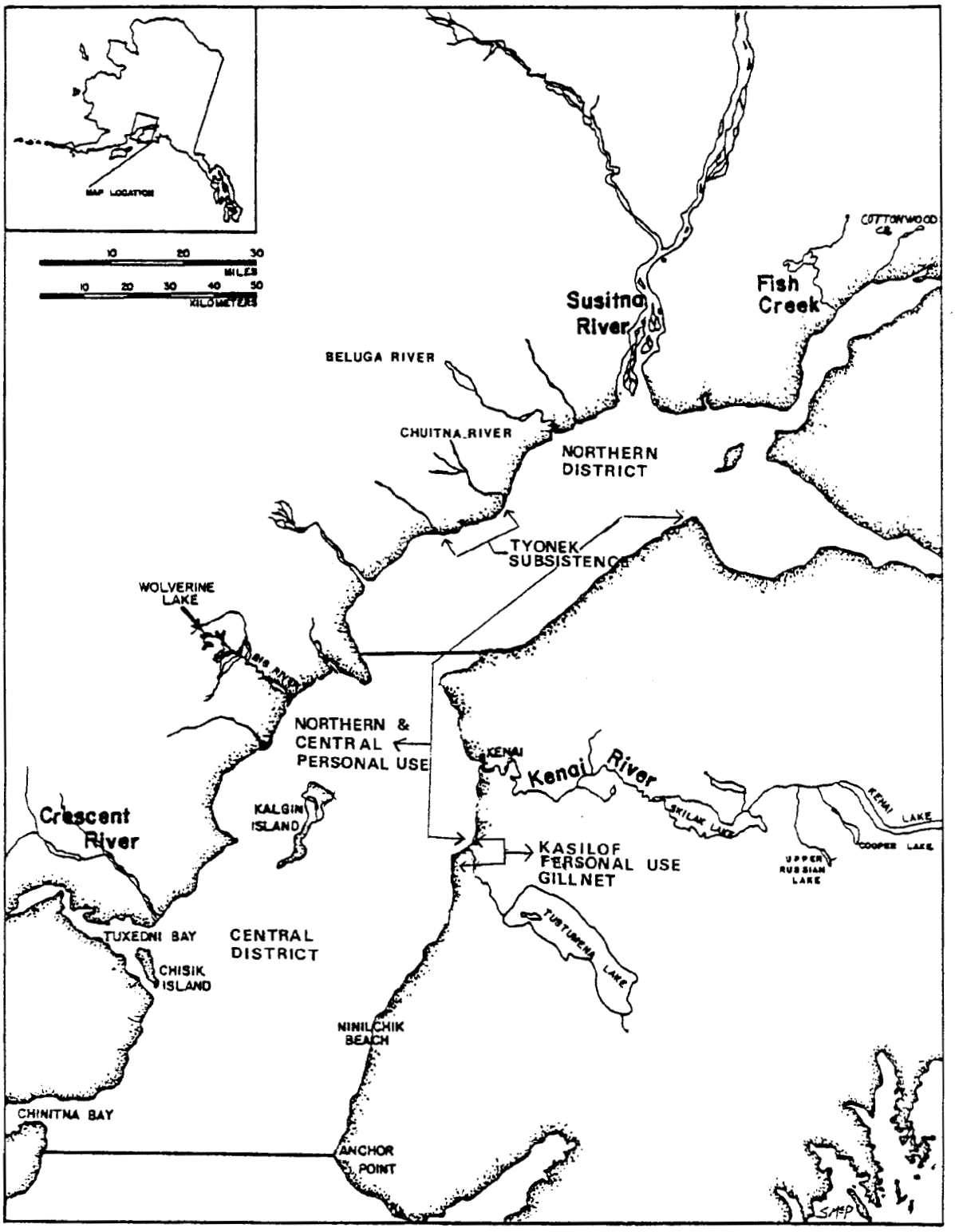

Figure 3. The Upper Cook Inlet area showing the locations of the subsistence and personal use fisheries.

Appendix A.1. Upper Cook Inlet commercial harvest of chinook salmon by area and date, 1989. Source: P. Ruesch, Alaska Department of Fish and Game, Soldotna, personal communication.

	Drift excluding Chinitna		Upper Subdistrict																Northern District			
			Salamatof		K-Beach		Cohoe/Ninilchik		Total		Western		Kustatan		Kalgin		Chinitna[b]		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
5-26													128	128								
5-29													162	290								
5-31													146	436								
6-02													83	519								
6-05													78	597					3,113	3,113	1,035	1,035
6-07													52	649						3,113		1,035
6-09													48	697						3,113		1,035
6-12													49	746					4,169	7,282	766	1,801
6-14													32	778						7,282		1,801
6-16											70	70	40	818						7,282		1,801
6-19											301	371	32	850					1,701	8,983	284	2,085
6-21												371	77	927						8,983		2,085
6-23											290	661	32	959						8,983		2,085
6-26											163	824	133	1,092	501	501	1	1	739	9,722	222	2,307
6-30											132	956	20	1,112	49	550	2	3	257	9,979	55	2,362
7-03			75	75	135	135	307	307	517	517	57	1,013	2	1,114	11	561		3	101	10,080	12	2,374
7-07			134	209	197	332		307	331	848	85	1,098	4	1,118	14	575	5	8	54	10,134	6	2,380
7-10			135	344	379	711	437	744	951	1,799	76	1,174	5	1,123	11	586		8	46	10,180	2	2,382
7-11				344	12	723	45	789	57	1,856		1,174		1,123		586		8		10,180		2,382
7-12				344	199	922	331	1,120	530	2,386		1,174		1,123		586		8		10,180		2,382
7-13			522	866	116	1,038	220	1,340	858	3,244		1,174		1,123		586		8		10,180		2,382
7-14			43	909	68	1,106	157	1,497	268	3,512	35	1,209		1,123	10	596		8	20	10,200	2	2,384
7-15			93	1,002	96	1,202		1,497	189	3,701		1,209	1	1,124	6	602		8	26	10,226	3	2,387
7-16			82	1,084	141	1,343		1,497	223	3,924		1,209		1,124	11	613		8		10,226		2,387
7-17			137	1,221	157	1,500	232	1,729	526	4,450	20	1,229		1,124	9	622		8	27	10,253	2	2,389
7-18			89	1,310	92	1,592		1,729	181	4,631		1,229	2	1,126	3	625		8		10,253		2,389
7-19			69	1,379	122	1,714		1,729	191	4,822		1,229	1	1,127	12	637		8		10,253		2,389
7-20			65	1,444	221	1,935	207	1,936	493	5,315		1,229		1,127	12	649		8		10,253		2,389

- Continued -

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

	Drift excluding Chinitna		Upper Subdistrict																Northern District			
			Salamatof		K-Beach		Cohoe/Ninilchik		Total		Western		Kustatan		Kalgin		Chinitna[b]		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
7-21			62	1,506	176	2,111	348	2,284	586	5,901	11	1,240	1	1,128	4	653	1	9	31	10,284		2,389
7-22			36	1,542	64	2,175		2,284	100	6,001		1,240	1	1,129	1	654		9		10,284		2,389
7-23			74	1,616	131	2,306	277	2,561	482	6,483		1,240	1	1,130	3	657		9		10,284		2,389
7-24			72	1,688	127	2,433	294	2,855	493	6,976	9	1,249	2	1,132		657	1	10	12	10,296	1	2,390
7-25			92	1,780	86	2,519	241	3,096	419	7,395		1,249	1	1,133		657		10	1	10,297		2,390
7-26			59	1,839	113	2,632	273	3,369	445	7,840		1,249		1,133		657		10	1	10,298		2,390
7-27			75	1,914	97	2,729	236	3,605	408	8,248		1,249		1,133		657		10		10,298		2,390
7-28			104	2,018	79	2,808	210	3,815	393	8,641	4	1,253	1	1,134	2	659	1	11	11	10,309	1	2,391
7-29			69	2,087	71	2,879	235	4,050	375	9,016		1,253		1,134		659		11		10,309		2,391
7-30			55	2,142	118	2,997	150	4,200	323	9,339		1,253		1,134		659		11		10,309		2,391
7-31			56	2,198	70	3,067	151	4,351	277	9,616	9	1,262	2	1,136	1	660		11	7	10,316	1	2,392
8-01			52	2,250	64	3,131	169	4,520	285	9,901		1,262		1,136		660		11		10,316		2,392
8-02			66	2,316	99	3,230	146	4,666	311	10,212		1,262		1,136		660		11		10,316		2,392
8-03			50	2,366	33	3,263		4,666	83	10,295		1,262		1,136		660		11		10,316		2,392
8-04			57	2,423	98	3,361	172	4,838	327	10,622	5	1,267		1,136	2	662		11	8	10,324	1	2,393
8-07			33	2,456	84	3,445	65	4,903	182	10,804	1	1,268	5	1,141	1	663	1	12	2	10,326	1	2,394
8-08				2,456		3,445		4,903		10,804		1,268		1,141		663		12		10,326		2,394
8-11			5	2,461	47	3,492	33	4,936	85	10,889		1,268	1	1,142		663		12	3	10,329	1	2,395
8-14			4	2,465	17	3,509	9	4,945	30	10,919	1	1,269	1	1,143		663		12	2	10,331	1	2,396
8-18				2,465		3,509		4,945		10,919	1	1,270	1	1,144		663		12	1	10,332		2,396
8-21				2,465		3,509		4,945		10,919	1	1,271		1,144	1	664		12		10,332		2,396
8-23				2,465		3,509		4,945		10,919		1,271		1,144		664		12	1	10,333	1	2,397
8-25				2,465		3,509		4,945		10,919		1,271		1,144		664		12		10,333		2,397
8-28				2,465		3,509		4,945		10,919		1,271		1,144		664		12		10,333	1	2,398
8-30				2,465		3,509		4,945		10,919	1	1,272		1,144		664		12		10,333		2,398

[a] Daily harvests are compiled from final fish ticket information.
[b] All gear types are included (drift, set and seine).

Appendix A.2. Upper Cook Inlet commercial harvest of sockeye salmon by area and date, 1989. Source: P. Ruesch, Alaska Department of Fish and Game, Soldotna, personal communication.

	Drift excluding Chinitna		Upper Subdistrict																			
			Salamatof		K-Beach		Cohoe/Ninilchik		Total		Western		Kustatan		Kalgin		Chinitna[b]		Northern District: General		Northern District: 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
5-26													142	142								
5-29													236	378								
5-31													389	767								
6-02													259	1,026								
6-05													968	1,994					217	217	430	430
6-07													597	2,591						217		430
6-09													238	2,829						217		430
6-12													283	3,112					331	548	477	907
6-14													90	3,202						548		907
6-16											239	239	299	3,501						548		907
6-19											654	893	139	3,640					83	631	161	1,068
6-21												893	347	3,987						631		1,068
6-23											1,599	2,492	209	4,196						631		1,068
6-26											1,862	4,354	245	4,441	3,264	3,264	173	173	70	701	185	1,253
6-30											5,242	9,596	205	4,646	1,912	5,176	711	884	250	951	552	1,805
7-03			2,465	2,465	8,191	8,191	18,571	18,571	29,227	29,227	3,964	13,560	60	4,706	748	5,924	595	1,479	374	1,325	664	2,469
7-07			4,964	7,429	11,372	19,563		18,571	16,336	45,563	2,928	16,488	342	5,048	1,402	7,326	459	1,938	2,550	3,875	2,500	4,969
7-10			6,581	14,010	11,925	31,488	23,439	42,010	41,945	87,508	3,859	20,347	331	5,379	1,280	8,606	164	2,102	1,958	5,833	1,520	6,489
7-11				14,010	694	32,182	8,164	50,174	8,858	96,366		20,347		5,379		8,606		2,102		5,833		6,489
7-12				14,010	37,575	69,757	34,290	84,464	71,865	168,231		20,347		5,379		8,606		2,102		5,833		6,489
7-13			111,011	125,021	116,608	186,365	29,209	113,673	256,828	425,059		20,347		5,379		8,606		2,102		5,833		6,489
7-14			93,791	218,812	88,039	274,404	23,886	137,559	205,716	630,775	6,223	26,570	1,945	7,324	6,696	15,302	181	2,283	16,611	22,444	23,546	30,035
7-15			78,648	297,460	50,729	325,133		137,559	129,377	760,152		26,570	3,703	11,027	3,801	19,103		2,283	32,373	54,817	23,117	53,152
7-16			155,451	452,911	117,249	442,382		137,559	272,700	1,032,852		26,570	1,886	12,913	5,036	24,139		2,283		54,817		53,152
7-17			159,835	612,746	117,249	559,631	29,797	167,356	306,881	1,339,733	2,932	29,502	2,161	15,074	6,099	30,238	90	2,373	30,523	85,340	4,671	57,823
7-18			66,043	678,789	31,800	591,431		167,356	97,843	1,437,576		29,502	1,290	16,364	1,179	31,417		2,373		85,340		57,823
7-19			132,762	811,551	118,459	709,890		167,356	251,221	1,688,797		29,502	1,178	17,542	5,331	36,748		2,373		85,340		57,823
7-20			193,306	1,004,857	145,299	855,189	65,898	233,254	404,503	2,093,300		29,502	4,360	21,902	6,656	43,404		2,373		85,340		57,823
7-21			128,999	1,133,856	154,549	1,009,738	82,903	316,157	366,451	2,459,751	5,494	34,996	2,006	23,908	5,570	48,974	89	2,462	32,334	117,674	11,057	68,880
7-22			137,019	1,270,875	100,768	1,110,506		316,157	237,787	2,697,538		34,996	2,979	26,887	1,844	50,818		2,462		117,674		68,880
7-23			84,802	1,355,677	79,074	1,189,580	94,902	411,059	258,778	2,956,316		34,996	2,677	29,564	6,936	57,754		2,462		117,674		68,880
7-24			37,027	1,392,704	61,504	1,251,084	64,572	475,631	163,103	3,119,419	5,210	40,206	3,994	33,558	2,144	59,898	467	2,929	29,264	146,938	3,885	72,765
7-25			49,662	1,442,366	68,645	1,319,729	79,962	555,593	198,269	3,317,688		40,206	1,101	34,659	950	60,848		2,929	13,827	160,765		72,765
7-26			106,138	1,548,504	133,388	1,453,117	70,501	626,094	310,027	3,627,715		40,206	2,578	37,237	4,040	64,888		2,929	7,558	168,323		72,765
7-27			49,365	1,597,869	62,071	1,515,188	39,790	665,884	151,226	3,778,941		40,206		37,237		64,888		2,929	6,750	175,073		72,765
7-28			44,146	1,642,015	50,200	1,565,388	23,979	689,863	118,325	3,897,266	5,800	46,006	1,231	38,468	3,028	67,916	56	2,985	11,366	186,439	1,400	74,165
7-29			19,220	1,661,235	37,198	1,602,586	48,949	738,812	105,367	4,002,633		46,006		38,468		67,916		2,985	4,205	190,644		74,165
7-30			14,103	1,675,338	42,783	1,645,369	67,879	806,691	124,765	4,127,398		46,006		38,468		67,916		2,985		190,644		74,165
7-31			43,364	1,718,702	47,569	1,692,938	48,383	855,074	139,316	4,266,714	4,130	50,136	874	39,342	11,729	79,645	29	3,014	4,609	195,253	1,520	75,685
8-01			31,666	1,750,368	32,639	1,725,577	33,290	888,364	97,595	4,364,309		50,136		39,342		79,645		3,014		195,253		75,685
8-02			24,884	1,775,252	20,563	1,746,140	21,557	909,921	67,004	4,431,313		50,136		39,342		79,645		3,014		195,253		75,685
8-03			7,948	1,783,200	17,724	1,763,864		909,921	25,672	4,456,985		50,136		39,342		79,645		3,014		195,253		75,685
8-04			8,775	1,791,975	23,630	1,787,494	15,619	925,540	48,024	4,505,009	2,647	52,783	320	39,662	2,910	82,555	11	3,025	2,433	197,686	658	76,343
8-07			12,404	1,804,379	5,711	1,793,205	6,327	931,867	24,442	4,529,451	1,532	54,315	293	39,955	2,426	84,981	15	3,040	1,837	199,523	1,192	77,535
8-08				1,804,379		1,793,205		931,867		4,529,451		54,315		39,955		84,981		3,040	48	199,571		77,535
8-11			1,848	1,806,227	2,334	1,795,539	2,938	934,805	7,120	4,536,571	383	54,698	114	40,069	997	85,978	22	3,062	651	200,222	862	78,397
8-14			1,313	1,807,540	1,437	1,796,976	3,745	938,550	6,495	4,543,066	756	55,454	120	40,189	663	86,641		3,062	406	200,628	397	78,794
8-18				1,807,540		1,796,976		938,550		4,543,066	118	55,572	24	40,213	376	87,017		3,062	86	200,714	154	78,948
8-21				1,807,540		1,796,976		938,550		4,543,066	84	55,656	27	40,240	286	87,303		3,062	418	201,132	204	79,152
8-23				1,807,540		1,796,976		938,550		4,543,066	48	55,704	16	40,256	104	87,407		3,062	100	201,232	89	79,241
8-25				1,807,540		1,796,976		938,550		4,543,066	13	55,717		40,256	168	87,575		3,062	8	201,240	127	79,368
8-28				1,807,540		1,796,976		938,550		4,543,066	19	55,736		40,256	23	87,598	3	3,065	21	201,261	39	79,407
8-30				1,807,540		1,796,976		938,550		4,543,066	25	55,761		40,256	31	87,629		3,065		201,261	86	79,493
9-01				1,807,540		1,796,976		938,550		4,543,066	42	55,803		40,256		87,629		3,065	2	201,263	8	79,501
9-04				1,807,540		1,796,976		938,550		4,543,066	52	55,855		40,256		87,629	4	3,069	2	201,265	17	79,518
9-06				1,807,540		1,796,976		938,550		4,543,066	1	55,856		40,256	7	87,636		3,069	2	201,267	8	79,526
9-08				1,807,540		1,796,976		938,550		4,543,066		55,856		40,256	8	87,644		3,069	1	201,268	7	79,533
9-11				1,807,540		1,796,976		938,550		4,543,066		55,856		40,256	6	87,650		3,069		201,268		79,533

[a] Daily harvests are compiled from final fish ticket information.
[b] All gear types are included (drift, set and seine).

Appendix A.3. Upper Cook Inlet commercial harvest of coho salmon by area and date, 1989. Source: P. Ruesch, Alaska Department of Fish and Game, Soldotna, personal communication.

	Drift excluding Chinitna		Upper Subdistrict																Northern District			
			Salamatof		K-Beach		Cohoe/Ninilchik		Total		Western		Kustatan		Kalgin		Chinitna[b]		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
5-26																						
5-29																						
5-31																						
6-02																						
6-05																						
6-07																						
6-09																						
6-12																						
6-14																						
6-16																						
6-19																						
6-21																						
6-23																						
6-26											1	1	2	2								
6-30											4	5	4	6	3	3			6	6		
7-03			7	7	7	7	2	2	16	16	10	15		6	10	13			24	30	5	5
7-07			26	33	4	11		2	30	46	27	42	27	33	128	141	16	16	348	378	36	41
7-10			36	69	53	64	8	10	97	143	78	120	50	83	138	279		16	549	927	24	65
7-11				69		64	1	11	1	144		120		83		279		16		927		65
7-12				69	9	73	28	39	37	181		120		83		279		16		927		65
7-13			466	535	30	103	92	131	588	769		120		83		279		16		927		65
7-14			966	1,501	50	153	69	200	1,085	1,854	112	232	123	206	622	901	4	20	1,961	2,888	880	945
7-15			616	2,117	43	196		200	659	2,513		232	197	403	371	1,272		20	3,108	5,996	1,139	2,084
7-16			910	3,027	76	272		200	986	3,499		232	107	510	828	2,100		20		5,996		2,084
7-17			428	3,455	23	295	39	239	490	3,989	200	432	739	1,249	676	2,776	9	29	6,610	12,606	377	2,461
7-18			213	3,668	27	322		239	240	4,229		432	132	1,381	117	2,893		29		12,606		2,461
7-19			615	4,283	40	362		239	655	4,884		432	294	1,675	1,259	4,152		29		12,606		2,461
7-20			595	4,878	80	442	89	328	764	5,648		432	522	2,197	1,429	5,581		29		12,606		2,461
7-21			894	5,772	151	593	2,931	3,259	3,976	9,624	569	1,001	301	2,498	928	6,509	26	55	15,470	28,076	977	3,438
7-22			1,017	6,789	118	711		3,259	1,135	10,759		1,001	546	3,044	778	7,287		55		28,076		3,438
7-23			1,443	8,232	226	937	290	3,549	1,959	12,718		1,001	671	3,715	2,847	10,134		55		28,076		3,438
7-24			1,949	10,181	241	1,178	425	3,974	2,615	15,333	1,103	2,104	1,807	5,522	569	10,703	136	191	11,910	39,986	1,312	4,750
7-25			1,012	11,193	89	1,267	193	4,167	1,294	16,627		2,104	558	6,080	412	11,115		191	738	40,724		4,750
7-26			2,662	13,855	202	1,469	241	4,408	3,105	19,732		2,104	2,091	8,171	1,723	12,838		191	856	41,580		4,750
7-27			1,409	15,264	99	1,568	255	4,663	1,763	21,495		2,104		8,171		12,838		191	1,190	42,770		4,750
7-28			1,288	16,552	316	1,884	345	5,008	1,949	23,444	1,224	3,328	1,682	9,853	3,141	15,979	35	226	25,734	68,504	834	5,584
7-29			5,856	22,408	1,428	3,312	1,867	6,875	9,151	32,595		3,328		9,853		15,979		226	1,621	70,125		5,584
7-30			4,984	27,392	1,995	5,307	3,915	10,790	10,894	43,489		3,328		9,853		15,979		226		70,125		5,584
7-31			2,979	30,371	870	6,177	1,615	12,405	5,464	48,953	2,144	5,472	1,659	11,512	9,254	25,233	442	668	17,204	87,329	2,013	7,597
8-01			2,545	32,916	758	6,935	1,330	13,735	4,633	53,586		5,472		11,512		25,233		668		87,329		7,597
8-02			2,258	35,174	1,180	8,115	1,948	15,683	5,386	58,972		5,472		11,512		25,233		668		87,329		7,597
8-03			1,497	36,671	690	8,805		15,683	2,187	61,159		5,472		11,512		25,233		668		87,329		7,597
8-04			1,321	37,992	1,165	9,970	784	16,467	3,270	64,429	1,717	7,189	786	12,298	3,773	29,006	157	825	11,221	98,550	1,319	8,916
8-07			1,902	39,894	868	10,838	1,492	17,959	4,262	68,691	2,061	9,250	1,637	13,935	2,403	31,409	259	1,084	11,510	110,060	1,544	10,460
8-08				39,894		10,838		17,959		68,691		9,250		13,935		31,409		1,084	242	110,302		10,460
8-11			2,206	42,100	1,188	12,026	2,993	20,952	6,387	75,078	1,094	10,344	1,524	15,459	1,028	32,437	1,039	2,123	9,489	119,791	4,157	14,617
8-14			1,841	43,941	824	12,850	4,001	24,953	6,666	81,744	1,937	12,281	526	15,985	515	32,952		2,123	5,904	125,695	4,117	18,734
8-18				43,941		12,850		24,953		81,744	1,896	14,177	233	16,218	665	33,617		2,123	797	126,492	1,170	19,904
8-21				43,941		12,850		24,953		81,744	2,086	16,263	682	16,900	1,242	34,859		2,123	2,540	129,032	4,335	24,239
8-23				43,941		12,850		24,953		81,744	1,053	17,316	379	17,279	573	35,432		2,123	1,090	130,122	3,655	27,894
8-25				43,941		12,850		24,953		81,744	1,098	18,414		17,279	871	36,303		2,123	1,008	131,130	4,845	32,739
8-28				43,941		12,850		24,953		81,744	1,126	19,540		17,279	103	36,406	1,524	3,647	1,071	132,201	2,725	35,464
8-30				43,941		12,850		24,953		81,744	1,120	20,660	189	17,468	98	36,504		3,647	435	132,636	2,472	37,936
9-01				43,941		12,850		24,953		81,744	73	20,733		17,468		36,504		3,647	126	132,762	305	38,241
9-04				43,941		12,850		24,953		81,744	1,198	21,931		17,468		36,504	630	4,277	477	133,239	1,572	39,813
9-06				43,941		12,850		24,953		81,744	475	22,406		17,468	20	36,524		4,277	375	133,614	1,007	40,820
9-08				43,941		12,850		24,953		81,744	326	22,732		17,468	91	36,615		4,277	338	133,952	393	41,213
9-11				43,941		12,850		24,953		81,744	223	22,955		17,468	45	36,660		4,277		133,952	365	41,578
9-13				43,941		12,850		24,953		81,744	225	23,180		17,468		36,660		4,277		133,952	180	41,758
9-15				43,941		12,850		24,953		81,744	162	23,342		17,468		36,660		4,277		133,952		41,758

[a] Daily harvests are compiled from final fish ticket information.
[b] All gear types are included (drift, set and seine).

Appendix A.4. Upper Cook Inlet commercial harvest of chum salmon by area and date, 1989. Source: P. Ruesch, Alaska Department of Fish and Game, Soldotna, personal communication.

	Drift excluding Chinitna		Upper Subdistrict																Northern District			
			Salamatof		K-Beach		Cohoe/Ninilchik		Total		Western		Kustatan		Kalgin		Chinitna[b]		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
5-26																						
5-29																						
5-31																						
6-02																						
6-05																						
6-07																						
6-09																						
6-12													1	1					1	1	1	1
6-14														1						1		1
6-16											4	4		1						1		1
6-19											1	5		1						1	1	2
6-21												5		1						1		2
6-23											10	15		1						1		2
6-26											7	22	1	2	2	2	17	17	10	11	3	5
6-30											26	48		2	6	8	66	83	75	86	2	7
7-03			22	22	3	3	2	2	27	27	26	74	1	3	1	9	52	135	90	176		7
7-07			9	31	3	6		2	12	39	78	152		3	5	14	121	256	299	475	86	93
7-10			20	51	9	15	1	3	30	69	128	280	1	4	14	28	131	387	88	563	10	103
7-11				51		15		3		69		280		4		28		387		563		103
7-12				51	2	17	4	7	6	75		280		4		28		387		563		103
7-13			757	808	1	18	20	27	778	853		280		4		28		387		563		103
7-14			648	1,456	2	20	25	52	675	1,528	263	543		4	8	36	112	499	562	1,125	1,706	1,809
7-15			326	1,782	11	31		52	337	1,865		543	1	5	74	110		499	1,711	2,836	1,927	3,736
7-16			256	2,038	5	36		52	261	2,126		543		5	127	237		499		2,836		3,736
7-17			186	2,224	1	37	7	59	194	2,320	362	905		5	75	312	173	672	3,809	6,645	883	4,619
7-18			187	2,411	2	39		59	189	2,509		905	1	6	3	315		672		6,645		4,619
7-19			211	2,622	1	40		59	212	2,721		905	1	7	69	384		672		6,645		4,619
7-20			244	2,866	5	45	3	62	252	2,973		905		7	57	441		672		6,645		4,619
7-21			203	3,069	4	49	2	64	209	3,182	638	1,543		7	60	501	357	1,029	6,031	12,676	3,207	7,826
7-22			173	3,242	4	53		64	177	3,359		1,543	2	9	38	539		1,029		12,676		7,826
7-23			228	3,470		53	163	227	391	3,750		1,543		9	105	644		1,029		12,676		7,826
7-24			253	3,723	3	56	29	256	285	4,035	1,308	2,851	4	13	24	668	724	1,753	10,365	23,041	2,622	10,448
7-25			177	3,900	3	59	19	275	199	4,234		2,851		13	27	695		1,753	756	23,797		10,448
7-26			297	4,197	8	67	10	285	315	4,549		2,851	6	19	166	861		1,753	697	24,494		10,448
7-27			177	4,374	2	69	9	294	188	4,737		2,851		19		861		1,753	763	25,257		10,448
7-28			186	4,560	99	168	19	313	304	5,041	1,672	4,523	22	41	87	948	105	1,858	12,377	37,634	1,676	12,124
7-29			973	5,533	20	188	274	587	1,267	6,308		4,523		41		948		1,858	1,516	39,150		12,124
7-30			1,550	7,083	33	221	1,051	1,638	2,634	8,942		4,523		41		948		1,858		39,150		12,124
7-31			625	7,708	14	235	176	1,814	815	9,757	2,930	7,453	31	72	219	1,167	1,536	3,394	11,252	50,402	2,211	14,335
8-01			809	8,517	18	253	137	1,951	964	10,721		7,453		72		1,167		3,394		50,402		14,335
8-02			413	8,930	50	303	207	2,158	670	11,391		7,453		72		1,167		3,394		50,402		14,335
8-03			312	9,242	14	317		2,158	326	11,717		7,453		72		1,167		3,394		50,402		14,335
8-04			140	9,382	10	327	10	2,168	160	11,877	3,285	10,738	6	78	81	1,248	780	4,174	6,864	57,266	2,220	16,555
8-07			49	9,431		327	14	2,182	63	11,940	2,810	13,548	48	126	370	1,618	2,067	6,241	3,992	61,258	503	17,058
8-08				9,431		327		2,182		11,940		13,548		126		1,618		6,241	15	61,273		17,058
8-11			82	9,513	8	335	49	2,231	139	12,079	2,131	15,679	41	167	25	1,643	1,681	7,922	1,728	63,001	547	17,605
8-14			15	9,528	1	336	207	2,438	223	12,302	1,355	17,034	11	178	10	1,653		7,922	903	63,904	129	17,734
8-18				9,528		336		2,438		12,302	509	17,543	4	182	12	1,665		7,922	36	63,940	57	17,791
8-21				9,528		336		2,438		12,302	84	17,627	6	188	14	1,679		7,922	42	63,982	25	17,816
8-23				9,528		336		2,438		12,302	54	17,681	6	194	19	1,698		7,922	26	64,008	26	17,842
8-25				9,528		336		2,438		12,302	35	17,716		194	18	1,716		7,922	13	64,021	32	17,874
8-28				9,528		336		2,438		12,302	52	17,768		194	1	1,717	131	8,053	5	64,026	11	17,885
8-30				9,528		336		2,438		12,302	3	17,771		194	1	1,718		8,053	1	64,027	10	17,895
9-01				9,528		336		2,438		12,302	1	17,772		194		1,718		8,053	2	64,029		17,895
9-04				9,528		336		2,438		12,302	23	17,795		194		1,718	15	8,068		64,029	6	17,901
9-06				9,528		336		2,438		12,302		17,795		194		1,718		8,068	4	64,033	3	17,904
9-08				9,528		336		2,438		12,302		17,795		194		1,718		8,068	9	64,042		17,904
9-11				9,528		336		2,438		12,302	2	17,797		194		1,718		8,068		64,042	2	17,906

[a] Daily harvests are compiled from final fish ticket information.
[b] All gear types are included (drift, set and seine).

Appendix A.5. Upper Cook Inlet commercial harvest of pink salmon by area and date, 1989. Source: P. Ruesch, Alaska Department of Fish and Game, Soldotna, personal communication.

	Drift excluding Chinitna		Upper Subdistrict																Northern District			
			Salamatof		K-Beach		Cohoe/Ninilchik		Total		Western		Kustatan		Kalgin		Chinitna[b]		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
6-19											1	1										
6-21												1										
6-23											4	5										
6-26											7	12			6	6	2	2	1	1	7	7
6-30											46	58	2	2	14	20	15	17	5	6	32	39
7-03			34	34	28	28	189	189	251	251	50	108		2	7	27	7	24	14	20	33	72
7-07			170	204	184	212		189	354	605	91	199	4	6	55	82	30	54	206	226	168	240
7-10			577	781	261	473	1,202	1,391	2,040	2,645	263	462	13	19	124	206	47	101	585	811	447	687
7-11				781	2	475	116	1,507	118	2,763		462		19		206		101		811		687
7-12				781	129	604	1,445	2,952	1,574	4,337		462		19		206		101		811		687
7-13			116	897	83	687	3,409	6,361	3,608	7,945		462		19		206		101		811		687
7-14			276	1,173	114	801	2,824	9,185	3,214	11,159	290	752	16	35	143	349	24	125	592	1,403	217	904
7-15			273	1,446	248	1,049		9,185	521	11,680		752	18	53	146	495		125	744	2,147	169	1,073
7-16			442	1,888	360	1,409		9,185	802	12,482		752	9	62	234	729		125		2,147		1,073
7-17			484	2,372	274	1,683	1,585	10,770	2,343	14,825	149	901	67	129	151	880	56	181	2,735	4,882	211	1,284
7-18			456	2,828	212	1,895		10,770	668	15,493		901	23	152	53	933		181		4,882		1,284
7-19			712	3,540	205	2,100		10,770	917	16,410		901	11	163	117	1,050		181		4,882		1,284
7-20			664	4,204	241	2,341	1,067	11,837	1,972	18,382		901	36	199	146	1,196		181		4,882		1,284
7-21			762	4,966	313	2,654	1,251	13,088	2,326	20,708	177	1,078	24	223	262	1,458	34	215	3,493	8,375	642	1,926
7-22			512	5,478	115	2,769		13,088	627	21,335		1,078	32	255	51	1,509		215		8,375		1,926
7-23			543	6,021	197	2,966	1,139	14,227	1,879	23,214		1,078	48	303	335	1,844		215		8,375		1,926
7-24			458	6,479	72	3,038	744	14,971	1,274	24,488	332	1,410	108	411	91	1,935	93	308	3,938	12,313	506	2,432
7-25			422	6,901	92	3,130	689	15,660	1,203	25,691		1,410	6	417	60	1,995		308	84	12,397		2,432
7-26			581	7,482	42	3,172	493	16,153	1,116	26,807		1,410	67	484	121	2,116		308	63	12,460		2,432
7-27			395	7,877	30	3,202	439	16,592	864	27,671		1,410		484		2,116		308	121	12,581		2,432
7-28			491	8,368	92	3,294	481	17,073	1,064	28,735	225	1,635	61	545	124	2,240	44	352	4,755	17,336	120	2,552
7-29			523	8,891	78	3,372	1,358	18,431	1,959	30,694		1,635		545		2,240		352	151	17,487		2,552
7-30			740	9,631	232	3,604	1,565	19,996	2,537	33,231		1,635		545		2,240		352		17,487		2,552
7-31			684	10,315	101	3,705	741	20,737	1,526	34,757	72	1,707	17	562	226	2,466	42	394	1,615	19,102	354	2,906
8-01			512	10,827	105	3,810	842	21,579	1,459	36,216		1,707		562		2,466		394		19,102		2,906
8-02			236	11,063	98	3,908	379	21,958	713	36,929		1,707		562		2,466		394		19,102		2,906
8-03			213	11,276	78	3,986		21,958	291	37,220		1,707		562		2,466		394		19,102		2,906
8-04			160	11,436	61	4,047	109	22,067	330	37,550	62	1,769	5	567	125	2,591	13	407	854	19,956	98	3,004
8-07			83	11,519	8	4,055	81	22,148	172	37,722	49	1,818	10	577	25	2,616	35	442	407	20,363	69	3,073
8-08				11,519		4,055		22,148		37,722		1,818		577		2,616		442	17	20,380		3,073
8-11			37	11,556	8	4,063	71	22,219	116	37,838	22	1,840	1	578	2	2,618	19	461	213	20,593	39	3,112
8-14			17	11,573	3	4,066	113	22,332	133	37,971	35	1,875	5	583	5	2,623		461	73	20,666	9	3,121
8-18				11,573		4,066		22,332		37,971	5	1,880	1	584	1	2,624		461	11	20,677	14	3,135
8-21				11,573		4,066		22,332		37,971	7	1,887	3	587	5	2,629		461	26	20,703	5	3,140
8-23				11,573		4,066		22,332		37,971	3	1,890		587	3	2,632		461	8	20,711	4	3,144
8-25				11,573		4,066		22,332		37,971	6	1,896		587	1	2,633		461	8	20,719	2	3,146
8-28				11,573		4,066		22,332		37,971	3	1,899		587		2,633		461	10	20,729		3,146
8-30				11,573		4,066		22,332		37,971		1,899		587		2,633		461		20,729		3,146
9-01				11,573		4,066		22,332		37,971		1,899		587		2,633		461	1	20,730	1	3,147
9-04				11,573		4,066		22,332		37,971		1,899		587		2,633	1	462	1	20,731		3,147

[a] Daily harvests are compiled from final fish ticket information.
[b] All gear types are included (drift, set and seine).

Appendix A.6. Estimated daily and cumulative salmon escapement in the Kenai River, Upper Cook Inlet, Alaska, 1989.

	Sockeye		Pink[a]		Chum		Coho[a]		Chinook[a]		Total	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-01 Sat	134	134	2	2							136	136
7-02 Sun	688	822	8	10							696	832
7-03 Mon	1,064	1,886	12	22							1,076	1,908
7-04 Tue	495	2,381	6	28							501	2,409
7-05 Wed	1,447	3,828	17	45							1,464	3,873
7-06 Thu	6,221	10,049	69	114							6,290	10,163
7-07 Fri	8,069	18,118	90	204							8,159	18,322
7-08 Sat	4,668	22,786		204					40	40	4,708	23,030
7-09 Sun	4,038	26,824	26	230					53	93	4,117	27,147
7-10 Mon	6,333	33,157	41	271					82	175	6,456	33,603
7-11 Tue	5,158	38,315	33	304					67	242	5,258	38,861
7-12 Wed	35,070	73,385	1,240	1,544					83	325	36,393	75,254
7-13 Thu	86,035	159,420	1,574	3,118						325	87,609	162,863
7-14 Fri	99,795	259,215	2,262	5,380						325	102,057	264,920
7-15 Sat	74,820	334,035		5,380						325	74,820	339,740
7-16 Sun	49,752	383,787	1,171	6,551						325	50,923	390,663
7-17 Mon	76,475	460,262		6,551						325	76,475	467,138
7-18 Tue	92,563	552,825		6,551						325	92,563	559,701
7-19 Wed	35,127	587,952	684	7,235						325	35,811	595,512
7-20 Thu	85,601	673,553	124	7,359						325	85,725	681,237
7-21 Fri	127,436	800,989	1,202	8,561						325	128,638	809,875
7-22 Sat	104,744	905,733	6,639	15,200						325	111,383	921,258
7-23 Sun	117,819	1,023,552	5,260	20,460						325	123,079	1,044,337
7-24 Mon	63,842	1,087,394		20,460						325	63,842	1,108,179
7-25 Tue	30,408	1,117,802	260	20,720						325	30,668	1,138,847
7-26 Wed	49,391	1,167,193	378	21,098					81	406	49,850	1,188,697
7-27 Thu	71,341	1,238,534		21,098						406	71,341	1,260,038
7-28 Fri	51,196	1,289,730	2,025	23,123						406	53,221	1,313,259

- Continued -

Appendix A.6. (p. 2 of 2)

Date	Sockeye		Pink[a]		Chum		Coho[a]		Chinook[a]		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-29 Sat	40,055	1,329,785	770	23,893						406	40,825	1,354,084
7-30 Sun	23,087	1,352,872	132	24,025						406	23,219	1,377,303
7-31 Mon	15,435	1,368,307	194	24,219					97	503	15,726	1,393,029
8-01 Tue	30,212	1,398,519		24,219						503	30,212	1,423,241
8-02 Wed	21,220	1,419,739		24,219						503	21,220	1,444,461
8-03 Thu	16,825	1,436,564	49	24,268			150	150		503	17,024	1,461,485
8-04 Fri	14,747	1,451,311	44	24,312			131	281		503	14,922	1,476,407
8-05 Sat	12,774	1,464,085	208	24,520			1,111	1,392		503	14,093	1,490,500
8-06 Sun	22,460	1,486,545	367	24,887			1,953	3,345		503	24,780	1,515,280
8-07 Mon	29,907	1,516,452		24,887			97	3,442		503	30,004	1,545,284
8-08 Tue	17,692	1,534,144		24,887			112	3,554		503	17,804	1,563,088
8-09 Wed	8,770	1,542,914	67	24,954			247	3,801	22	525	9,106	1,572,194
8-10 Thu	13,702	1,556,616	106	25,060			385	4,186	35	560	14,228	1,586,422
8-11 Fri	17,097	1,573,713		25,060			793	4,979		560	17,890	1,604,312
8-12 Sat	8,337	1,582,050		25,060				4,979		560	8,337	1,612,649
8-13 Sun	5,740	1,587,790		25,060				4,979		560	5,740	1,618,389
8-14 Mon	6,508	1,594,298		25,060				4,979		560	6,508	1,624,897
8-15 Tue	3,744	1,598,042		25,060				4,979		560	3,744	1,628,641

[a] Daily and cumulative values represent index counts only. All values are preliminary.

Appendix A.7. Estimated daily and cumulative salmon escapement in the Kasilof River, Upper Cook Inlet, Alaska, 1989.

	Sockeye		Pink[a]		Chum		Coho[a]		Chinook[a]		Total	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
6-15 Thu	116	116							1	1	117	117
6-16 Fri	188	304							2	3	190	307
6-17 Sat	265	569							3	6	268	575
6-18 Sun	274	843							3	9	277	852
6-19 Mon	217	1,060							2	11	219	1,071
6-20 Tue	506	1,566							6	17	512	1,583
6-21 Wed	751	2,317							9	26	760	2,343
6-22 Thu	306	2,623							4	30	310	2,653
6-23 Fri	337	2,960							4	34	341	2,994
6-24 Sat	405	3,365							5	39	410	3,404
6-25 Sun	489	3,854							5	44	494	3,898
6-26 Mon	1,061	4,915							13	57	1,074	4,972
6-27 Tue	987	5,902							11	68	998	5,970
6-28 Wed	1,391	7,293							16	84	1,407	7,377
6-29 Thu	1,724	9,017							20	104	1,744	9,121
6-30 Fri	2,694	11,711							32	136	2,726	11,847
7-01 Sat	3,695	15,406							43	179	3,738	15,585
7-02 Sun	8,768	24,174	155	155						179	8,923	24,508
7-03 Mon	3,742	27,916	66	221						179	3,808	28,316
7-04 Tue	761	28,677	9	230						179	770	29,086
7-05 Wed	6,346	35,023	73	303						179	6,419	35,505
7-06 Thu	8,466	43,489	50	353					24	203	8,540	44,045
7-07 Fri	6,816	50,305	24	377						203	6,840	50,885
7-08 Sat	3,744	54,049	76	453						203	3,820	54,705
7-09 Sun	5,038	59,087	66	519						203	5,104	59,809
7-10 Mon	4,196	63,283	129	648						203	4,325	64,134
7-11 Tue	4,302	67,585	203	851						203	4,505	68,639
7-12 Wed	9,086	76,671	285	1,136					31	234	9,402	78,041
7-13 Thu	1,880	78,551	299	1,435					12	246	2,191	80,232
7-14 Fri	2,223	80,774	355	1,790					14	260	2,592	82,824
7-15 Sat	2,796	83,570	444	2,234					18	278	3,258	86,082

- Continued -

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

Date	Sockeye		Pink[a]		Chum		Coho[a]		Chinook[a]		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-16 Sun	5,449	89,019	95	2,329					95	373	5,639	91,721
7-17 Mon	7,652	96,671	134	2,463					134	507	7,920	99,641
7-18 Tue	2,238	98,909	606	3,069					183	690	3,027	102,668
7-19 Wed	3,069	101,978	831	3,900					251	941	4,151	106,819
7-20 Thu	9,985	111,963	2,554	6,454					697	1,638	13,236	120,055
7-21 Fri	5,724	117,687	1,464	7,918					399	2,037	7,587	127,642
7-22 Sat	3,371	121,058	862	8,780					235	2,272	4,468	132,110
7-23 Sun	5,931	126,989	644	9,424			34	34	542	2,814	7,151	139,261
7-24 Mon	1,537	128,526	168	9,592			8	42	141	2,955	1,854	141,115
7-25 Tue	1,260	129,786	137	9,729			7	49	115	3,070	1,519	142,634
7-26 Wed	2,544	132,330	275	10,004			15	64	233	3,303	3,067	145,701
7-27 Thu	1,593	133,923	174	10,178			8	72	146	3,449	1,921	147,622
7-28 Fri	1,554	135,477	169	10,347			9	81	142	3,591	1,874	149,496
7-29 Sat	1,391	136,868	59	10,406			17	98	243	3,834	1,710	151,206
7-30 Sun	1,266	138,134	54	10,460			16	114	221	4,055	1,557	152,763
7-31 Mon	1,264	139,398	54	10,514			17	131	220	4,275	1,555	154,318
8-01 Tue	1,204	140,602	51	10,565			16	147	210	4,485	1,481	155,799
8-02 Wed	889	141,491	38	10,603			11	158	155	4,640	1,093	156,892
8-03 Thu	1,105	142,596	48	10,651			14	172	193	4,833	1,360	158,252
8-04 Fri	1,806	144,402	78	10,729			22	194	316	5,149	2,222	160,474
8-05 Sat	1,700	146,102	72	10,801			23	217	296	5,445	2,091	162,565
8-06 Sun	2,539	148,641	108	10,909			33	250	443	5,888	3,123	165,688
8-07 Mon	2,416	151,057	104	11,013			30	280	422	6,310	2,972	168,660
8-08 Tue	793	151,850	34	11,047			10	290	139	6,449	976	169,636
8-09 Wed	958	152,808	40	11,087			12	302	167	6,616	1,177	170,813
8-10 Thu	1,196	154,004	51	11,138			16	318	208	6,824	1,471	172,284
8-11 Fri	882	154,886	38	11,176			11	329	154	6,978	1,085	173,369
8-12 Sat	622	155,508	27	11,203			8	337	108	7,086	765	174,134
8-13 Sun	702	156,210	30	11,233			8	345	123	7,209	863	174,997
8-14 Mon	872	157,082	38	11,271			11	356	152	7,361	1,073	176,070
8-15 Tue	657	157,739	28	11,299			9	365	114	7,475	808	176,878

[a] Daily and cumulative values represent index counts only. All values are preliminary.

Appendix A.8. Estimated daily and cumulative salmon escapement in the Crescent River, Upper Cook Inlet, Alaska, 1989.

	Sockeye		Pink[a]		Chum[a]		Coho[a]		Chinook[a]		Total	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-01 Sat	553	553									553	553
7-02 Sun	815	1,368									815	1,368
7-03 Mon	1,675	3,043									1,675	3,043
7-04 Tue	3,773	6,816									3,773	6,816
7-05 Wed	2,280	9,096									2,280	9,096
7-06 Thu	3,670	12,766									3,670	12,766
7-07 Fri	3,553	16,319									3,553	16,319
7-08 Sat	3,961	20,280									3,961	20,280
7-09 Sun	2,953	23,233									2,953	23,233
7-10 Mon	2,422	25,655									2,422	25,655
7-11 Tue	3,122	28,777									3,122	28,777
7-12 Wed	3,606	32,383									3,606	32,383
7-13 Thu	2,716	35,099									2,716	35,099
7-14 Fri	6	35,105									6	35,105
7-15 Sat	1,154	36,259									1,154	36,259
7-16 Sun	6,615	42,874			143	143					6,758	43,017
7-17 Mon	4,465	47,339			320	463	13	13	14	14	4,812	47,829
7-18 Tue	1,222	48,561			89	552	4	17	3	17	1,318	49,147
7-19 Wed	1,313	49,874			98	650		17		17	1,411	50,558
7-20 Thu	2,884	52,758			215	865		17		17	3,099	53,657
7-21 Fri	1,840	54,598	41	41	263	1,128		17	14	31	2,158	55,815
7-22 Sat	1,928	56,526	43	84	275	1,403		17	15	46	2,261	58,076
7-23 Sun	1,776	58,302	41	125	254	1,657		17	13	59	2,084	60,160
7-24 Mon	1,850	60,152	42	167	264	1,921		17	14	73	2,170	62,330
7-25 Tue	2,050	62,202	47	214	292	2,213		17	16	89	2,405	64,735
7-26 Wed	1,631	63,833	38	252	233	2,446		17	12	101	1,914	66,649
7-27 Thu	1,629	65,462	37	289	233	2,679		17	12	113	1,911	68,560
7-28 Fri	2,029	67,491	46	335	290	2,969		17	15	128	2,380	70,940
7-29 Sat	732	68,223	17	352	104	3,073		17	6	134	859	71,799
7-30 Sun	713	68,936	5	357	52	3,125		17		134	770	72,569
7-31 Mon	1,142	70,078		357	527	3,652		17		134	1,669	74,238
8-01 Tue	454	70,532		357	745	4,397		17		134	1,199	75,437

[a] Daily and cumulative values represent index counts only.

Appendix A.9. Daily and cumulative salmon escapement in Packers Creek, Kalgin Island, Upper Cook Inlet, Alaska, 1989. Source: M. Schollenberger, Cook Inlet Aquaculture Association, Soldotna, personal communication.

	Sockeye		Pink		Chum		Coho		Chinook		Total	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
5-16 Tue	1	1									1	1
5-17 Wed		1										1
5-18 Thu	1	2									1	2
5-19 Fri		2										2
5-20 Sat		2										2
5-21 Sun		2										2
5-22 Mon	1	3									1	3
5-23 Tue	1	4									1	4
5-24 Wed	5	9									5	9
5-25 Thu	1	10									1	10
5-26 Fri		10										10
5-27 Sat		10										10
5-28 Sun		10										10
5-29 Mon	2	12									2	12
5-30 Tue		12										12
5-31 Wed	3	15									3	15
6-01 Thu	2	17									2	17
6-02 Fri	3	20									3	20
6-03 Sat	5	25									5	25
6-04 Sun	35	60									35	60
6-05 Mon	198	258									198	258
6-06 Tue	59	317									59	317
6-07 Wed	44	361									44	361
6-08 Thu	93	454									93	454
6-09 Fri	74	528									74	528
6-10 Sat	16	544									16	544
6-11 Sun	150	694									150	694
6-12 Mon	36	730									36	730
6-13 Tue	360	1,090									360	1,090
6-14 Wed	216	1,306									216	1,306

-Continued-

Appendix A.9. (p. 2 of 5)

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
6-15 Thu	296	1,602									296	1,602
6-16 Fri	52	1,654									52	1,654
6-17 Sat	92	1,746									92	1,746
6-18 Sun	34	1,780									34	1,780
6-19 Mon	91	1,871									91	1,871
6-20 Tue	655	2,526									655	2,526
6-21 Wed	111	2,637									111	2,637
6-22 Thu	57	2,694									57	2,694
6-23 Fri	117	2,811									117	2,811
6-24 Sat	420	3,231									420	3,231
6-25 Sun	357	3,588									357	3,588
6-26 Mon	133	3,721									133	3,721
6-27 Tue	115	3,836									115	3,836
6-28 Wed	165	4,001									165	4,001
6-29 Thu	129	4,130									129	4,130
6-30 Fri	120	4,250									120	4,250
7-01 Sat	107	4,357									107	4,357
7-02 Sun	62	4,419									62	4,419
7-03 Mon	32	4,451									32	4,451
7-04 Tue	39	4,490									39	4,490
7-05 Wed	69	4,559									69	4,559
7-06 Thu	30	4,589									30	4,589
7-07 Fri	87	4,676									87	4,676
7-08 Sat	127	4,803									127	4,803
7-09 Sun		4,803										4,803
7-10 Mon		4,803										4,803
7-11 Tue		4,803										4,803
7-12 Wed	25	4,828									25	4,828
7-13 Thu	48	4,876									48	4,876
7-14 Fri	62	4,938									62	4,938
7-15 Sat	50	4,988									50	4,988

-Continued-

Appendix A.9. (p. 3 of 5)

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-16 Sun	117	5,105									117	5,105
7-17 Mon	48	5,153									48	5,153
7-18 Tue	49	5,202									49	5,202
7-19 Wed	221	5,423									221	5,423
7-20 Thu	241	5,664									241	5,664
7-21 Fri	125	5,789									125	5,789
7-22 Sat	120	5,909									120	5,909
7-23 Sun	12	5,921									12	5,921
7-24 Mon	93	6,014									93	6,014
7-25 Tue	122	6,136									122	6,136
7-26 Wed	89	6,225									89	6,225
7-27 Thu	87	6,312									87	6,312
7-28 Fri	4	6,316									4	6,316
7-29 Sat	370	6,686									370	6,686
7-30 Sun	345	7,031									345	7,031
7-31 Mon	342	7,373									342	7,373
8-01 Tue	922	8,295									922	8,295
8-02 Wed	1,301	9,596									1,301	9,596
8-03 Thu	734	10,330									734	10,330
8-04 Fri	664	10,994									664	10,994
8-05 Sat	281	11,275									281	11,275
8-06 Sun	370	11,645									370	11,645
8-07 Mon	510	12,155									510	12,155
8-08 Tue	655	12,810									655	12,810
8-09 Wed	567	13,377									567	13,377
8-10 Thu	368	13,745									368	13,745
8-11 Fri	1,023	14,768									1,023	14,768
8-12 Sat	906	15,674									906	15,674
8-13 Sun	526	16,200									526	16,200
8-14 Mon	1,961	18,161									1,961	18,161

-Continued-

Appendix A.9. (p. 4 of 5)

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
8-15 Tue	503	18,664									503	18,664
8-16 Wed	157	18,821									157	18,821
8-17 Thu	431	19,252									431	19,252
8-18 Fri	347	19,599									347	19,599
8-19 Sat	132	19,731									132	19,731
8-20 Sun	445	20,176									445	20,176
8-21 Mon	102	20,278									102	20,278
8-22 Tue	56	20,334									56	20,334
8-23 Wed	349	20,683									349	20,683
8-24 Thu	124	20,807									124	20,807
8-25 Fri	632	21,439									632	21,439
8-26 Sat	160	21,599									160	21,599
8-27 Sun	144	21,743									144	21,743
8-28 Mon	65	21,808									65	21,808
8-29 Tue	126	21,934									126	21,934
8-30 Wed	37	21,971									37	21,971
8-31 Thu		21,971										21,971
9-01 Fri	173	22,144									173	22,144
9-02 Sat	2	22,146									2	22,146
9-03 Sun	8	22,154									8	22,154
9-04 Mon	7	22,161									7	22,161
9-05 Tue	28	22,189									28	22,189
9-06 Wed	1	22,190									1	22,190
9-07 Thu		22,190										22,190
9-08 Fri		22,190					1	1			1	22,191
9-09 Sat	21	22,211					4	5			25	22,216
9-10 Sun	20	22,231					4	9			24	22,240
9-11 Mon	10	22,241					1	10			11	22,251
9-12 Tue	4	22,245					1	11			5	22,256
9-13 Wed	5	22,250						11			5	22,261
9-14 Thu	10	22,260					1	12			11	22,272
9-15 Fri	11	22,271						12			11	22,283

- Continued -

Appendix A.9. (p. 5 of 5)

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
9-16 Sat	8	22,279					1	13			9	22,292
9-17 Sun	25	22,304					1	14			26	22,318
9-18 Mon		22,304						14				22,318

Appendix A.10. Estimated daily and cumulative salmon escapement in Yentna River, Susitna River drainage, Upper Cook Inlet, Alaska, 1989.

	Sockeye		Pink[a]		Chum[a]		Coho[a]		Chinook[a]		Total	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-07 Fri	262	262	572	572	196	196	2	2	18	18	1,050	1,050
7-08 Sat	345	607	744	1,316	252	448	3	5	22	40	1,366	2,416
7-09 Sun	281	888	955	2,271	64	512	5	10	15	55	1,320	3,736
7-10 Mon	266	1,154	903	3,174	59	571	5	15	14	69	1,247	4,983
7-11 Tue	172	1,326	1,267	4,441	27	598	7	22	19	88	1,492	6,475
7-12 Wed	78	1,404	1,461	5,902	8	606	10	32	4	92	1,561	8,036
7-13 Thu	91	1,495	1,501	7,403	6	612	16	48	20	112	1,634	9,670
7-14 Fri	327	1,822	1,713	9,116	20	632	13	61	10	122	2,083	11,753
7-15 Sat	431	2,253	888	10,004	29	661	19	80	10	132	1,377	13,130
7-16 Sun	282	2,535	351	10,355	24	685	15	95	9	141	681	13,811
7-17 Mon	2,415	4,950	1,947	12,302	226	911	132	227	30	171	4,750	18,561
7-18 Tue	4,949	9,899	6,039	18,341	925	1,836	255	482	37	208	12,205	30,766
7-19 Wed	5,642	15,541	9,098	27,439	1,119	2,955	240	722	8	216	16,107	46,873
7-20 Thu	3,899	19,440	6,539	33,978	773	3,728	228	950	2	218	11,441	58,314
7-21 Fri	3,068	22,508	4,931	38,909	396	4,124	187	1,137	28	246	8,610	66,924
7-22 Sat	4,410	26,918	5,318	44,227	539	4,663	120	1,257	9	255	10,396	77,320
7-23 Sun	7,629	34,547	5,686	49,913	1,095	5,758	424	1,681	5	260	14,839	92,159
7-24 Mon	9,011	43,558	10,805	60,718	1,636	7,394	497	2,178	26	286	21,975	114,134
7-25 Tue	7,649	51,207	12,182	72,900	1,414	8,808	177	2,355		286	21,422	135,556
7-26 Wed	10,964	62,171	12,698	85,598	2,388	11,196	1,141	3,496	46	332	27,237	162,793
7-27 Thu	9,900	72,071	13,344	98,942	2,920	14,116	1,931	5,427		332	28,095	190,888
7-28 Fri	4,847	76,918	11,787	110,729	4,593	18,709	1,741	7,168	19	351	22,987	213,875
7-29 Sat	5,245	82,163	9,227	119,956	4,339	23,048	2,408	9,576		351	21,219	235,094
7-30 Sun	990	83,153	6,891	126,847	1,750	24,798	541	10,117	14	365	10,186	245,280
7-31 Mon	356	83,509	3,112	129,959	995	25,793	96	10,213		365	4,559	249,839
8-01 Tue	552	84,061	1,881	131,840	366	26,159	50	10,263	10	375	2,859	252,698
8-02 Wed	575	84,636	1,819	133,659	368	26,527	56	10,319	13	388	2,831	255,529
8-03 Thu	927	85,563	1,965	135,624	656	27,183	342	10,661	3	391	3,893	259,422
8-04 Fri	1,766	87,329	5,462	141,086	1,749	28,932	770	11,431		391	9,747	269,169
8-05 Sat	1,461	88,790	6,350	147,436	4,985	33,917	1,176	12,607		391	13,972	283,141
8-06 Sun	1,288	90,078	5,846	153,282	5,389	39,306	1,531	14,138		391	14,054	297,195

-Continued-

Appendix A.10. (p. 2 of 2)

Date	Sockeye		Pink[a]		Chum[a]		Coho[a]		Chinook[a]		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
8-07 Mon	730	90,808	4,997	158,279	4,168	43,474	1,141	15,279		391	11,036	308,231
8-08 Tue	486	91,294	2,012	160,291	957	44,431	337	15,616		391	3,792	312,023
8-09 Wed	525	91,819	2,429	162,720	1,183	45,614	458	16,074	2	393	4,597	316,620
8-10 Thu	351	92,170	891	163,611	817	46,431	360	16,434		393	2,419	319,039
8-11 Fri	445	92,615	848	164,459	824	47,255	391	16,825		393	2,508	321,547
8-12 Sat	390	93,005	778	165,237	569	47,824	466	17,291		393	2,203	323,750
8-13 Sun	821	93,826	1,782	167,019	1,802	49,626	949	18,240		393	5,354	329,104
8-14 Mon	982	94,808	1,908	168,927	2,717	52,343	1,731	19,971		393	7,338	336,442
8-15 Tue	655	95,463	2,677	171,604	3,480	55,823	2,254	22,225		393	9,066	345,508
8-16 Wed	240	95,703	768	172,372	3,270	59,093	1,147	23,372		393	5,425	350,933
8-17 Thu	209	95,912	530	172,902	1,699	60,792	803	24,175		393	3,241	354,174
8-18 Fri	139	96,051	289	173,191	718	61,510	616	24,791		393	1,762	355,936
8-19 Sat	106	96,157	188	173,379	961	62,471	493	25,284		393	1,748	357,684
8-20 Sun	55	96,212	114	173,493	701	63,172	353	25,637		393	1,223	358,907

[a] Daily and cumulative values represents index counts only.

Appendix A.11. Daily and cumulative salmon escapement in Fish Creek, Upper Cook Inlet, Alaska, 1989. Source: R. Chlupach, Alaska Department of Fish and Game, Big Lake, personal communication.

	Sockeye		Pink		Chum		Coho		Chinook		Total	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7-07 Fri	3	3									3	3
7-08 Sat	7	10									7	10
7-09 Sun	9	19									9	19
7-10 Mon	25	44									25	44
7-11 Tue	16	60									16	60
7-12 Wed		60										60
7-13 Thu		60										60
7-14 Fri	1,308	1,368									1,308	1,368
7-15 Sat	1,582	2,950									1,582	2,950
7-16 Sun	3,315	6,265									3,315	6,265
7-17 Mon	500	6,765									500	6,765
7-18 Tue	4	6,769									4	6,769
7-19 Wed	2,233	9,002									2,233	9,002
7-20 Thu	5,200	14,202									5,200	14,202
7-21 Fri	8,076	22,278					2	2			8,078	22,280
7-22 Sat	4,536	26,814					2	4			4,538	26,818
7-23 Sun	4,257	31,071					1	5			4,258	31,076
7-24 Mon	5,917	36,988					1	6			5,918	36,994
7-25 Tue	8,108	45,096						6			8,108	45,102
7-26 Wed	6,209	51,305						6			6,209	51,311
7-27 Thu	4,582	55,887					1	7			4,583	55,894
7-28 Fri	2,924	58,811						7			2,924	58,818
7-29 Sat	2,251	61,062						7			2,251	61,069
7-30 Sun	1,027	62,089						7			1,027	62,096
7-31 Mon	54	62,143						7			54	62,150
8-01 Tue	360	62,503						7			360	62,510
8-02 Wed	205	62,708						7			205	62,715
8-03 Thu	135	62,843					1	8			136	62,851
8-04 Fri	246	63,089					4	12			250	63,101
8-05 Sat	275	63,364						12			275	63,376
8-06 Sun	159	63,523						12			159	63,535
8-07 Mon	17	63,540					1	13			18	63,553

-Continued-

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

Date	Sockeye		Pink		Chum		Coho		Chinook		Total	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
8-08 Tue	271	63,811					2	15			273	63,826
8-09 Wed	379	64,190					3	18			382	64,208
8-10 Thu	1,269	65,459					12	30			1,281	65,489
8-11 Fri	711	66,170					14	44			725	66,214
8-12 Sat	405	66,575					111	155			516	66,730
8-13 Sun	156	66,731					31	186			187	66,917
8-14 Mon	60	66,791					24	210			84	67,001
8-15 Tue	84	66,875					74	284			158	67,159
8-16 Wed	142	67,017					51	335			193	67,352
8-17 Thu	56	67,073					269	604			325	67,677
8-18 Fri	19	67,092					50	654			69	67,746
8-19 Sat	36	67,128					106	760			142	67,888
8-20 Sun	13	67,141					64	824			77	67,965
8-21 Mon	16	67,157					42	866			58	68,023
8-22 Tue	8	67,165					98	964			106	68,129
8-23 Wed	7	67,172					71	1,035			78	68,207
8-24 Thu	24	67,196					147	1,182			171	68,378
8-25 Fri	15	67,211					223	1,405			238	68,616
8-26 Sat	3	67,214					209	1,614			212	68,828
8-27 Sun	6	67,220					190	1,804			196	69,024
8-28 Mon	2	67,222					26	1,830			28	69,052
8-29 Tue	2	67,224					8	1,838			10	69,062
8-30 Wed		67,224					15	1,853			15	69,077
8-31 Thu		67,224					26	1,879			26	69,103
9-01 Fri		67,224					18	1,897			18	69,121
9-02 Sat		67,224					13	1,910			13	69,134
9-03 Sun		67,224					10	1,920			10	69,144
9-04 Mon		67,224					8	1,928			8	69,152
9-05 Tue		67,224					10	1,938			10	69,162
9-06 Wed		67,224					14	1,952			14	69,176
9-07 Thu		67,224					20	1,972			20	69,196
9-08 Fri		67,224					7	1,979			7	69,203
9-09 Sat		67,224					1,500	3,479			1,500	70,703

Appendix A.12. Daily and cumulative early and late run sockeye salmon escapement in Russian River, Kenai River drainage, Upper Cook Inlet, Alaska, 1989. Source: J. Carlon, Alaska Department of Fish and Game, Soldotna, personal communication.

	Early Run		Late Run	
Date[a]	Daily	Cumulative	Daily	Cumulative
6-16 Fri				
6-17 Sat				
6-18 Sun	4	4		
6-19 Mon		4		
6-20 Tue	33	37		
6-21 Wed		37		
6-22 Thu	33	70		
6-23 Fri	14	84		
6-24 Sat		84		
6-25 Sun		84		
6-26 Mon	226	310		
6-27 Tue	832	1,142		
6-28 Wed	428	1,570		
6-29 Thu	1,494	3,064		
6-30 Fri	424	3,488		
7-01 Sat	784	4,272		
7-02 Sun	5,275	9,547		
7-03 Mon	3,017	12,564		
7-04 Tue	981	13,545		
7-05 Wed	219	13,764		
7-06 Thu		13,764		
7-07 Fri	46	13,810		
7-08 Sat	432	14,242		
7-09 Sun	380	14,622		
7-10 Mon	141	14,763		
7-11 Tue	125	14,888		
7-12 Wed	66	14,954		
7-13 Thu	63	15,017		
7-14 Fri		15,017		
7-15 Sat		15,017		
7-16 Sun	125	15,142	54	54
7-17 Mon	104	15,246	43	97
7-18 Tue	27	15,273	21	118
7-19 Wed	12	15,285	365	483
7-20 Thu	53	15,338	1,592	2,075

- Continued -

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

Date[a]	Early Run Daily	Early Run Cumulative	Late Run Daily	Late Run Cumulative
7-21 Fri			3,395	5,470
7-22 Sat			1,040	6,510
7-23 Sun			246	6,756
7-24 Mon			267	7,023
7-25 Tue			3,565	10,588
7-26 Wed			4,711	15,299
7-27 Thu			5,133	20,432
7-28 Fri			3,830	24,262
7-29 Sat			2,621	26,883
7-30 Sun			5,683	32,566
7-31 Mon			5,845	38,411
8-01 Tue			4,788	43,199
8-02 Wed			3,606	46,805
8-03 Thu			4,825	51,630
8-04 Fri			3,514	55,144
8-05 Sat			3,302	58,446
8-06 Sun			3,043	61,489
8-07 Mon			8,351	69,840
8-08 Tue			4,889	74,729
8-09 Wed			4,564	79,293
8-10 Thu			2,901	82,194
8-11 Fri			5,749	87,943
8-12 Sat			6,555	94,498
8-13 Sun			4,057	98,555
8-14 Mon			2,849	101,404
8-15 Tue			3,157	104,561
8-16 Wed			1,314	105,875
8-17 Thu			2,927	108,802
8-18 Fri			3,147	111,949
8-19 Sat				111,949
8-20 Sun			4,806	116,755
8-21 Mon			741	117,496
8-22 Tue			2,650	120,146
8-23 Wed			778	120,924
8-24 Thu			2,877	123,801

- Continued -

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	Early Run		Late Run	
Date[a]	Daily	Cumulative	Daily	Cumulative
8-25 Fri			104	123,905
8-26 Sat			2,436	126,341
8-27 Sun			924	127,265
8-28 Mon			447	127,712
8-29 Tue			3,436	131,148
8-30 Wed			1,189	132,337
8-31 Thu			1,564	133,901
9-01 Fri			675	134,576
9-02 Sat			1,244	135,820
9-03 Sun			944	136,764
9-04 Mon			64	136,828
9-05 Tue			239	137,067
9-06 Wed			456	137,523
9-07 Thu			60	137,583
9-08 Fri			251	137,834
9-09 Sat			280	138,114
9-10 Sun			38	138,152
9-11 Mon			60	138,212
9-12 Tue			106	138,318

[a] Early and late runs differentiated by subjective observation of external maturation characteristics (i.e. coloration phase).

Appendix A.13. Daily and cumulative sockeye salmon escapement in Hidden Creek, Kenai River drainage, Upper Cook Inlet, Alaska, 1989. Source: M. Schollenberger, Cook Inlet Aquaculture Association, Soldotna, personal communication.

Date	Daily	Cumulative
7-17 Mon	22	22
7-18 Tue	125	147
7-19 Wed	26	173
7-20 Thu	138	311
7-21 Fri	235	546
7-22 Sat	502	1,048
7-23 Sun	140	1,188
7-24 Mon	845	2,033
7-25 Tue	97	2,130
7-26 Wed	28	2,158
7-27 Thu	161	2,319
7-28 Fri	24	2,343
7-29 Sat	150	2,493
7-30 Sun	351	2,844
7-31 Mon		2,844
8-01 Tue	3	2,847
8-02 Wed	649	3,496
8-03 Thu	54	3,550
8-04 Fri	178	3,728
8-05 Sat	33	3,761
8-06 Sun	510	4,271
8-07 Mon		4,271
8-08 Tue		4,271
8-09 Wed	341	4,612
8-10 Thu	443	5,055
8-11 Fri	67	5,122
8-12 Sat	6	5,128
8-13 Sun	7	5,135
8-14 Mon	33	5,168
8-15 Tue	1,284	6,452
8-16 Wed	23	6,475
8-17 Thu	57	6,532
8-18 Fri	51	6,583
8-19 Sat	202	6,785
8-20 Sun	280	7,065

- Continued -

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

Date	Daily	Cumulative
8-21 Mon	85	7,150
8-22 Tue	9	7,159
8-23 Wed	105	7,264
8-24 Thu	185	7,449
8-25 Fri	43	7,492
8-26 Sat	48	7,540
8-27 Sun		7,540
8-28 Mon	35	7,575
8-29 Tue	172	7,747
8-30 Wed	2	7,749
8-31 Thu	21	7,770

Appendix A.14. Daily and cumulative sockeye salmon escapement into Judd Lake, Yentna River, Susitna River drainage, Upper Cook Inlet, Alaska, 1989. Source: M. Schollenberger, Cook Inlet Aquaculture Association, Soldotna, personal communication.

Date	Daily	Cumulative
7-25 Tue	2	2
7-26 Wed	47	49
7-27 Thu	882	931
7-28 Fri	693	1,624
7-29 Sat	738	2,362
7-30 Sun	516	2,878
7-31 Mon	681	3,559
8-01 Tue	1,059	4,618
8-02 Wed	1,029	5,647
8-03 Thu	885	6,532
8-04 Fri	933	7,465
8-05 Sat	1,104	8,569
8-06 Sun	792	9,361
8-07 Mon	647	10,008
8-08 Tue	531	10,539
8-09 Wed	552	11,091
8-10 Thu	571	11,662
8-11 Fri	216	11,878
8-12 Sat	48	11,926
8-13 Sun	264	12,190
8-14 Mon	138	12,328
8-15 Tue	48	12,376
8-16 Wed	61	12,437
8-17 Thu	120	12,557
8-18 Fri	23	12,580
8-19 Sat	33	12,613
8-20 Sun	19	12,632
8-21 Mon	16	12,648
8-22 Tue	42	12,690
8-23 Wed	39	12,729
8-24 Thu	12	12,741
8-25 Fri	27	12,768
8-26 Sat	21	12,789
8-27 Sun	3	12,792

Appendix A.15. Estimated daily and cumulative early run chinook salmon escapement in the Kenai River, Upper Cook Inlet, Alaska, 1989. Source: S. Hammarstrom, Alaska Department of Fish and Game, Soldotna, personal communication.

Date	Daily	Cumulative
5-16 Tue	180	180
5-17 Wed	319	499
5-18 Thu	264	763
5-19 Fri	180	943
5-20 Sat	147	1,090
5-21 Sun	245	1,335
5-22 Mon	164	1,499
5-23 Tue	186	1,685
5-24 Wed	279	1,964
5-25 Thu	300	2,264
5-26 Fri	270	2,534
5-27 Sat	419	2,953
5-28 Sun	357	3,310
5-29 Mon	269	3,579
5-30 Tue	164	3,743
5-31 Wed	157	3,900
6-01 Thu	258	4,158
6-02 Fri	194	4,352
6-03 Sat	233	4,585
6-04 Sun	246	4,831
6-05 Mon	280	5,111
6-06 Tue	384	5,495
6-07 Wed	545	6,040
6-08 Thu	890	6,930
6-09 Fri	912	7,842
6-10 Sat	913	8,755
6-11 Sun	710	9,465
6-12 Mon	577	10,042
6-13 Tue	599	10,641
6-14 Wed	458	11,099
6-15 Thu	335	11,434
6-16 Fri	397	11,831
6-17 Sat	514	12,345
6-18 Sun	464	12,809
6-19 Mon	295	13,104
6-20 Tue	498	13,602
6-21 Wed	520	14,122

- Continued -

Appendix A.15. (p. 2 of 2)

Date	Daily	Cumulative
6-22 Thu	614	14,736
6-23 Fri	547	15,283
6-24 Sat	564	15,847
6-25 Sun	374	16,221
6-26 Mon	369	16,590
6-27 Tue	309	16,899
6-28 Wed	425	17,324
6-29 Thu	376	17,700
6-30 Fri	292	17,992

Appendix A.16. Estimated daily and cumulative late run chinook salmon escapement in the Kenai River, Upper Cook Inlet, Alaska, 1989. Source: S. Hammarstrom, Alaska Department of Fish and Game, Soldotna, personal communication.

Date	Daily	Cumulative
7-01 Sat	769	769
7-02 Sun	489	1,258
7-03 Mon	353	1,611
7-04 Tue	566	2,177
7-05 Wed	1,106	3,283
7-06 Thu	879	4,162
7-07 Fri	680	4,842
7-08 Sat	776	5,618
7-09 Sun	1,404	7,022
7-10 Mon	560	7,582
7-11 Tue	2,010	9,592
7-12 Wed	2,763	12,355
7-13 Thu	910	13,265
7-14 Fri	2,284	15,549
7-15 Sat	1,111	16,660
7-16 Sun	1,344	18,004
7-17 Mon	963	18,967
7-18 Tue	1,382	20,349
7-19 Wed	425	20,774
7-20 Thu	820	21,594
7-21 Fri	916	22,510
7-22 Sat	583	23,093
7-23 Sun	756	23,849
7-24 Mon	783	24,632
7-25 Tue	495	25,127
7-26 Wed	432	25,559
7-27 Thu	618	26,177
7-28 Fri	538	26,715
7-29 Sat	441	27,156
7-30 Sun	391	27,547
7-31 Mon	383	27,930
8-01 Tue	351	28,281
8-02 Wed	201	28,482
8-03 Thu	132	28,614
8-04 Fri	142	28,756

- Continued -

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

Date	Daily	Cumulative
8-05 Sat	107	28,863
8-06 Sun	107	28,970
8-07 Mon	65	29,035

Appendix A.17. Daily and cumulative salmon escapement in Little Susitna River, Upper Cook Inlet, Alaska, 1989. Source: L. Bartlett, Alaska Department of Fish and Game, Palmer, personal communication.

	Chinook		Sockeye		Chum		Coho		Pink	
Date	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
5/24	1	1	0	0						
5/25	0	1	0	0						
5/26	0	1	0	0						
5/27	5	6	3	3						
5/28	17	23	12	15						
5/29	5	28	37	52						
5/30	7	35	40	92						
5/31	22	57	33	125						
6/01	28	85	33	158						
6/02	1	86	24	182						
6/03	11	97	13	195						
6/04	41	138	46	241						
6/05	16	154	57	298						
6/06	16	170	80	378						
6/07	34	204	53	431						
6/08	87	291	15	446						
6/09	291	582	88	534						
6/10	84	666	50	584						
6/11	410	1,076	89	673						
6/12	502	1,578	56	729						
6/13	15	1,593	66	795						
6/14	197	1,790	46	841						
6/15	287	2,077	87	928						
6/16	171	2,248	39	967						
6/17	134	2,382	20	987						

-Continued-

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	Chinook		Sockeye		Chum		Coho		Pink	
Date	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
6/18	168	2,550	25	1,012						
6/19	397	2,947	14	1,026						
6/20	184	3,131	5	1,031						
6/21	39	3,170	2	1,033						
6/22	34	3,204	3	1,036						
6/23	20	3,224	3	1,039						
6/24	17	3,241	1	1,040						
6/25	50	3,291	1	1,041						
6/26	24	3,315	1	1,042						
6/27	14	3,329	1	1,043						
6/28	54	3,383	2	1,045						
6/29	171	3,554	2	1,047						
6/30	101	3,655	2	1,049						
7/01	111	3,766	2	1,051						
7/02	100	3,866	2	1,053						
7/03	46	3,912	0	1,053	4	4				
7/04	44	3,956	0	1,053	16	20				
7/05	48	4,004	1	1,054	21	41				
7/06	25	4,029	0	1,054	5	46				
7/07	9	4,038	2	1,056	21	67				
7/08	19	4,057	12	1,068	64	131				
7/09	42	4,099	6	1,074	178	309				
7/10	28	4,127	4	1,078	209	518				
7/11	18	4,145	21	1,099	222	740	1	1		
7/12	56	4,201	11	1,110	149	889	0	1		
7/13	15	4,216	6	1,116	53	942	7	8	2	2

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Date	Chinook		Sockeye		Chum		Coho		Pink	
	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
7/14	10	4,226	6	1,122	19	961	3	11	2	4
7/15	3	4,229	14	1,136	45	1,006	1	12	1	5
7/16	4	4,233	160	1,296	162	1,168	3	15	1	6
7/17	9	4,242	306	1,602	139	1,307	13	28	4	10
7/18	11	4,253	134	1,736	262	1,569	11	39	0	10
7/19	11	4,264	82	1,818	342	1,911	4	43	0	10
7/20	7	4,271	16	1,834	160	2,071	1	44	0	10
7/21	3	4,274	310	2,144	296	2,367	18	62	2	12
7/22	2	4,276	125	2,269	211	2,578	0	62	1	13
7/23	0	4,276	113	2,382	342	2,920	2	64	0	13
7/24	2	4,278	114	2,496	691	3,611	1	65	0	13
7/25	12	4,290	781	3,277	1,077	4,688	25	90	2	15
7/26	12	4,302	523	3,800	1,327	6,015	20	110	5	20
7/27	13	4,315	561	4,361	1,328	7,343	54	164	3	23
7/28	4	4,319	340	4,701	1,060	8,403	27	191	1	24
7/29	5	4,324	290	4,991	1,153	9,556	29	220	2	26
7/30	14	4,338	216	5,207	593	10,149	220	440	0	26
7/31	1	4,339	61	5,268	179	10,328	31	471	0	26
8/01	3	4,342	150	5,418	417	10,745	44	515	1	27
8/02	2	4,344	216	5,634	646	11,391	271	786	4	31
8/03	4	4,348	96	5,730	376	11,767	470	1,256	2	33
8/04	4	4,352	40	5,770	317	12,084	235	1,491	1	34
8/05	1	4,353	36	5,806	254	12,338	113	1,604	0	34
8/06	4	4,357	92	5,898	245	12,583	1,854	3,458	7	41
8/07	0	4,357	22	5,920	142	12,725	151	3,609	1	42
8/08	0	4,357	65	5,985	137	12,862	692	4,301	1	43

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	Chinook		Sockeye		Chum		Coho		Pink	
Date	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
8/09	1	4,358	26	6,011	82	12,944	253	4,554	3	46
8/10	0	4,358	23	6,034	127	13,071	173	4,727	0	46
8/11	2	4,360	31	6,065	189	13,260	385	5,112	3	49
8/12	0	4,360	74	6,139	192	13,452	1,036	6,148	1	50
8/13	0	4,360	18	6,157	89	13,541	1,009	7,157	1	51
8/14	2	4,362	9	6,166	41	13,582	475	7,632	1	52
8/15	1	4,363	16	6,182	46	13,628	553	8,185	1	53
8/16	4	4,367	8	6,190	43	13,671	1,424	9,609	1	54
8/17	0	4,367	2	6,192	18	13,689	205	9,814	0	54
8/18	0	4,367	1	6,193	32	13,721	110	9,924	1	55
8/19	0	4,367	3	6,196	21	13,742	159	10,083	1	56
8/20	0	4,367	4	6,200	78	13,820	1,666	11,749	1	57
8/21	0	4,367	1	6,201	7	13,827	89	11,838	0	57
8/22	0	4,367	1	6,202	9	13,836	63	11,901	0	57
8/23	0	4,367	0	6,202	15	13,851	94	11,995	0	57
8/24	0	4,367	0	6,202	9	13,860	41	12,036	0	57
8/25	0	4,367	1	6,203	9	13,869	1,343	13,379	0	57
8/26	0	4,367	0	6,203	7	13,876	2,476	15,855	0	57
8/27	Weir submerged under high water									
Total		4,367		6,203		13,876		15,855		57

Appendix A.18. Daily and cumulative chinook salmon escapement in Crooked Creek, Kasilof River drainage, Upper Cook Inlet, Alaska, 1989. Source: G. Kyle, Alaska Department of Fish and Game, Soldotna.

	Ocean Age				
Date	.1	.2	.3, .4 and .5	Daily	Accum[a]
6/29	17	175	74	266	249
7/01	0	0	34	34	283
7/03	31	146	86	263	515
7/05	27	99	145	271	759
7/07	31	73	182	286	1,014
7/10	78	82	200	360	1,296
7/12	93	100	230	423	1,626
7/14	44	88	247	379	1,961
7/17	71	96	188	355	2,245
7/18	0	11	114	125	2,370
7/19	87	55	170	312	2,595
7/21	61	39	95	195	2,729
7/23	144	47	74	265	2,850
7/27	169	53	80	302	2,983
8/02	111	14	14	139	3,011
Total	964	1,078	1,933	3,975	3,011

[a] Does not include ocean age .1 fish.

Appendix A.19. Daily and cumulative coho salmon escapement in Swanson River, Upper Cook Inlet, Alaska, 1989. Source: R. Jones, U.S. Fish and Wildlife Service, Soldotna, personal communication.

Date	Daily	Accumulative
12-Jul	0	0
13-Jul	0	0
14-Jul	0	0
15-Jul	0	0
16-Jul	0	0
17-Jul	0	0
18-Jul	0	0
19-Jul	0	0
20-Jul	0	0
21-Jul	0	0
22-Jul	0	0
23-Jul	0	0
24-Jul	0	0
25-Jul	0	0
26-Jul	0	0
27-Jul	0	0
28-Jul	0	0
29-Jul	0	0
30-Jul	1	1
31-Jul	0	1
01-Aug	1	2
02-Aug	4	6
03-Aug	8	14
04-Aug	13	27
05-Aug	6	33
06-Aug	22	55
07-Aug	17	72
08-Aug	41	113
09-Aug	180	293
10-Aug	656	949
11-Aug	493	1,442
12-Aug	263	1,705
13-Aug	469	2,174
14-Aug	520	2,694
15-Aug	379	3,073
16-Aug	517	3,590

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Date	Daily	Accumulative
17-Aug	741	4,331
18-Aug	1,233	5,564
19-Aug	859	6,423
20-Aug	1,149	7,572
21-Aug	1,431	9,003
22-Aug	2,892	11,895
23-Aug	2,006	13,901
24-Aug	720	14,621
25-Aug	2,472	17,093
26-Aug	1,540	18,633
27-Aug	2,208	20,841[a]

[a] Weir was removed due to high water conditions. This represents a minimum count.

Appendix B.1. Estimated age and sex composition of chinook salmon harvested in the Upper Subdistrict commercial set gill net fishery of the Central District, Upper Cook Inlet, Alaska, 1989.

	Age Group						
	1.1	1.2	1.3	2.2	1.4	1.5	Total
Sample Period 1: 3 - 26 July							
Males	34	905	820	17	2,152	410	4,338
Percent	.44	11.55	10.46	.22	27.45	5.23	55.34
Std. Error	3.29	.60	.64		.35	.93	.20
Sample Size	2	53	48	1	126	24	254
Females	34	752	854	17	1,640	205	3,502
Percent	.44	9.59	10.89	.22	20.92	2.61	44.66
Std. Error	3.29	.67	.62		.42	1.33	.24
Sample Size	2	44	50	1	96	12	205
Both Sexes	68	1,657	1,674	34	3,792	615	7,840
Percent	.87	21.13	21.35	.44	48.37	7.84	100.00
Std. Error	2.32	.42	.42	3.29	.23	.75	
Sample Size	4	97	98	2	222	36	459

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	Age Group						
	1.1	1.2	1.3	2.2	1.4	1.5	Total
Sample Period 2: 27 July - 14 August							
Males	23	187	499		1,021	187	1,918
Percent	.76	6.08	16.20		33.16	6.08	62.28
Std. Error	2.89	1.00	.58		.36	1.00	.20
Sample Size	3	24	64		131	24	246
Females	8	62	140		795	156	1,161
Percent	.25	2.03	4.56		25.82	5.06	37.72
Std. Error		1.76	1.16		.43	1.10	.33
Sample Size	1	8	18		102	20	149
Both Sexes	31	249	639		1,816	343	3,079
Percent	1.01	8.10	20.76		58.99	11.14	100.00
Std. Error	2.50	.85	.49		.21	.72	
Sample Size	4	32	82		233	44	395

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	Age Group						
	1.1	1.2	1.3	2.2	1.4	1.5	Total
All Periods Combined:							
Males	58	1,092	1,319	17	3,173	597	6,256
Percent	.59	9.02	13.11	.12	30.09	5.62	58.55
Std. Error	3.43	3.73	3.25	4.66	3.00	3.47	2.36
Sample Size	5	77	112	1	257	48	500
Females	42	814	994	17	2,435	361	4,663
Percent	.35	6.09	7.96	.12	23.19	3.75	41.45
Std. Error	3.91	4.12	3.85	4.66	3.13	3.37	2.79
Sample Size	3	52	68	1	198	32	354
Both Sexes	100	1,906	2,313	34	5,608	958	10,919
Percent	.94	15.11	21.08	.23	53.28	9.37	100.00
Std. Error	3.56	3.66	3.24	4.66	2.50	3.34	
Sample Size	8	129	180	2	455	80	854

Appendix B.2. Estimated age composition of chinook salmon sampled during 5-19 June in the Eastern Subdistrict commercial set gill net fishery of the Northern District, Upper Cook Inlet, Alaska, 1989. Source: D. Vincent-Lang, Alalska Department of Fish and Game, Anchorage, personal communication.

	Age Group				
Sex	1.2	1.3	1.4	1.5	Total
Males					
Sample Number	77	64	55	6	202
% of Sample	23.8	19.8	17.0	1.9	62.5
Std. Error	0.02	0.02	0.02	0.01	0.03
Females					
Sample Number	29	45	45	1	120
% of Sample	9.0	13.9	13.9	0.3	37.2
Std. Error	0.02	0.02	0.02	0.00	0.03
Both Sexes					
Sample Number	106	109	101	7	323
% of Sample	32.8	33.7	31.3	2.2	100.0
Std. Error	0.03	0.03	0.03	0.01	

Appendix B.3. Estimated age composition of chinook salmon sampled during 5-19 June in the General Subdistrict commercial set gill net fishery of the Northern District, Upper Cook Inlet, Alaska, 1989. Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.

	Age Group					
Sex	1.1	1.2	1.3	1.4	1.5	Total
Females						
Sample Number		16	57	93	1	167
% of Sample		4.6	16.3	26.6	0.3	47.9
Std. Error		0.01	0.02	0.02	0.00	0.03
Males						
Sample Number	2	37	60	83		182
% of Sample	0.6	10.6	17.2	23.8		52.1
Std. Error	0.00	0.02	0.02	0.02		0.03
Both Sexes						
Sample Number	2	53	117	176	1	349
% of Sample	0.6	15.2	33.5	50.4	0.3	100.0
Std. Error	0.00	0.02	0.03	0.03	0.00	

Appendix B.4. Estimated age composition of the early and late chinook salmon runs as sampled from the sport harvest in the Kenai River, Upper Cook Inlet, Alaska, 1989. Source: S. Hammarstrom, Alaska Department of Fish and Game, Soldotna, personal communication.

			Age Group					
Run	Sex		1.1	1.2	1.3	1.4	1.5	Total
EARLY	Male	Percent	1.1	2.8	10.5	30.4	5.0	49.7
(n=181)[a]	Female	Percent	0.0	0.6	16.0	32.6	1.1	50.3
	Combined	Percent	1.1	3.3	26.5	63.0	6.1	
		St. Error	0.8	1.3	2.3	3.4	1.8	
LATE	Male	Percent	0.0	1.0	4.2	35.4	10.4	51.0
(n=96)	Female	Percent	0.0	0.0	6.3	36.5	5.2	49.0
	Combined	Percent	0.0	1.0	10.4	71.9	15.6	
		St. Error	0.0	1.0	3.1	4.6	3.7	

[a] n = sample size.

Appendix B.5. Estimated age and sex composition of chinook salmon sampled from sport fisheries in the Northern District of Upper Cook Inlet, Alaska, 1989. Source: L. Bartlett, Alaska Department of Fish and Game, Palmer, personal communication.

			Age Group								
Fishery	Sex		1.5	2.4	1.4	2.3	1.3	2.2	1.2	1.1	Total
Alexander Creek											
	Male	Percent	0.0	0.0	6.2	0.6	19.6	0.0	71.8	1.9	56.6
	Female	Percent	0.0	0.0	42.5	0.5	53.8	0.0	3.1	0.0	43.4
(n = 369)[a]	Combined	Percent	0.0	0.0	21.9	0.5	34.4	0.0	42.0	1.1	100.0
		Std Err	0.00	0.00	4.78	0.58	5.19	0.00	5.36	1.06	
Deshka River											
	Male	Percent	0.6	0.0	30.9	1.2	20.6	0.6	43.0	3.0	53.7
	Female	Percent	1.4	0.7	60.6	2.1	30.3	0.0	4.9	0.0	46.3
(n = 307)[a]	Combined	Percent	1.0	0.3	44.6	1.6	25.1	0.3	25.4	1.6	100.0
		Std Err	2.44	0.38	8.21	2.39	5.90	0.38	7.58	2.39	
Lake Creek											
	Male	Percent	1.0	0.0	19.5	0.0	7.0	0.0	22.1	0.3	50.0
	Female	Percent	1.0	0.0	37.9	0.7	7.4	0.0	3.0	0.0	50.0
(n = 298)[a]	Combined	Percent	2.0	0.0	57.4	0.7	14.4	0.0	25.2	0.3	100.0
		Std Err	0.82	0.00	2.87	0.47	2.04	0.00	2.52	0.34	
Talkeetna River											
	Male	Percent	1.2	0.0	28.4	0.0	10.0	0.0	19.6	0.3	59.5
	Female	Percent	1.2	0.0	27.0	0.0	9.7	0.0	2.6	0.0	40.5
(n = 341)[a]	Combined	Percent	2.3	0.0	55.4	0.0	19.6	0.0	22.3	0.3	100.0
		Std Err	0.82	0.00	2.70	0.00	2.15	0.00	2.26	0.29	
Montana Creek											
	Male	Percent	0.0	0.0	13.8	0.0	17.6	0.0	24.1	5.0	60.5
	Female	Percent	1.1	0.0	31.8	0.0	5.7	0.0	0.8	0.0	39.5
(n = 261)[a]	Combined	Percent	1.1	0.0	45.6	0.0	23.4	0.0	24.9	5.0	100.0
		Std Err	0.66	0.00	3.09	0.00	2.62	0.00	2.68	1.35	
Sheep Creek											
	Male	Percent	1.9	1.2	16.7	0.8	9.7	0.0	14.8	0.8	45.9
	Female	Percent	2.3	0.0	43.2	0.0	7.4	0.0	1.2	0.0	54.1
(n = 257)[a]	Combined	Percent	4.3	1.2	59.9	0.8	17.1	0.0	16.0	0.8	100.0
		Std Err	1.27	0.67	3.06	0.55	2.35	0.00	2.29	0.55	
Willow Creek: Mouth											
	Male	Percent	0.2	0.2	23.0	0.0	12.8	0.0	7.3	0.0	43.5
	Female	Percent	0.6	0.6	49.8	0.0	5.5	0.0	0.0	0.0	56.5
(n = 368)[a]	Combined	Percent	0.8	0.8	72.8	0.0	18.3	0.0	7.3	0.0	100.0
		Std Err	0.41	0.41	2.01	0.00	1.74	0.00	1.18	0.00	

[a] n = sample size.

Appendix B.6. Estimated age and sex composition of chinook salmon sampled from the sport fishery in the Little Susitna River, Upper Cook Inlet, Alaska, 1989. Source: L. Bartlett, Alaska Department of Fish and Game, Palmer, pesonal communication.

	Age Group						
	1.1	1.2	1.3	1.4	1.5	2.3	Total
Females:							
Number in Sample	1	2	29	107	5	1	145
Percentage	0.4	0.8	11.4	42.0	2.0	0.4	56.9
Standard Error[a]	0.4	0.6	2.0	3.1	0.9	0.4	3.1
Males:							
Number in Sample	3	11	14	72	10		110
Percentage	1.2	4.3	5.5	28.2	3.9		43.1
Standard Error[a]	0.7	1.3	1.4	2.8	1.2		3.1
Sexes Combined:							
Number in Sample	4	13	43	179	15	1	255
Percentage	1.6	5.1	16.9	70.2	5.9	0.4	100.0
Standard Error[a]	0.8	1.4	2.4	2.9	1.5	0.4	

[a] Standard error of proportional estimate X 100.

Appendix B.7. Estimated age and sex composition of early and late run chinook salmon caught by drift gill nets in the Kenai River, Upper Cook Inlet, Alaska, 1989. Source: S. Hammarstrom, Alaska Department of Fish and Game, Soldotna, personal communication.

			Age Group					
Component	Sex	Statistic	1.2	1.3	1.4	1.5	Other[a]	Total
Early Run 5/17 - 6/30	Female	Sample Size		41	271	26		338
		% of Sample		6.0	39.9	3.8		49.8
		Std. Error		0.91	1.88	0.74		1.92
	Male	Sample Size	27	61	212	38	31	341
		% of Sample	4.0	9.0	31.2	5.6	0.4	50.2
		Std. Error	0.75	1.10	1.78	0.88	0.24	1.92
	Combined	Sample Size	27	102	483	64	3	679
		% of Sample	4.0	15.0	71.1	9.4	0.4	100.0
		Std. Error	0.75	1.37	1.74	1.12	0.24	
Late Run 7/01 - 8/07	Female	Sample Size	14	40	244	46	5[b]	349
		% of Sample	2.3	6.5	39.9	7.5	0.8	57.0
		Std. Error	0.60	1.00	1.98	1.07	0.36	2.00
	Male	Sample Size	48	35	151	28	1	263
		% of Sample	7.8	5.7	24.7	4.6	0.2	43.0
		Std. Error	1.09	0.94	1.74	0.85	0.16	2.00
	Combined	Sample Size	62	75	395	74	6	612
		% of Sample	10.1	12.3	64.5	12.1	0.98	100.0
		Std. Error	1.22	1.33	1.94	1.32	0.40	
Season Total 5/20 - 8/07	Female	Sample Size	14	81	515	72	5[b]	687
		% of Sample	1.1	6.3	39.9	5.6	0.4	53.2
		Std. Error	0.29	0.68	1.36	0.64	0.18	1.39
	Male	Sample Size	75	96	363	66	4	604
		% of Sample	5.8	7.4	28.1	5.1	0.3	46.8
		Std. Error	0.65	0.73	1.25	0.61	0.15	1.39
	Combined	Sample Size	89	177	878	138	9	1,291
		% of Sample	6.9	13.7	68.0	10.7	0.7	100.0
		Std. Error	0.71	0.96	1.30	0.86	0.23	

[a] Age groups 2.4 and 2.5 combined.
[b] Age groups 1.1, 1.6, 2.1, 2.3, and 3.1 combined.

Appendix B.8. Estimated age and sex composition of chinook salmon sampled from the escapement in the Little Susitna River, Upper Cook Inlet, 1989. Source: L. Bartlett, Alaska Department of Fish and Game, Palmer, personal communication.

	Age Group				
	1.2	1.3	1.4	1.5	Total
Females:					
Number in Sample		35	182	9	226
Percentage		9.5	49.5	2.4	61.4
Standard Error[a]		1.5	2.6	0.8	2.5
Males:					
Number in Sample	25	20	93	4	142
Percentage	6.8	5.4	25.3	1.1	38.6
Standard Error[a]	1.3	1.2	2.3	0.5	2.5
Sexes Combined:					
Number in Sample	25	55	275	13	368
Percentage	6.8	14.9	74.7	3.5	100.0
Standard Error[a]	1.3	1.9	2.3	1.0	

[a] Standard error of proportional estimate X 100.

Appendix B.9. Estimated length by age and sex of chinook salmon harvested in the Upper Subdistrict commercial set gill net fishery of the Central District, Upper Cook Inlet, Alaska, 1989.

	Age Group						
	1.1	1.2	1.3	2.2	1.4	1.5	Total
Sample Period 1: 3 - 26 July							
Males							
Mean Length[a]	500	688	871	895	995	1,069	910
Std. Error	125	21	20		12	25	9
Sample Size	2	53	47	1	126	24	253
Females							
Mean Length	420	665	769		975	943	846
Std. Error		22	21		9	60	9
Sample Size	2	44	49		96	12	203
Both Sexes							
Mean Length	460	677	819	895	986	1,027	882
Std. Error	125	15	14		8	26	6
Sample Size	4	97	96	1	222	36	456

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Appendix B.9. (p. 2 of 3)

	Age Group						
	1.1	1.2	1.3	2.2	1.4	1.5	Total
Sample Period 2: 27 July - 14 August							
Males							
Mean Length	417	624	824		1,027	1,068	931
Std. Error	29	17	14		7	18	6
Sample Size	3	24	64		131	24	246
Females							
Mean Length	470	684	903		971	1,037	953
Std. Error		41	59		7	10	9
Sample Size	1	8	18		102	20	149
Both Sexes							
Mean Length	430	639	842		1,002	1,053	940
Std. Error	29	16	17		5	11	5
Sample Size	4	32	82		233	44	395

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Appendix B.9. (p. 3 of 3)

	Age Group						
	1.1	1.2	1.3	2.2	1.4	1.5	Total
All Periods Combined:							
Males							
Mean Length	466	677	854	895	1,005	1,069	917
Std. Error	76	18	14		9	18	6
Sample Size	5	77	111	1	257	48	499
Females							
Mean Length	430	666	788		974	984	873
Std. Error		21	19		6	34	7
Sample Size	3	52	67		198	32	352
Both Sexes							
Mean Length	451	673	825	895	992	1,037	898
Std. Error	76	13	11		6	17	5
Sample Size	8	129	178	1	455	80	851

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

Appendix B.10. Estimated length by age and sex of chinook salmon sampled during 5-19 June in the Eastern Subdistrict commercial set gill net fishery of the Northern District, Upper Cook Inlet, Alaska, 1989. Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.

	Age Group				
Sex	1.2	1.3	1.4	1.5	Total
Males					
Mean Length[a]	569	753	922	1084	739
Std. Error	5.80	9.91	8.62	33.01	11.77
Sample Size	77	64	55	6	202
Minimum	465	560	795	955	465
Maximum	695	895	1120	1185	1185
Females					
Mean Length	551	778	879	865	762
Std. Error	7.40	10.52	6.84		12.65
Sample Size	29	45	45	1	120
Minimum	500	603	749	865	500
Maximum	660	980	960	865	980
Both Sexes					
Mean Length	564	763	894	1052	745
Std. Error	4.72	7.33	10.22	41.92	8.99
Sample Size	106	109	101	7	323
Minimum	465	560	65	865	65
Maximum	695	980	1120	1185	1185

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

Appendix B.11. Estimated length by age and sex of chinook salmon sampled during 5-19 June in the General Subdistrict commercial set gill net fishery of the Northern District, Upper Cook Inlet, Alaska, 1989. Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.

	Age Group					
Sex	1.1	1.2	1.3	1.4	1.5	TOTAL
Females						
Mean Length[a]		642	808	889	926	838
Std. Error		21.71	8.26	7.00		7.75
Sample Size		16	57	93	1	167
Minimum		540	609	598	926	540
Maximum		890	980	985	926	985
Males						
Mean Length	374	578	761	939		801
Std. Error	24.00	12.67	13.98	9.49		12.79
Sample Size	2	37	60	83		182
Minimum	350	450	555	530		350
Maximum	398	875	916	1120		1120
Both Sexes						
Mean Length	374	597	784	912	926	818
Std. Error	24.00	11.62	8.47	6.09		7.68
Sample Size	2	53	117	176	1	349
Minimum	350	450	555	530	926	350
Maximum	398	890	980	1120	926	1120

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

Appendix B.12. Estimated length of early and late run chinook salmon in the sport harvest in the Kenai River, Upper Cook Inlet, Alaska, 1989. Source: S. Hammarstrom, Alaska Department of Fish and Game, Soldotna, personal communication.

	Age Group				
	1.1	1.2	1.3	1.4	1.5
Early Run Combined Sexes					
Mean Length[a]	548	686	863	991	1128
Standard Error	13	18	10	6	16
Sample Size	2	6	48	114	11
Late Run Combined Sexes					
Mean Length		726	926	1033	1126
Standard Error			32	6	14
Sample Size		1	10	69	15

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

Appendix B.13. Estimated size composition of chinook salmon sampled at the Crooked Creek weir, Upper Cook Inlet, Alaska, 1989. Source: G. Kyle, Alaska Department of Fish and Game, Soldotna, personal communication.

Ocean age	Sample size	Mean length[a] (mm)	S.D.[b]	Mean weight (kg)	S.D.
3	23	822	38.5	8.9	1.4
4	7	864	65.9	10.3	2.6
5	1	975		14.6	

[a] Mean length measured from mid-eye to fork-of-tail.
[b] Standard Deviation

Appendix B.14. Estimated length by age and sex of chinook salmon sampled in sport fisheries of the Susitna River drainage, Upper Cook Inlet, Alaska, 1989. Source: L. Bartlett, Alaska Department of Fish and Game, Palmer, personal communication.

			Age Group							
Fishery	Sex		1.5	2.4	1.4	2.3	1.3	2.2	1.2	1.1
Alexander Creek										
	Male	Mean Length[a]	0	0	929	840	773	0	583	361
		Standard Error	0	0	22	0	19	0	10	24
		Sample Size	0	0	13	1	41	0	148	4
	Female	Mean Length	0	0	876	0	777	0	622	0
		Standard Error	0	0	11	0	13	0	20	0
		Sample Size	0	0	67	0	85	0	5	0
Lake Creek										
	Male	Mean Length	1,050	0	967	0	812	0	578	380
		Standard Error	24	0	10	0	10	0	9	0
		Sample Size	3	0	57	0	20	0	66	1
	Female	Mean Length	987	0	933	895	825	0	601	0
		Standard Error	35	0	5	25	8	0	17	0
		Sample Size	3	0	111	2	22	0	9	0
Talkeetna River										
	Male	Mean Length	1,019	0	908	0	765	0	563	290
		Standard Error	8	0	6	0	12	0	9	0
		Sample Size	4	0	78	0	25	0	54	1
	Female	Mean Length	913	0	878	0	770	0	589	0
		Standard Error	8	0	6	0	11	0	11	0
		Sample Size	4	0	80	0	23	0	9	0
Willow Creek - mouth										
	Male	Mean Length	1015	925	952	0	790	0	578	0
		Standard Error	0	0	7	0	13	0	12	0
		Sample Size	1	1	112	0	63	0	36	0
	Female	Mean Length	930	938	914	0	835	0	0	0
		Standard Error	39	16	4	0	12	0	0	0
		Sample Size	3	3	245	0	27	0	0	0

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

Appendix B.15. Estimated length by age and sex of chinook salmon sampled from the sport fishery in the Little Susitna River, Upper Cook Inlet, Alaska, 1989. Source: L. Bartlett, Alaska Department of Fish and Game, Palmer, personal communication.

	Age Group					
	1.1	1.2	1.3	1.4	1.5	2.3
Females:						
Mean Length[a]		620	830	928	946	910
Standard Error			9.5	4.8	7.5	
Sample Size		1	27	95	5	1
Minimum		62.0	70.0	81.0	92.0	91.0
Maximum		62.0	92.0	101.0	96.0	91.0
Males:						
Mean Length	360	574	813	978	1061	
Standard Error	5.8	27.1	17.0	5.5	24.8	
Sample Size	3	11	14	66	9	
Minimum	35.0	40.0	67.0	84.0	100.0	
Maximum	37.0	70.0	87.0	110.0	122.0	

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

Appendix B.16. Estimated length by age and sex of early and late run chinook salmon caught with drift gill net in the Kenai River, Upper Cook Inlet, Alaska, 1989. Source: S. Hammarstrom, Alaska Department of Fish and Game, Soldotna, personal communication.

			Age Group											
Component	Sex	Statistic	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.3	2.4	2.5	3.1	TOTAL
EARLY RUN 5/17 - 6/30	Female	Sample Size			41	271	26							338
		Mean Length[a]			805	965	1,044							952
		Std. Error			9.59	4.64	13.15							5.13
	Male	Sample Size		27	61	212	38				1	2		341
		Mean Length		650	773	1,041	1,142				730	965		972
		Std. Error		5.27	10.51	5.82	12.23					55.00		9.07
	Combined	Sample Size		27	102	483	64				1	2		679
		Mean Length		650	786	998	1,102				730	965		962
		Std. Error		5.27	7.50	4.02	10.81					55.00		5.23
LATE RUN 7/01 - 8/07	Female	Sample Size	1	14	40	244	46	1	1	1			1	349
		Mean Length	990	662	846	1,014	1,054	1,030	870	950			930	985
		Std. Error		10.39	12.55	3.72	8.04							5.66
	Male	Sample Size		48	35	151	28	1						263
		Mean Length		639	807	1,068	1,134	1,150						963
		Std. Error		6.87	14.96	5.82	7.57							11.81
	Combined	Sample Size	1	62	75	395	74	2	1	1			1	612
		Mean Length	990	664	1,019	1,103	1,084	1,030	870	950			930	976
		Std. Error		5.90	0.24	0.44	7.33	60.00						6.03

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Appendix B.16. (p. 2 of 2)

			Age Group											
Component	Sex	Statistic	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.3	2.4	2.5	3.1	TOTAL
SEASON TOTAL 5/17 - 8/07	Female	Sample Size	1	14	81	515	72	1	1	1			1	687
		Mean Length	990	662	825	989	1,050	1,030	870	950			930	969
		Std. Error		10.39	8.16	3.20	6.97							3.88
	Male	Sample Size		75	96	363	66	1			1	2		604
		Mean Length		643	785	1,052	1,138	1,150			730	965		968
		Std. Error		4.80	8.74	4.23	7.70					55.00		7.25
	Combined	Sample Size	1	89	177	878	138	2	1	1	1	2	1	1,291
		Mean Length	990	646	804	1,015	1,092	1,090	870	950	730	965	930	968
		Std. Error		4.40	6.20	2.77	6.39	60.00				55.00		3.97

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

Appendix B.17. Estimated length by age and sex of chinook salmon sampled from the escapement in the Little Susitna River, Upper Cook Inlet, Alaska, 1989. Source: L. Bartlett, Alaska Department of Fish and Game, Palmer, personal communication.

	Age Group			
	1.2	1.3	1.4	1.5
Females:				
Mean Length[a]		845	929	1018
Standard Error		6.0	3.1	17.3
Sample Size		35	182	9
Minimum		74.5	81.0	93.5
Maximum		90.0	103.0	110.0
Males:				
Mean Length	627	824	981	1023
Standard Error	8.6	17.8	5.5	25.0
Sample Size	25	19	93	4
Minimum	51.0	66.0	85.0	95.0
Maximum	70.0	93.0	110.5	106.0

[a] Mean represented by mid-eye to fork-of-tail measurement in mm.

Appendix C.1. Age and sex composition of sockeye salmon harvested in the Salamatof Beach commercial set gill net fishery, Upper Cook Inlet, Alaska, 1989.

	Age Group						
	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 1: 3 - 13 July							
Males	10,078		44,633	3,359	720	8,879	67,670
Percent	8.06		35.70	2.69	.58	7.10	54.13
Std. Error	.65		.26	1.16	2.52	.69	.18
Sample Size	42		186	14	3	37	282
Females	6,479		42,234	480		8,159	57,351
Percent	5.18		33.78	.38		6.53	45.87
Std. Error	.82		.27	3.09		.73	.21
Sample Size	27		176	2		34	239
Both Sexes	16,557		86,867	3,839	720	17,037	125,021
Percent	13.24		69.48	3.07	.58	13.63	100.00
Std. Error	.49		.13	1.08	2.52	.48	
Sample Size	69		362	16	3	71	521

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Appendix C.1. (p. 2 of 5)

	Age Group						
	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 2: 14 - 20 July							
Males	44,320		305,316	16,415	1,641	60,735	428,428
Percent	5.04		34.70	1.87	.19	6.90	48.69
Std. Error	.81		.26	1.35		.69	.19
Sample Size	27		186	10	1	37	261
Females	11,490		356,202	11,490		72,225	451,408
Percent	1.31		40.49	1.31		8.21	51.31
Std. Error	1.62		.23	1.62		.62	.18
Sample Size	7		217	7		44	275
Both Sexes	55,810		661,518	27,905	1,641	132,960	879,836
Percent	6.34		75.19	3.17	.19	15.11	100.00
Std. Error	.72		.11	1.03		.44	
Sample Size	34		403	17	1	81	536

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Appendix C.1. (p. 3 of 5)

	Age Group						
	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 3: 21 - 27 July							
Males	48,478		216,461	12,401	2,255	39,459	319,054
Percent	8.17		36.50	2.09	.38	6.65	53.80
Std. Error	.64		.25	1.30	3.08	.71	.18
Sample Size	43		192	11	2	35	283
Females	39,459	1,127	179,256	22,548		31,567	273,958
Percent	6.65	.19	30.23	3.80		5.32	46.20
Std. Error	.71		.29	.96		.80	.21
Sample Size	35	1	159	20		28	243
Both Sexes	87,937	1,127	395,717	34,949	2,255	71,026	593,012
Percent	14.83	.19	66.73	5.89	.38	11.98	100.00
Std. Error	.46		.13	.76	3.08	.52	
Sample Size	78	1	351	31	2	63	526

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Appendix C.1. (p. 4 of 5)

	Age Group						
	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 4: 28 July - 14 August							
Males	13,334		74,488	5,518	920	11,955	106,215
Percent	6.36		35.53	2.63	.44	5.70	50.66
Std. Error	.84		.30	1.33	3.30	.89	.22
Sample Size	29		162	12	2	26	231
Females	6,437	460	80,926	4,138		11,495	103,456
Percent	3.07	.22	38.60	1.97		5.48	49.34
Std. Error	1.23		.28	1.55		.91	.22
Sample Size	14	1	176	9		25	225
Both Sexes	19,772	460	155,414	9,656	920	23,450	209,671
Percent	9.43	.22	74.12	4.61	.44	11.18	100.00
Std. Error	.68		.13	1.00	3.30	.62	
Sample Size	43	1	338	21	2	51	456

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Appendix C.1. (p. 5 of 5)

	Age Group						
	1.2	2.1	1.3	2.2	1.4	2.3	Total
All Periods Combined:							
Males	116,211		640,898	37,693	5,536	121,027	921,366
Percent	6.92		35.61	2.31	.39	6.62	51.84
Std. Error	2.45		2.10	2.47	2.39	2.56	1.82
Sample Size	141		726	47	8	135	1,057
Females	63,866	1,587	658,618	38,657		123,446	886,174
Percent	4.07	.10	35.70	1.86		6.42	48.16
Std. Error	2.79	3.38	2.12	2.85		2.70	1.88
Sample Size	83	2	728	38		131	982
Both Sexes	180,077	1,587	1,299,516	76,350	5,536	244,474	1,807,540
Percent	10.99	.10	71.31	4.17	.39	13.05	100.00
Std. Error	2.43	3.38	1.38	2.56	2.39	2.52	
Sample Size	224	2	1,454	85	8	266	2,039

Appendix C.2. Age and sex composition of sockeye salmon harvested in the Kalifonsky Beach commercial set gill net fishery, Upper Cook Inlet, Alaska, 1989.

	Age Group							
	0.2	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 1: 3 - 5 July								
Males		792		3,353	226		184	4,555
Percent		9.67		40.93	2.76		2.25	55.61
Std. Error		.53		.21	1.02		1.14	.15
Sample Size		56		237	16		13	322
Females		340		2,716	156	14	410	3,636
Percent		4.15		33.16	1.90	.17	5.01	44.39
Std. Error		.83		.25	1.24		.75	.19
Sample Size		24		192	11	1	29	257
Both Sexes		1,132		6,069	382	14	594	8,191
Percent		13.82		74.09	4.66	.17	7.25	100.00
Std. Error		.43		.10	.78		.62	
Sample Size		80		429	27	1	42	579

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Appendix C.2. (p. 2 of 6)

	Age Group							
	0.2	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 2: 6 - 10 July								
Males		3,020		8,887	388		561	12,856
Percent		12.96		38.15	1.67		2.41	55.19
Std. Error		.48		.24	1.42		1.18	.17
Sample Size		70		206	9		13	298
Females		1,985		7,507	431	43	475	10,441
Percent		8.52		32.22	1.85	.19	2.04	44.81
Std. Error		.61		.27	1.35		1.28	.21
Sample Size		46		174	10	1	11	242
Both Sexes		5,005		16,394	820	43	1,035	23,297
Percent		21.48		70.37	3.52	.19	4.44	100.00
Std. Error		.35		.12	.97		.86	
Sample Size		116		380	19	1	24	540

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Appendix C.2. (p. 3 of 6)

	Age Group							
	0.2	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 3: 11 - 17 July								
Males	1,069	105,842	1,069	233,067	12,829		23,521	377,398
Percent	.20	20.04	.20	44.13	2.43		4.45	71.46
Std. Error		.40		.23	1.28		.94	.13
Sample Size	1	99	1	218	12		22	353
Females		43,834		101,566			5,346	150,745
Percent		8.30		19.23			1.01	28.54
Std. Error		.67		.41			2.00	.32
Sample Size		41		95			5	141
Both Sexes	1,069	149,676	1,069	334,633	12,829		28,866	528,143
Percent	.20	28.34	.20	63.36	2.43		5.47	100.00
Std. Error		.32		.15	1.28		.84	
Sample Size	1	140	1	313	12		27	494

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Appendix C.2. (p. 4 of 6)

	Age Group							
	0.2	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 4: 18 - 24 July								
Males		81,950		227,923	7,683		26,890	344,446
Percent		11.85		32.96	1.11		3.89	49.81
Std. Error		.51		.26	1.75		.92	.19
Sample Size		64		178	6		21	269
Females		37,134		266,337	14,085	2,561	26,890	347,007
Percent		5.37		38.52	2.04	.37	3.89	50.19
Std. Error		.78		.23	1.28	3.04	.92	.18
Sample Size		29		208	11	2	21	271
Both Sexes		119,084		494,261	21,768	2,561	53,780	691,453
Percent		17.22		71.48	3.15	.37	7.78	100.00
Std. Error		.41		.12	1.03	3.04	.64	
Sample Size		93		386	17	2	42	540

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Appendix C.2. (p. 5 of 6)

	Age Group							
	0.2	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 5: 25 July - 14 August								
Males		92,177		186,402	13,314	4,097	19,460	315,450
Percent		16.89		34.15	2.44	.75	3.56	57.79
Std. Error		.42		.26	1.19	2.16	.98	.16
Sample Size		90		182	13	4	19	308
Females		56,330		151,580	7,169	1,024	14,339	230,442
Percent		10.32		27.77	1.31	.19	2.63	42.21
Std. Error		.55		.30	1.63		1.14	.22
Sample Size		55		148	7	1	14	225
Both Sexes		148,507		337,982	20,484	5,121	33,798	545,892
Percent		27.20		61.91	3.75	.94	6.19	100.00
Std. Error		.31		.15	.95	1.93	.73	
Sample Size		145		330	20	5	33	533

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Appendix C.2. (p. 6 of 6)

	Age Group							
	0.2	1.2	2.1	1.3	2.2	1.4	2.3	Total
All Periods Combined:								
Males	1,069	283,781	1,069	659,633	34,441	4,097	70,615	1,054,705
Percent	. 4	14.11	. 4	38.01	2.08	.15	3.28	57.71
Std. Error	4.49	2.29	4.49	1.97	2.53	4.32	2.47	1.56
Sample Size	1	379	1	1,021	56	4	88	1,550
Females		139,622		529,706	21,842	3,642	47,459	742,271
Percent		7.26		30.42	1.45	.19	2.98	42.29
Std. Error		2.41		2.14	3.09	3.26	2.76	1.91
Sample Size		195		817	39	5	80	1,136
Both Sexes	1,069	423,403	1,069	1,189,339	56,283	7,739	118,074	1,796,976
Percent	. 4	21.37	. 4	68.43	3.54	.34	6.25	100.00
Std. Error	4.49	2.17	4.49	1.44	2.47	3.19	2.48	
Sample Size	1	574	1	1,838	95	9	168	2,686

Appendix C.3. Age and sex composition of sockeye salmon harvested in the Cohoe/Ninilchik Beach commercial set gill net fishery, Upper Cook Inlet, Alaska, 1989.

	Age Group										
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Sample Period 1: 3 - 6 July											
Males				1,176			7,913	606	71	962	10,729
Percent				6.33			42.61	3.26	.38	5.18	57.77
Std. Error				.74			.22	1.05	3.09	.82	.16
Sample Size				33			222	17	2	27	301
Females				570			5,810	535		927	7,842
Percent				3.07			31.29	2.88		4.99	42.23
Std. Error				1.08			.28	1.11		.84	.22
Sample Size				16			163	15		26	220
Both Sexes				1,747			13,723	1,141	71	1,889	18,571
Percent				9.40			73.90	6.14	.38	10.17	100.00
Std. Error				.60			.11	.75	3.09	.57	
Sample Size				49			385	32	2	53	521

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Appendix C.3. (p. 2 of 6)

	Age Group										
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Sample Period 2: 7 - 13 July											
Males				16,647			34,357	4,427		4,959	60,391
Percent				17.50			36.13	4.66		5.21	63.50
Std. Error				.40			.25	.84		.79	.14
Sample Size				94			194	25		28	341
Females				7,084	177		22,137	2,834		2,479	34,711
Percent				7.45	.19		23.28	2.98		2.61	36.50
Std. Error				.66			.34	1.06		1.14	.25
Sample Size				40	1		125	16		14	196
Both Sexes				23,731	177		56,494	7,261		7,438	95,102
Percent				24.95	.19		59.40	7.64		7.82	100.00
Std. Error				.32			.15	.65		.64	
Sample Size				134	1		319	41		42	537

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Appendix C.3. (p. 3 of 6)

	Age Group										
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Sample Period 3: 14 - 20 July											
Males				8,951			47,741	1,836		4,131	62,660
Percent				7.49			39.92	1.54		3.45	52.40
Std. Error				.67			.24	1.54		1.01	.18
Sample Size				39			208	8		18	273
Females				7,115			40,396	2,066	230	7,115	56,921
Percent				5.95			33.78	1.73	.19	5.95	47.60
Std. Error				.76			.27	1.45		.76	.20
Sample Size				31			176	9	1	31	248
Both Sexes				16,067			88,136	3,902	230	11,247	119,581
Percent				13.44			73.70	3.26	.19	9.40	100.00
Std. Error				.49			.11	1.05		.60	
Sample Size				70			384	17	1	49	521

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Appendix C.3. (p. 4 of 6)

	Age Group										
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Sample Period 4: 21 - 27 July											
Males		845	845	38,024	3,380	845	179,981	27,039	845	28,729	280,534
Percent		.20	.20	8.79	.78	.20	41.60	6.25	.20	6.64	64.84
Std. Error				.63	2.20		.23	.76		.73	.14
Sample Size		1	1	45	4	1	213	32	1	34	332
Females				16,900			103,933	10,140		21,125	152,096
Percent				3.91			24.02	2.34		4.88	35.16
Std. Error				.97			.35	1.26		.86	.27
Sample Size				20			123	12		25	180
Both Sexes		845	845	54,924	3,380	845	283,913	37,179	845	49,854	432,630
Percent		.20	.20	12.70	.78	.20	65.63	8.59	.20	11.52	100.00
Std. Error				.51	2.20		.14	.64		.54	
Sample Size		1	1	65	4	1	336	44	1	59	512

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Appendix C.3. (p. 5 of 6)

	Age Group										
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Sample Period 5: 28 July - 14 August											
Males			561	15,709			120,624	5,049	2,244	15,709	159,897
Percent			.21	5.76			44.24	1.85	.82	5.76	58.64
Std. Error				.83			.23	1.50	2.26	.83	.17
Sample Size			1	28			215	9	4	28	285
Females	561	561		11,221			85,278	3,927	1,683	9,538	112,769
Percent	.21	.21		4.12			31.28	1.44	.62	3.50	41.36
Std. Error				.99			.31	1.70	2.61	1.08	.25
Sample Size	1	1		20			152	7	3	17	201
Both Sexes	561	561	561	26,930			205,902	8,977	3,927	25,247	272,666
Percent	.21	.21	.21	9.88			75.51	3.29	1.44	9.26	100.00
Std. Error				.62			.12	1.12	1.70	.64	
Sample Size	1	1	1	48			367	16	7	45	486

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Appendix C.3. (p. 6 of 6)

	Age Group										
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
All Periods Combined:											
Males		845	1,406	80,508	3,380	845	390,616	38,958	3,160	54,491	574,210
Percent		. 4	. 8	9.27	.16	. 4	40.82	3.53	.27	5.24	59.45
Std. Error		4.42	3.21	2.36	4.40	4.42	1.95	3.07	3.42	2.63	1.58
Sample Size		1	2	239	4	1	1,052	91	7	135	1,532
Females	561	561		42,890	177		257,554	19,501	1,913	41,184	364,340
Percent	. 4	. 4		4.93	. 4		28.68	2.29	.16	4.38	40.55
Std. Error	4.53	4.53		2.29	4.31		2.10	2.57	4.01	2.56	1.93
Sample Size	1	1		127	1		739	59	4	113	1,045
Both Sexes	561	1,406	1,406	123,398	3,557	845	648,170	58,459	5,073	95,675	938,550
Percent	. 4	. 8	. 8	14.20	.19	. 4	69.50	5.82	.43	9.62	100.00
Std. Error	4.53	3.21	3.21	2.25	4.19	4.42	1.40	2.84	3.57	2.52	
Sample Size	1	2	2	366	5	1	1,791	150	11	248	2,577

Appendix C.4. Age and sex composition of sockeye salmon harvested in the Western Subdistrict commercial set gill net fishery, Upper Cook Inlet, Alaska, 1989.

	Age Group						
	1.1	1.2	1.3	2.2	1.4	2.3	Total
Sample period:	16 June - 6 September						
Males		2,644	19,017	512	256	2,899	25,327
Percent		4.73	34.05	.92	.46	5.19	45.34
Std. Error		.68	.21	1.59	2.25	.65	.17
Sample Size		31	223	6	3	34	297
Females	85	1,620	26,009	85		2,729	30,529
Percent	.15	2.90	46.56	.15		4.89	54.66
Std. Error		.88	.16			.67	.14
Sample Size	1	19	305	1		32	358
Both Sexes	85	4,264	45,026	597	256	5,628	55,856
Percent	.15	7.63	80.61	1.07	.46	10.08	100.00
Std. Error		.53	. 7	1.47	2.25	.46	
Sample Size	1	50	528	7	3	66	655

Appendix C.5. Age and sex composition of sockeye salmon harvested in the Kalgin Island Subdistrict commercial set gill net fishery, Upper Cook Inlet, Alaska, 1989.

	Age Group										
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Sample period:	28 July										
Males											
Percent		1.10	.22	12.11	1.10	15.20	7.71	.22	6.17		43.83
Std. Error		2.09		.59	2.09	.52	.76		.86		.25
Sample Size		5	1	55	5	69	35	1	28		199
Females											
Percent	.22	.66		10.35	.22	20.48	11.89		10.79	1.54	56.17
Std. Error		2.70		.65		.43	.60		.63	1.76	.19
Sample Size	1	3		47	1	93	54		49	7	255
Both Sexes											
Percent	.22	1.76	.22	22.47	1.32	35.68	19.60	.22	16.96	1.54	100.00
Std. Error		1.64		.41	1.90	.30	.45		.49	1.76	
Sample Size	1	8	1	102	6	162	89	1	77	7	454

Appendix C.6. Age and sex composition of sockeye salmon harvested in the Eastern Subdistrict commercial set gill net fishery, Upper Cook Inlet, Alaska, 1989.

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 1: 5 June - 17 July										
Males	112	674	225	7,859		9,993	2,246	112	1,123	22,343
Percent	.19	1.17	.39	13.59		17.28	3.88	.19	1.94	38.64
Std. Error		1.79	3.11	.49		.42	.97		1.38	.24
Sample Size	1	6	2	70		89	20	1	10	199
Females	112	3,481	112	12,575	225	12,575	3,481	112	2,807	35,480
Percent	.19	6.02	.19	21.75	.39	21.75	6.02	.19	4.85	61.36
Std. Error		.77		.37	3.11	.37	.77		.86	.15
Sample Size	1	31	1	112	2	112	31	1	25	316
Both Sexes	225	4,154	337	20,435	225	22,568	5,726	225	3,930	57,823
Percent	.39	7.18	.58	35.34	.39	39.03	9.90	.39	6.80	100.00
Std. Error	3.11	.70	2.54	.26	3.11	.24	.59	3.11	.72	
Sample Size	2	37	3	182	2	201	51	2	35	515

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Appendix C.6. (p. 2 of 3)

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 2: 18 July - 8 September										
Males		337		4,618		4,618	708		539	10,821
Percent		1.55		21.27		21.27	3.26		2.48	49.84
Std. Error		1.24		.30		.30	.85		.97	.16
Sample Size		10		137		137	21		16	321
Females	34	67	34	4,551	101	4,888	708	34	472	10,889
Percent	.16	.31	.16	20.96	.47	22.52	3.26	.16	2.17	50.16
Std. Error		2.78		.30	2.27	.29	.85		1.04	.15
Sample Size	1	2	1	135	3	145	21	1	14	323
Both Sexes	34	405	34	9,169	101	9,507	1,416	34	1,011	21,710
Percent	.16	1.86	.16	42.24	.47	43.79	6.52	.16	4.66	100.00
Std. Error		1.13		.18	2.27	.18	.59		.70	
Sample Size	1	12	1	272	3	282	42	1	30	644

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Appendix C.6. (p. 3 of 3)

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
All Periods Combined:										
Males	112	1,011	225	12,478		14,611	2,953	112	1,662	33,165
Percent	. 9	1.38	.17	17.86		19.50	3.54	. 9	2.24	44.87
Std. Error	4.40	3.20	4.40	2.89		2.96	3.41	4.40	3.21	2.50
Sample Size	1	16	2	207		226	41	1	26	520
Females	146	3,548	146	17,126	326	17,463	4,189	146	3,279	46,368
Percent	.17	2.85	.17	21.31	.43	22.17	4.49	.17	3.36	55.13
Std. Error	3.51	4.19	3.51	3.01	3.27	2.97	3.61	3.51	3.72	2.20
Sample Size	2	33	2	247	5	257	52	2	39	639
Both Sexes	258	4,559	371	29,604	326	32,074	7,142	258	4,941	79,533
Percent	.26	4.23	.35	39.17	.43	41.67	8.02	.26	5.61	100.00
Std. Error	3.86	3.88	4.01	2.62	3.27	2.57	3.44	3.86	3.47	
Sample Size	3	49	4	454	5	483	93	3	65	1,159

Appendix C.7. Age and sex composition of sockeye salmon harvested in the General Subdistrict commercial set gill net fishery, Upper Cook Inlet, Alaska, 1989.

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 1: 5 June - 20 July										
Males		193		9,632	578	47,390	1,348	193	1,926	61,260
Percent		.23		11.29	.68	55.53	1.58	.23	2.26	71.78
Std. Error				.63	2.73	.20	1.78		1.49	.14
Sample Size		1		50	3	246	7	1	10	318
Females		193		2,504	385	18,686	578		1,734	24,080
Percent		.23		2.93	.45	21.90	.68		2.03	28.22
Std. Error				1.30	3.35	.43	2.73		1.57	.36
Sample Size		1		13	2	97	3		9	125
Both Sexes		385		12,136	963	66,076	1,926	193	3,660	85,340
Percent		.45		14.22	1.13	77.43	2.26	.23	4.29	100.00
Std. Error		3.35		.55	2.11	.12	1.49		1.07	
Sample Size		2		63	5	343	10	1	19	443

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Appendix C.7. (p. 2 of 4)

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 2: 21 - 27 July										
Males			203	9,925		33,422	1,215		3,241	48,006
Percent			.23	11.06		37.25	1.35		3.61	53.50
Std. Error				.64		.29	1.93		1.17	.21
Sample Size			1	49		165	6		16	237
Females			203	4,051		33,625	608		3,241	41,727
Percent			.23	4.51		37.47	.68		3.61	46.50
Std. Error				1.04		.29	2.73		1.17	.24
Sample Size			1	20		166	3		16	206
Both Sexes			405	13,976		67,047	1,823		6,482	89,733
Percent			.45	15.58		74.72	2.03		7.22	100.00
Std. Error			3.35	.53		.13	1.57		.81	
Sample Size			2	69		331	9		32	443

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Appendix C.7. (p. 3 of 4)

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 3: 28 July - 8 September										
Males	104			2,656		7,083	2,239		2,656	14,738
Percent	.40			10.14		27.04	8.55		10.14	56.26
Std. Error	3.15			.59		.33	.65		.59	.18
Sample Size	2			51		136	43		51	283
Females				2,083		6,197	781	52	2,343	11,457
Percent				7.95		23.66	2.98	.20	8.95	43.74
Std. Error				.68		.36	1.13		.63	.23
Sample Size				40		119	15	1	45	220
Both Sexes	104			4,739		13,280	3,020	52	4,999	26,195
Percent	.40			18.09		50.70	11.53	.20	19.09	100.00
Std. Error	3.15			.42		.20	.55		.41	
Sample Size	2			91		255	58	1	96	503

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Appendix C.7. (p. 4 of 4)

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
All Periods Combined:										
Males	104	193	203	22,213	578	87,894	4,803	193	7,823	124,004
Percent	.14	. 7	. 7	10.80	.22	39.38	4.03	. 7	5.54	60.33
Std. Error	4.45	4.75	4.75	2.83	4.74	2.25	2.67	4.75	2.67	1.80
Sample Size	2	1	1	150	3	547	56	1	77	838
Females		193	203	8,639	385	58,508	1,967	52	7,318	77,264
Percent		. 7	. 7	5.26	.14	27.50	1.51	. 7	5.04	39.67
Std. Error		4.75	4.75	2.77	4.74	2.57	2.67	4.45	2.71	2.31
Sample Size		1	1	73	2	382	21	1	70	551
Both Sexes	104	385	405	30,852	963	146,402	6,770	245	15,141	201,268
Percent	.14	.14	.14	16.05	.36	66.88	5.54	.14	10.58	100.00
Std. Error	4.45	4.74	4.74	2.70	4.72	1.52	2.63	3.85	2.62	
Sample Size	2	2	2	223	5	929	77	2	147	1,389

Appendix C.8. Length composition of sockeye salmon harvested in the Salamatof Beach commercial set gill net fishery, Upper Cook Inlet, Alaska, 1989.

	Age Group						
	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 1: 3 - 13 July							
Males							
Mean Length[a]	492		599	515	630	596	579
Std. Error	7		3	13	12	5	2
Sample Size	42		186	14	3	37	282
Females							
Mean Length	506		574	515		590	568
Std. Error	8		2	16		4	2
Sample Size	27		176	2		34	239
Both Sexes							
Mean Length	498		587	515	630	593	574
Std. Error	5		2	11	12	3	1
Sample Size	69		362	16	3	71	521

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Appendix C.8. (p. 2 of 5)

	Age Group						
	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 2: 14 - 20 July							
Males							
Mean Length	507		604	526	642	598	590
Std. Error	8		2	11		5	2
Sample Size	27		186	10	1	37	261
Females							
Mean Length	520		577	558		580	575
Std. Error	15		1	10		5	1
Sample Size	7		217	7		44	275
Both Sexes							
Mean Length	510		589	540	642	588	583
Std. Error	7		1	8		3	1
Sample Size	34		403	17	1	81	536

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Appendix C.8. (p. 3 of 5)

	Age Group						
	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 3: 21 - 27 July							
Males							
Mean Length	487		605	506	649	599	583
Std. Error	7		2	11	11	7	2
Sample Size	43		192	11	2	35	283
Females							
Mean Length	513	552	573	517		579	560
Std. Error	7		2	8		6	2
Sample Size	35	1	159	20		28	243
Both Sexes							
Mean Length	498	552	591	513	649	590	572
Std. Error	5		2	7	11	5	1
Sample Size	78	1	351	31	2	63	526

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Appendix C.8. (p. 4 of 5)

	Age Group						
	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 4: 28 July - 14 August							
Males							
Mean Length	528		604	544	634	612	593
Std. Error	10		3	19	3	7	3
Sample Size	29		162	12	2	26	231
Females							
Mean Length	524	615	577	504		578	571
Std. Error	12		2	10		7	2
Sample Size	14	1	176	9		25	225
Both Sexes							
Mean Length	527	615	590	527	634	595	582
Std. Error	8		2	12	3	5	2
Sample Size	43	1	338	21	2	51	456

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

	Age Group						
	1.2	2.1	1.3	2.2	1.4	2.3	Total
All Periods Combined:							
Males							
Mean Length	500		604	521	642	599	587
Std. Error	4		1	7	7	3	1
Sample Size	141		726	47	8	135	1,057
Females							
Mean Length	515	570	576	528		580	570
Std. Error	5		1	6		3	1
Sample Size	83	2	728	38		131	982
Both Sexes							
Mean Length	505	570	590	525	642	589	579
Std. Error	3		1	4	7	2	1
Sample Size	224	2	1,454	85	8	266	2,039

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

Appendix C.9. Length composition of sockeye salmon harvested in the Kalifonsky Beach commercial set gill net fishery, Upper Cook Inlet, Alaska, 1989.

	Age Group							
	0.2	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 1: 3 - 5 July								
Males								
Mean Length[a]		487		554	505		559	540
Std. Error		3		3	10		13	2
Sample Size		56		237	16		13	322
Females								
Mean Length		497		550	507	593	538	542
Std. Error		6		2	7		5	2
Sample Size		24		192	11	1	29	257
Both Sexes								
Mean Length		490		552	506	593	544	541
Std. Error		3		2	7		5	1
Sample Size		80		429	27	1	42	579

-Continued-

Appendix C.9. (p. 2 of 6)

	Age Group							
	0.2	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 2: 6 - 10 July								
Males								
Mean Length		494		545	520		562	533
Std. Error		3		2	12		10	2
Sample Size		70		206	9		13	298
Females								
Mean Length		491		543	539	574	567	534
Std. Error		4		2	9		13	2
Sample Size		46		174	10	1	11	242
Both Sexes								
Mean Length		493		544	530	574	564	534
Std. Error		2		1	7		8	1
Sample Size		116		380	19	1	24	540

-Continued-

Appendix C.9. (p. 3 of 6)

	Age Group							
	0.2	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 3: 11 - 17 July								
Males								
Mean Length	501	486	578	560	516		592	539
Std. Error		5		3	13		7	2
Sample Size	1	99	1	218	12		22	353
Females								
Mean Length		485		562			559	540
Std. Error		4		3			16	3
Sample Size		41		95			5	141
Both Sexes								
Mean Length	501	486	578	561	516		586	540
Std. Error		4		2	13		7	2
Sample Size	1	140	1	313	12		27	494

-Continued-

Appendix C.9. (p. 4 of 6)

	Age Group							
	0.2	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 4: 18 - 24 July								
Males								
Mean Length		495		593	491		592	567
Std. Error		5		3	11		6	2
Sample Size		64		178	6		21	269
Females								
Mean Length		527		572	517	562	569	565
Std. Error		7		2	8	51	6	2
Sample Size		29		208	11	2	21	271
Both Sexes								
Mean Length		505		582	507	562	581	566
Std. Error		4		2	7	51	4	2
Sample Size		93		386	17	2	42	540

-Continued-

Appendix C.9. (p. 5 of 6)

	Age Group							
	0.2	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 5: 25 July - 14 August								
Males								
Mean Length		483		584	516	576	587	551
Std. Error		4		3	13	15	8	2
Sample Size		90		181	13	4	18	306
Females								
Mean Length		485		559	499	598	565	540
Std. Error		5		2	12		6	2
Sample Size		55		148	7	1	14	225
Both Sexes								
Mean Length		484		573	510	580	577	547
Std. Error		3		2	10	15	6	2
Sample Size		145		329	20	5	32	531

-Continued-

Appendix C.9. (p. 6 of 6)

	Age Group							
	0.2	1.2	2.1	1.3	2.2	1.4	2.3	Total
All Periods Combined:								
Males								
Mean Length	501	487	578	578	510	576	590	552
Std. Error		3		2	7	15	4	1
Sample Size	1	379	1	1,020	56	4	87	1,548
Females								
Mean Length		497		566	511	572	566	551
Std. Error		3		1	7	51	4	1
Sample Size		195		817	39	5	80	1,136
Both Sexes								
Mean Length	501	490	578	573	511	574	581	552
Std. Error		2		1	5	22	3	1
Sample Size	1	574	1	1,837	95	9	167	2,684

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

Appendix C.10. Length composition of sockeye salmon harvested in the Cohoe/Ninilchik Beach commercial set gill net fishery, Upper Cook Inlet, Alaska, 1989.

	Age Group										
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Sample Period 1: 3 - 6 July											
Males											
Mean Length[a]				485			545	515	526	548	537
Std. Error				5			2	13	1	7	2
Sample Size				33			222	17	2	27	301
Females											
Mean Length				484			540	515		549	535
Std. Error				7			2	6		6	2
Sample Size				16			160	15		26	217
Both Sexes											
Mean Length				485			543	515	526	548	536
Std. Error				4			1	7	1	5	1
Sample Size				49			382	32	2	53	518

-Continued-

Appendix C.10. (p. 2 of 6)

	Age Group										
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Sample Period 2: 7 - 13 July											
Males											
Mean Length				486			568	510		575	541
Std. Error				4			3	9		8	2
Sample Size				94			193	25		28	340
Females											
Mean Length				481	509		557	485		559	535
Std. Error				4			2	11		9	2
Sample Size				40	1		125	16		14	196
Both Sexes											
Mean Length				485	509		563	500		570	539
Std. Error				3			2	7		6	2
Sample Size				134	1		318	41		42	536

-Continued-

Appendix C.10. (p. 3 of 6)

	Age Group										
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Sample Period 3: 14 - 20 July											
Males											
Mean Length				487			587	511		577	570
Std. Error				6			3	12		7	3
Sample Size				39			208	8		18	273
Females											
Mean Length				487			562	502	624	569	552
Std. Error				8			2	10		4	2
Sample Size				30			176	9	1	31	247
Both Sexes											
Mean Length				487			576	506	624	572	561
Std. Error				5			2	8		4	2
Sample Size				69			384	17	1	49	520

-Continued-

Appendix C.10. (p. 4 of 6)

	Age Group										
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Sample Period 4: 21 - 27 July											
Males											
Mean Length		545	505	504	568	620	586	498	644	579	565
Std. Error				7	11		2	17		15	3
Sample Size		1	1	45	4	1	212	32	1	34	331
Females											
Mean Length				490			568	514		562	555
Std. Error				7			2	12		5	2
Sample Size				20			123	12		25	180
Both Sexes											
Mean Length		545	505	499	568	620	580	502	644	572	562
Std. Error				5	11		2	13		9	2
Sample Size		1	1	65	4	1	335	44	1	59	511

-Continued-

Appendix C.10. (p. 5 of 6)

	Age Group										
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
Sample Period 5: 28 July - 14 August											
Males											
Mean Length			562	506			591	558	616	593	582
Std. Error				8			2	22	11	7	2
Sample Size			1	28			215	8	4	28	284
Females											
Mean Length	501	604		492			555	500	570	564	548
Std. Error				8			4	5	12	6	3
Sample Size	1	1		20			152	7	3	17	201
Both Sexes											
Mean Length	501	604	562	500			576	533	596	582	568
Std. Error				6			2	13	8	5	2
Sample Size	1	1	1	48			367	15	7	45	485

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Appendix C.10. (p. 6 of 6)

	Age Group										
	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total
All Periods Combined:											
Males											
Mean Length		545	528	498	568	620	585	508	621	582	567
Std. Error				4	11		1	12	11	8	2
Sample Size		1	2	239	4	1	1,050	90	7	135	1,529
Females											
Mean Length	501	604		488	509		561	506	576	563	550
Std. Error				4			2	6	12	3	1
Sample Size	1	1		126	1		736	59	4	113	1,041
Both Sexes											
Mean Length	501	569	528	495	565	620	576	507	604	574	561
Std. Error				3	11		1	9	8	5	1
Sample Size	1	2	2	365	5	1	1,786	149	11	248	2,570

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

Appendix C.11. Length composition of sockeye salmon harvested in the Western Subdistrict commercial set gill net fishery, Upper Cook Inlet, Alaska, 1989.

	Age Group						
	1.1	1.2	1.3	2.2	1.4	2.3	Total
Sample period:	16 June - 6 September						
Males							
Mean Length[a]		509	574	512	599	591	568
Std. Error		8	3	16	7	5	2
Sample Size		31	223	6	3	34	297
Females							
Mean Length	538	518	556	496		556	554
Std. Error		7	1			3	1
Sample Size	1	19	305	1		32	358
Both Sexes							
Mean Length	538	513	564	509	599	574	560
Std. Error		6	1	16	7	3	1
Sample Size	1	50	528	7	3	66	655

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

Appendix C.12. Length composition of sockeye salmon harvested in the Kalgin Island Subdistrict commercial set gill net fishery, Upper Cook Inlet, Alaska, 1989.

	Age Group										
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
Sample period:	28 July										
Males											
Mean Length[a]		416	589	515	390	587	524	634	575		545
Std. Error		47		5	46	6	6		4		3
Sample Size		5	1	54	5	69	34	1	28		197
Females											
Mean Length	535	536		507	577	567	518		553	519	541
Std. Error		15		6		2	3		4	6	2
Sample Size	1	3		47	1	93	54		49	7	255
Both Sexes											
Mean Length	535	463	589	511	418	576	520	634	561	519	543
Std. Error		29		4	46	3	3		3	6	2
Sample Size	1	8	1	101	6	162	88	1	77	7	452

[a] Length measured mid-eye to fork-of-tail in mm.

Appendix C.13. Length composition of sockeye salmon harvested in the Eastern Subdistrict commercial set gill net fishery, Upper Cook Inlet, Alaska, 1989.

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 1: 5 June - 17 July										
Males										
Mean Length[a]	460	393	596	508		588	513	600	577	545
Std. Error		33	15	5		3	9		9	3
Sample Size	1	6	2	70		89	20	1	10	199
Females										
Mean Length	432	367	570	488	377	558	498	522	557	507
Std. Error		4		3	11	3	5		5	2
Sample Size	1	31	1	112	2	112	31	1	25	316
Both Sexes										
Mean Length	446	371	587	496	377	572	504	561	563	522
Std. Error		6	15	2	11	2	5		4	1
Sample Size	2	37	3	182	2	201	51	2	35	515

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Appendix C.13. (p. 2 of 3)

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 2: 18 July - 8 September										
Males										
Mean Length		394		505		574	518		602	537
Std. Error		22		3		3	7		7	2
Sample Size		10		137		137	21		16	321
Females										
Mean Length	484	493	572	496	526	553	506	575	549	525
Std. Error		8		3	22	3	8		9	2
Sample Size	1	2	1	134	3	145	21	1	14	322
Both Sexes										
Mean Length	484	410	572	501	526	563	512	575	577	531
Std. Error		18		2	22	2	5		6	1
Sample Size	1	12	1	271	3	282	42	1	30	643

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Appendix C.13. (p. 3 of 3)

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
All Periods Combined:										
Males										
Mean Length	460	393	596	507		584	514	600	585	543
Std. Error		23	15	3		2	7		6	2
Sample Size	1	16	2	207		226	41	1	26	520
Females										
Mean Length	444	370	570	490	423	557	499	534	556	511
Std. Error		4		2	10	2	4		4	1
Sample Size	2	33	2	246	5	257	52	2	39	638
Both Sexes										
Mean Length	451	375	586	497	423	569	505	563	566	524
Std. Error		6	15	2	10	2	4		4	1
Sample Size	3	49	4	453	5	483	93	3	65	1,158

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

Appendix C.14. Length composition of sockeye salmon harvested in the General Subdistrict commercial set gill net fishery, Upper Cook Inlet, Alaska, 1989.

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 1: 5 June - 20 July										
Males										
Mean Length[a]		533		516	561	585	503	610	583	572
Std. Error				7	24	2	17		12	2
Sample Size		1		50	3	246	7	1	10	318
Females										
Mean Length		526		524	488	570	524		559	562
Std. Error				8	22	2	24		7	2
Sample Size		1		13	2	97	3		9	125
Both Sexes										
Mean Length		530		517	532	581	509	610	572	569
Std. Error				6	17	2	14		7	2
Sample Size		2		63	5	343	10	1	19	443

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Appendix C.14. (p. 2 of 4)

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 2: 21 - 27 July										
Males										
Mean Length			572	514		573	514		579	560
Std. Error				5		2	15		5	2
Sample Size			1	49		165	6		16	237
Females										
Mean Length			570	515		555	483		557	551
Std. Error				8		2	14		4	2
Sample Size			1	20		166	3		16	206
Both Sexes										
Mean Length			571	515		564	503		568	556
Std. Error				4		1	11		3	1
Sample Size			2	69		331	9		32	443

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Appendix C.14. (p. 3 of 4)

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 3: 28 July - 8 September										
Males										
Mean Length	491			494		562	510		566	542
Std. Error	44			5		2	7		4	2
Sample Size	2			51		136	43		51	283
Females										
Mean Length				500		554	517	610	546	540
Std. Error				5		2	7		4	2
Sample Size				40		119	15	1	45	220
Both Sexes										
Mean Length	491			497		559	512	610	557	541
Std. Error	44			4		2	5		3	1
Sample Size	2			91		255	58	1	96	503

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Appendix C.14. (p. 4 of 4)

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
All Periods Combined:										
Males										
Mean Length	491	533	572	513	561	579	509	610	576	564
Std. Error	44			4	24	1	7		4	1
Sample Size	2	1	1	150	3	547	56	1	77	838
Females										
Mean Length		526	570	514	488	560	508	610	554	553
Std. Error				4	22	1	9		3	1
Sample Size		1	1	73	2	382	21	1	70	551
Both Sexes										
Mean Length	491	530	571	513	532	571	509	610	565	559
Std. Error	44			3	17	1	6		2	1
Sample Size	2	2	2	223	5	929	77	2	147	1,389

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

Appendix C.15. Age and sex composition of sockeye salmon escapement in the Kenai River, Upper Cook Inlet, Alaska, 1989.

	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: 1 - 18 July											
Males				35,689		200,836	9,797	1,400	31,490		279,212
Percent				6.46		36.33	1.77	.25	5.70		50.51
Std. Error				.48		.17	.94	2.51	.52		.13
Sample Size				51		287	14	2	45		399
Females			1,400	16,795		219,730	6,998	3,499	25,192		273,613
Percent			.25	3.04		39.75	1.27	.63	4.56		49.49
Std. Error			2.51	.72		.16	1.12	1.59	.58		.13
Sample Size			2	24		314	10	5	36		391
Both Sexes			1,400	52,483		420,567	16,795	4,898	56,682		552,825
Percent			.25	9.49		76.08	3.04	.89	10.25		100.00
Std. Error			2.51	.39		. 7	.72	1.34	.37		
Sample Size			2	75		601	24	7	81		790

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Appendix C.15. (p. 2 of 4)

	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 2: 19 - 25 July											
Males		1,966		24,251		217,601	8,521	2,622	29,494	655	285,110
Percent		.35		4.29		38.52	1.51	.46	5.22	.12	50.46
Std. Error		1.96		.55		.15	.94	1.70	.49		.11
Sample Size		3		37		332	13	4	45	1	435
Females	655		655	18,352	655	226,777	5,899	3,933	22,940		279,867
Percent	.12		.12	3.25	.12	40.14	1.04	.70	4.06		49.54
Std. Error				.63		.14	1.13	1.39	.56		.12
Sample Size	1		1	28	1	346	9	6	35		427
Both Sexes	655	1,966	655	42,603	655	444,379	14,419	6,554	52,434	655	564,977
Percent	.12	.35	.12	7.54	.12	78.65	2.55	1.16	9.28	.12	100.00
Std. Error		1.96		.41		. 6	.72	1.07	.36		
Sample Size	1	3	1	65	1	678	22	10	80	1	862

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Appendix C.15. (p. 3 of 4)

	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 3: 26 July - 15 August											
Males				20,042	4,625	164,191	16,188	2,313	16,959		224,318
Percent				4.17	.96	34.19	3.37	.48	3.53		46.71
Std. Error				.77	1.63	.22	.86	2.31	.84		.17
Sample Size				26	6	213	21	3	22		291
Females				30,834	3,083	170,358	20,813	2,313	28,521		255,922
Percent				6.42	.64	35.47	4.33	.48	5.94		53.29
Std. Error				.61	2.00	.22	.75	2.31	.64		.15
Sample Size				40	4	221	27	3	37		332
Both Sexes				50,876	7,709	334,549	37,001	4,625	45,480		480,240
Percent				10.59	1.61	69.66	7.70	.96	9.47		100.00
Std. Error				.47	1.26	.11	.56	1.63	.50		
Sample Size				66	10	434	48	6	59		623

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Appendix C.15. (p. 4 of 4)

	Age Group										
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Total
All Periods Combined:											
Males		1,966		79,982	4,625	582,629	34,505	6,334	77,943	655	788,639
Percent		.13		5.01	.26	36.57	2.11	.40	4.92	. 4	49.45
Std. Error		3.40		2.08	3.99	1.67	2.26	2.17	2.06	3.40	1.49
Sample Size		3		114	6	832	48	9	112	1	1,125
Females	655		2,055	65,981	3,739	616,866	33,710	9,744	76,653		809,403
Percent	. 4		.13	4.04	.22	38.73	2.02	.62	4.75		50.55
Std. Error	3.40		2.65	2.22	3.35	1.64	2.60	2.10	2.10		1.48
Sample Size	1		3	92	5	881	46	14	108		1,150
Both Sexes	655	1,966	2,055	145,962	8,364	1,199,495	68,215	16,078	154,596	655	1,598,042
Percent	. 4	.13	.13	9.05	.48	75.30	4.13	1.01	9.67	. 4	100.00
Std. Error	3.40	3.40	2.65	2.03	3.67	1.04	2.37	2.09	2.00	3.40	
Sample Size	1	3	3	206	11	1,713	94	23	220	1	2,275

Appendix C.16. Age and sex composition of sockeye salmon escapement in the Crescent River, Upper Cook Inlet, Alaska, 1989.

	Age Group						
	1.2	1.3	2.2	1.4	2.3	2.4	Total
Sample period:	1 July - 1 August						
Males	872	31,003	194	97	6,976	97	39,238
Percent	1.24	43.96	.27	.14	9.89	.14	55.63
Std. Error	1.23	.16	2.62		.41		.12
Sample Size	9	320	2	1	72	1	405
Females	969	26,256	194	291	3,585		31,294
Percent	1.37	37.23	.27	.41	5.08		44.37
Std. Error	1.16	.18	2.62	2.14	.59		.15
Sample Size	10	271	2	3	37		323
Both Sexes	1,841	57,259	388	388	10,560	97	70,532
Percent	2.61	81.18	.55	.55	14.97	.14	100.00
Std. Error	.84	. 7	1.85	1.85	.33		
Sample Size	19	591	4	4	109	1	728

Appendix C.17. Age and sex composition of sockeye salmon captured by fishwheel in the vicinity of Sunshine Station (river mile 80), Susitna River mainstem, Upper Cook Inlet, Alaska, 1989.

	Age Group						
	1.1	0.3	1.2	1.3	2.2	2.3	Total
Sample Period 1: 14 - 22 July							
Males			140	234	10	6	390
Percent			17.21	28.79	1.25	.78	48.04
Std. Error			.34	.25	1.39	1.76	.16
Sample Size			110	184	8	5	307
Females	3		57	345	9	8	421
Percent	.31		7.04	42.57	1.10	.94	51.96
Std. Error	2.79		.57	.18	1.49	1.61	.15
Sample Size	2		45	272	7	6	332
Both Sexes	3		197	579	19	14	811
Percent	.31		24.26	71.36	2.35	1.72	100.00
Std. Error	2.79		.28	.10	1.01	1.18	
Sample Size	2		155	456	15	11	639
Sample Period 2: 23 July - 2 August							
Males	4	1	147	192	16	4	366
Percent	.57	.19	19.25	25.09	2.08	.57	47.74
Std. Error	2.50		.39	.33	1.30	2.50	.20
Sample Size	3	1	102	133	11	3	253
Females		1	113	263	17	6	400
Percent		.19	14.72	34.34	2.26	.75	52.26
Std. Error			.45	.26	1.24	2.16	.18
Sample Size		1	78	182	12	4	277
Both Sexes	4	3	260	455	33	10	766
Percent	.57	.38	33.96	59.43	4.34	1.32	100.00
Std. Error	2.50	3.07	.26	.16	.89	1.63	
Sample Size	3	2	180	315	23	7	530
All Periods Combined:							
Males	4	1	287	426	26	11	755
Percent	.26	. 9	18.14	27.12	1.63	.68	47.90
Std. Error	4.33	4.34	2.66	2.50	3.04	2.93	2.12
Sample Size	3	1	212	317	19	8	560
Females	3	1	170	608	26	13	822
Percent	.17	. 9	10.52	38.84	1.63	.86	52.10
Std. Error	3.95	4.34	2.96	2.28	3.14	2.91	2.03
Sample Size	2	1	123	454	19	10	609
Both Sexes	7	3	457	1,034	52	24	1,577
Percent	.43	.17	28.66	65.95	3.25	1.54	100.00
Std. Error	3.10	4.34	2.50	1.70	3.05	2.91	
Sample Size	5	2	335	771	38	18	1,169

Appendix C.18. Age and sex composition of sockeye salmon escapement in the Yentna River, Susitna River drainage, Upper Cook Inlet, Alaska, 1989.

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 1: 7 - 22 July										
Males		57		4,920		7,861	396		339	13,572
Percent		.21		18.28		29.20	1.47		1.26	50.42
Std. Error				.44		.33	1.72		1.86	.21
Sample Size		1		87		139	7		6	240
Females			57	1,810		9,953	170		1,357	13,346
Percent			.21	6.72		36.97	.63		5.04	49.58
Std. Error				.78		.27	2.64		.91	.21
Sample Size			1	32		176	3		24	236
Both Sexes		57	57	6,730		17,813	566		1,697	26,918
Percent		.21	.21	25.00		66.18	2.10		6.30	100.00
Std. Error				.36		.15	1.43		.81	
Sample Size		1	1	119		315	10		30	476
Sample Period 2: 23 - 27 July										
Males	95			7,224		13,593	190	380	856	22,339
Percent	.21			16.00		30.11	.42	.84	1.89	49.47
Std. Error				.48		.32	3.24	2.28	1.51	.21
Sample Size	1			76		143	2	4	9	235
Females		190	95	4,183		16,635	760		951	22,814
Percent		.42	.21	9.26		36.84	1.68		2.11	50.53
Std. Error		3.24		.66		.28	1.61		1.44	.21
Sample Size		2	1	44		175	8		10	240
Both Sexes	95	190	95	11,407		30,229	951	380	1,806	45,153
Percent	.21	.42	.21	25.26		66.95	2.11	.84	4.00	100.00
Std. Error		3.24		.36		.15	1.44	2.28	1.03	
Sample Size	1	2	1	120		318	10	4	19	475

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Appendix C.18. (p. 2 of 2)

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 3: 28 July - 20 August										
Males	59	705		4,934	176	6,344	764		294	13,275
Percent	.24	2.92		20.44	.73	26.28	3.16		1.22	54.99
Std. Error		1.40		.48	2.84	.41	1.35		2.19	.22
Sample Size	1	12		84	3	108	13		5	226
Females		176	59	2,761		7,283	470	59	59	10,866
Percent		.73	.24	11.44		30.17	1.95	.24	.24	45.01
Std. Error		2.84		.68		.37	1.73			.27
Sample Size		3	1	47		124	8	1	1	185
Both Sexes	59	881	59	7,695	176	13,627	1,233	59	352	24,141
Percent	.24	3.65	.24	31.87	.73	56.45	5.11	.24	1.46	100.00
Std. Error		1.25		.36	2.84	.21	1.05		2.00	
Sample Size	1	15	1	131	3	232	21	1	6	411
All Periods Combined:										
Males	154	761		17,078	176	27,798	1,350	380	1,489	49,186
Percent	.15	.95		18.14	.22	28.63	1.62	.29	1.47	51.47
Std. Error	3.40	4.51		2.49	4.91	2.38	3.12	4.57	2.97	1.95
Sample Size	2	13		247	3	390	22	4	20	701
Females		366	210	8,753		33,872	1,400	59	2,367	47,026
Percent		.37	.22	9.03		34.88	1.40	. 7	2.57	48.53
Std. Error		3.35	2.77	2.71		2.27	3.02	4.93	3.15	2.00
Sample Size		5	3	123		475	19	1	35	661
Both Sexes	154	1,128	210	25,831	176	61,669	2,750	439	3,855	96,212
Percent	.15	1.32	.22	27.17	.22	63.51	3.01	.37	4.04	100.00
Std. Error	3.40	3.87	2.77	2.37	4.91	1.67	2.82	4.01	2.91	
Sample Size	2	18	3	370	3	865	41	5	55	1,362

Appendix C.19. Age, sex and size composition of sockeye salmon escapement in Hidden Creek, Kenai River drainage, Upper Cook Inlet, Alaska, 1989. Source: M. Schollenberger, Cook Inlet Aquaculture Association, Soldotna, personal communication.

	Age Group						
	1.1	1.2	2.1	1.3	2.2	2.3	Total
Sample period:	13 July - 31 August						
Males	12	1,918	12	2,054	495	12	4,504
Percent	.16	24.68	.16	26.43	6.37	.16	57.96
Std. Error		.28		.27	.61		.14
Sample Size	1	155	1	166	40	1	364
Mean Length[a]	390	569	544	585	562	582	575
Std. Error		3		2	4		1
Sample Size	1	155	1	166	40	1	364
Mean Weight[b]	.90	2.60	2.20	2.79	2.49	2.80	2.67
Std. Error		.04		.03	.06		.02
Sample Size	1	155	1	166	40	1	364
Females		1,460	12	1,114	631	49	3,266
Percent		18.79	.16	14.33	8.12	.64	42.04
Std. Error		.33		.39	.54	1.99	.19
Sample Size		118	1	90	51	4	264
Mean Length		521	496	563	527	553	537
Std. Error		3		3	4	10	2
Sample Size		118	1	90	51	4	264

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	Age Group						
	1.1	1.2	2.1	1.3	2.2	2.3	Total
Mean Weight		1.88	1.80	2.35	1.93	2.18	2.05
Std. Error		.03		.03	.05	.11	.02
Sample Size		118	1	90	51	4	264
Sample period:	13 July - 31 August						
Both Sexes	12	3,378	25	3,167	1,126	62	7,770
Percent	.16	43.47	.32	40.76	14.49	.80	100.00
Std. Error		.18	2.82	.19	.39	1.78	
Sample Size	1	273	2	256	91	5	628
Both Sexes							
Mean Length	390	548	520	577	542	559	559
Std. Error		2		2	3	10	1
Sample Size	1	273	2	256	91	5	628
Mean Weight	.90	2.29	2.00	2.64	2.18	2.30	2.41
Std. Error		.03		.02	.04	.11	.02
Sample Size	1	273	2	256	91	5	628

[a] Length measured mid-eye to fork-of-tail in mm.
[b] Weight measured in kg.

Appendix C.20. Age and sex composition of sockeye salmon escapement in Fish Creek, Upper Cook Inlet, Alaska, 1989.

	Age Group							
	0.2	1.1	1.2	2.1	1.3	2.2	2.3	Total
Sample period:	7 July - 9 September							
Males		3,818	20,590	1,364	3,545	1,500		30,817
Percent		5.68	30.63	2.03	5.27	2.23		45.84
Std. Error		.83	.31	1.41	.86	1.34		.22
Sample Size		28	151	10	26	11		226
Females	136	682	21,272	545	10,090	1,909	1,773	36,407
Percent	.20	1.01	31.64	.81	15.01	2.84	2.64	54.16
Std. Error		2.00	.30	2.24	.48	1.19	1.23	.19
Sample Size	1	5	156	4	74	14	13	267
Both Sexes	136	4,500	41,862	1,909	13,636	3,409	1,773	67,224
Percent	.20	6.69	62.27	2.84	20.28	5.07	2.64	100.00
Std. Error		.76	.16	1.19	.40	.88	1.23	
Sample Size	1	33	307	14	100	25	13	493

Appendix C.21. Age and sex composition of sockeye salmon escapement in the Kasilof River, Upper Cook Inlet, Alaska, 1989.

	Age Group						
	1.1	1.2	1.3	2.2	1.4	2.3	Total
Sample Period 1: 15 June - 6 July							
Males		3,734	17,242	1,098		1,318	23,392
Percent		8.59	39.65	2.53		3.03	53.79
Std. Error		.82	.31	1.57		1.43	.23
Sample Size		34	157	10		12	213
Females		2,196	16,253	329	220	1,098	20,097
Percent		5.05	37.37	.76	.51	2.53	46.21
Std. Error		1.09	.33	2.89	3.54	1.57	.27
Sample Size		20	148	3	2	10	183
Both Sexes		5,930	33,495	1,428	220	2,416	43,489
Percent		13.64	77.02	3.28	.51	5.56	100.00
Std. Error		.64	.14	1.37	3.54	1.04	
Sample Size		54	305	13	2	22	396
Sample Period 2: 7 - 20 July							
Males		16,959	11,519	2,720		1,600	32,797
Percent		24.77	16.82	3.97		2.34	47.90
Std. Error		.41	.52	1.15		1.51	.24
Sample Size		106	72	17		10	205
Females		14,079	17,918	2,080		1,600	35,677
Percent		20.56	26.17	3.04		2.34	52.10
Std. Error		.46	.39	1.32		1.51	.22
Sample Size		88	112	13		10	223
Both Sexes		31,037	29,437	4,800		3,200	68,474
Percent		45.33	42.99	7.01		4.67	100.00
Std. Error		.26	.27	.85		1.06	
Sample Size		194	184	30		20	428

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	Age Group						
	1.1	1.2	1.3	2.2	1.4	2.3	Total
Sample Period 3: 21 July - 15 August							
Males	234	12,261	4,321	934		350	18,100
Percent	.51	26.79	9.44	2.04		.77	39.54
Std. Error	3.56	.42	.79	1.77		2.90	.32
Sample Size	2	105	37	8		3	155
Females		21,253	4,321	1,401		701	27,676
Percent		46.43	9.44	3.06		1.53	60.46
Std. Error		.27	.79	1.44		2.05	.21
Sample Size		182	37	12		6	237
Both Sexes	234	33,515	8,641	2,336		1,051	45,776
Percent	.51	73.21	18.88	5.10		2.30	100.00
Std. Error	3.56	.15	.53	1.10		1.66	
Sample Size	2	287	74	20		9	392
All Periods Combined:							
Males	234	32,954	33,082	4,752		3,268	74,289
Percent	.16	20.15	21.88	2.88		2.06	47.12
Std. Error	5.04	2.75	2.62	3.10		3.12	2.11
Sample Size	2	245	266	35		25	573
Females		37,528	38,493	3,811	220	3,399	83,450
Percent		23.85	24.42	2.30	.16	2.14	52.88
Std. Error		2.66	2.62	3.21	5.01	2.95	1.99
Sample Size		290	297	28	2	26	643
Both Sexes	234	70,482	71,574	8,563	220	6,667	157,739
Percent	.16	44.00	46.30	5.18	.16	4.19	100.00
Std. Error	5.04	2.04	1.96	3.05	5.01	2.98	
Sample Size	2	535	563	63	2	51	1,216

Appendix C.22. Estimated age and sex composition of sockeye salmon in the early run which passed through the Russian River weir, Upper Cook Inlet, Alaska, 1989. Source: J. Carlon, Alaska Department of Fish and Game, Soldotna, personal communication.

Dates	Age Group 2.3	1.3	2.2	1.2	2.1	Total
6/18 - 7/02 (n^a = 141)						
Females						
Percent	36.2	11.3	7.1	0.0	0.0	54.6
Number	3,456	1,079	678	0	0	5,213
Males						
Percent	32.6	5.7	5.7	1.4	0.0	45.4
Number	3,112	544	544	134	0	4,334
Sexes Combined						
Percent	68.8	17.0	12.8	1.4	0.0	100.0
Number	6,568	1,623	1,222	134	0	9,547
Standard Error	538	314	277	94	0	
7/03 - 7/20 (n = 114)						
Females						
Percent	36.7	8.8	16.7	0.0	0.0	62.2
Number	2,128	510	967	0	0	3,605
Males						
Percent	28.1	4.4	5.3	0.0	0.0	37.8
Number	1,624	255	307	0	0	2,186
Sexes Combined						
Percent	64.8	13.2	22.0	0.0	0.0	100.0
Number	3,752	765	1,274	0	0	5,791
Standard Error	356	189	235	0	0	

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Appendix C.22. (p. 2 of 2)

Dates	Age Group 2.3	1.3	2.2	1.2	2.1	Total
Early Run Total						
Females						
Percent	36.4	10.4	10.7	0.0	0	57.5
Number	5,584	1,589	1,645	0	0.0	8,818
Males						
Percent	30.9	5.2	5.5	0.9	0	42.5
Number	4,736	799	851	134	0.0	6,520
Sexes Combined						
Percent	93.9	3.8	1.5	0.8	0	100
Number	10,320	2,388	2,496	134	0.0	15,338
Standard Error	636	357	373	85	0	

[a] n = sample size.

Appendix C.23. Estimated age and sex composition of sockeye salmon in the late run which passed through the Russian River weir, Upper Cook Inlet, Alaska, 1989. Source: J. Carlon, Alaska Department of Fish and Game, Soldotna, personal communication.

	Age Group					
Dates	2.3	1.3	2.2	1.2	2.1	Total
7/16 - 8/09 (n^a = 127)						
Females						
Percent	0.0	0.0	59.8	1.6	0.0	61.4
Number	0	0	47,417	1,269	0	48,686
Males						
Percent	1.6	1.6	17.3	0.0	18.1	38.6
Number	1,269	1,269	13,718	0	14,351	30,607
Sexes Combined						
Percent	1.6	1.6	77.1	1.6	18.1	100.0
Number	1,269	1,269	61,135	1,269	14,351	79,293
Standard Error	886	886	4,371	886	2,718	
8/10 - 8/20 (n = 108)						
Females						
Percent	0.0	0.0	22.3	0.9	0.0	23.2
Number	0	0	8,354	337	0	8,691
Males						
Percent	0.0	0.0	12.0	0.9	63.9	76.8
Number	0	0	4,495	337	23,939	28,771
Sexes Combined						
Percent	0.0	0.0	34.3	1.8	63.9	100.0
Number	0	0	12,849	674	23,939	37,462
Standard Error	0	0	1,908	483	1,737	

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Appendix C.23. (p. 2 of 2)

Dates	Age Group 2.3	1.3	2.2	1.2	2.1	Total
8/21 - 9/12 (n = 107)						
Females						
Percent	0.0	0.0	43.0	0.0	0.0	43.0
Number	0	0	9,272	0	0	9,272
Males						
Percent	0.0	0.0	15.9	0.0	41.1	57.0
Number	0	0	3,429	0	8,862	12,291
Sexes Combined						
Percent	0.0	0.0	58.9	0.0	41.1	100.0
Number	0	0	12,701	0	8,862	21,563
Standard Error	0	0	1,286	0	1,028	
Late Run Total						
Females						
Percent	0.0	0.0	47.1	1.2	0.0	48.3
Number	0	0	65,043	1,606	0	66,649
Males						
Percent	0.9	0.9	15.6	0.2	34.1	51.7
Number	1,269	1,269	21,642	337	47,152	71,669
Sexes Combined						
Percent	0.9	0.9	62.7	1.4	34.1	100.0
Number	1,269	1,269	86,685	1,943	47,152	138,318
Standard Error	753	412	1,252	566	635	

[a] n = sample size.

Appendix C.24. Estimated age and sex composition of Russian River late run sockeye salmon, which spawned downstream from the weir, Upper Cook Inlet, Alaska, 1989. Source: J. Carlon, Alaska Department of Fish and Game, Soldotna, personal communication.

	Age Group					
	2.3	1.3	2.2	1.2	2.1	Total
(n[a] = 131)						
Females						
Percent	3.1	38.2	2.3	5.3	0.0	48.9
Number	883	10,879	655	1,509	0	13,926
Males						
Percent	3.1	36.6	1.5	9.9	0.0	51.1
Number	883	10,424	427	2,820	0	14,554
Sexes Combined						
Percent	6.2	74.8	3.8	15.2	0.0	100.0
Number	1,766	21,303	1,082	4,329	0	28,480
Standard Error	611	1,705	481	930	0	

[a] n = sample size.

Appendix C.25. Age, sex and length composition of sockeye salmon escapement in Judd Lake, Yentna River drainage, Upper Cook Inlet, Alaska, 1989.

	Age Group				
	1.2	1.3	2.2	2.3	Total
Sample period[a]:	25 July - 27 August				
Males	1,545	2,919	1,545	859	6,868
Percent	12.08	22.82	12.08	6.72	53.69
Std. Error	0.24	0.14	0.41	0.15	
Sample Size	18	34	18	10	80
Mean Length[b]	484	593	531	595	555
Std. Error	8.62	4.23	7.34	4.97	3.18
Mean Weight[c]	1.87	3.56	2.52	3.35	2.92
Std. Error	0.12	0.09	0.12	0.09	0.05
Females	1,030	3,521	429	944	5,924
Percent	8.05	27.53	3.35	7.38	46.31
Std. Error	0.11	0.20	0.03	0.18	
Sample Size	12	41	5	11	69
Mean Length	479	560	497	558	541
Std. Error	4.66	3.57	8.67	4.55	2.46
Mean Weight	1.76	2.74	1.92	2.65	2.50
Std. Error	0.05	0.06	0.07	0.07	0.04
Both Sexes	2,575	6,440	1,974	1,803	12,792
Percent	20.13	50.34	15.43	14.09	100.00
Std. Error	0.35	0.34	0.44	0.34	
Sample Size	30	75	23	21	149
Mean Length	482	575	524	575	548
Std. Error	5.50	2.73	6.04	3.36	2.05
Mean Weight	1.83	3.11	2.39	2.98	2.72
Std. Error	0.07	0.05	0.10	0.06	0.03

[a] Samples provided by M. Schollenberger, Cook Inlet Aquaculture Association, Soldotna, personal communication.
[b] Length measured mid-eye to fork-of-tail in mm.
[c] Weight measured in kg.

Appendix C.26. Age, sex and length composition of sockeye salmon collected in the Crescent River test fishery, Upper Cook Inlet, Alaska, 1989.

	Age Group				
	1.2	1.3	2.2	2.3	Total
Sample period:	11 July				
Males	9	121	3	40	173
Percent	2.99	40.80	1.00	13.43	58.21
Std. Error	2.84	.60	4.96	1.26	.42
Sample Size	6	82	2	27	117
Mean Length[a]	485	568	434	577	563
Std. Error	19	3		3	2
Sample Size	6	82	2	27	117
Females	1	99		24	124
Percent	.50	33.33		7.96	41.79
Std. Error		.70		1.69	.59
Sample Size	1	67		16	84
Mean Length	505	546		551	547
Std. Error		2		4	2
Sample Size	1	66		16	83
Both Sexes	10	220	3	64	297
Percent	3.48	74.13	1.00	21.39	100.00
Std. Error	2.62	.29	4.96	.95	
Sample Size	7	149	2	43	201
Mean Length	487	558	434	567	556
Std. Error	19	2		2	2
Sample Size	7	148	2	43	200

[a] Length measured mid-eye to fork-of-tail in mm.

Appendix C.27. Age and sex composition of sockeye salmon escapement in Packers Creek, Kalgin Island, Upper Cook Inlet, Alaska, 1989. Source: M. Schollenberger, Cook Inlet Aquaculture Association, Soldotna, personal communication.

	Age Group										
	1.1	1.2	2.1	1.3	2.2	3.1	2.3	3.2	2.4	3.3	Total
Sample Period 1: 16 May - 5 August											
Males	1,078	2,280	678	154	1,171		555	31			5,946
Percent	9.56	20.22	6.01	1.37	10.38		4.92	.27			52.73
Std. Error	.84	.54	1.08	2.32	.80		1.20				.26
Sample Size	35	74	22	5	38		18	1			193
Females	92	2,341	92	216	1,633		832	92		31	5,329
Percent	.82	20.77	.82	1.91	14.48		7.38	.82		.27	47.27
Std. Error	3.01	.53	3.01	1.96	.66		.97	3.01			.29
Sample Size	3	76	3	7	53		27	3		1	173
Both Sexes	1,171	4,621	770	370	2,803		1,386	123		31	11,275
Percent	10.38	40.98	6.83	3.28	24.86		12.30	1.09		.27	100.00
Std. Error	.80	.33	1.01	1.48	.47		.73	2.60			
Sample Size	38	150	25	12	91		45	4		1	366
Sample Period 2: 6 August - 18 September											
Males	1,923	1,232	1,322	240	811		150	90	30		5,800
Percent	17.44	11.17	11.99	2.18	7.36		1.36	.82	.27		52.59
Std. Error	.59	.77	.74	1.83	.97		2.32	3.00			.26
Sample Size	64	41	44	8	27		5	3	1		193
Females		2,645		361	1,052	30	721	421			5,229
Percent		23.98		3.27	9.54	.27	6.54	3.81			47.41
Std. Error		.49		1.48	.84		1.03	1.37			.29
Sample Size		88		12	35	1	24	14			174
Both Sexes	1,923	3,877	1,322	601	1,863	30	872	511	30		11,029
Percent	17.44	35.15	11.99	5.45	16.89	.27	7.90	4.63	.27		100.00
Std. Error	.59	.37	.74	1.13	.60		.93	1.24			
Sample Size	64	129	44	20	62	1	29	17	1		367

- Continued -

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	Age Group										
	1.1	1.2	2.1	1.3	2.2	3.1	2.3	3.2	2.4	3.3	Total
All Periods Combined:											
Males	3,002	3,512	2,000	394	1,982		705	121	30		11,746
Percent	13.51	15.69	9.00	1.77	8.87		3.14	.55	.14		52.66
Std. Error	3.52	3.49	3.66	3.74	3.57		4.16	4.10	5.21		2.54
Sample Size	99	115	66	13	65		23	4	1		386
Females	92	4,986	92	576	2,685	30	1,553	513		31	10,558
Percent	.41	22.37	.41	2.59	12.01	.14	6.96	2.32		.14	47.34
Std. Error	5.21	3.26	5.21	3.75	3.53	5.21	3.57	4.30		5.22	2.68
Sample Size	3	164	3	19	88	1	51	17		1	347
Both Sexes	3,094	8,498	2,092	971	4,667	30	2,258	634	30	31	22,304
Percent	13.92	38.06	9.41	4.37	20.87	.14	10.10	2.86	.14	.14	100.00
Std. Error	3.49	2.91	3.61	3.70	3.32	5.21	3.57	4.23	5.21	5.22	
Sample Size	102	279	69	32	153	1	74	21	1	1	733

Appendix C.28. Length composition of sockeye salmon escapement in the Kenai River, Upper Cook Inlet, Alaska, 1989.

	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: 1 - 18 July											
Males											
Mean Length[a]				492		600	524	557	599		583
Std. Error				8		2	13	25	3		2
Sample Size				51		287	14	2	45		399
Females											
Mean Length			561	492		575	541	603	583		570
Std. Error			18	9		2	15	6	4		2
Sample Size			2	24		314	10	5	36		391
Both Sexes											
Mean Length			561	492		587	531	590	592		577
Std. Error			18	6		1	10	8	3		1
Sample Size			2	75		601	24	7	81		790

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Appendix C.28. (p. 2 of 4)

	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 2: 19 - 25 July											
Males											
Mean Length		350		490		605	525	625	606	578	591
Std. Error		22		9		2	10	14	5		2
Sample Size		3		37		331	13	4	45	1	434
Females											
Mean Length	405		565	514	404	577	518	609	581		572
Std. Error				8		1	11	10	3		1
Sample Size	1		1	28	1	346	9	6	35		427
Both Sexes											
Mean Length	405	350	565	501	404	591	522	615	595	578	582
Std. Error		22		6		1	8	8	3		1
Sample Size	1	3	1	65	1	677	22	10	80	1	861

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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 3: 26 July - 15 August											
Males											
Mean Length				496	396	594	502	618	591		575
Std. Error				14	16	2	11	12	6		2
Sample Size				26	6	213	21	3	22		291
Females											
Mean Length				483	389	570	491	596	574		552
Std. Error				6	8	2	7	24	4		2
Sample Size				40	4	221	27	3	37		332
Both Sexes											
Mean Length				488	393	582	496	607	580		562
Std. Error				7	10	1	6	13	4		1
Sample Size				66	10	434	48	6	59		623

-Continued-

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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
All Periods Combined:											
Males											
Mean Length		350		493	396	600	514	607	600	578	584
Std. Error		22		6	16	1	7	9	3		1
Sample Size		3		114	6	831	48	9	112	1	1,124
Females											
Mean Length	405		562	494	391	575	506	603	579		565
Std. Error			18	4	8	1	6	7	2		1
Sample Size	1		3	92	5	881	46	14	108		1,150
Both Sexes											
Mean Length	405	350	562	493	394	587	510	605	589	578	574
Std. Error		22	18	4	10	1	4	6	2		1
Sample Size	1	3	3	206	11	1,712	94	23	220	1	2,274

[a] Length measured mid-eye to fork-of-tail in mm.

Appendix C.29. Mean length at age by sex of sockeye salmon escapement in the Russian River, Upper Cook Inlet, Alaska, 1989. Source: J. Carlon, Alaska Department of Fish and Game, Soldotna, personal communication.

		Age Class				
Component		2.3	1.3	2.2	1.2	2.1
Early Run Escapement[a]						
Female	Mean Length[b]	611	602	545		
	Std Error	2.3	4.8	6.4		
	Sample Size	93	26	29		
Male	Mean Length	614	612	560	570	
	Std Error	2.3	6.5	8.4	5.0	
	Sample Size	78	13	14	2	
Late Run Escapement[a]						
Female	Mean Length			516	533	
	Std Error			2.4	12.0	
	Sample Size			146	3	
Male	Mean Length	625	675	525	370	403
	Std Error	15.0	5.0	5.2		3.4
	Sample Size	2	2	52	1	136
Downstream Escapement[c]						
Female	Mean Length	581	568	527	557	
	Std Error	8.3	4.5	38.4	5.2	
	Sample Size	4	50	3	7	
Male	Mean Length	615	603	545	588	
	Std Error	12.8	4.9	10.0	10.6	
	Sample Size	4	48	2	13	

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Component		Age Class 2.3	1.3	2.2	1.2	2.1
Confluence Harvest[d]						
Female	Mean Length	581	585	536	562	
	Std Error	6.4	6.0	2.0	17.3	
	Sample Size	24	11	162	5	
Male	Mean Length	611	616	541	527	438
	Std Error	3.6	5.4	3.8	23.3	26.9
	Sample Size	39	10	104	3	8

[a] Fish that migrated through the weir.
[b] Length measured from mid-eye to fork-of-tail in mm.
[c] Late run fish that spawned downstream from Russian River Falls.
[d] Late run only.

Appendix C.30. Length composition of sockeye salmon escapement in the Kasilof River, Upper Cook Inlet, Alaska, 1989.

	Age Group						
	1.1	1.2	1.3	2.2	1.4	2.3	Total
Sample Period 1: 15 June - 6 July							
Males							
Mean Length[a]		499	554	490		547	542
Std. Error		6	2	3		5	2
Sample Size		34	157	10		12	213
Females							
Mean Length		493	541	527	560	533	535
Std. Error		7	4	24	10	14	3
Sample Size		20	148	3	2	10	183
Both Sexes							
Mean Length		497	548	499	560	541	539
Std. Error		5	2	6	10	7	2
Sample Size		54	305	13	2	22	396

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	Age Group						
	1.1	1.2	1.3	2.2	1.4	2.3	Total
Sample Period 2: 7 - 20 July							
Males							
Mean Length		479	549	489		512	506
Std. Error		3	4	7		11	2
Sample Size		106	72	17		10	205
Females							
Mean Length		481	545	488		530	516
Std. Error		3	2	6		7	2
Sample Size		88	112	13		10	223
Both Sexes							
Mean Length		480	546	488		521	511
Std. Error		2	2	5		7	1
Sample Size		194	184	30		20	428

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	Age Group						
	1.1	1.2	1.3	2.2	1.4	2.3	Total
Sample Period 3: 21 July - 15 August							
Males							
Mean Length	424	478	538	475		534	492
Std. Error	67	3	6	5		9	3
Sample Size	2	105	37	8		3	155
Females							
Mean Length		477	530	480		508	487
Std. Error		2	5	5		10	2
Sample Size		182	36	12		6	236
Both Sexes							
Mean Length	424	478	534	478		517	489
Std. Error	67	2	4	4		7	1
Sample Size	2	287	73	20		9	391

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	Age Group						
	1.1	1.2	1.3	2.2	1.4	2.3	Total
All Periods Combined:							
Males							
Mean Length	424	481	550	486		528	514
Std. Error	67	2	2	4		6	1
Sample Size	2	245	266	35		25	573
Females							
Mean Length		480	542	488	560	527	511
Std. Error		2	2	4	10	6	1
Sample Size		290	296	28	2	26	642
Both Sexes							
Mean Length	424	480	546	487	560	527	512
Std. Error	67	1	1	3	10	4	1
Sample Size	2	535	562	63	2	51	1,215

[a] Length measured mid-eye to fork-of-tail in mm.

Appendix C.31. Length composition of sockeye salmon escapement in the Crescent River, Upper Cook Inlet, Alaska, 1989.

	Age Group						
	1.2	1.3	2.2	1.4	2.3	2.4	Total
Sample period:	1 July - 1 August						
Males							
Mean Length[a]	529	593	613	635	594	615	592
Std. Error	15	1	18		3		1
Sample Size	9	320	2	1	72	1	405
Females							
Mean Length	533	561	503	575	568		560
Std. Error	13	2	53	17	3		2
Sample Size	10	271	2	3	37		323
Both Sexes							
Mean Length	531	578	558	590	586	615	578
Std. Error	10	1	28	17	2		1
Sample Size	19	591	4	4	109	1	728

[a] Length measured mid-eye to fork-of-tail in mm.

Appendix C.32. Size composition of sockeye salmon escapement in Packers Creek, Kalgin Island, Upper Cook Inlet, Alaska, 1989.

	Age Group										
	1.1	1.2	2.1	1.3	2.2	3.1	2.3	3.2	2.4	3.3	Total
Sample Period 1: 16 May - 5 August											
Males											
Mean Length[a]	361	481	354	572	506		574	555			461
Std. Error	6	5	3	7	8		5				3
Sample Size	35	74	22	5	38		18	1			193
Mean Weight[b]	.87	1.95	.90	3.25	2.26		3.28	2.75			1.86
Std. Error	.05	.06	.09	.10	.11		.10				.04
Sample Size	35	74	22	5	38		18	1			193
Females											
Mean Length	457	482	428	541	497		550	487		535	498
Std. Error	53	3	63	11	4		4	8			3
Sample Size	3	76	3	7	53		27	3		1	173
Mean Weight	1.63	1.86	2.13	2.51	1.98		2.72	1.85		2.35	2.06
Std. Error	.49	.03	.33	.19	.04		.07	.13			.03
Sample Size	3	76	3	7	53		27	3		1	173
Both Sexes											
Mean Length	368	481	363	554	501		560	504		535	479
Std. Error	7	3	8	7	4		3	8			2
Sample Size	38	150	25	12	91		45	4		1	366
Mean Weight	.93	1.90	1.05	2.82	2.10		2.94	2.08		2.35	1.95
Std. Error	.06	.03	.09	.12	.05		.06	.13			.02
Sample Size	38	150	25	12	91		45	4		1	366

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Appendix C.32. (p. 2 of 3)

	Age Group										
	1.1	1.2	2.1	1.3	2.2	3.1	2.3	3.2	2.4	3.3	Total
Sample Period 2: 6 August - 18 September											
Males											
Mean Length	355	507	353	573	512		571	520	600		427
Std. Error	2	8	2	10	10		7				2
Sample Size	64	41	44	8	27		5	3	1		193
Mean Weight	.76	2.18	.86	2.96	2.27		3.01	2.25	3.15		1.48
Std. Error	.02	.10	.11	.18	.13		.20	.13			.04
Sample Size	64	41	44	8	27		5	3	1		193
Females											
Mean Length		499		548	509	520	550	502			512
Std. Error		3		9	5		5	6			2
Sample Size		88		12	35	1	24	14			174
Mean Weight		1.88		2.62	2.05	2.45	2.62	1.92			2.07
Std. Error		.04		.14	.08		.10	.08			.03
Sample Size		88		12	35	1	24	14			174
Both Sexes											
Mean Length	355	501	353	558	511	520	554	505	600		467
Std. Error	2	3	2	7	5		4	6			2
Sample Size	64	129	44	20	62	1	29	17	1		367
Mean Weight	.76	1.98	.86	2.76	2.15	2.45	2.69	1.98	3.15		1.76
Std. Error	.02	.04	.11	.11	.07		.09	.07			.03
Sample Size	64	129	44	20	62	1	29	17	1		367

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Appendix C.32. (p. 3 of 3)

	Age Group										
	1.1	1.2	2.1	1.3	2.2	3.1	2.3	3.2	2.4	3.3	Total
All Periods Combined:											
Males											
Mean Length	357	490	353	572	509		574	529	600		444
Std. Error	3	4	2	7	6		4				2
Sample Size	99	115	66	13	65		23	4	1		386
Mean Weight	.80	2.03	.87	3.07	2.26		3.22	2.38	3.15		1.67
Std. Error	.02	.05	.08	.12	.08		.09	.13			.03
Sample Size	99	115	66	13	65		23	4	1		386
Females											
Mean Length	457	491	428	545	502	520	550	499		535	505
Std. Error	53	2	63	7	3		3	5			2
Sample Size	3	164	3	19	88	1	51	17		1	347
Mean Weight	1.63	1.87	2.13	2.58	2.01	2.45	2.67	1.91		2.35	2.07
Std. Error	.49	.03	.33	.11	.04		.06	.07			.02
Sample Size	3	164	3	19	88	1	51	17		1	347
Both Sexes											
Mean Length	360	490	357	556	505	520	557	505	600	535	473
Std. Error	3	2	3	5	3		3	5			1
Sample Size	102	279	69	32	153	1	74	21	1	1	733
Mean Weight	.82	1.94	.93	2.78	2.12	2.45	2.84	2.00	3.15	2.35	1.86
Std. Error	.03	.03	.08	.08	.04		.05	.06			.02
Sample Size	102	279	69	32	153	1	74	21	1	1	733

[a] Length measured mid-eye to fork-of-tail in mm.
[b] Weight measured in kg.

Appendix C.33. Length composition of sockeye salmon captured by fishwheel in the vicinity of Sunshine Station (river mile 80) in the Susitna River mainstem, Upper Cook Inlet, Alaska, 1989.

	Age Group						
	1.1	0.3	1.2	1.3	2.2	2.3	Total
Sample Period 1: 14 - 22 July							
Males							
Mean Length[a]			521	589	538	587	563
Std. Error			6	3	19	13	3
Sample Size			110	184	8	5	307
Females							
Mean Length	347		514	566	508	568	556
Std. Error	13		4	1	13	4	1
Sample Size	2		45	272	7	6	332
Both Sexes							
Mean Length	347		519	575	524	576	559
Std. Error	13		5	1	12	6	2
Sample Size	2		155	456	15	11	639

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Appendix C.33. (p. 2 of 3)

	Age Group						
	1.1	0.3	1.2	1.3	2.2	2.3	Total
Sample Period 2: 23 July - 2 August							
Males							
Mean Length	410	563	504	589	510	585	549
Std. Error	26		6	3	19	13	3
Sample Size	3	1	102	133	11	3	253
Females							
Mean Length		540	504	562	507	574	543
Std. Error			3	2	7	5	2
Sample Size		1	78	182	12	4	277
Both Sexes							
Mean Length	410	552	504	574	509	578	546
Std. Error	26		4	2	10	6	2
Sample Size	3	2	180	315	23	7	530

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Appendix C.33. (p. 3 of 3)

	Age Group						
	1.1	0.3	1.2	1.3	2.2	2.3	Total
All Periods Combined:							
Males							
Mean Length	410	563	512	589	521	586	556
Std. Error	26		4	2	14	9	2
Sample Size	3	1	212	317	19	8	560
Females							
Mean Length	347	540	507	564	507	571	550
Std. Error	13		2	1	7	3	1
Sample Size	2	1	123	454	19	10	609
Both Sexes							
Mean Length	383	552	510	574	514	577	553
Std. Error	16		3	1	8	4	1
Sample Size	5	2	335	771	38	18	1,169

[a] Length measured mid-eye to fork-of-tail in mm.

Appendix C.34. Length composition of sockeye salmon escapement in the Yentna River, Susitna River drainage, Upper Cook Inlet, Alaska, 1989.

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 1: 7 - 22 July										
Males										
Mean Length[a]		347		461		584	490		558	535
Std. Error				4		4	14		13	3
Sample Size		1		87		139	7		6	240
Females										
Mean Length			548	486		555	498		552	544
Std. Error				8		2	12		5	2
Sample Size			1	32		176	3		24	236
Both Sexes										
Mean Length		347	548	467		567	492		553	539
Std. Error				4		2	10		5	2
Sample Size		1	1	119		315	10		30	476

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Appendix C.34. (p. 2 of 4)

	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 2: 23 - 27 July										
Males										
Mean Length	457			451		574	541	591	587	534
Std. Error				7		4	35	8	5	4
Sample Size	1			76		143	2	4	9	235
Females										
Mean Length		358	570	477		557	500		552	539
Std. Error		18		5		2	9		7	2
Sample Size		2	1	44		175	8		10	240
Both Sexes										
Mean Length	457	358	570	461		565	508	591	569	537
Std. Error		18		5		2	10	8	5	2
Sample Size	1	2	1	120		318	10	4	19	475

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	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
Sample Period 3: 28 July - 20 August										
Males										
Mean Length	516	358		483	394	567	501		560	518
Std. Error		18		7	61	4	18		18	4
Sample Size	1	12		83	3	108	13		5	225
Females										
Mean Length		337	539	496		542	500	566	525	525
Std. Error		3		6		3	13			3
Sample Size		3	1	46		123	8	1	1	183
Both Sexes										
Mean Length	516	354	539	488	394	553	500	566	554	521
Std. Error		14		5	61	3	12		18	2
Sample Size	1	15	1	129	3	231	21	1	6	408

-Continued-

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	Age Group									
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	Total
All Periods Combined:										
Males										
Mean Length	480	357		463	394	575	503	591	575	530
Std. Error		18		4	61	3	12	8	5	2
Sample Size	2	13		246	3	390	22	4	20	700
Females										
Mean Length		347	555	485		553	500	566	551	537
Std. Error		9		4		1	7		4	1
Sample Size		5	3	122		474	19	1	35	659
Both Sexes										
Mean Length	480	354	555	471	394	563	501	587	560	534
Std. Error		12		3	61	1	7	8	3	1
Sample Size	2	18	3	368	3	864	41	5	55	1,359

[a] Length measured mid-eye to fork-of-tail in mm.

Appendix C.35. Size composition of sockeye salmon escapement in Fish Creek, Upper Cook Inlet, Alaska, 1989.

	Age Group							
	0.2	1.1	1.2	2.1	1.3	2.2	2.3	Total
Sample period:	7 July - 9 September							
Males								
Mean Length[a]		379	489	373	557	481		478
Std. Error		8	7	14	9	13		5
Sample Size		28	151	10	26	11		226
Mean Weight[b]		.87	1.71	.80	2.67	1.70		1.68
Std. Error		.07	.04	.11	.11	.14		.03
Sample Size		28	150	10	25	11		224
Females								
Mean Length	455	485	498	517	539	495	553	512
Std. Error		35	2	7	3	7	9	2
Sample Size	1	5	156	4	74	14	13	267
Mean Weight	1.30	1.98	1.85	1.78	2.35	1.77	2.47	2.01
Std. Error		.32	.02	.03	.04	.08	.12	.02
Sample Size	1	5	155	4	73	14	13	265
Both Sexes								
Mean Length	455	395	494	414	544	489	553	496
Std. Error		9	4	10	3	7	9	3
Sample Size	1	33	307	14	100	25	13	493
Mean Weight	1.30	1.04	1.78	1.08	2.43	1.74	2.47	1.86
Std. Error		.07	.02	.08	.04	.08	.12	.02
Sample Size	1	33	305	14	98	25	13	489

[a] Length measured mid-eye to fork-of-tail in mm.
[b] Weight measured in kg.

Appendix D.1. Estimated age composition of coho salmon harvested in the Upper Subdistrict commercial set gill net fishery of the Central District, Upper Cook Inlet, Alaska, 1989. Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.

	Age Group				
Sex/Statistic	Unaged	1.1	2.1	3.1	TOTAL
Unsexed					
Sample Number		1	5		6
% of Sample		0.1	0.4		0.4
Std. Error		0.07	0.16		0.17
Females					
Sample Number	42	110	419	57	628
% of Sample	3.0	7.7	29.4	4.0	44.1
Std. Error	0.45	0.71	1.21	0.52	1.32
Males					
Sample Number	44	122	517	106	789
% of Sample	3.1	8.6	36.3	7.4	55.4
Std. Error	0.46	0.74	1.28	0.70	1.32
All					
Sample Number	86	233	941	163	1423
% of Sample	6.0	16.4	66.1	11.5	100.0
Std. Error	0.63	0.98	1.26	0.84	

Appendix D.2. Estimated age composition of coho salmon harvested in the Western Subdistrict commercial set gill net fishery of the Central District, Upper Cook Inlet, Alaska, 1989. Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.

	Age Group				
Sex/Statistic	Unaged	1.1	2.1	3.1	TOTAL
Unsexed					
Sample Number		1			1
% of Sample		0.2			0.2
Std. Error		0.23			0.23
Females					
Sample Number	7	92	140	3	242
% of Sample	1.6	20.9	31.8	0.7	55.0
Std. Error	0.60	1.94	2.22	0.39	2.37
Males					
Sample Number	13	66	115	3	197
% of Sample	3.0	15.0	26.1	0.7	44.8
Std. Error	0.81	1.70	2.10	0.39	2.37
All					
Sample Number	20	159	255	6	440
% of Sample	4.5	36.1	58.0	1.4	100.0
Std. Error	0.99	2.29	2.36	0.55	

Appendix D.3. Estimated age composition of coho salmon harvested in the General Subdistrict commercial set gill net fishery of the Northern District, Upper Cook Inlet, Alaska, 1989. Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.

	Age Group				
Sex/Statistic	Unaged	1.1	2.1	3.1	TOTAL
Unsexed					
Sample Number			1		1
% of Sample			0.1		0.1
Std. Error			0.10		0.10
Females					
Sample Number	21	95	360	34	510
% of Sample	2.0	9.1	34.6	3.3	49.0
Std. Error	0.44	0.89	1.48	0.55	1.55
Males					
Sample Number	16	126	358	29	529
% of Sample	1.5	12.1	34.4	2.8	50.9
Std. Error	0.38	1.01	1.47	0.51	1.55
All					
Sample Number	37	221	719	63	1040
% of Sample	3.6	21.3	69.1	6.1	100.0
Std. Error	0.57	1.27	1.43	0.74	

Appendix D.4. Estimated age composition of coho salmon sampled from sport harvests during the early and late runs in the Kenai River, Upper Cook Inlet, Alaska, 1989. Source: L. Larson, Alaska Department of Fish and Game, Soldotna, personal communication.

			Age Group			
Run	Sex		1.1	2.1	3.1	Total
EARLY	Male	Percent	1.7	40.7	8.5	50.8
(n[a]=118)	Female	Percent	2.5	39.0	7.6	49.2
	Combined	Percent	4.2	79.7	16.1	
		St. Error	1.86	3.72	3.40	
LATE	Male	Percent	1.9	34.9	13.3	50.1
(n=158)	Female	Percent	0.6	35.4	13.9	49.9
	Combined	Percent	2.5	70.3	27.2	
		St. Error	1.25	3.65	3.53	

[a] n = sample size

Appendix D.5. Estimated age and sex composition of coho salmon collected above the Anchor River weir, Upper Cook Inlet, Alaska, 1989. Source: L. Larson, Alaska Department of Fish and Game, Soldotna, personal communication.

	Age Group			
Component	1.1	2.1	3.1	Total
Males				
Percent	37.9	58.6	3.5	49.6
Number	22	34	2	58
Females				
Percent	37.3	61.0	1.7	50.4
Number	22	36	1	59
Sexes Combined				
Percent	37.6	59.8	2.6	100.0
Number	44	70	3	117

Appendix D.6. Estimated age composition of coho salmon sampled at the Swanson River weir, Upper Cook Inlet, Alaska, 1989. Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.

	Age Group					
Sex/Statistic	1.1	2.0	2.1	3.0	3.1	TOTAL
Unsexed						
Sample Number	3	1	4			8
% of Sample	1.5	0.5	2.0			3.9
Std. Error	0.01	0.00	0.01			0.01
Females						
Sample Number	32	1	59	1	4	97
% of Sample	15.8	0.5	29.1	0.5	2.0	47.8
Std. Error	0.03	0.00	0.03	0.00	0.01	0.04
Males						
Sample Number	30		58		10	98
% of Sample	14.8		28.6		4.9	48.3
Std. Error	0.02		0.03		0.02	0.04
All						
Sample Number	65	2	121	1	14	203
% of Sample	32.0	1.0	59.6	0.5	6.9	100.0
Std. Error	0.03	0.01	0.03	0.00	0.02	

Appendix D.7. Estimated age composition of coho salmon sampled from the Yentna River fishwheel site on the Susitna River, Upper Cook Inlet, Alaska, 1989. Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.

	Age Group					
Sex/Statistic	1.0	1.1	2.1	3.1	4.0	Total
Unsexed						
Sample Number			1			1
% of Sample			0.1			0.1
Std. Error			0.00			0.00
Females						
Sample Number	1	209	492	57		759
% of Sample	0.1	13.3	31.4	3.6		48.4
Std. Error	0.00	0.01	0.01	0.00		0.01
Males						
Sample Number		205	519	81	3	808
% of Sample		13.1	33.1	5.2	0.2	51.5
Std. Error		0.01	0.01	0.01	0.00	0.01
All						
Sample Number	1	414	1012	138	3	1568
% of Sample	0.1	26.4	64.5	8.8	0.2	100.0
Std. Error	0.00	0.01	0.01	0.01	0.00	

Appendix D.8. Estimated age, sex and size composition of coho salmon escapement in Fish Creek, Upper Cook Inlet, Alaska, 1989.

	Age Group				
	1.1	2.1	3.1	1.2	Total
Sample period:	21 July - 9 September				
Males	377	1,058	161	18	1,614
Percent	10.82	30.41	4.64	.52	46.39
Std. Error	1.48	.78	2.34		.55
Sample Size	21	59	9	1	90
Mean Length[a]	538	561	581	537	558
Std. Error	6	6	9		4
Sample Size	21	59	9	1	90
Mean Weight[b]	2.39	2.76	3.08	2.55	2.70
Std. Error	.09	.10	.17		.07
Sample Size	21	59	9	1	90
Females	305	1,273	269	18	1,865
Percent	8.76	36.60	7.73	.52	53.61
Std. Error	1.66	.68	1.78		.48
Sample Size	17	71	15	1	104
Mean Length	510	525	532	556	524
Std. Error	16	7	21		6
Sample Size	17	71	15	1	104
Mean Weight	2.18	2.33	2.62	2.65	2.35
Std. Error	.23	.09	.27		.08
Sample Size	17	71	15	1	104
Both Sexes	681	2,331	430	36	3,479
Percent	19.59	67.01	12.37	1.03	100.00
Std. Error	1.04	.36	1.37	5.05	
Sample Size	38	130	24	2	194
Mean Length	526	541	550	547	539
Std. Error	8	4	13		4
Sample Size	38	130	24	2	194
Mean Weight	2.30	2.53	2.79	2.60	2.51
Std. Error	.11	.07	.18		.06
Sample Size	38	130	24	2	194

[a] Length measured mid-eye to fork-of-tail in mm.
[b] Weight measured in kg.

Appendix D.9. Estimated age and sex composition of coho salmon sampled from the escapement in the Little Susitna River, Upper Cook Inlet, Alaska, 1989. Source: L. Bartlett, Alaska Department of Fish and Game, Palmer, personal communication.

	Age Group		
	1.1	2.1	Total
Females:			
Number in Sample	206	12	218
Percentage	35.0	2.0	37.0
Standard Error[a]	2.0	0.6	2.0
Males:			
Number in Sample	347	24	371
Percentage	58.9	4.1	63.0
Standard Error	2.0	0.8	2.0
Sexes Combined:			
Number in Sample	553	36	589
Percentage	93.9	6.1	100.0
Standard Error	1.0	1.0	

[a] Standard error of proportional estimate X 100.

Appendix D.10. Estimated length of coho salmon harvested in the Upper Subdistrict commercial set gill net fishery of the Central District, Upper Cook Inlet, Alaska, 1989. Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.

	Age Group				
Sex/Statistic	Unaged	1.1	2.1	3.1	Total
Unsexed					
Mean Length[a]		482	592		570
Std. Error			12.57		24.19
Sample Size		1	4		5
Minimum		482	567		482
Maximum		482	626		626
Females					
Mean Length	560.56	514.78	557.06	580.45	552.67
Std. Error	7.38	5.06	2.24	6.26	2.09
Sample Size	27	68	272	42	409
Minimum	464	444	426	464	426
Maximum	622	627	645	645	645
Males					
Mean Length	581.46	519.14	564.18	594.50	562.98
Std. Error	8.78	5.14	2.29	5.02	2.08
Sample Size	26	77	363	78	544
Minimum	445	420	444	501	420
Maximum	656	611	663	691	691
All					
Mean Length	570.81	516.86	561.33	589.58	558.62
Std. Error	5.84	3.59	1.62	3.96	1.49
Sample Size	53	146	639	120	958
Minimum	445	420	426	464	420
Maximum	656	627	663	691	691

[a] Length measured mid-eye to fork-of-tail in mm.

Appendix D.11. Estimated length of coho salmon harvested in the Western Subdistrict commercial set gill net fishery of the Central District, Upper Cook Inlet, Alaska, 1989. Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.

	Age Group				
Sex/Statistic	Unaged	1.1	2.1	3.1	Total
Unsexed					
Mean Length[a]		455			455
Std. Error					
Sample Size		1			1
Minimum		455			455
Maximum		455			455
Females					
Mean Length	533	515	539	589	531
Std. Error	23.59	4.24	3.63	12.34	2.88
Sample Size	6	74	118	3	201
Minimum	434	454	434	565	434
Maximum	588	594	612	606	612
Males					
Mean Length	580	523	555	574	546
Std. Error	10.83	6.11	4.45	18.50	3.66
Sample Size	10	53	94	2	159
Minimum	522	418	440	556	418
Maximum	629	626	668	593	668
All					
Mean Length	562	518	546	583	537
Std. Error	12.18	3.56	2.87	9.62	2.31
Sample Size	16	128	212	5	361
Minimum	434	418	434	556	418
Maximum	629	626	668	606	668

[a] Length measured mid-eye to fork-of-tail in mm.

Appendix D.12. Estimated length of coho salmon harvested in the General Subdistrict commercial set gill net fishery of the Northern District, Upper Cook Inlet, Alaska, 1989. Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.

	Age Group				
Sex/Statistic	Unaged	1.1	2.1	3.1	Total
Unsexed					
Mean Length[a]			517		517
Std. Error					
Sample Size			1		1
Minimum			517		517
Maximum			517		517
Males					
Mean Length	535	500	550	594	540
Std. Error	23.35	5.98	3.26	11.02	3.17
Sample Size	4	57	165	12	238
Minimum	488	376	421	532	376
Maximum	587	597	645	649	649
Females					
Mean Length	539	516	551	561	545
Std. Error	8.98	5.38	2.50	6.72	2.28
Sample Size	11	50	196	15	272
Minimum	490	450	455	505	450
Maximum	572	599	660	601	660
All					
Mean Length	538	507	550	576	542
Std. Error	8.58	4.12	2.01	6.83	1.91
Sample Size	15	107	362	27	511
Minimum	488	376	421	505	376
Maximum	587	599	660	649	660

[a] Length measured mid-eye to fork-of-tail in mm.

Appendix D.13. Estimated length of coho salmon sampled from the sport harvests during the early and late runs in the Kenai River, Upper Cook Inlet, Alaska, 1989. Source: L. Larson, Alaska Department of Fish and Game, Soldotna, personal communication.

		Age Group		
Sample		1.1	2.1	3.1
Early Run				
Male	Mean Length[a]	495	583	627
	Standard Error	5	7	12
	Sample Size	2	48	10
Female	Mean Length	546	580	607
	Standard Error	12	6	11
	Sample Size	3	46	9
Late Run				
Male	Mean Length	563	616	637
	Standard Error	13	6	11
	Sample Size	3	59	21
Female	Mean Length	600	609	623
	Standard Error		6	9
	Sample Size	1	56	22

[a] Length measured mid-eye to fork-of-tail in mm.

Appendix D.14. Estimated length of coho salmon collected above the Anchor River weir, Upper Cook Inlet, Alaska, 1989. Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.

	Age Group			
Component	1.1	2.1	3.1	Total
Males				
Mean Length[a]	579	573	596	576
Standard Error	13.6	9.1	47.5	7.5
Sample Size	22	34	2	58
Females				
Mean Length	573	585	684	582
Standard Error	9.3	8.0		6.2
Sample Size	22	36	1	59
Sexes Combined				
Mean Length	576	579	625	579
Standard Error	8.2	6.0	40.0	4.8
Sample Size	44	70	3	117

[a] Length measured mid-eye to fork-of-tail in mm.

Appendix D.15. Estimated length of coho salmon sampled at the Swanson River weir, Upper Cook Inlet, Alaska, 1989. Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.

	Age Group					
Sex/Statistic	1.1	2.0	2.1	3.0	3.1	Total
Unsexed						
Mean Length[a]	498	500	568			533
Std. Error	30.87		25.03			20.28
Sample Size	3	1	4			8
Minimum	440	500	500			440
Maximum	545	500	620			620
Females						
Mean Length	510	435	566	420	598	546
Std. Error	7.29		3.38		11.25	4.61
Sample Size	32	1	59	1	4	97
Minimum	425	435	500	420	580	420
Maximum	580	435	610	420	630	630
Males						
Mean Length	536		573		614	566
Std. Error	7.65		4.39		10.80	4.32
Sample Size	30		58		10	98
Minimum	405		470		575	405
Maximum	630		650		675	675
All						
Mean Length	521	467	569	420	609	555
Std. Error	5.41	32.50	2.78		8.34	3.21
Sample Size	65	2	121	1	14	203
Minimum	405	435	470	420	575	405
Maximum	630	500	650	420	675	675

[a] Length measured mid-eye to fork-of-tail in mm.

Appendix D.16. Estimated length of coho salmon sampled from the Yentna River fishwheel site on the Susitna River, Upper Cook Inlet, Alaska, 1989. Source: D. Vincent-Lang, Alaska Department of Fish and Game, Anchorage, personal communication.

	Age Group					
Sex/Statistic	1.0	1.1	2.1	3.1	4.0	Total
Females						
Mean Length[a]	495	517	549	580		543
Std. Error		3.24	1.70	4.53		1.59
Sample Size	1	209	492	57		759
Minimum	495	400	400	500		400
Maximum	495	605	660	650		660
Males						
Mean Length		504	551	581	325	541
Std. Error		4.05	2.06	4.96	5.00	2.00
Sample Size		205	519	81	3	808
Minimum		375	390	460	320	320
Maximum		635	690	660	335	690
All						
Mean Length	495	511	550	581	325	542
Std. Error		2.61	1.34	3.45	5.00	1.29
Sample Size	1	414	1011	138	3	1567
Minimum	495	375	390	460	320	320
Maximum	495	635	690	660	335	690

[a] Length measured mid-eye to fork-of-tail in mm.

Appendix D.17. Estimated length of coho salmon sampled from the escapement in the Little Susitna River, Upper Cook Inlet, Alaska, 1989. Source: L. Bartlett, Alaska Department of Fish and Game, Palmer, personal communication.

	Age Group	
	1.1	2.1
Females:		
Mean Length[a]	58.3	59.2
Standard Error	2.2	6.9
Sample Size	206	12
Minimum	47.5	54.5
Maximum	65.0	62.0
Males:		
Mean Length	60.4	62.3
Standard Error	2.1	9.1
Sample Size	347	24
Minimum	45.5	49.5
Maximum	68.0	67.0

[a] Length measured mid-eye to fork-of-tail in cm.

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