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ORIGINS OF SOCKEYE SALMON IN THE UPPER COOK INLET FISHERY OF 1981 BASED ON SCALE PATTERN ANALYSIS

By:

Beverly A. Cross
Scott L. Marshall
Glen T. Oliver
Debbie L. Hicks

February 1983

ALASKA DEPARTMENT OF FISH AND GAME
P.O. Box 3-2000, Juneau, Alaska 99802

Don Collinsworth
Acting Commissioner

ADF&G TECHNICAL DATA REPORTS

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Alaska Department of Fish and Game
Division of Commercial Fisheries
Statewide Stock Separation Project
Anchorage, Alaska

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ABSTRACT

Stock composition estimates of the commercial sockeye salmon *(Oncorhynchus nerka)* harvest in Upper Cook Inlet, Alaska were developed by combining results from linear discriminant function analysis of scale patterns and age composition data. Scale samples were collected from the escapements and the commercial catch. The five principal sockeye salmon stocks included in the analysis were as follows: the Susitna River, Kenai River, Kasilof River, Crescent River, and Fish Creek. Growth zones were measured from scales from 5-year-old fish with 1 year freshwater residency. Commercial catch samples were classified to river of origin with stock identification models built from escapement samples. The total return of sockeye salmon to Upper Cook Inlet in 1981 was 2,538,050 fish of which 1,441,874 (56.8%) were commercially harvested and 1,096,188 escaped to spawn. The total returns and exploitation rates for the component stocks were as follows: Susitna River 764,915 (0.555), Kenai River 995,247 (0.590), Kasilof River 587,196 (0.563), Crescent River 62,681 (0.342), and Fish Creek 128,011 (0.606).

INTRODUCTION

The Upper Cook Inlet management area encompasses the marine waters and drainages north of Anchor Point (Figure 1) and is divided into two fishing districts, the Northern and Central. Within the Northern District there are two beach set net fisheries: the Northern District east-side and the Northern District west-side. In the Central District there is a drift net fishery and five set net beach fisheries: Central District west-side, Kalgin Island, Salamatof Beach, Kalifonsky Beach, and Cohoe/Ninilchik Beach.

Commercial harvests of sockeye salmon *(Oncorhynchus nerka)* in Upper Cook Inlet have averaged 1.1 million fish from 1954 through 1980, with a 1981 catch of 1,441,874 fish. Fishing effort totaled 599 drift net permits and 747 set net permits of which in 1981, 576 drift net and 585 set net permits fished. The value to the fishermen of the 1981 sockeye salmon harvest was approximately 11.5 million dollars.

The major producers of sockeye salmon in Upper Cook Inlet are the Kenai, Kasilof, and Susitna Rivers, followed in magnitude by Crescent River and Fish Creek (outlet stream of Big Lake). Numerous other systems are known to produce smaller runs of sockeye salmon including: Lake Creek (outlet stream of Nancy Lake), Cottonwood Creek, Packers Creek, Wolverine Creek (Big River Lakes), and Chakachatna Rivers (Namtvedt et al. 1978; Cook Inlet Aquaculture Association 1981; Mike Joyce, personal communication).

The timing of migration through the fishery of the major sockeye salmon stocks substantially overlap. Consequently the commercial harvest is comprised of differing proportions of fish from each river system. Fisheries management by stock requires a method to estimate the numbers of fish harvested from each river system. Catch stock composition coupled with escapement provides estimates of total return by brood year. Subsequently, total return estimates can be used to model spawner-recruit relationships, estimate optimum escapement, and forecast future run size. Finally, the knowledge of the distribution and relative abundance by stock allows a fishery manager to protect and/or selectively harvest individual stocks.

Stock separation studies were initiated in Upper Cook Inlet in 1977 by the Alaska Department of Fish and Game (ADF&G) and have continued through the present. Investigations have documented the feasibility of using scale pattern recognition techniques as a method of identifying the various sockeye salmon stocks (Cross et al. 1982; Cross et al. 1981; Bethe, Krasnowski, and Marshall 1980; Bethe and Krasnowski 1979). The purpose of this report is to present stock composition estimates of the commercial catch, escapement estimates, and finally to provide estimates of total return by stock to Upper Cook Inlet in 1981.

In the analysis which follows the commercial catch was apportioned into the five principal stocks. There are several other systems which produce smaller runs of sockeye salmon, however, at this time we have insufficient data to permit allocation. Based on units of gear, the Central District drift net

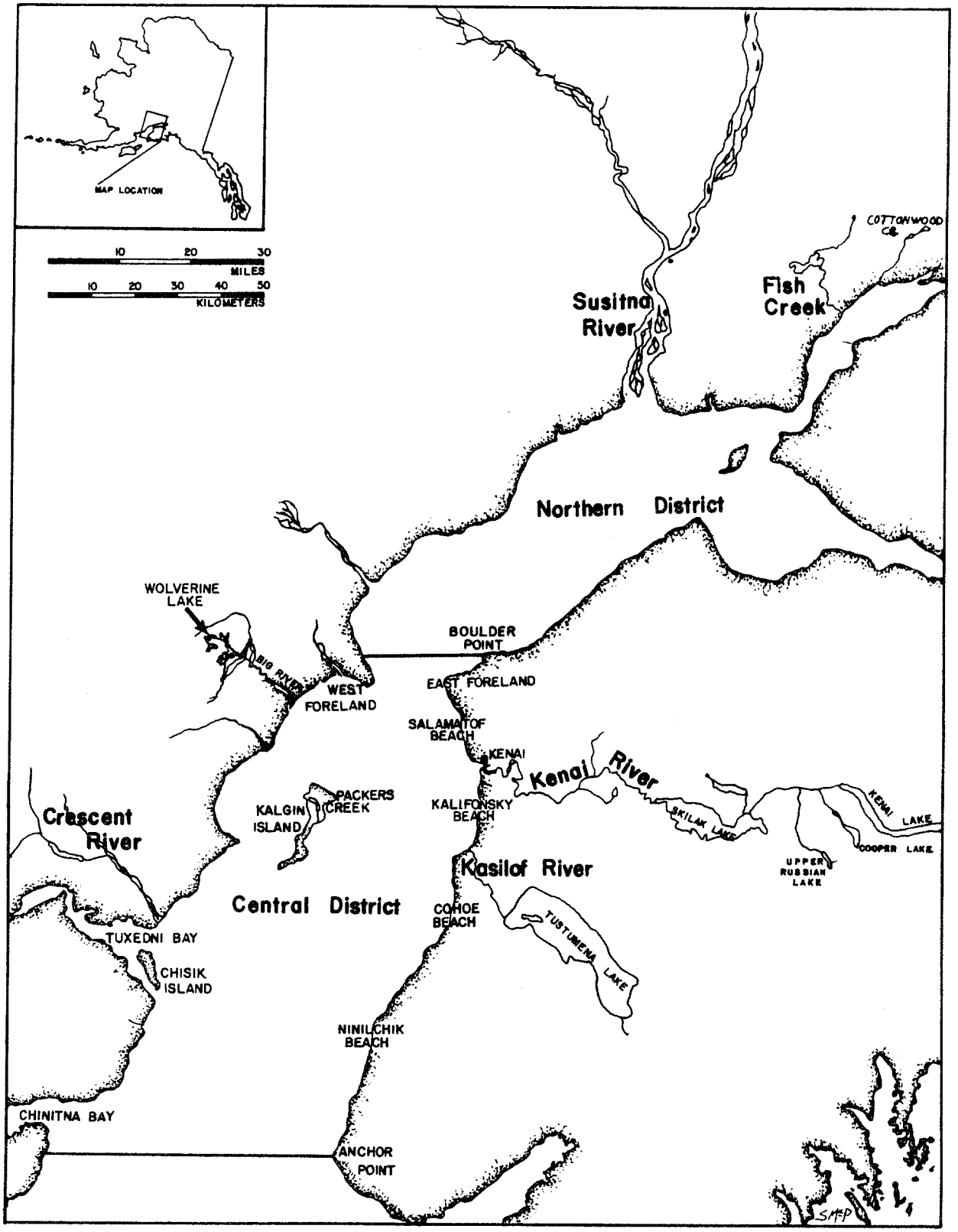

Figure 1. The Upper Cook Inlet area showing the location of the Northern and Central Districts and the major sockeye salmon spawning drainages.

fishery would probably harvest the largest numbers of the minor sockeye salmon stocks. However, in terms of percentage of a fisheries harvest, the minor stocks would probably contribute most significantly to fisheries operating in the proximity to the river of origin. For example, Packers Creek would contribute most significantly to the Kalgin Island set net catch, Cottonwood and Lake Creeks to the Northern District east-side set net catch, and Chakachatna River to the Northern District west-side set net harvest.

METHODS

Numbers of Fish

Estimates of the number of fish in the catch and escapement are prerequisites for the final calculation of total return by stock. Catch statistics are compiled by the State of Alaska's fish ticket program. Escapement enumeration is extremely difficult in Upper Cook Inlet because the major salmon producing systems are glacially occluded. In recent years hydroacoustic techniques have provided estimates of sockeye salmon escapement into the principal systems.

Catch:

Catch statistics reported in this paper represent preliminary figures as of November 1981 which were summarized from fish ticket reports provided to ADF&G by salmon processors. Catch figures are reported in total numbers of sockeye salmon by fishery and date.

Escapement:

Sockeye salmon escapements into the Susitna, Kenai, Kasilof, and Crescent Rivers were enumerated by Bendix side scanning sonar. Two side scanning adult counters (one on each river bank) were employed for each river. Sonar units were operated on the Susitna River from 27 June through 2 September approximately 40 km upstream of the river mouth. Sonar operations on the Kenai River were located 32 km upstream of the river mouth. Two distinct runs of sockeye salmon occur in the Kenai River. The discussion which follows will only report on the more numerous late run which is commercially exploited. The late run of sockeye salmon into the Kenai River was monitored from 22 June through 2 August. On the Kasilof River sonar units were deployed 27 km upstream and the escapement was counted from 14 May through 31 July. Sonar counters were operated on the Crescent River from 1 July through 9 August approximately 32 km upstream from the river mouth. Fishwheel catch data was used to apportion sonar counts for each fish species on the Susitna, Kenai, and Kasilof Rivers. Crescent River sonar counts were not apportioned by species, however, it is believed that counts during that time period represent mostly sockeye salmon (Bruce King, personal communication). Methods used in 1981 for the installation and operation of the sonar counters are described by Bendix Corporation (1980) and Tarbox et al. (1982).

Escapements into Fish Creek and Cottonwood Creek were enumerated by means of adult weirs. The Fish Creek weir was located approximately 10.8 km upstream

of the river mouth and was operated from 9 July through 3 September. The weir on Cottonwood Creek was located 3.2 km upstream of the river mouth and escapement was enumerated from 10 July through 29 August. The design and operation of the Fish Creek and Cottonwood Creek weirs is outlined by Chlupach (1982). Sockeye salmon escapements into Packers Creek and Wolverine Creek were monitored by weirs which were operated by the Cook Inlet Aquaculture Association. Escapement into Packers Creek was counted from 1 June through 31 August. Enumeration of salmon escapement into Wolverine Creek was conducted from 24 June through 5 August. The operation of the Packers Creek and Wolverine Creek weirs is documented by Cook Inlet Aquaculture (1981).

Age Composition

Sockeye salmon ages were determined through examination of scale samples. Scales were collected from the preferred area of the fish which is on the left side of the body two rows above the lateral line in the diagonal scale row downward from the posterior edge of the dorsal fin (INPFC 1963). Scales were mounted on gum cards and impressions made in cellulose acetate (Clutter and Whitesel 1956). Ages were recorded in Gilbert-Rich[1] notation.

Commercial Catch Samples:

Scales were collected from the commercial sockeye salmon catches each fishing period from 26 June through 27 July. After this date, sockeye salmon harvests were small and did not warrant the cost of sampling. We attempted to collect 500-600 scale samples per fishing period from the drift fishery and approximately 200-300 scale samples a period from the remaining fisheries. Sex was recorded for each fish sampled; while length (mid-eye to fork of tail) and weight measurements were taken from a sub-sample of approximately 50 fish each fishery and date. Commercial harvests were sampled after they were delivered to local fish processors, with the exception of Cohoe/Ninilchik Beach set net catches which were sampled directly at the beach.

Age composition estimates were calculated for each fishery by fishing date. For those dates in which scale samples were not taken, the age composition of the nearest date for the same fishery was applied.

Escapement Samples:

Scales were collected from and age composition estimated for sockeye salmon returning to seven river systems in Upper Cook Inlet. Sex, length, and weight measurements were also taken from the fish sampled.

Fish were captured from the Susitna, Kenai, and Kasilof Rivers by fishwheels operated adjacent to the sonar counters on each river. Kenai River sockeye

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[1] Gilbert-Rich Formula: Total years of life at maturity (superscript). Year of life at outmigration from freshwater (subscript).

salmon were also collected with gill nets during the following time period: 23 June through 10 July, 14 July through 18 July, and 27 July. Two 10 fm and one 35 fm 5-1/4" (13.34 cm) mesh gill nets were fished approximately 21 km upstream of the river mouth.

Sockeye salmon returning to Crescent River were captured by gill net, beach seine, and fishwheel. Fish sampled on 21 June were collected with three 35 fm 5-1/4" mesh gill nets fished at the mouth of the river. Samples were taken from 3 June through 6 July by fishing one 21 fm 1/2" to 2-1/2" (1.27 cm to 6.35 cm) variable mesh gill net adjacent to the sonar installation. A beach seine was used to collect samples from 20 July through 29 July and was fished at various points along the lake. Finally, fish were captured from 30 July through 8 August by a fishwheel located near the sonar site.

Sockeye salmon returning to Fish Creek and Cottonwood Creek were collected in a live box at the weir site. Sockeye salmon returning to Packers and Wolverine Creeks were captured with dipnets in the vicinity of the weir sites.

The number and periodicity of scale samples collected from each river varied. On the Susitna, Kenai, Kasilof River, and Fish and Cottonwood Creeks we attempted to sample fish throughout the entire run and in proportion to the strength of the escapement. Samples from Packers and Wolverine Creeks were collected at irregular intervals throughout each run.

Age composition estimates for the Susitna, Kenai, Kasilof, Crescent Rivers, and Fish Creek were calculated by time period. The dates included in each time period differed between rivers, but basically represented the early, middle, and late segments of runs.

Daily age class proportions from each river were grouped by time periods and weighted by the numbers of fish counted during that time period. Age class proportions for Cottonwood, Packers, and Wolverine Creeks were not weighted through time, rather a total season age composition estimate was computed.

Stock Identification

The stock composition of the sockeye salmon harvest was estimated through linear discriminant function analysis of scale patterns and age composition information. In this section below we explain the specific techniques used.

Scale Measurements:

Scale impressions were projected at 100x magnification using equipment similar to that described by Bilton (1970) and later modified by Ryan and Christie (1976). Growth zones were measured from the scale image via a microcomputer digitizing system developed by H&A Computer Services and ADF&G. The digitizing system consists of the following components: Vector Graphic System B microcomputer, two Micropolis 5-1/4" (13.335 cm) floppy diskette drives, Talos digitizing tablet and cursor, Hazeltine 1510 CRT terminal, custom circuitry to interface digitizer tablet and the microcomputer, and a FORTRAN program which controls data input. Measurements were taken along a standardized axis which

is approximately 20° off the primary axis and perpendicular to the sculptured field.

Because of the dominance of age 5_2 fish in the total catch and escapement we only measured scale patterns from that age class. The variables measured from the scale images included circuli counts and interval distances of the summer and winter growth zones for years one through four and the plus growth zone. Initial analysis of the measured variables suggested that dividing the annular growth zone into summer and winter did not provide increase separation between river systems. For the final analysis summer and winter measurements were combined and the number of circuli and interval distances were calculated for the total growth in years one through three, for the summer growth in year four, and for the plus growth. An age 5_2 scale showing the variables entered into the final discriminant analysis procedure is diagrammed in Figure 2.

Discriminant Function Analysis:

Linear discriminant function analysis (Fisher 1936; Dixon and Brown 1979) of scale measurements was used to identify the origin of sockeye salmon harvested by the commercial fisheries. Stepwise discriminant function analysis was used with the F level for inclusion set at 4. Whichever variables were accepted by stepwise procedure were used in the analysis.

Scale measurements from fish of known origin sampled from the escapements were used as standards to build the classification models, i.e., the discriminant functions. The jackknife procedure in the stepwise discriminant analysis program provided by Dixon and Brown (1979) was used to estimate accuracy of the classification models. This procedure allows you to test the classification model with the same samples used to build the model by eliminating each case in turn from the computations before it is classified. The result is a jackknifed classification matrix which is an unbiased estimate of classification accuracy.

Scale measurements from fish of unknown origin, i.e., commercial catch samples, were classified and stock composition estimates of each catch estimated. Stock estimates were then corrected for misclassification error rates using the procedures of Cook and Lord (1978). The variance and 90% confidence intervals were computed using the method of Pella and Robertson (1979).

Analysis of variance of scale measurements showed that the scale patterns within Susitna, Kenai, Kasilof, and Crescent Rivers were changing through time. Consequently classification models were constructed through time, i.e., early and late classification models were built. A five-way stock identification model was constructed from age 5_2 scale measurements representing the early segments of the escapements into Susitna, Kenai, Kasilof, and Crescent Rivers, and the total escapement into Fish Creek. The dates of the samples included in the early stock identification model included: 28 June through 12 July for Susitna River, 23 June through 10 July for Kenai River, 20 June through 8 July for Kasilof River, 21 June through 24 July for Crescent River, and 11 July through 12 August for Fish Creek. Scale measurements representing the late segments of the escapements were used to build a second five-way stock identification model. The dates of samples included in the late stock identification model included:

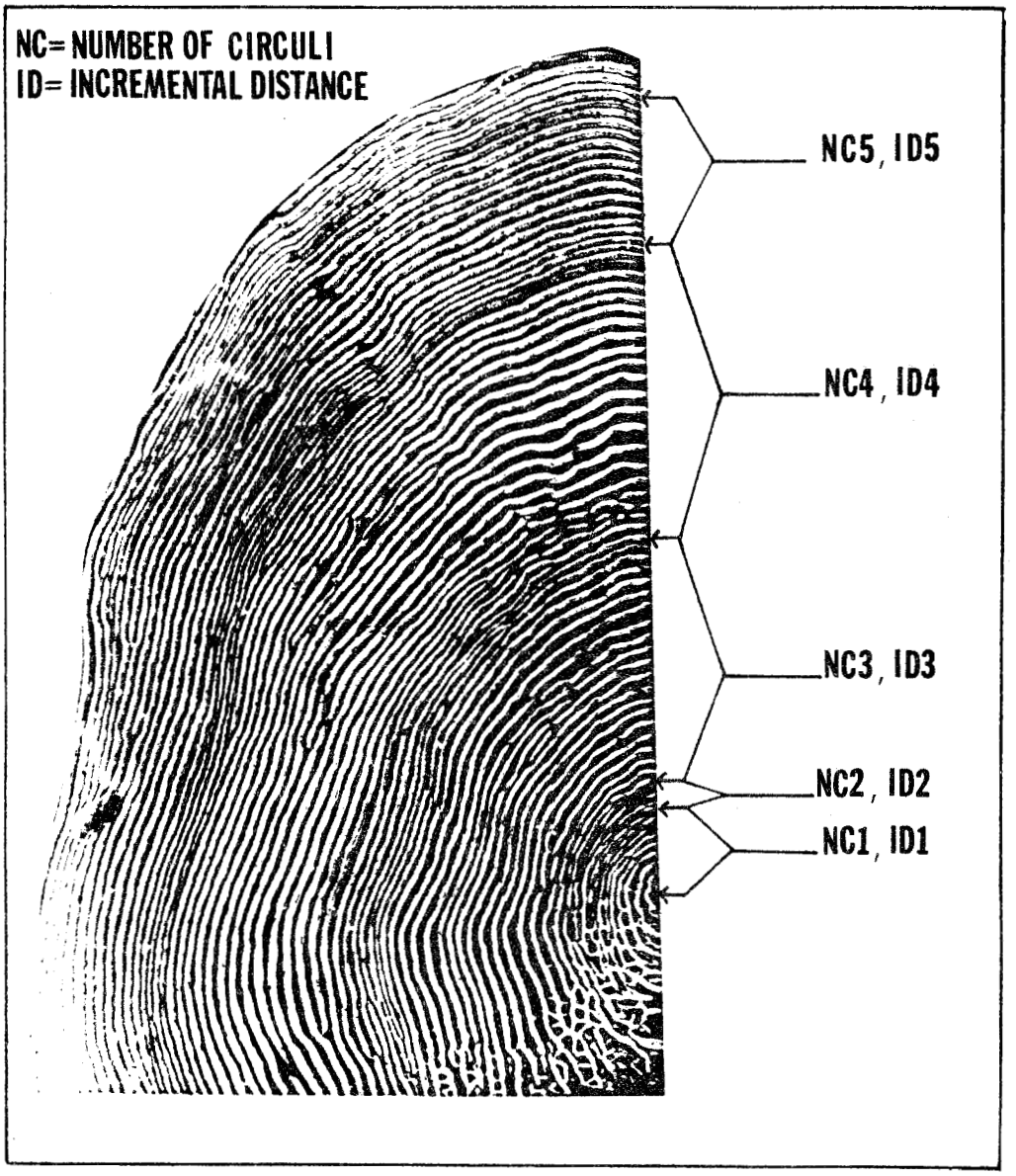

Figure 2. Age 5_2 sockeye salmon scale showing scale characteristics used in discriminant analysis.

13 July through 31 July for Susitna River, 11 July through 27 July for Kenai River, 9 July through 23 July for Kasilof River, 25 July through 10 August for Crescent River, and 11 July through 12 August for Fish Creek.

Scale samples from commercial catches prior to 10 July were classified to river of origin with the early stock identification models; while samples representing commercial catches made on or after 10 July were classified with the late stock identification model.

Central District drift catch samples and Kalgin Island set net catches were classified with the five-way stock identification model which included all five rivers. Catch samples from the east-side beaches (Salamatof, Kalifonsky, Cohoe/Ninilchik) were classified with a four-way stock identification model which included all the rivers except Crescent River. Northern District set net catch samples were classified with a three-way stock identification model representing Susitna River, Kenai River, and Fish Creek. Central District west-side set net catch samples were classified with a four-way model comprised of Susitna, Kenai, Kasilof, and Crescent Rivers. When a corrected proportional estimate for a particular sample yielded an estimate for a stock which was less than or equal to zero, the sample was reanalyzed with a model which did not include that stock.

Stock estimates for the Central District drift fishery were calculated for individual catch dates. For the remaining fisheries, stock estimates were developed for individual catch dates if harvests were relatively large ($\geq$ 8,000). Samples from smaller catches were combined across contiguous fishing periods and one age 5_2 stock estimate for the pooled time period was computed.

Catch Apportionment

The total Upper Cook Inlet commercial sockeye salmon catch was apportioned by age class and river system. Catch apportionment figures were calculated using a combination of scale pattern analysis and age composition techniques. The proportions by river system of age 5_2 fish harvested in Upper Cook Inlet were estimated through scale pattern analyses. Allocation by stock for the other age classes was based upon 5_2 stock estimates and the ratios of the proportion of each age class to the 5_2 age class from the respective escapements. An age 5_2 stock estimate for a given catch was expanded to estimate the stock proportion for another age class using the following formula:

$$\hat{S}_{ij} = \frac{(\hat{P}_{i5_2})\ (\hat{A}_{ij} / \hat{A}_{i5_2})}{\sum_{i=1}^{N} (\hat{P}_{i5_2})\ (\hat{A}_{ij} / \hat{A}_{i5_2})}$$

Where:

$\hat{S}_{ij}$ = Estimated proportion of stock i in the harvest of age j.

$\hat{P}_{i5_2}$ = Estimated proportion of stock i in the harvest of age 5_2 fish.

$\hat{A}_{ij}$ = Estimated proportion of age j fish in stock i's escapement.

$\hat{A}_{i5_2}$ = Estimated proportion of age 5_2 fish in stock i's escapement.

N = Number of stocks.

Migration times were added to catch dates when calculating age class ratios in the rivers so that the escapement age composition would best represent the population of fish being harvested earlier by the fishery. The age class ratios applied to a specific catch on date k equaled the proportion of age classes observed in the river on date k plus migration time. The estimated numbers of days from the fisheries to each river's counting site in 1981 are: Susitna 6 days, Kenai 3 days, Kasilof 4 days, Crescent 9 days, and Fish Creek 7 days (Ken Tarbox, Dave Waltemyer, personal communication).

As stated earlier the catch was only apportioned into the five principal stocks. Although at this time, we do not have sufficient data to allocate specific catches to the minor stocks, we can make an estimate of their potential contributions. The harvests of Packers Creek, Cottonwood Creek, and Wolverine Creek stocks were estimated by expanding their escapements by the average escapement rates for the major stocks. Commercial harvests of the minor stocks were calculated using the following formula:

$$\hat{C}_{ij} = [\hat{E}_{ij}/(1.0-\hat{r}_j)] - \hat{E}_{ij}$$

Where:

$\hat{C}_{ij}$ = Estimated numbers of fish harvested of stock i age class j.

$\hat{E}_{ij}$ = Estimated numbers of fish escaping of stock i age class j.

$\hat{r}_j$ = Estimated average exploitation rate of Susitna, Kenai, Kasilof, Crescent Rivers, and Fish Creek stocks age class j.

The minor stocks potential contributions to the total commercial harvests were estimated for the readers edification. Presently we can not identify specifically when and where those stocks were harvested, therefore, their contributions were not subtracted from the total catch allocation.

Total Return

Total return by day was calculated by adding catch by river system to the escapement estimate. Migration time was incorporated by adjusting catch dates to correspond with escapement dates.

RESULTS

Number of Fish

The commercial sockeye salmon catch by fishery and the escapement to each river is summarized in this section. The reader should remain cognizant that in this report we only allocate the commercial harvest to the principal runs of sockeye salmon. Allocation of minor stock to specific harvests is not possible at this time, although we do estimate the potential contribution of the minor stocks.

Catch:

The 1981 Upper Cook Inlet commercial sockeye harvest was 1,441,874 fish (Table 1). The Central District drift harvested 633,054 fish which represented 43.9% of the area's catch; while the Central District east-side beaches (Kalgin Island and Salamatof, Kalifonsky, and Cohoe/Ninilchik) caught 494,812 fish or 34.3% of the total catch.

The Northern District fisheries harvested 17.3% (249,468) of the total catch and the remaining 4.5% (64,540) were taken by the Central District west-side and Kalgin Island fisheries. The largest catches were made during a 2 week period of 6 July through 19 July.

Escapement:

In excess of 1 million sockeye salmon escaped the Upper Cook Inlet fisheries and returned to the major rivers to spawn. The largest escapement of sockeye salmon (407,639) occurred in the Kenai River (Table 2) followed in magnitude by the Susitna (340,232), Kasilof (256,625), Fish Creek (50,479), and Crescent River (41,213). Other river systems, also shown in Table 2, in which substantial numbers of sockeye salmon returned to spawn included: Cottonwood Creek (25,180), Wolverine Creek (17,522), and Packers Creek (13,024). Kasilof River escapement peaked the earliest and appeared to have two distinct peaks of 28 June through 1 July and 9 July through 15 July. The bimodal distribution of the Kasilof escapement is thought to be an artifact of the commercial fishery being open for eight consecutive days on the lower beaches. Sockeye salmon escapement into the Crescent River peaked the latest (19 July through 25 July). Sockeye salmon escapement timing on the Susitna River and Fish Creek were similar and both peaked from 12 July through 21 July. Kenai River sockeye salmon escapement was fairly protracted and high numbers were counted from 9 July through 21 July.

Age Composition

Age 5_2 fish were dominant throughout the catch and escapements. However, significant differences in age composition did exist between rivers, between harvests, and through time. Close review of the age composition has often assisted in understanding trends in the stock composition of the catch during the fishing season.

Table 1. Sockeye salmon commercial catch in numbers of fish by fishery and date, Upper Cook Inlet, 1981[1].

Date	Northern Dist East-side Set	Northern Dist West-side Set	Central Dist Drift	Central Dist West-side Set	Kalgin Island Set	Salamatof Beach Set	Kalifonsky Beach Set	Cohoe/Nilnilchik Beach Set	Total
6/19	Closed	Closed	Closed	1,342	Closed	Closed	Closed	Closed	1,342
6/22	Closed	Closed	Closed	2,469	Closed	Closed	Closed	Closed	2,469
6/24	Closed	Closed	Closed	1,953	Closed	Closed	Closed	Closed	1,953
6/26	1,157	508	14,317	1,731	1,630	2,981	5,643	19,066	47,033
6/27	Closed	Closed	5,185	Closed	Closed	Closed	1,494	10,889	17,568
6/28	Closed	Closed	2,827	Closed	Closed	Closed	6,260	17,404	26,491
6/29	2,579	1,503	10,933	1,161	1,019	2,553	4,381	6,566	30,695
6/30	Closed	Closed	2,732	Closed	Closed	Closed	3,370	14,780	20,882
7/01	Closed	Closed	6,527	Closed	Closed	Closed	2,368	5,369	14,264
7/02	Closed	Closed	4,648	Closed	Closed	Closed	818	5,701	11,167
7/03	220	1,195	57,662	5,440	569	85	323	5,315	70,809
7/06	2,688	10,206	74,575	1,251	763	2,870	4,966	11,472	108,791
7/09	Closed	Closed	Closed	Closed	Closed	Closed	Closed	46,725	46,725
7/10	30,883	51,175	129,934	3,984	3,069	37,533	10,348	42,291	309,217
7/12	14,647	31,290	118,185	404	6,378	26,895	16,428	15,486	229,713
7/14	13,729	16,541	102,833	67	3,772	20,884	9,155	12,153	179,134
7/17	6,623	2,019	Closed	Closed	Closed	Closed	Closed	Closed	8,642
7/19	6,031	18,122	30,553	3,088	3,571	27,844	16,080	21,247	126,536
7/20	10,018	8,303	Closed	Closed	Closed	Closed	Closed	Closed	18,321
7/21	2,033	Closed	32,728	Closed	3,791	8,151	6,326	9,530	62,559
7/22	Closed	Closed	Closed	Closed	Closed	797	404	61	1,262
7/24	2,266	3,073	17,772	1,664	1,577	2,575	2,729	3,229	34,885
7/27	2,591	2,359	9,898	1,822	2,438	3,038	1,902	2,186	26,234
7/29	1,099	3,043	4,594	833	1,841	2,631	918	1,356	16,315
7/31	657	485	3,872	355	1,230	1,564	1,108	1,752	11,023
8/03	828	800	2,088	463	1,772	1,757	891	1,206	9,805
8/07	53	134	676	287	1,186	421	452	471	3,680
8/10	209	124	280	32	448	374	225	584	2,276
8/12	Closed	Closed	138	153	Closed	Closed	Closed	Closed	291
8/14	210	2	55	47	186	308	55	68	931
8/17	35	1	24	70	234	Closed	Closed	Closed	364
8/21	0	6	1	2	202	Closed	Closed	Closed	211
8/24	14	0	6	17	99	Closed	Closed	Closed	136
8/28	8	0	4	3	81	Closed	Closed	Closed	96
8/31	1	0	2	1	41	Closed	Closed	Closed	45
9/04	Closed	Closed	0	0	3	Closed	Closed	Closed	3
9/07	Closed	Closed	5	1	0	Closed	Closed	Closed	6
Total	98,579	150,889	633,054	28,640	35,900	143,261	96,644	254,907	1,441,874

[1] Catch figures are preliminary data.

Table 2. Sockeye salmon escapement by date and system, Upper Cook Inlet, 1981[1].

	Susitna		Kenai		Kasilof		Crescent	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
Prior								
6/22						29,194		
6/22			253	253	4,958	34,152		
6/23			316	569	7,458	41,610		
6/24			329	898	8,519	50,129		
6/25			389	1,287	7,074	57,203		
6/26			507	1,794	9,707	66,910		
6/27	106	106	614	2,408	7,001	73,911		
6/28	104	210	501	2,909	13,903	87,814		
6/29	398	608	534	3,443	12,033	99,847		
6/30	476	1,084	313	3,756	12,467	112,314		
7/01	637	1,721	405	4,161	16,068	128,382		
7/02	1,946	3,667	552	4,713	2,965	131,347	476	476
7/03	1,140	4,807	255	4,968	2,494	133,841	1,024	1,500
7/04	551	5,358	142	5,110	1,825	135,666	1,014	2,514
7/05	469	5,827	281	5,391	1,468	137,134	908	3,422
7/06	447	6,274	333	5,724	2,331	139,465	566	3,988
7/07	358	6,632	744	6,468	1,918	141,383	850	4,838
7/08	390	7,022	1,013	7,481	2,861	144,244	1,309	6,147
7/09	1,553	8,575	18,597	26,078	10,707	154,951	713	6,860
7/10	6,349	14,924	49,646	75,724	11,639	166,590	550	7,410
7/11	13,368	28,292	31,063	106,787	7,059	173,649	561	7,971
7/12	16,245	44,537	42,262	149,049	8,946	182,595	366	8,337
7/13	21,360	65,897	39,623	188,672	8,938	191,533	516	8,853
7/14	32,250	98,147	20,097	208,769	12,933	204,466	796	9,649
7/15	33,525	131,672	14,929	223,698	10,552	215,018	1,313	10,962
7/16	27,083	158,755	4,344	228,042	6,520	221,538	1,839	12,801
7/17	19,462	178,217	5,290	233,332	3,605	225,143	1,496	14,297
7/18	15,644	193,861	13,316	246,648	3,502	228,645	1,613	15,910
7/19	14,149	208,010	25,315	271,963	3,264	231,909	1,986	17,896
7/20	15,086	223,096	32,636	304,599	4,649	236,558	2,418	20,314
7/21	23,581	246,677	22,882	327,481	3,542	240,100	2,369	22,683
7/22	11,219	257,896	12,974	340,455	1,702	241,802	2,213	24,896
7/23	13,064	270,960	5,165	345,620	1,153	242,955	2,114	27,010
7/24	11,368	282,328	6,685	352,305	1,230	244,185	1,946	28,956
7/25	8,480	290,808	4,728	357,033	680	244,865	996	29,952
7/26	6,661	297,469	7,398	364,431	683	245,548	570	30,522
7/27	8,015	305,484	7,103	371,534	634	246,182	782	31,304
7/28	7,021	312,505	3,922	375,456	633	246,815	684	31,988
7/29	4,400	316,905	4,534	379,990	310	247,125	904	32,892
7/30	3,409	320,314	3,217	383,207	357	247,482	946	33,838
7/31	3,223	323,537	3,316	386,523	469	247,951	634	34,472
8/01	1,905	325,442	2,702	389,225			449	34,921
8/02	1,235	326,677	3,739	392,964			759	35,680
8/03	840	327,517					818	36,498
8/04	1,383	328,900					652	37,150
8/05	1,905	330,805					703	37,853
8/06	1,127	331,932					660	38,513
8/07	1,095	333,027					590	39,103
8/08	730	333,757					639	39,742
8/09	344	334,101					377	40,119
8/10	248	334,349						
8/11	339	334,688						
8/12	316	335,004						
8/13	334	335,338						
8/14	245	335,583						
8/15	234	335,817						
8/16	228	336,045						
8/17	199	336,244						
8/18	278	336,552						
8/19	868	337,390						
8/20	655	338,045						
8/21	670	338,715						
8/22	374	339,089						
8/23	345	339,434						
8/24	386	339,820						
8/25	275	340,095						
8/26	37	340,132						
8/27	26	340,158						
8/28	24	340,182						
8/29	19	340,201						
8/30	9	340,210						
8/31	9	340,219						
9/01	6	340,225						
9/02	7	340,232						
Total		340,232		407,639		256,625		41,213

-Continued-

Table 2. Sockeye salmon escapement by date and system, Upper Cook Inlet, 1981[1] (continued).

	Fish		Cottonwood		Packers		Wolverine	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
Prior								
6/22						1,695		
6/22					32	1,727		
6/23					5	1,732		
6/24					157	1,889	13	13
6/25					195	2,084	736	749
6/26					178	2,262	76	825
6/27					188	2,450	460	1,285
6/28					122	2,572	187	1,472
6/29					109	2,681	151	1,623
6/30					132	2,813	0	1,623
7/01					55	2,868	126	1,749
7/02					40	2,908	738	2,487
7/03					161	3,069	-40 [2]	2,447
7/04					6	3,075	743	3,190
7/05					0	3,075	307	3,497
7/06					0	3,075	478	3,975
7/07					0	3,075	378	4,353
7/08					0	3,075	728	5,081
7/09	9	409 [3]			0	3,075	668	5,749
7/10	223	632	21	21	4	3,079	333	6,082
7/11	1,397	2,029	5	26	71	3,150	953	7,035
7/12	3,541	5,570	56	82	34	3,184	535	7,570
7/13	1,836	7,406	62	144	329	3,513	942	8,512
7/14	5,523	12,929	31	175	39	3,552	748	9,260
7/15	7,300	20,229	208	383	72	3,624	941	10,201
7/16	5,570	25,799	453	836	201	3,825	1,120	11,321
7/17	2,933	28,732	233	1,069	756	4,581	656	11,977
7/18	3,080	31,812	16	1,085	953	5,534	52	12,029
7/19	3,602	35,414	145	1,230	1,803	7,337	1,214	13,243
7/20	2,365	37,779	158	1,388	1,092	8,429	-9 [2]	13,234
7/21	1,734	39,513	329	1,717	366	8,795	746	13,980
7/22	1,945	41,458	425	2,142	3	8,798	0	13,980
7/23	457	41,915	964	3,106	1	8,799	0	13,980
7/24	876	42,791	1,498	4,604	79	8,878	0	13,980
7/25	1,168	43,959	1,571	6,175	512	9,390	1,624	15,604
7/26	1,327	45,286	1,415	7,590	193	9,583	-2 [2]	15,602
7/27	148	45,434	2,617	10,207	53	9,636	1,007	16,609
7/28	1,567	47,001	1,819	12,026	656	10,292	437	17,046
7/29	193	47,194	2,301	14,327	423	10,715	0	17,046
7/30	1,651	48,845	1,781	16,108	215	10,930	-3 [2]	17,043
7/31	432	49,277	765	16,873	79	11,009	1	17,044
8/01	343	49,620	148	17,021	17	11,026	97	17,141
8/02	114	49,734	317	17,338	0	11,026	232	17,373
8/03	135	49,869	428	17,766	4	11,030	99	17,472
8/04	98	49,967	498	18,264	2	11,032	50	17,522
8/05	14	49,981	718	18,982	5	11,037		
8/06	38	50,019	1,629	20,611	15	11,052		
8/07	72	50,091	1,786	22,397	11	11,063		
8/08	27	50,118	625	23,022	101	11,164		
8/09	175	50,293	645	23,667	154	11,318		
8/10	52	50,345	686	24,353	13	11,331		
8/11	27	50,372	202	24,555	395	11,726		
8/12	22	50,394	228	24,783	476	12,202		
8/13	28	50,422	157	24,940	149	12,351		
8/14	9	50,431	23	24,963	107	12,458		
8/15	2	50,433	15	24,978	86	12,544		
8/16	7	50,440	30	25,008	138	12,682		
8/17	6	50,446	22	25,030	74	12,756		
8/18	4	50,450	10	25,040	33	12,789		
8/19	6	50,456	29	25,069	3	12,792		
8/20	1	50,457	26	25,095	47	12,839		
8/21	2	50,459	9	25,104	74	12,913		
8/22	3	50,462	13	25,117	29	12,942		
8/23	0	50,462	11	25,128	18	12,960		
8/24	0	50,462	12	25,140	18	12,978		
8/25	2	50,464	18	25,158	0	12,978		
8/26	5	50,469	11	25,169	6	12,984		
8/27	0	50,469	8	25,177	16	13,000		
8/28	0	50,469	2	25,179	7	13,007		
8/29	0	50,469	1	25,180	6	13,013		
8/30	1	50,470			8	13,021		
8/31	2	50,472			3	13,024		
9/01	4	50,476						
9/02	1	50,477						
9/03	2	50,479						
Total		50,479		25,180		13,024		17,522

-Continued-

Table 2. Sockeye salmon escapement by date and system, Upper Cook Inlet, 1981[1] (continued).

[1] Susitna, Kenai, and Kasilof Rivers' escapement figures represent final apportioned sonar counts. Crescent River's escapement figures represent final sonar counts not apportioned by fish species. Sockeye salmon runs into the Kenai, Kasilof, and Crescent Rivers were not over before sonar operations ended. The number of fish which entered those rivers after sonar enumeration stopped were estimated and added to the cumulative sonar count to estimate total escapement.

[2] Negative counts were recorded on Wolverine Creek because fish were observed swimming downstream back through the opened weir.

[3] An estimated 400 fish were upstream of the weir prior to operation.

Escapement Samples:

The sex and age composition of samples collected from the Susitna, Kenai, Kasilof, and Crescent Rivers, and Fish Creek are reported by date in Tables 3-7. Numbers of fish by age class and time period are presented by river system in Table 8.

Age 5_2 fish predominated in the escapements of the Susitna, Kenai, and Kasilof Rivers comprising 83.0%, 70.9%, and 62.2%, respectively (Table 8). Age 4_2 fish were most abundant in Fish Creek (61.0%), Cottonwood Creek (66.3%), and Packers Creek (55.6%). In the Crescent River age 6_3 fish (49.9%) were most numerous; while age 5_3 fish (65.6%) predominated in Wolverine Creek.

Age 4_2 fish increased through time in the Kenai and Kasilof Rivers. This trend was most notable on the Kasilof River where the percentage of age 4_2 fish ranged from 1.7% to 76.5%.

Commercial Catch Samples:

The age and sex composition of the commercial catch is presented by fishery and date in Tables 9-16. Age composition were similar for the Central District drift catch (age 4_2 12.6% and age 5_2 77.4%), the Northern District west-side harvest (age 4_2 13.6% and age 5_2 76.4%) and the Salamatof Beach catch (age 4_2 13.7% and age 5_2 75.9%). Substantially more age 4_2 fish were harvested by the Northern District east-side fishery (age 4_2 25.7% and age 5_2 61.0%), Kalifonsky Beach fishery (age 4_2 24.0% and age 5_2 67.2%), and Cohoe/Ninilchik Beach fishery (age 4_2 23.6% and age 5_2 63.6%). Significant numbers of age 6_3 fish (25.9%) were harvested by the Central District west-side; while Kalgin Island set nets caught appreciable numbers of age 5_3 (14.3%) and age 6_3 (14.2%) fish. In summary, (Table 17) the majority of fish harvested in Upper Cook Inlet were age 5_2 fish (71.7%) followed in abundance by age 4_2 (16.7%), age 5_3 (6.6%) and age 6_3 (4.9%).

Stock Identification

The pertinent data used to develop the final stock contribution estimates are presented in this section. The estimates of classification accuracy and the confidence intervals associated with age specific stock estimates are of particular importance because they are indicators of the power of the analyses.

Summary Statistics for Scale Variables:

Summary statistics for age 5_2 scale variables used in the discriminant analysis procedure are presented in Table 18. Statistics were computed from samples representing early and late segments of the escapements into the Susitna, Kenai, Kasilof, and Crescent Rivers, and the total escapement into Fish Creek. The variables which provided the greatest discriminatory power between stocks included the first year in freshwater (NC1, ID1) and the summer growth zone of the fourth year (NC5, ID5).

Table 3. Age and sex composition of sockeye salmon sampled from the Susitna River, Upper Cook Inlet[1].

	4 2			5 2			5 3			6 3			Other [2]			Total		
Date	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
6/28		1	1	3	2	5					1	1				3	4	7
6/29		1	1	13	17	30					1	1				13	19	32
6/30	3		3	20	37	57				1	1	2				24	38	62
7/01				10	26	36				2		2				12	26	38
7/02	3	4	7	38	47	85	2		2	2	5	7	1	1	2	46	57	103
7/03	5	1	6	23	51	74		2	2		4	4				28	58	86
7/04	5	1	6	23	35	58		1	1							28	37	65
7/05	1	1	2	7	14	21		2	2							8	17	25
7/06	1		1	4	5	9		1	1							5	6	11
7/07	2	1	3	3	12	15	1		1		1	1				6	14	20
7/08	2		2	7	20	27	1	1	2	1	2	3				11	23	34
7/09	1	1	2	10	19	29		1	1		1	1				11	22	33
7/10	4		4	25	27	52	1	1	2	2	4	6				32	32	64
6/28-7/10																		
Numbers	27	11	38	186	312	498	5	9	14	8	20	28	1	1	2	227	353	580
Percent	4.6	1.9	6.5	32.1	53.8	85.9	0.9	1.5	2.4	1.4	3.4	4.8	0.2	0.2	0.4	39.0	61.0	100.0
7/11		3	3	29	26	55		1	1	4	3	7				33	33	66
7/12	2	2	4	35	24	59	1	2	3	2	1	3				40	29	69
7/13	2	1	3	44	50	94		1	1	2		2				48	52	100
7/14	3	1	4	86	90	176	1	2	3	3	4	7				93	97	190
7/15	2	1	3	54	76	130	3	3	6	11	17	28				70	97	167
7/16	1	1	2	43	49	92	1	1	2	1	4	5				46	55	101
7/17	3		3	33	42	75	1		1	2	4	6				39	46	85
7/18	9	2	11	50	58	108		1	1		3	3		1	1	59	64	123
7/19	7	5	12	33	51	84	1	4	5							41	60	101
7/20	2	2	4	18	13	31	1		1		1	1				21	16	37
7/11-7/20																		
Numbers	31	18	49	425	479	904	9	15	24	25	37	62		1	1	490	549	1,039
Percent	3.0	1.7	4.7	40.9	46.1	87.0	0.9	1.4	2.3	2.3	3.6	5.9		0.1	0.1	47.2	52.8	100.0

-Continued-

Table 3. Age and sex composition of sockeye salmon sampled from the Susitna River, Upper Cook Inlet[1] (continued).

	4_2			5_2			5_3			6_3			Other[2]			Total		
Date	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
7/21	14	6	20	66	59	125	5	4	9		2	2				85	71	156
7/22	4	1	5	16	15	31		1	1							20	17	37
7/23	5	4	9	11	14	25	1	2	3		1	1				17	21	38
7/24	4	2	6	15	17	32										19	19	38
7/25	8	2	10	16	11	27							2		2	26	13	39
7/26	5	2	7	19	10	29		1	1							24	13	37
7/27	4	4	8	9	10	19							1		1	14	14	28
7/28	4	6	10	18	10	28										22	16	38
7/29	2	1	3	6	7	13	2	4	6							10	12	22
7/30		1	1	14	10	24										14	11	25
7/31	8	1	9										1	1	2	9	2	11
8/02				7	4	11										7	4	11
8/03				3	3	6										3	3	6
8/04	1		1	11	6	17	1		1		1	1				13	7	20
8/05	3	1	4	9	5	14		2	2							12	8	20
8/06	1	3	4	8	7	15				1		1				10	10	20
8/07	2		2	6	6	12		2	2	2		2				10	8	18
8/08				1	7	8					1	1				1	8	9
8/09		2	2	4	5	9		1	1	2		2				6	8	14
8/10		1	1	2	5	7										2	6	8
8/11-8/29				9	3	12		1	1	1	1	2	4	0	4	14	5	19
7/21-8/29																		
Numbers	65	37	102	250	214	464	9	18	27	6	6	12	8	1	9	338	276	614
Percent	10.6	6.0	16.6	40.7	34.8	75.5	1.5	2.9	4.4	1.0	1.0	2.0	1.3	0.2	1.5	55.1	44.9	100.0

[1] Sockeye salmon sampled by fishwheel.

[2] The "other" age class is comprised of 3_2 (83.3%) and 6_2 (16.7%).

Table 4. Age and sex composition of sockeye salmon sampled from the Kenai River, Upper Cook Inlet, 1981[1].

	4 2			5 2			5 3			6 3			Total		
Date	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
6/23				3	5	8	1	2	3	1	1	2	5	8	13
6/24	2		2	11	8	19	1	2	3	1		1	15	10	25
6/25				8	7	15							8	7	15
6/27				10	13	23		4	4		2	2	10	19	29
6/28		1	1	13	27	40	2	2	4	1	5	6	16	35	51
6/30	4	1	5	6	16	22	1	2	3		1	1	11	20	31
7/01	3		3	7	23	30		3	3	1		1	11	26	37
7/02	3		3	9	8	17	3		3				15	8	23
7/03		1	1	3	4	7		1	1	1		1	4	6	10
7/05		2	2	7	13	20	5	2	7	1		1	13	17	30
7/06	5	3	8	27	50	77	1	1	2	2	5	7	35	59	94
7/07	2	1	3	8	29	37	1		1	2	2	4	13	32	45
7/09	6	2	8	25	34	59	1	4	5	4	3	7	36	43	79
6/23-7/09															
Numbers	25	11	36	137	237	374	16	23	39	14	19	33	192	290	482
Percent	5.2	2.3	7.5	28.4	49.2	77.6	3.3	4.8	8.1	2.9	3.9	6.8	39.8	60.2	100.0
7/10	11	7	18	51	96	147	6	10	16	14	8	22	82	121	203
7/11	12	13	25	15	21	36	1	3	4	2	3	5	30	40	70
7/12	16	13	29	36	46	82	1	7	8	3	9	12	56	75	131
7/13	2	5	7	29	48	77	3	2	5		3	3	34	58	92
7/14	7	5	12	44	79	123	10	7	17	6	3	9	67	94	161
7/15	8	4	12	32	25	57	8	4	12	2	1	3	50	34	84
7/16	2	7	9	21	23	44	1	3	4		1	1	24	34	58
7/17	8	3	11	19	29	48	4		4	1	1	2	32	33	65
7/18	7	7	14	20	48	68	2	3	5	2	3	5	31	61	92
7/19	4	5	9	31	24	55	5	3	8	1	1	2	41	33	74
7/20	18	7	25	31	31	62	2	4	6				51	42	93
7/10-7/20															
Numbers	95	76	171	329	470	799	43	46	89	31	33	64	498	625	1,123
Percent	8.4	6.8	15.2	29.3	41.9	71.2	3.8	4.1	7.9	2.8	2.9	5.7	44.3	55.7	100.0
7/21	7	4	11	9	28	37	3		3				19	32	51
7/22		1	1	1	6	7	1	2	3				2	9	11
7/23	2	3	5	5	6	11	2	2	4				9	11	20
7/24				2	2	4					1	1	2	3	5
7/26	4	1	5	4	1	5							8	2	10
7/27	6	4	10	12	28	40		3	3	2		2	20	35	55
7/21-7/27															
Numbers	19	13	32	33	71	104	6	7	13	2	1	3	60	92	152
Percent	12.5	8.6	21.1	21.7	46.7	68.4	3.9	4.6	8.5	1.3	0.7	2.0	39.5	60.5	100.0

[1] Scale samples reported for 6/23-7/07, 7/14-7/14 were collected with gill nets.

Scale samples reported for 7/11-7/13, 7/19-7/26 were collected with fishwheels.

Scale samples reported for 7/09-7/10, 7/18 and 7/27 are mixed samples collected from gill nets and fishwheels.

Table 5. Age and sex composition of sockeye salmon sampled from the Kasilof River, Upper Cook Inlet, 1981[1].

	4 2			5 2			5 3			6 3			Total		
Date	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
5/25					1	1								1	1
5/26				1	1	2							1	1	2
5/28					1	1								1	1
5/30				6	3	9							6	3	9
5/31				2	6	8							2	6	8
6/01				1	6	7							1	6	7
6/02				2	3	5							2	3	5
6/03				2	4	6							2	4	6
6/04				1	3	4							1	3	4
6/05				3	7	10							3	7	10
6/06				2	3	5							2	3	5
6/07				2		2							2		2
6/08				7	5	12							7	5	12
6/09		1	1	7	7	14							7	8	15
6/10				1	4	5							1	4	5
6/11					6	6								6	6
6/12				2	2	4							2	2	4
6/13	1		1		3	3							1	3	4
6/14				1	4	5							1	4	5
6/15				2	2	4							2	2	4
6/16				2	3	5							2	3	5
6/18				2	2	4		1	1				2	3	5
6/19				12	5	17							12	5	17
6/20				11	7	18							11	7	18
6/21	1		1	10	9	19							11	9	20
5/25–6/21															
Numbers	2	1	3	79	97	176		1	1				81	99	180
Percent	1.1	0.6	1.7	43.9	53.9	97.8		0.5	0.5				45.0	55.0	100.0
6/22				4	9	13					1	1	4	10	14
6/24				15	22	37		1	1		1	1	15	24	39
6/26	1	1	2	19	12	31				2	2	4	22	15	37
6/28	2	2	4	23	10	33	2		2				27	12	39
6/29	5	3	8	33	40	73	2		2		1	1	40	44	84
6/30	10	2	12	101	51	152	5	2	7	4	2	6	120	57	177
7/01	11	2	13	61	44	105	3	2	5	1		1	76	48	124
6/22–7/01															
Numbers	29	10	39	256	188	444	12	5	17	7	7	14	304	210	514
Percent	5.6	1.9	7.5	49.9	36.6	86.5	2.3	1.0	3.3	1.4	1.3	2.7	59.1	40.9	100.0
7/02	4	1	5	21	36	57	1		1		1	1	26	38	64
7/03	2	1	3	15	14	29	1	3	4				18	18	36
7/04	9	2	11	11	13	24	1	1	2				21	16	37
7/05	3	2	5	2	3	5	2	1	3				7	6	13
7/06	6	7	13	5	6	11		3	3				11	16	27
7/07	11	8	19	4	7	11		3	3				15	18	33
7/08	7	6	13	2	4	6		1	1				9	11	20
7/09	29	13	42	20	26	46	8	5	13	1	2	3	58	46	104
7/10	39	13	52	34	15	49	7	3	10	2		2	82	31	113
7/11	13	6	19	6	7	13		2	2	1	1	2	20	16	36
7/13	19	8	27	8	1	9	4		4				31	9	40
7/14	18	9	27	5	4	9		2	2				23	15	38
7/15	16	8	24	5	6	11		1	1	1		1	22	15	37
7/02–7/15															
Numbers	176	84	260	138	142	280	24	25	49	5	4	9	343	255	598
Percent	29.5	14.0	43.5	23.1	23.7	46.8	4.0	4.2	8.2	0.8	0.7	1.5	57.4	42.6	100.0
7/16	13	10	23	4	2	6	4	3	7				21	15	36
7/17	13	6	19		1	1	2	1	3				15	8	23
7/18	7	9	16	3	1	4	1	1	2		1	1	11	12	23
7/19	7	8	15		1	1	1	1	2				8	10	18
7/20	12	3	15		2	2	1		1				13	5	18
7/21	4	11	15	1	2	3	1		1				6	13	19
7/22		10	10		2	2	1		1				1	12	13
7/24	4	7	11		1	1	1	1	2				5	9	14
7/25	3	5	8					1	1				3	6	9
7/26	4	7	11	1		1		2	2				5	9	14
7/16–7/26															
Numbers	67	76	143	9	12	21	12	10	22		1	1	88	99	187
Percent	35.8	40.7	76.5	4.8	6.4	11.2	6.4	5.4	11.8		0.5	0.5	47.0	53.0	100.0

[1] Scale samples collected by fishwheels located adjacent to the sonar installation.

Table 6. Age and sex composition of sockeye salmon sampled from the Crescent River, Upper Cook Inlet, 1981[1].

	4_2			5_2			5_3			6_3			Other [2]			Total		
Date	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
6/21	7	2	9	24	29	53	4	5	9	80	82	162		1	1	115	119	234
7/03	2	2	4	3	1	4	1		1		3	3				6	6	12
7/06	6	2	8	7	3	10				1	2	3				14	7	21
6/21-7/06 Numbers	15	6	21	34	33	67	5	5	10	81	87	168		1	1	135	132	267
Percent	5.6	2.2	7.8	12.7	12.4	25.1	1.9	1.9	3.8	30.3	32.6	62.9		0.4	0.4	50.6	49.4	100.0
7/20				4	1	5				1	3	4				5	4	9
7/21	3	4	7	4	6	10	5	2	7							12	12	24
7/22	2	1	3	5	7	12		5	5	10	12	22				17	25	42
7/23	5	4	9	15	21	36	3	3	6	19	26	45				42	54	96
7/24	7	5	12	16	25	41	6	4	10	27	34	61				56	68	124
7/25	1		1	7	8	15		1	1	10	18	28				18	27	45
7/26	6	1	7	17	17	34	9	7	16	18	19	37				50	44	94
7/20-7/26 Numbers	24	15	39	68	85	153	23	22	45	85	112	197				200	234	434
Percent	5.5	3.4	8.9	15.6	19.7	35.3	5.3	5.1	10.4	19.6	25.8	45.4				46.0	54.0	100.0
7/27	3	1	4	9	13	22	3	1	4	14	13	27				29	28	57
7/28	6	1	7	13	23	36		4	4	17	23	40				36	51	87
7/29		3	3	5	6	11	2	1	3							7	10	17
7/30					1	1				1		1				1	1	2
7/31					1	1											1	1
8/01	4		4	4	8	12	4	6	10	3	7	10	1		1	16	21	37
8/02		1	1	2	4	6	3		3	7	10	17				12	15	27
8/03		2	2	2	4	6	2	1	3	4	7	11				8	14	22
8/04		1	1	3	4	7	2	5	7	3	17	20				8	27	35
8/05	2	2	4	2	8	10	3	2	5	3	11	14				10	23	33
8/06	1	1	2	2	7	9		1	1	4	14	18				7	23	30
8/07					5	5	2	3	5	9	15	24				11	23	34
8/08		2	2	2	6	8	1	9	10	3	9	12	1		1	7	26	34
7/27-8/08 Numbers	16	14	30	44	90	134	22	33	55	68	126	194	2		2	152	263	415
Percent	3.8	3.3	7.1	10.6	21.7	32.3	5.3	8.0	13.3	16.4	30.4	46.8	0.5		0.5	36.6	63.4	100.0

[1] Scale samples reported for 6/21 were collected with gill nets fished at the mouth of the river.
Scale samples reported for 7/03-7/06 were collected with gill nets fished adjacent to the sonar installation.
Scale samples reported for 7/20-7/29 were collected with a beach seine fished at the outlet of Crescent Lake.
Scale samples reported for 7/30 through 8/08 were collected by fishwheel located adjacent to the sonar installation.

[2] The "other" age class is comprised of 4_3 (33.3%), 6_2 (33.3%), and 7_3 (33.4%).

Table 7. Age and sex composition of sockeye salmon sampled from Fish Creek, Upper Cook Inlet, 1981[1].

	4_2			5_2			5_3			Other [2]			Total		
Date	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
7/10	1	2	3		2	2							1	4	5
7/11	2	3	5	2	2	4		1	1				4	6	10
7/12	1	3	4	1	1	2							2	4	6
7/13	7	6	13	3	1	4							10	7	17
7/14	4	6	10	4	4	8				1		1	9	10	19
7/15	3	6	9	1	5	6							4	11	15
7/16		5	5	1	4	5							1	9	10
7/17	1	4	5	3		3							4	4	8
7/18	4	2	6	1	3	4							5	5	10
7/19	3	1	4	1	2	3							4	3	7
7/20	2	3	5	1	2	3				1		1	4	5	9
7/21	2	3	5	1	2	3							3	5	8
7/22	4	5	9		1	1							4	6	10
7/10-7/22															
Numbers	34	49	83	19	29	48		1	1	2		2	55	79	134
Percent	25.4	36.6	62.0	14.2	21.6	35.8		0.7	0.7	1.5		1.5	41.0	59.0	100.0
7/23	1	6	7	1	1	2							2	7	9
7/24	7	10	17	6	12	18		1	1				13	23	36
7/25	2	10	12	1	3	4		1	1				3	14	17
7/26	3	3	6	1	3	4							4	6	10
7/27	2	8	10	1	5	6	1		1				4	13	17
7/28	6	5	11	2	3	5							8	8	16
7/29		4	4	1	4	5							1	8	9
7/30	1	4	5	1	3	4		1	1				2	8	10
7/31	3	3	6					1	1	1	1	2	4	5	9
7/23-7/31															
Numbers	25	53	78	14	34	48	1	4	5	1	1	2	41	92	133
Percent	18.8	39.8	58.6	10.5	25.6	36.1	0.8	3.0	3.8	0.8	0.7	1.5	30.8	69.2	100.0
8/02	2	4	6		2	2				1		1	3	6	9
8/03	2		2	1	3	4	1		1				4	3	7
8/05	2		2	2	2	4		2	2				4	4	8
8/06	1	1	2	2	1	3		1	1	1	1	2	4	4	8
8/07	2	1	3	1	5	6		1	1				3	7	10
8/08	4	1	5	2	2	4							6	3	9
8/10	1	1	2		1	1							1	2	3
8/11	2		2	2		2							4	0	4
8/12	2	1	3		4	4	1		1				3	5	8
8/02-8/08															
Numbers	18	9	27	10	20	30	2	4	6	2	1	3	32	34	66
Percent	27.3	13.6	40.9	15.2	30.3	45.5	3.0	6.0	9.0	3.0	1.5	4.5	48.5	51.5	100.0

[1] Scale samples collected with dipnets at weir sites.

[2] The "other" age class is comprised of 3_2 (71.4%) and 6_2 (28.6%).

Table 8. Age and sex composition by river of sockeye salmon escapement, Upper Cook Inlet, 1981.

River	Date	Sample Size		4 2 Male	4 2 Female	4 2 Total	5 2 Male	5 2 Female	5 2 Total	5 3 Male	5 3 Female	5 3 Total	6 3 Male	6 3 Female	6 3 Total	Other Male	Other Female	Other Total	Total Male	Total Female	Total Total
Susitna River	Period 1 6/27-7/10	580	Numbers	686	284	970	4,791	8,029	12,820	134	224	358	209	507	716	30	30	60	5,850	9,074	14,924
			Percent	4.6	1.9	6.5	32.1	53.8	85.9	0.9	1.5	2.4	1.4	3.4	4.8	0.2	0.2	0.4	39.0	61.0	100.0
	Period 2 7/11-7/20	1,039	Numbers	6,245	3,539	9,784	85,142	95,968	181,110	1,874	2,914	4,788	4,788	7,494	12,282	0	208	208	98,049	110,123	208,172
			Percent	3.0	1.7	4.7	40.9	46.1	87.0	0.9	1.4	2.3	2.3	3.6	5.9	0	0.1	0.1	47.2	52.8	100.0
	Period 3 7/21-9/02	614	Numbers	12,416	7,028	19,444	47,675	40,763	88,438	1,757	3,397	5,154	1,171	1,172	2,343	1,523	234	1,757	64,542	52,594	117,136
			Percent	10.6	6.0	16.6	40.7	34.8	75.5	1.5	2.9	4.4	1.0	1.0	2.0	1.3	0.2	1.5	55.1	44.9	100.0
	Total	2,233	Numbers	19,347	10,851	30,198	137,608	144,760	282,368	3,765	6,535	10,300	6,168	9,173	15,341	1,553	472	2,025	168,441	171,791	340,232
			Percent	5.7	3.2	8.9	40.4	42.6	83.0	1.1	1.9	3.0	1.8	2.7	4.5	0.5	0.1	0.6	49.6	50.4	100.0
Kenai River	Period 1 6/22-7/09	482	Numbers	1,356	600	1,956	7,406	12,831	20,237	860	1,252	2,112	756	1,017	1,773	0	0	0	10,378	15,700	26,078
			Percent	5.2	2.3	7.5	28.4	49.2	77.6	3.3	4.8	8.1	2.9	3.9	6.8	0	0	0	39.8	60.2	100.0
	Period 2 7/10-7/20	1,123	Numbers	23,396	18,939	42,335	81,607	116,700	198,307	10,584	11,419	22,003	7,799	8,077	15,876	0	0	0	123,386	155,135	278,521
			Percent	8.4	6.8	15.2	29.3	41.9	71.2	3.8	4.1	7.9	2.8	2.9	5.7	0	0	0	44.3	55.7	100.0
	Period 3 7/21-8/02	152	Numbers	12,880	8,862	21,742	22,360	48,119	70,479	4,018	4,740	8,758	1,340	721	2,061	0	0	0	40,598	62,442	103,040
			Percent	12.5	8.6	21.1	21.7	46.7	68.4	3.9	4.6	8.5	1.3	0.7	2.0	0	0	0	39.5	60.5	100.0
	Total	1,757	Numbers	37,632	28,401	66,033	111,373	177,650	289,023	15,462	17,411	32,873	9,895	9,815	19,710	0	0	0	174,362	233,277	407,639
			Percent	9.2	7.0	16.2	27.3	43.6	70.9	3.8	4.3	8.1	2.4	2.4	4.8	0	0	0	42.8	57.2	100.0
Kasilof River	Period 1 5/14-6/21	180	Numbers	321	175	496	12,816	15,736	28,552	0	146	146	0	0	0	0	0	0	13,137	16,057	29,194
			Percent	1.1	0.6	1.7	43.9	53.9	97.8	0	0.5	0.5	0	0	0	0	0	0	45.0	55.0	100.0
	Period 2 6/22-7/01	514	Numbers	5,554	1,885	7,439	49,495	36,303	85,798	2,281	992	3,273	1,389	1,289	2,678	0	0	0	58,719	40,469	99,188
			Percent	5.6	1.9	7.5	49.9	36.6	86.5	2.3	1.0	3.3	1.4	1.3	2.7	0	0	0	59.1	40.9	100.0
	Period 3 7/02-7/15	598	Numbers	25,558	12,129	37,687	20,013	20,533	40,546	3,465	3,639	7,104	693	606	1,299	0	0	0	49,729	36,907	86,636
			Percent	29.5	14.0	43.5	23.1	23.7	46.8	4.0	4.2	8.2	0.8	0.7	1.5	0	0	0	57.4	42.6	100.0
	Period 4 7/16-7/31	187	Numbers	14,895	16,934	31,829	1,997	2,663	4,660	2,663	2,247	4,910	0	208	208	0	0	0	19,555	22,052	41,607
			Percent	35.8	40.7	76.5	4.8	6.4	11.2	6.4	5.4	11.8	0	0.5	0.5	0	0	0	47.0	53.0	100.0
	Total	1,479	Numbers	46,328	31,123	77,451	84,321	75,235	159,556	8,409	7,024	15,433	2,082	2,103	4,185	0	0	0	141,140	115,485	256,625
			Percent	18.1	12.1	30.2	32.9	29.3	62.2	3.3	2.7	6.0	0.8	0.8	1.6	0	0	0	55.0	45.0	100.0

-Continued-

Table 8. Age and sex composition by river of sockeye salmon escapement, Upper Cook Inlet, 1981 (continued).

River	Date	Sample Size		4 2			5 2			5 3			6 3			Other			Total		
				Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Crescent River	Period 1 6/21-7/14	267	Numbers	541	212	753	1,225	1,197	2,422	183	184	367	2,924	3,145	6,069	0	38	38	4,873	4,776	9,649
			Percent	5.6	2.2	7.8	12.7	12.4	25.1	1.9	1.9	3.8	30.3	32.6	62.9	0	0.4	0.4	50.6	49.4	100.0
	Period 2 7/15-7/26	434	Numbers	1,148	710	1,858	3,256	4,112	7,368	1,106	1,065	2,171	4,091	5,385	9,476	0	0	0	9,601	11,272	20,873
			Percent	5.5	3.4	8.9	15.6	19.7	35.3	5.3	5.1	10.4	19.6	25.8	45.4	0	0	0	46.0	54.0	100.0
	Period 3 7/27-8/08	416	Numbers	406	353	759	1,133	2,320	3,453	567	855	1,422	1,754	3,250	5,004	53	0	53	3,913	6,778	10,691
			Percent	3.8	3.3	7.1	10.6	21.7	32.3	5.3	8.0	13.3	16.4	30.4	46.8	0.5	0	0.5	36.6	63.4	100.0
	Total	1,117	Numbers	2,095	1,275	3,370	5,614	7,629	13,243	1,856	2,104	3,960	8,769	11,780	20,549	53	38	91	18,387	22,826	41,213
			Percent	5.1	3.1	8.2	13.6	18.5	32.1	4.5	5.1	9.6	21.3	28.6	49.9	0.1	0.1	0.2	44.6	55.4	100.0
Fish Creek	Period 1 7/10-7/22	134	Numbers	10,530	15,174	25,704	5,887	8,955	14,842	0	290	290	0	0	0	622	0	622	17,039	24,419	41,458
			Percent	25.4	36.6	62.0	14.2	21.6	35.8	0	0.7	0.7	0	0	0	1.5	0	1.5	41.0	59.0	100.0
	Period 2 7/23-7/31	133	Numbers	1,470	3,112	4,582	821	2,002	2,823	62	235	297	0	0	0	62	55	117	2,415	5,404	7,819
			Percent	18.8	39.8	58.6	10.5	25.6	36.1	0.8	3.0	3.8	0	0	0	0.8	0.7	1.5	30.8	69.2	100.0
	Period 3 8/01-8/12	66	Numbers	328	165	493	183	364	547	36	72	108	0	0	0	36	18	54	583	619	1,202
			Percent	27.3	13.6	40.9	15.2	30.3	45.5	3.0	6.0	9.0	0	0	0	3.0	1.5	4.5	48.5	51.5	100.0
	Total	333	Numbers	12,328	18,451	30,779	6,891	11,321	18,212	98	597	695	0	0	0	720	73	793	20,037	30,442	50,479
			Percent	24.4	36.6	61.0	13.7	22.4	36.1	0.2	1.2	1.4	0	0	0	1.4	0.2	1.6	39.6	60.4	100.0
Cotton-wood Creek [1]	Total 7/13-8/11	368	Numbers			16,694			202			7,730			0			554			25,180
			Percent			66.3			0.8			30.7			0			2.2			100.0
Packers Creek	Total 7/10-7/31	108	Numbers	4,701	2,540	7,241	365	482	847	1,081	599	1,680	1,928	729	2,657	117	482	599	8,192	4,832	13,024
			Percent	36.1	19.5	55.6	2.8	3.7	6.5	8.3	4.6	12.9	14.8	5.6	20.4	0.9	3.7	4.6	63.0	37.0	100.0
Wolverine Creek [1]	Total 7/11-8/01	61	Numbers			3,241			1,717			11,494			1,157						17,522
			Percent			18.0			9.8			65.6			6.6						100.0

[1] Sex composition not available.

Table 9. Age and sex composition by date of the Northern District east-side set net sockeye salmon harvest, Upper Cook Inlet, 1981.

Date	Sample Size		4 2 Male	4 2 Female	4 2 Total	5 2 Male	5 2 Female	5 2 Total	5 3 Male	5 3 Female	5 3 Total	6 3 Male	6 3 Female	6 3 Total	Other Male	Other Female	Other Total	Total Male	Total Female	Total Total
Prior		Numbers	276	156	432	310	220	530	107	40	147	24	24	48	0	0	0	717	440	1,157
6/29 [1]	0	Percent	23.9	13.4	37.3	26.8	19.0	45.8	9.2	3.5	12.7	2.1	2.1	4.2	0	0	0	62.0	38.0	100.0
		Numbers	617	346	963	691	490	1,181	237	90	327	54	54	108	0	0	0	1,599	980	2,579
6/29	142	Percent	23.9	13.4	37.3	26.8	19.0	45.8	9.2	3.5	12.7	2.1	2.1	4.2	0	0	0	62.0	38.0	100.0
		Numbers	48	53	101	48	44	92	13	7	20	3	3	6	0	1	1	112	108	220
7/03 [2]	0	Percent	21.7	24.1	45.8	22.0	19.8	41.8	6.0	3.3	9.3	1.55	1.3	2.85	0	0.25	0.25	51.3	48.7	100.0
		Numbers	527	935	1,462	459	554	1,013	78	81	159	28	13	41	0	13	13	1,092	1,596	2,688
7/06	204	Percent	19.6	34.8	54.4	17.1	20.6	37.7	2.9	3.0	5.9	1.0	0.5	1.5	0	0.5	0.5	40.6	59.4	100.0
		Numbers	2,625	3,460	6,085	8,524	12,970	21,494	865	1,729	2,594	432	278	710	0	0	0	12,446	18,437	30,883
7/10	213	Percent	8.5	11.2	19.7	27.6	42.0	69.6	2.8	5.6	8.4	1.4	0.9	2.3	0	0	0	40.3	59.7	100.0
		Numbers	2,021	2,124	4,145	3,324	3,531	6,855	1,011	1,318	2,329	513	805	1,318	0	0	0	6,869	7,778	14,647
7/12	145	Percent	13.8	14.5	28.3	22.7	24.1	46.8	6.9	9.0	15.9	3.5	5.5	9.0	0	0	0	46.9	53.1	100.0
		Numbers	2,169	1,922	4,091	4,146	4,846	8,992	261	247	508	69	0	69	0	69	69	6,645	7,084	13,729
7/14	215	Percent	15.8	14.0	29.8	30.2	35.3	65.5	1.9	1.8	3.7	0.5	0	0.5	0	0.5	0.5	48.4	51.6	100.0
		Numbers	775	675	1,450	2,066	2,305	4,371	305	312	617	33	152	185	0	0	0	3,179	3,444	6,623
7/17	215	Percent	11.7	10.2	21.9	31.2	34.8	66.0	4.6	4.7	9.3	0.5	2.3	2.8	0	0	0	48.0	52.0	100.0
		Numbers	621	1,055	1,676	1,532	2,135	3,667	175	350	525	24	115	139	24	0	24	2,376	3,655	6,031
7/19	212	Percent	10.3	17.5	27.8	25.4	35.4	60.8	2.9	5.8	8.7	0.4	1.9	2.3	0.4	0	0.4	39.4	60.6	100.0
		Numbers	1,092	1,453	2,545	3,096	3,235	6,331	240	461	701	110	251	361	40	40	80	4,578	5,440	10,018
7/20 [3]	0	Percent	10.9	14.5	25.4	30.9	32.3	63.2	2.4	4.6	7.0	1.1	2.5	3.6	0.4	0.4	0.8	45.7	54.3	100.0
		Numbers	233	234	467	738	594	1,332	37	71	108	37	63	100	18	8	26	1,063	970	2,033
7/21	226	Percent	11.5	11.5	23.0	36.3	29.2	65.5	1.8	3.5	5.3	1.8	3.1	4.9	0.9	0.4	1.3	52.3	47.7	100.0
		Numbers	279	331	610	587	611	1,198	204	159	363	20	43	63	11	21	32	1,101	1,165	2,266
7/24	212	Percent	12.3	14.6	26.9	25.9	27.0	52.9	9.0	7.0	16.0	0.9	1.9	2.8	0.5	0.9	1.4	48.6	51.4	100.0
		Numbers	367	208	575	850	560	1,410	241	238	479	65	15	80	47	0	47	1,570	1,021	2,591
7/27	64	Percent	14.2	8.0	22.2	32.8	21.6	54.4	9.3	9.2	18.5	2.5	0.6	3.1	1.8	0	1.8	60.6	39.4	100.0
After		Numbers	442	249	691	1,021	673	1,694	289	287	576	79	18	97	56	0	56	1,887	1,227	3,114
7/27 [1]	0	Percent	14.2	8.0	22.2	32.8	21.6	54.4	9.3	9.2	18.5	2.5	0.6	3.1	1.8	0	1.8	60.6	39.4	100.0
		Numbers	12,092	13,201	25,293	27,392	32,768	60,160	4,063	5,390	9,453	1,491	1,834	3,325	196	152	348	45,234	53,345	98,579
Total	1,848	Percent	12.3	13.4	25.7	27.8	33.2	61.0	4.1	5.5	9.6	1.5	1.9	3.4	0.2	0.1	0.3	45.9	54.1	100.0

[1] Scales were not collected prior to 6/29 or after 7/27. Age and sex composition estimates from 6/29 were applied to the total catch made prior to 6/29, similarly age and sex composition estimates from 7/27 were applied to the total catch made after 7/27.

[2] Scales were not collected on 7/03. Age and sex composition estimates from 6/29 and 7/06 were averaged and the average age and sex composition applied to the 7/03 catch.

[3] Scales were not collected on 7/20. Age and sex composition estimates from 7/19 and 7/21 were averaged and the average age and sex composition applied to the 7/20 catch.

Table 10. Age and sex composition by date of the Northern District west-side set net sockeye salmon harvest, Upper Cook Inlet, 1981.

Date	Sample Size		4 2 Male	4 2 Female	4 2 Total	5 2 Male	5 2 Female	5 2 Total	5 3 Male	5 3 Female	5 3 Total	6 3 Male	6 3 Female	6 3 Total	Total Male	Total Female	Total Total
6/26	170	Numbers	51	10	61	132	264	396	15	26	41	5	5	10	203	305	508
		Percent	10.0	2.0	12.0	26.0	52.0	78.0	3.0	5.0	8.0	1.0	1.0	2.0	40.0	60.0	100.0
6/29	234	Numbers	96	59	155	424	718	1,142	84	51	135	6	65	71	610	893	1,503
		Percent	6.4	3.9	10.3	28.2	47.8	76.0	5.6	3.4	9.0	.4	4.3	4.7	40.6	59.4	100.0
7/03 [1]	0	Numbers	79	69	148	295	588	883	55	36	91	23	50	73	452	743	1,195
		Percent	6.6	5.8	12.4	24.7	49.2	73.9	4.6	3.0	7.6	1.9	4.2	6.1	37.8	62.2	100.0
7/06	146	Numbers	694	776	1,470	2,164	5,174	7,338	357	276	633	347	418	765	3,562	6,644	10,206
		Percent	6.8	7.6	14.4	21.2	50.7	71.9	3.5	2.7	6.2	3.4	4.1	7.5	34.9	65.1	100.0
7/10	182	Numbers	4,555	3,326	7,881	14,073	26,406	40,479	563	563	1,126	307	1,382	1,689	19,498	31,677	51,175
		Percent	8.9	6.5	15.4	27.5	51.6	79.1	1.1	1.1	2.2	0.6	2.7	3.3	38.1	61.9	100.0
7/12	246	Numbers	2,284	1,408	3,692	10,420	13,236	23,656	500	1,033	1,553	876	1,533	2,409	14,080	17,210	31,290
		Percent	7.3	4.5	11.8	33.3	42.3	75.6	1.6	3.3	4.9	2.8	4.9	7.7	45.0	55.0	100.0
7/14	211	Numbers	628	1,092	1,720	6,203	7,444	13,647	314	546	860	83	231	314	7,228	9,313	16,541
		Percent	3.8	6.6	10.4	37.5	45.0	82.5	1.9	3.3	5.2	0.5	1.4	1.9	43.7	56.3	100.0
7/17	211	Numbers	279	239	518	603	497	1,100	105	133	238	87	76	163	1,074	945	2,019
		Percent	13.8	11.8	25.6	29.9	24.6	54.5	5.2	6.6	11.8	4.3	3.8	8.1	53.2	46.8	100.0
7/19	218	Numbers	1,504	1,069	2,573	5,147	7,485	12,632	90	417	507	671	1,739	2,410	7,412	10,710	18,122
		Percent	8.3	5.9	14.2	28.4	41.3	69.7	0.5	2.3	2.8	3.7	9.6	13.3	40.9	59.1	100.0
7/20 [2]	0	Numbers	689	490	1,179	2,358	3,430	5,788	42	190	232	307	797	1,104	3,396	4,907	8,303
		Percent	8.3	5.9	14.2	28.4	41.3	69.7	0.5	2.3	2.8	3.7	9.6	13.3	40.9	59.1	100.0
7/24	221	Numbers	182	181	363	1,334	1,167	2,501	27	56	83	27	99	126	1,570	1,503	3,073
		Percent	5.9	5.9	11.8	43.4	38.0	81.4	0.9	1.8	2.7	0.9	3.2	4.1	51.1	48.9	100.0
After 7/24 [2]	0	Numbers	410	410	820	3,018	2,643	5,661	63	125	188	62	223	285	3,553	3,401	6,954
		Percent	5.9	5.9	11.8	43.4	38.0	81.4	0.9	1.8	2.7	0.9	3.2	4.1	51.1	48.9	100.0
Total	1,839	Numbers	11,451	9,129	20,580	46,171	69,052	115,223	2,215	3,452	5,667	2,801	6,618	9,419	62,638	88,251	150,889
		Percent	7.6	6.0	13.6	30.6	45.8	76.4	1.5	2.3	3.8	1.8	4.4	6.2	41.5	58.5	100.0

[1] Scales were not collected on 7/03. Age composition estimates from 6/29 and 7/06 were averaged, and the average age compositions applied to the 7/03 catch.

[2] Scales were not collected on 7/20 or after 7/24. Age composition estimates from 7/19 were applied to the 7/20 catch, similarly age composition estimates from 7/24 were applied to the total catch made after 7/24.

Table 11. Age and sex composition by date of the Central District drift net sockeye salmon harvest, Upper Cook Inlet, 1981.

Date	Sample Size		4 2 Male	4 2 Female	4 2 Total	5 2 Male	5 2 Female	5 2 Total	5 3 Male	5 3 Female	5 3 Total	6 3 Male	6 3 Female	6 3 Total	Other Male	Other Female	Other Total	Total Male	Total Female	Total Total
6/26	506	Numbers	959	745	1,704	4,352	5,856	10,208	816	830	1,646	329	373	702	28	29	57	6,484	7,833	14,317
		Percent	6.7	5.2	11.9	30.4	40.9	71.3	5.7	5.8	11.5	2.3	2.6	4.9	0.2	0.2	0.4	45.3	54.7	100.0
6/27	157	Numbers	233	265	498	1,519	2,473	3,992	264	265	529	99	67	166	0	0	0	2,115	3,070	5,185
		Percent	4.5	5.1	9.6	29.3	47.7	77.0	5.1	5.1	10.2	1.9	1.3	3.2	0	0	0	40.8	59.2	100.0
6/28 [1]	0	Numbers	206	178	384	800	1,326	2,126	130	102	232	34	51	85	0	0	0	1,170	1,657	2,827
		Percent	7.3	6.3	13.6	28.3	46.9	75.2	4.6	3.6	8.2	1.2	1.8	3.0	0	0	0	41.4	58.6	100.0
6/29	321	Numbers	1,093	820	1,913	2,996	5,040	8,036	448	230	678	66	240	306	0	0	0	4,603	6,330	10,933
		Percent	10.0	7.5	17.5	27.4	46.1	73.5	4.1	2.1	6.2	0.6	2.2	2.8	0	0	0	42.1	57.9	100.0
6/30	170	Numbers	418	306	724	721	1,093	1,814	33	112	145	16	33	49	0	0	0	1,188	1,544	2,732
		Percent	15.3	11.2	26.5	26.4	40.0	66.4	1.2	4.1	5.3	0.6	1.2	1.8	0	0	0	43.5	56.5	100.0
7/01	255	Numbers	588	411	999	1,945	2,990	4,935	202	287	489	52	52	104	0	0	0	2,787	3,740	6,527
		Percent	9.0	6.3	15.3	29.8	45.8	75.6	3.1	4.4	7.5	0.8	0.8	1.6	0	0	0	42.7	57.3	100.0
7/02	177	Numbers	316	367	683	1,446	2,073	3,519	130	265	395	0	51	51	0	0	0	1,892	2,756	4,648
		Percent	6.8	7.9	14.7	31.1	44.6	75.7	2.8	5.7	8.5	0	1.1	1.1	0	0	0	40.7	59.3	100.0
7/03	519	Numbers	4,613	4,036	8,649	17,241	25,775	43,016	865	3,344	4,209	692	1,096	1,788	0	0	0	23,411	34,251	57,662
		Percent	8.0	7.0	15.0	29.9	44.7	74.6	1.5	5.8	7.3	1.2	1.9	3.1	0	0	0	40.6	59.4	100.0
7/06	504	Numbers	7,756	5,444	13,200	20,806	32,291	53,097	1,641	3,803	5,444	1,342	1,492	2,834	0	0	0	31,545	43,030	74,575
		Percent	10.4	7.3	17.7	27.9	43.3	71.2	2.2	5.1	7.3	1.8	2.0	3.8	0	0	0	42.3	57.7	100.0
7/10	522	Numbers	8,186	8,446	16,632	38,980	61,458	100,438	1,949	2,989	4,938	2,729	5,197	7,926	0	0	0	51,844	78,090	129,934
		Percent	6.3	6.5	12.8	30.0	47.3	77.3	1.5	2.3	3.8	2.1	4.0	6.1	0	0	0	39.9	60.1	100.0
7/12	521	Numbers	7,210	6,618	13,828	36,282	57,438	93,720	2,718	2,482	5,200	2,482	2,955	5,437	0	0	0	48,692	69,493	118,185
		Percent	6.1	5.6	11.7	30.7	48.6	79.3	2.3	2.1	4.4	2.1	2.5	4.6	0	0	0	41.2	58.8	100.0
7/14	534	Numbers	4,216	3,908	8,124	34,243	51,417	85,660	1,542	2,674	4,216	2,365	2,468	4,833	0	0	0	42,366	60,467	102,833
		Percent	4.1	3.8	7.9	33.3	50.0	83.3	1.5	2.6	4.1	2.3	2.4	4.7	0	0	0	41.3	58.7	100.0

Table 11. Age and sex composition of the Central District drift net sockeye salmon harvest, Upper Cook Inlet, 1981 (continued).

Date	Sample Size		4 2 Male	4 2 Female	4 2 Total	5 2 Male	5 2 Female	5 2 Total	5 3 Male	5 3 Female	5 3 Total	6 3 Male	6 3 Female	6 3 Total	Other Male	Other Female	Other Total	Total Male	Total Female	Total Total
7/19	476	Numbers	1,344	1,681	3,025	10,846	11,824	22,670	1,100	1,589	2,689	1,069	1,100	2,169	0	0	0	14,359	16,194	30,553
		Percent	4.4	5.5	9.9	35.5	38.7	74.2	3.5	5.3	8.8	3.5	3.6	7.1	0	0	0	46.9	53.1	100.0
7/21	488	Numbers	2,160	2,062	4,222	12,862	11,946	24,808	654	753	1,407	1,342	949	2,291	0	0	0	17,018	15,710	32,728
		Percent	6.6	6.3	12.9	39.3	36.5	75.8	2.0	2.3	4.3	4.1	2.9	7.0	0	0	0	52.0	48.0	100.0
7/24	518	Numbers	1,031	1,297	2,328	6,593	7,678	14,271	373	160	533	409	160	569	0	71	71	8,406	9,366	17,772
		Percent	5.8	7.3	13.1	37.1	43.2	80.3	2.1	0.9	3.0	2.3	0.9	3.2	0	0.4	0.4	47.3	52.7	100.0
7/27	177	Numbers	594	693	1,287	4,028	4,187	8,215	169	59	228	109	59	168	0	0	0	4,900	4,998	9,898
		Percent	6.0	7.0	13.0	40.7	42.3	83.0	1.7	0.6	2.3	1.1	0.6	1.7	0	0	0	49.5	50.5	100.0
After 7/27 [2]	0	Numbers	705	822	1,527	4,780	4,968	9,748	200	70	270	130	70	200	0	0	0	5,815	5,930	11,745
		Percent	6.0	7.0	13.0	40.7	42.3	83.0	1.7	0.6	2.3	1.1	0.6	1.7	0	0	0	49.5	50.5	100.0
Total	5,845	Numbers	41,628	38,099	79,727	200,440	289,833	490,273	13,234	20,014	33,248	13,265	16,413	29,678	28	100	128	268,595	364,459	633,054
		Percent	6.6	6.0	12.6	31.6	45.8	77.4	2.1	3.2	5.3	2.1	2.6	4.7	0.0	0.0	0.0	42.4	57.6	100.0

[1] Scales were not collected on 6/28. Age and sex composition estimates from 6/27 and 6/29 were averaged and the average age composition estimate applied to the 6/28 catch.

[2] Scales were not collected after 7/27. Age and sex composition estimates from 7/27 were applied to the total catch made after 7/27.

Table 12. Age and sex composition by date of the Central District west-side set net sockeye salmon harvest, Upper Cook Inlet, 1981.

Date	Sample Size		4 2 Male	4 2 Female	4 2 Total	5 2 Male	5 2 Female	5 2 Total	5 3 Male	5 3 Female	5 3 Total	6 3 Male	6 3 Female	6 3 Total	Total Male	Total Female	Total Total
Prior		Numbers	156	50	206	705	1,200	1,905	156	103	259	565	876	1,441	1,582	2,229	3,811
6/24 1/	0	Percent	4.1	1.3	5.4	18.5	31.5	50.0	4.1	2.7	6.8	14.8	23.0	37.8	41.5	58.5	100.0
		Numbers	80	25	105	361	616	977	80	53	133	289	449	738	810	1,143	1,953
6/24	222	Percent	4.1	1.3	5.4	18.5	31.5	50.0	4.1	2.7	6.8	14.8	23.0	37.8	41.5	58.5	100.0
		Numbers	71	22	93	320	546	866	71	47	118	256	398	654	718	1,013	1,731
6/26 1/	0	Percent	4.1	1.3	5.4	18.5	31.5	50.0	4.1	2.7	6.8	14.8	23.0	37.8	41.5	58.5	100.0
		Numbers	64	54	118	229	394	623	45	37	82	137	201	338	475	686	1,161
6/29 2/	0	Percent	5.5	4.7	10.2	19.7	33.9	53.6	3.9	3.2	7.1	11.8	17.3	29.1	40.9	59.1	100.0
		Numbers	299	256	555	1,072	1,844	2,916	212	174	386	642	941	1,583	2,225	3,215	5,440
7/03	127	Percent	5.5	4.7	10.2	19.7	33.9	53.6	3.9	3.2	7.1	11.8	17.3	29.1	40.9	59.1	100.0
		Numbers	60	55	115	254	338	592	30	55	85	224	235	459	568	683	1,251
7/06	207	Percent	4.8	4.4	9.2	20.3	27.0	47.3	2.4	4.4	6.8	17.9	18.8	36.7	45.4	54.6	100.0
		Numbers	243	207	450	1,215	1,402	2,617	56	76	132	390	395	785	1,904	2,080	3,984
7/10	213	Percent	6.1	5.2	11.3	30.5	35.2	65.7	1.4	1.9	3.3	9.8	9.9	19.7	47.8	52.2	100.0
		Numbers	25	21	46	123	142	265	6	7	13	39	41	80	193	211	404
7/12 3/	0	Percent	6.1	5.2	11.3	30.5	35.2	65.7	1.4	1.9	3.3	9.8	9.9	19.7	47.8	52.2	100.0
		Numbers	7	5	12	16	17	33	3	4	7	6	9	15	32	35	67
7/14 4/	0	Percent	10.4	8.3	18.7	23.3	25.6	48.9	4.2	6.3	10.5	9.1	12.8	21.7	47.0	53.0	100.0
		Numbers	457	349	806	497	497	994	216	334	550	256	482	738	1,426	1,662	3,088
7/19	230	Percent	14.8	11.3	26.1	16.1	16.1	32.2	7.0	10.8	17.8	8.3	15.6	23.9	46.2	53.8	100.0
		Numbers	245	216	461	383	344	727	83	125	208	103	165	268	814	850	1,664
7/24 5/	0	Percent	14.7	13.0	27.7	23.0	20.7	43.7	5.0	7.5	12.5	6.2	9.9	16.1	48.9	51.1	100.0
		Numbers	268	268	536	547	461	1,008	52	77	129	75	74	149	942	880	1,822
7/27	170	Percent	14.7	14.7	29.4	30.0	25.3	55.3	2.9	4.2	7.1	4.1	4.1	8.2	51.7	48.3	100.0
After		Numbers	333	333	666	678	573	1,251	66	95	161	93	93	186	1,170	1,094	2,264
7/27 6/	0	Percent	14.7	14.7	29.4	30.0	25.3	55.3	2.9	4.2	7.1	4.1	4.1	8.2	51.7	48.3	100.0
		Numbers	2,308	1,861	4,169	6,400	8,374	14,774	1,076	1,187	2,263	3,075	4,359	7,434	12,859	15,781	28,640
Total	1,169	Percent	8.1	6.5	14.6	22.4	29.2	51.6	3.8	4.1	7.9	10.7	15.2	25.9	44.9	55.1	100.0

1 Scales were not collected prior to 6/24 or on 6/26. Age and sex composition estimates from 6/24 were applied to the total catch made before 6/24 and also applied to the catch made on 6/26.

2 Scales were not collected on 6/29. Age and sex composition estimates from 7/03 were applied to the catch made on 6/29.

3 Scales were not collected on 7/12. Age and sex composition estimates from 7/10 were applied to the catch made on 7/12.

4 Scales were not collected on 7/14. Age and sex composition estimates from 7/10 and 7/19 were averaged and the average age compositions were applied to the 7/14 catch.

5 Scales were not collected on 7/24. Age and sex composition estimates from 7/19 and 7/27 were averaged and the average age compositions were applied to the 7/24 catch.

6 Scales were not collected on 7/27. Age and sex composition estimates from 7/27 were applied to the total catch made after that date.

Table 13. Age and sex composition by date of the Kalgin Island set net sockeye salmon harvest, Upper Cook Inlet, 1981.

Date	Sample Size		4 2 Male	4 2 Female	4 2 Total	5 2 Male	5 2 Female	5 2 Total	5 3 Male	5 3 Female	5 3 Total	6 3 Male	6 3 Female	6 3 Total	Total Male	Total Female	Total Total
6/26 [1]	0	Numbers	112	253	365	253	647	900	168	112	280	28	57	85	561	1,069	1,630
		Percent	6.9	15.5	22.4	15.5	39.7	55.2	10.3	6.9	17.2	1.7	3.5	5.2	34.4	65.6	100.0
6/29	58	Numbers	70	158	228	158	405	563	105	70	175	17	36	53	350	669	1,019
		Percent	6.9	15.5	22.4	15.5	39.7	55.2	10.3	6.9	17.2	1.7	3.5	5.2	34.4	65.6	100.0
7/03	220	Numbers	62	52	114	145	264	409	8	18	26	5	15	20	220	349	569
		Percent	10.9	9.1	20.0	25.5	46.3	71.8	1.4	3.2	4.6	.9	2.7	3.6	38.7	61.3	100.0
7/06	74	Numbers	62	62	124	155	268	423	41	82	123	31	62	93	289	474	763
		Percent	8.1	8.1	16.2	20.3	35.1	55.4	5.4	10.8	16.2	4.1	8.1	12.2	37.9	62.1	100.0
7/10	201	Numbers	381	307	688	457	841	1,298	200	288	488	319	276	595	1,357	1,712	3,069
		Percent	12.4	10.0	22.4	14.9	27.4	42.3	6.5	9.4	15.9	10.4	9.0	19.4	44.2	55.8	100.0
7/12 [2]	0	Numbers	523	383	906	1,677	2,239	3,916	357	415	772	395	389	784	2,952	3,426	6,378
		Percent	8.2	6.0	14.2	26.3	35.1	61.4	5.6	6.5	12.1	6.2	6.1	12.3	46.3	53.7	100.0
7/14	196	Numbers	155	75	230	1,426	1,614	3,040	174	136	310	75	117	192	1,830	1,942	3,772
		Percent	4.1	2.0	6.1	37.8	42.8	80.6	4.6	3.6	8.2	2.0	3.1	5.1	48.5	51.5	100.0
7/19 [2]	0	Numbers	236	146	382	1,071	1,128	2,199	189	265	454	300	236	536	1,796	1,775	3,571
		Percent	6.6	4.1	10.7	30.0	31.6	61.6	5.3	7.4	12.7	8.4	6.6	15.0	50.3	49.7	100.0
7/21	222	Numbers	345	239	584	841	770	1,611	224	428	652	565	379	944	1,975	1,816	3,791
		Percent	9.1	6.3	15.4	22.2	20.3	42.5	5.9	11.3	17.2	14.9	10.0	24.9	52.1	47.9	100.0
7/24	215	Numbers	249	221	470	271	330	601	110	147	257	139	110	249	769	808	1,577
		Percent	15.8	14.0	29.8	17.2	20.9	38.1	7.0	9.3	16.3	8.8	7.0	15.8	48.8	51.2	100.0
After 7/24 [3]	0	Numbers	1,542	1,367	2,909	1,679	2,040	3,719	683	908	1,591	859	683	1,542	4,763	4,998	9,761
		Percent	15.8	14.0	29.8	17.2	20.9	38.1	7.0	9.3	16.3	8.8	7.0	15.8	48.8	51.2	100.0
Total	1,186	Numbers	3,737	3,263	7,000	8,133	10,546	18,679	2,259	2,869	5,128	2,733	2,360	5,093	16,862	19,038	35,900
		Percent	10.4	9.1	19.5	22.6	29.4	52.0	6.3	8.0	14.3	7.6	6.6	14.2	47.0	53.0	100.0

[1] Scales were not collected on 6/26. Age and sex composition estimates from 6/29 were applied to the catch made on 6/26.

[2] Scales were not collected on 7/12 or 7/19. Age and sex composition estimates from 7/10 and 7/14 were averaged and the average age composition estimates applied to the 7/12 harvest, similarly age and sex estimates from 7/14 and 7/21 were averaged and the average applied to the 7/19 harvest.

[3] Scales were not collected after 7/24. Age and sex composition estimates from 7/24 were applied to the total catch made after 7/24.

Table 14. Age and sex composition by date of the Salamantof Beach set net sockeye salmon harvest, Upper Cook Inlet, 1981.

Date	Sample Size		4 2 Male	4 2 Female	4 2 Total	5 2 Male	5 2 Female	5 2 Total	5 3 Male	5 3 Female	5 3 Total	6 3 Male	6 3 Female	6 3 Total	Other Male	Other Female	Other Total	Total Male	Total Female	Total Total
6/26	139	Numbers	268	149	417	1,073	1,312	2,385	42	107	149	15	15	30	0	0	0	1,398	1,583	2,981
		Percent	9.0	5.0	14.0	36.0	44.0	80.0	1.4	3.6	5.0	0.5	0.5	1.0	0	0	0	46.9	53.1	100.0
6/29	167	Numbers	214	123	337	809	978	1,787	91	200	291	61	77	138	0	0	0	1,175	1,378	2,553
		Percent	8.4	4.8	13.2	31.7	38.3	70.0	3.6	7.8	11.4	2.4	3.0	5.4	0	0	0	46.0	54.0	100.0
7/03 [1]	0	Numbers	7	8	15	25	32	57	3	6	9	3	1	4	0	0	0	38	47	85
		Percent	8.5	9.5	18.0	28.7	38.1	66.8	2.9	7.1	10.0	3.5	1.7	5.2	0	0	0	43.6	56.4	100.0
7/06	219	Numbers	246	408	654	734	1,088	1,822	65	185	250	132	12	144	0	0	0	1,177	1,693	2,870
		Percent	8.6	14.2	22.8	25.6	37.9	63.5	2.3	6.4	8.7	4.6	0.4	5.0	0	0	0	41.0	59.0	100.0
7/10	111	Numbers	3,753	2,665	6,418	10,510	16,214	26,724	1,013	2,365	3,378	0	1,013	1,013	0	0	0	15,276	22,257	37,533
		Percent	10.0	7.1	17.1	28.0	43.2	71.2	2.7	6.3	9.0	0	2.7	2.7	0	0	0	40.7	59.3	100.0
7/12	179	Numbers	1,049	1,641	2,690	10,677	12,022	22,699	457	457	914	0	592	592	0	0	0	12,183	14,712	26,895
		Percent	3.9	6.1	10.0	39.7	44.7	84.4	1.7	1.7	3.4	0	2.2	2.2	0	0	0	45.3	54.7	100.0
7/14	219	Numbers	1,044	940	1,984	5,305	11,027	16,332	564	856	1,420	668	376	1,044	104	0	104	7,685	13,199	20,884
		Percent	5.0	4.5	9.5	25.4	52.8	78.2	2.7	4.1	6.8	3.2	1.8	5.0	0.5	0	0.5	36.8	63.2	100.0
7/19	225	Numbers	473	2,116	2,589	9,662	12,502	22,164	752	1,476	2,228	613	250	863	0	0	0	11,500	16,344	27,844
		Percent	1.7	7.6	9.3	34.7	44.9	79.6	2.7	5.3	8.0	2.2	0.9	3.1	0	0	0	41.3	58.7	100.0
7/21	233	Numbers	309	946	1,255	2,731	3,358	6,089	106	456	562	245	0	245	0	0	0	3,391	4,760	8,151
		Percent	3.8	11.6	15.4	33.5	41.2	74.7	1.3	5.6	6.9	3.0	0	3.0	0	0	0	41.6	58.4	100.0
7/22 [1]	0	Numbers	31	92	123	267	328	595	10	45	55	24	0	24	0	0	0	332	465	797
		Percent	3.8	11.6	15.4	33.5	41.2	74.7	1.3	5.6	6.9	3.0	0	3.0	0	0	0	41.6	58.4	100.0
7/24	219	Numbers	188	458	646	705	870	1,575	60	106	166	59	59	118	13	57	70	1,025	1,550	2,575
		Percent	7.3	17.8	25.1	27.4	33.8	61.2	2.3	4.1	6.4	2.3	2.3	4.6	0.5	2.2	2.7	39.8	60.2	100.0
7/27	138	Numbers	307	440	747	1,057	924	1,981	25	109	134	109	46	155	21	0	21	1,519	1,519	3,038
		Percent	10.1	14.5	24.6	34.8	30.4	65.2	0.8	3.6	4.4	3.6	1.5	5.1	0.7	0	0.7	50.0	50.0	100.0
After 7/27 [2]	0	Numbers	713	1,023	1,736	2,455	2,145	4,600	56	254	310	254	106	360	49	0	49	3,527	3,528	7,055
		Percent	10.1	14.5	24.6	34.8	30.4	65.2	0.8	3.6	4.4	3.6	1.5	5.1	0.7	0	0.7	50.0	50.0	100.0
Total	1,849	Numbers	8,602	11,009	19,611	46,010	62,800	108,810	3,244	6,622	9,866	2,183	2,547	4,730	187	57	244	60,226	83,035	143,261
		Percent	6.0	7.7	13.7	32.1	43.8	75.9	2.3	4.6	6.9	1.5	1.8	3.3	0.1	0.1	0.2	42.0	58.0	100.0

[1] Scales were not collected on 7/03. Age and sex composition estimates from 6/29 and 7/06 were averaged and the average age composition applied to the 7/03 catch.

[2] Scales were not collected on 7/22 or after 7/27. Age and sex composition estimates from 7/21 were applied to the 7/22 catch, similarly the age and sex compositions from 7/27 were applied to the total catch made after 7/27.

Table 15. Age and sex composition by date of the Kalifonsky Beach set net sockeye salmon harvest, Upper Cook Inlet, 1981.

Date	Sample Size		4 2			5 2			5 3			6 3			Other			Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
6/26	223	Numbers	328	152	480	2,325	2,381	4,706	73	232	305	28	124	152	0	0	0	2,754	2,889	5,643
		Percent	5.8	2.7	8.5	41.2	42.2	83.4	1.3	4.1	5.4	0.5	2.2	2.7	0	0	0	48.8	51.2	100.0
6/27	147	Numbers	122	51	173	569	661	1,230	32	40	72	9	10	19	0	0	0	732	762	1,494
		Percent	8.2	3.4	11.6	38.1	44.2	82.3	2.1	2.7	4.8	0.6	0.7	1.3	0	0	0	49.0	51.0	100.0
6/28 [1]	0	Numbers	620	256	876	2,235	2,742	4,977	119	213	332	56	19	75	0	0	0	3,030	3,230	6,260
		Percent	9.9	4.1	14.0	35.7	43.8	79.5	1.9	3.4	5.3	0.9	0.3	1.2	0	0	0	48.4	51.6	100.0
6/29	171	Numbers	512	206	718	1,459	1,897	3,356	74	180	254	53	0	53	0	0	0	2,098	2,283	4,381
		Percent	11.7	4.7	16.4	33.3	43.3	76.6	1.7	4.1	5.8	1.2	0	1.2	0	0	0	47.9	52.1	100.0
6/30 [2]	0	Numbers	395	158	553	1,122	1,460	2,582	57	138	195	40	0	40	0	0	0	1,614	1,756	3,370
		Percent	11.7	4.7	16.4	33.3	43.3	76.6	1.7	4.1	5.8	1.2	0	1.2	0	0	0	47.9	52.1	100.0
7/01 [2]	0	Numbers	277	111	388	789	1,026	1,815	40	97	137	28	0	28	0	0	0	1,134	1,234	2,368
		Percent	11.7	4.7	16.4	33.3	43.3	76.6	1.7	4.1	5.8	1.2	0	1.2	0	0	0	47.9	52.1	100.0
7/02 [2]	0	Numbers	96	38	134	272	355	627	14	33	47	10	0	10	0	0	0	392	426	818
		Percent	11.7	4.7	16.4	33.3	43.3	76.6	1.7	4.1	5.8	1.2	0	1.2	0	0	0	47.9	52.1	100.0
7/03 [2]	0	Numbers	38	15	53	107	140	247	6	13	19	4	0	4	0	0	0	155	168	323
		Percent	11.7	4.7	16.4	33.3	43.3	76.6	1.7	4.1	5.8	1.2	0	1.2	0	0	0	47.9	52.1	100.0
7/06 [3]	0	Numbers	1,058	710	1,768	1,321	1,211	2,532	223	264	487	70	109	179	0	0	0	2,672	2,294	4,966
		Percent	21.3	14.3	35.6	26.6	24.4	51.0	4.5	5.3	9.8	1.4	2.2	3.6	0	0	0	53.8	46.2	100.0
7/10	225	Numbers	2,204	1,480	3,684	2,752	2,525	5,277	466	548	1,014	145	228	373	0	0	0	5,567	4,781	10,348
		Percent	21.3	14.3	35.6	26.6	24.4	51.0	4.5	5.3	9.8	1.4	2.2	3.6	0	0	0	53.8	46.2	100.0
7/12	232	Numbers	2,481	2,267	4,748	4,469	6,226	10,695	214	558	772	148	65	213	0	0	0	7,312	9,116	16,428
		Percent	15.1	13.8	28.9	27.2	37.9	65.1	1.3	3.4	4.7	0.9	0.4	1.3	0	0	0	44.5	55.4	100.0
7/14	235	Numbers	970	1,447	2,417	2,188	3,662	5,850	119	503	622	110	119	229	37	0	37	3,424	5,731	9,155
		Percent	10.6	15.8	26.4	23.9	40.0	63.9	1.3	5.5	6.8	1.2	1.3	2.5	0.4	0	0.4	37.0	63.0	100.0

-Continued-

Table 15. Age and sex composition by date of the Kalifonsky Beach set net sockeye salmon harvest, Upper Cook Inlet, 1981 (continued).

Date	Sample Size		4 2 Male	4 2 Female	4 2 Total	5 2 Male	5 2 Female	5 2 Total	5 3 Male	5 3 Female	5 3 Total	6 3 Male	6 3 Female	6 3 Total	Other Male	Other Female	Other Total	Total Male	Total Female	Total Total
7/19	234	Numbers	1,721	2,476	4,197	3,779	6,673	10,452	273	820	1,093	64	274	338	0	0	0	5,837	10,243	16,080
		Percent	10.7	15.4	26.1	23.5	41.5	65.0	1.7	5.1	6.8	0.4	1.7	2.1	0	0	0	36.3	63.7	100.0
7/21	232	Numbers	493	981	1,474	2,126	2,239	4,365	133	139	272	164	51	215	0	0	0	2,916	3,410	6,326
		Percent	7.8	15.5	23.3	33.6	35.4	69.0	2.1	2.2	4.3	2.6	0.8	3.4	0	0	0	46.1	53.9	100.0
7/22 [4]	0	Numbers	31	63	94	136	143	279	8	9	17	11	3	14	0	0	0	186	218	404
		Percent	7.8	15.5	23.3	33.6	35.4	69.0	2.1	2.2	4.3	2.6	0.8	3.4	0	0	0	46.1	53.9	100.0
7/24	186	Numbers	278	249	527	996	1,042	2,038	44	0	44	16	44	60	44	16	60	1,378	1,351	2,729
		Percent	10.2	9.1	19.3	36.5	38.2	74.7	1.6	0	1.6	0.6	1.6	2.2	1.6	0.6	2.2	50.5	49.5	100.0
7/27	179	Numbers	148	139	287	693	658	1,351	74	42	116	42	106	148	0	0	0	957	945	1,902
		Percent	7.8	7.3	15.1	36.4	34.6	71.0	3.9	2.2	6.1	2.2	5.6	7.8	0	0	0	50.3	49.7	100.0
After 7/27 [5]	0	Numbers	285	266	551	1,328	1,262	2,590	143	80	223	80	205	285	0	0	0	1,836	1,813	3,649
		Percent	7.8	7.3	15.1	36.4	34.6	71.0	3.9	2.2	6.1	2.2	5.6	7.8	0	0	0	50.3	49.7	100.0
Total	2,064	Numbers	12,057	11,065	23,122	28,666	36,303	64,969	2,112	3,909	6,021	1,078	1,357	2,435	81	16	97	43,994	52,650	96,644
		Percent	12.5	11.5	24.0	29.6	37.6	67.2	2.2	4.0	6.2	1.1	1.4	2.5	0.1	0.0	0.1	45.5	54.5	100.0

[1] Scales were not collected on 6/28. Age and sex composition estimates from 6/27 and 6/29 were averaged and the average age composition applied to the 6/28 harvest.

[2] Scales were not collected on 6/30, 7/01, 7/02, or 7/03. Age and sex composition estimates from 6/29 were applied to those harvests.

[3] Scales were not collected on 7/06. Age and sex composition estimates from 7/10 were applied to the 7/06 harvest.

[4] Scales were not collected on 7/22. Age and sex composition estimates from 7/21 were applied to the 7/22 harvest.

[5] Scales were not collected after 7/27. Age and sex composition estimates from 7/27 were applied to the total catch made after 7/27.

Table 16. Age and sex composition by date for the Cohoe/Ninilchik Beach set net sockeye salmon harvest, Upper Cook Inlet, 1981.

Date	Sample Size		4 2 Male	4 2 Female	4 2 Total	5 2 Male	5 2 Female	5 2 Total	5 3 Male	5 3 Female	5 3 Total	6 3 Male	6 3 Female	6 3 Total	Other Male	Other Female	Other Total	Total Male	Total Female	Total Total
		Numbers	1,296	172	1,468	10,868	4,919	15,787	686	439	1,125	172	514	686	0	0	0	13,022	6,044	19,066
6/26	220	Percent	6.8	0.9	7.7	57.0	25.8	82.8	3.6	2.3	5.9	0.9	2.7	3.6	0	0	0	68.3	31.7	100.0
		Numbers	664	545	1,209	5,662	2,809	8,471	610	272	882	218	109	327	0	0	0	7,154	3,735	10,889
6/27	198	Percent	6.1	5.0	11.1	52.0	25.8	77.8	5.6	2.5	8.1	2.0	1.0	3.0	0	0	0	65.7	34.3	100.0
		Numbers	1,705	975	2,680	8,441	4,560	13,001	818	383	1,201	383	139	522	0	0	0	11,347	6,057	17,404
6/28 [1]	0	Percent	9.8	5.6	15.4	48.5	26.2	74.7	4.7	2.2	6.9	2.2	0.8	3.0	0	0	0	65.2	34.8	100.0
		Numbers	886	407	1,293	2,961	1,740	4,701	243	125	368	164	40	204	0	0	0	4,254	2,312	6,566
6/29	162	Percent	13.5	6.2	19.7	45.1	26.5	71.6	3.7	1.9	5.6	2.5	0.6	3.1	0	0	0	64.8	35.2	100.0
		Numbers	1,995	1,286	3,281	5,897	3,740	9,637	798	798	1,596	222	44	266	0	0	0	8,912	5,868	14,780
6/30 [1]	0	Percent	13.5	8.7	22.2	39.9	25.3	65.2	5.4	5.4	10.8	1.5	0.3	1.8	0	0	0	60.3	39.7	100.0
		Numbers	725	601	1,326	1,863	1,294	3,157	381	473	854	32	0	32	0	0	0	3,001	2,368	5,369
7/01	170	Percent	13.5	11.2	24.7	34.7	24.1	58.8	7.1	8.8	15.9	0.6	0	0.6	0	0	0	55.9	44.1	100.0
		Numbers	924	952	1,876	1,351	2,081	3,432	97	131	228	97	68	165	0	0	0	2,469	3,232	5,701
7/02	173	Percent	16.2	16.7	32.9	23.7	36.5	60.2	1.7	2.3	4.0	1.7	1.2	2.9	0	0	0	43.3	56.7	100.0
		Numbers	797	792	1,589	1,265	1,791	3,056	223	325	548	74	48	122	0	0	0	2,359	2,956	5,315
7/03	214	Percent	15.0	14.9	29.9	23.8	33.7	57.5	4.2	6.1	10.3	1.4	0.9	2.3	0	0	0	44.4	55.6	100.0
		Numbers	2,398	1,537	3,935	3,293	2,845	6,138	596	654	1,250	103	46	149	0	0	0	6,390	5,082	11,472
7/06	230	Percent	20.9	13.4	34.3	28.7	24.8	53.5	5.2	5.7	10.9	0.9	0.4	1.3	0	0	0	55.7	44.3	100.0
		Numbers	7,990	4,626	12,616	11,588	16,400	27,988	1,869	2,757	4,626	1,075	420	1,495	0	0	0	22,522	24,203	46,725
7/09	222	Percent	17.1	9.9	27.0	24.8	35.1	59.9	4.0	5.9	9.9	2.3	0.9	3.2	0	0	0	48.2	51.8	100.0
		Numbers	5,075	5,667	10,742	12,095	12,265	24,360	1,945	3,299	5,244	1,353	592	1,945	0	0	0	20,468	21,823	42,291
7/10	217	Percent	12.0	13.4	25.4	28.6	29.0	57.6	4.6	7.8	12.4	3.2	1.4	4.6	0	0	0	48.4	51.6	100.0
		Numbers	1,549	1,378	2,927	4,476	6,024	10,500	681	697	1,378	341	170	511	93	77	170	7,140	8,346	15,486
7/12	180	Percent	10.0	8.9	18.9	28.9	38.9	67.8	4.4	4.5	8.9	2.2	1.1	3.3	0.6	0.5	1.1	46.1	53.9	100.0

-Continued-

Table 16. Age and sex composition by date for the Cohoe/Ninilchik Beach set net sockeye salmon harvest, Upper Cook Inlet, 1981 (continued).

Date	Sample Size		4 2 Male	4 2 Female	4 2 Total	5 2 Male	5 2 Female	5 2 Total	5 3 Male	5 3 Female	5 3 Total	6 3 Male	6 3 Female	6 3 Total	Other Male	Other Female	Other Total	Total Male	Total Female	Total Total
7/14	220	Numbers	2,977	2,322	5,299	2,540	2,759	5,299	559	559	1.118	218	219	437	0	0	0	6,294	5,859	12,153
		Percent	24.5	19.1	43.6	20.9	22.7	43.6	4.6	4.6	9.2	1.8	1.8	3.6	0	0	0	51.8	48.2	100.0
7/19	220	Numbers	2,996	2,040	5,036	5,992	7,819	13,811	574	765	1,339	382	574	956	105	0	105	10,049	11,198	21,247
		Percent	14.1	9.6	23.7	28.2	36.8	65.0	2.7	3.6	6.3	1.8	2.7	4.5	0.5	0	0.5	47.3	52.7	100.0
7/21	219	Numbers	1,048	1,125	2,173	2,783	3,354	6,137	305	562	867	172	133	305	48	0	48	4,356	5,174	9,530
		Percent	11.0	11.8	22.8	29.2	35.2	64.4	3.2	5.9	9.1	1.8	1.4	3.2	0.5	0	0.5	45.7	54.3	100.0
7/22 [2]	0	Numbers	7	7	14	18	21	39	2	3	5	1	1	2	1	0	1	29	32	61
		Percent	11.0	11.8	22.8	29.2	35.2	64.4	3.2	5.9	9.1	1.8	1.4	3.2	0.5	0	0.5	45.7	54.3	100.0
7/24	254	Numbers	507	420	927	1,017	813	1,830	116	204	320	52	87	139	13	0	13	1,705	1,524	3,229
		Percent	15.7	13.0	28.7	31.5	25.2	56.7	3.6	6.3	9.9	1.6	2.7	4.3	0.4	0	0.4	52.8	47.2	100.0
7/27	161	Numbers	232	258	490	638	732	1,370	41	94	135	55	94	149	29	13	42	995	1,191	2,186
		Percent	10.6	11.8	22.4	29.2	33.5	62.7	1.9	4.3	6.2	2.5	4.3	6.8	1.3	0.6	1.9	45.5	54.5	100.0
After 7/27 [3]	0	Numbers	576	642	1,218	1,588	1,821	3,409	103	234	337	136	234	370	71	32	103	2,474	2,963	5,437
		Percent	10.6	11.8	22.4	29.2	33.5	62.7	1.9	4.3	6.2	2.5	4.3	6.8	1.3	0.6	1.9	45.5	54.5	100.0
Total	3,060	Numbers	34,347	25,752	60,099	84,336	77,787	162,123	10,647	12,774	23,421	5,250	3,532	8,782	360	122	482	134,940	119,967	254,907
		Percent	13.5	10.1	23.6	33.1	30.5	63.6	4.2	5.0	9.2	2.0	1.4	3.4	0.1	0.1	0.2	52.9	47.1	100.0

[1] Scales were not collected on 6/28 or 6/30. Age and sex composition estimates from 6/27 and 6/29 were averaged and the average age compositions applied to the 6/28 harvest, similarly age and sex composition estimates from 6/29 and 7/01 were averaged and the average age compositions applied to the 6/30 harvest.

[2] Scales were not collected on 7/22. Age and sex composition estimates from 7/21 were applied to the 7/22 harvest.

[3] Scales were not collected after 7/27. Age and sex composition estimates from 7/27 were applied to the total catch made after 7/27.

Table 17. Age and sex composition by fishery of the commercial sockeye salmon harvest, Upper Cook Inlet, 1981.

Fishery		4_2 Male	4_2 Female	4_2 Total	5_2 Male	5_2 Female	5_2 Total	5_3 Male	5_3 Female	5_3 Total	6_3 Male	6_3 Female	6_3 Total	Other Male	Other Female	Other Total	Total Male	Total Female	Total Total
Northern East-side Set Net	Numbers	12,092	13,201	25,293	27,392	32,768	60,160	4,063	5,390	9,453	1,491	1,834	3,325	196	152	348	45,234	53,345	98,579
	Percent	12.3	13.4	25.7	27.8	33.2	61.0	4.1	5.5	9.6	1.5	1.9	3.4	0.2	0.1	0.3	45.9	54.1	100.0
Northern West-side Set Net	Numbers	11,451	9,129	20,580	46,171	69,052	115,223	2,215	3,452	5,667	2,801	6,618	9,419	0	0	0	62,638	88,251	150,889
	Percent	7.6	6.0	13.6	30.6	45.8	76.4	1.5	2.3	3.8	1.8	4.4	6.2	0.0	0.0	0.0	41.5	58.5	100.0
Central District Drift Net	Numbers	41,628	38,099	79,727	200,440	289,833	490,273	13,234	20,014	33,248	13,265	16,413	29,678	28	100	128	268,595	364,459	633,054
	Percent	6.6	6.0	12.6	31.6	45.8	77.4	2.1	3.2	5.3	2.1	2.6	4.7	0.0	0.0	0.0	42.4	57.6	100.0
Central West-side Set Net	Numbers	2,308	1,861	4,169	6,400	8,374	14,774	1,076	1,187	2,263	3,075	4,359	7,434	0	0	0	12,859	15,781	28,640
	Percent	8.1	6.5	14.6	22.4	29.2	51.6	3.8	4.1	7.9	10.7	15.2	25.9	0.0	0.0	0.0	44.9	55.1	100.0
Kalgin Island Set Net	Numbers	3,737	3,263	7,000	8,133	10,546	18,679	2,259	2,869	5,128	2,733	2,360	5,093	0	0	0	16,862	19,038	35,900
	Percent	10.4	9.1	19.5	22.6	29.4	52.0	6.3	8.0	14.3	7.6	6.6	14.2	0.0	0.0	0.0	47.0	53.0	100.0
Salamatof Beach Set Net	Numbers	8,602	11,009	19,611	46,010	62,800	108,810	3,244	6,622	9,866	2,183	2,547	4,730	187	57	244	60,226	83,035	143,261
	Percent	6.0	7.7	13.7	32.1	43.8	75.9	2.3	4.6	6.9	1.5	1.8	3.3	0.1	0.1	0.2	42.0	58.0	100.0
Kalifonsky Beach Set Net	Numbers	12,057	11,065	23,122	28,666	36,303	64,969	2,112	3,909	6,021	1,078	1,357	2,435	81	16	97	43,994	52,650	96,644
	Percent	12.5	11.5	24.0	29.6	37.6	67.2	2.2	4.0	6.2	1.1	1.4	2.5	0.1	0.0	0.1	45.5	54.5	100.0
Cohoe/ Ninilchik Beach Set Net	Numbers	34,347	25,752	60,099	84,336	77,787	162,123	10,647	12,774	23,421	5,250	3,532	8,782	360	122	482	134,940	119,967	254,907
	Percent	13.5	10.1	23.6	33.1	30.5	63.6	4.2	5.0	9.2	2.0	1.4	3.4	0.1	0.1	0.2	52.9	47.1	100.0
Total	Numbers	126,222	113,379	239,601	447,548	587,463	1,035,011	38,850	56,217	95,067	31,876	39,020	70,896	852	447	1,299	645,348	796,526	1,441,874
	Percent	8.8	7.9	16.7	31.0	40.7	71.7	2.7	3.9	6.6	2.2	2.7	4.9	0.1	<0.1	0.1	44.8	55.2	100.0

Table 18. Mean ($\bar{X}$) and standard deviation (s) for each variable measured from age 5_2 sockeye salmon scales from spawning locations in Cook Inlet, 1981.

		Length			NC1			ID1			NC2			ID2		
River		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Susitna	$\bar{x}$	588.28	567.23	574.81	12.18	11.63	11.83	142.75	134.58	137.52	2.51	2.66	2.61	23.82	26.33	25.42
6/28-7/12	s	26.96	18.57	24.13	2.51	2.77	2.69	31.78	32.32	32.28	1.76	1.69	1.72	18.33	17.69	17.92
Susitna	$\bar{x}$	586.42	562.73	575.60	11.11	11.27	11.18	127.17	131.91	129.33	2.95	2.69	2.84	28.85	26.63	27.84
7/13-7/31	s	19.23	25.24	25.08	2.28	2.55	2.40	28.67	30.33	29.46	1.85	1.81	1.83	18.83	19.51	19.12
Kenai	$\bar{x}$	582.46	575.52	577.94	10.90	11.02	10.98	121.07	124.67	123.41	2.81	2.70	2.74	25.11	24.97	25.02
6/23-7/10	s	30.37	21.67	25.20	1.54	1.56	1.55	18.03	18.74	18.53	1.25	1.38	1.34	12.16	14.36	13.60
Kenai	$\bar{x}$	587.04	570.65	577.60	10.00	9.90	9.94	119.05	116.55	117.60	2.89	3.06	2.99	26.51	28.36	27.59
7/11-7/27	s	32.73	18.59	26.73	1.65	1.54	1.58	18.09	17.91	17.97	1.45	1.36	1.39	13.92	13.89	13.89
Kasilof	$\bar{x}$	572.09	561.06	566.68	11.80	11.64	11.73	136.91	135.21	136.08	2.39	2.41	2.40	20.76	19.97	20.38
6/20-7/08	s	23.91	16.70	21.37	1.24	1.39	1.31	17.75	17.73	17.71	0.89	0.93	0.91	8.64	8.04	8.34
Kasilof	$\bar{x}$	554.93	552.83	553.96	11.41	11.52	11.46	133.08	131.76	132.47	2.66	2.57	2.62	24.18	23.32	23.78
7/09-7/23	s	21.16	18.52	19.94	1.59	1.64	1.61	18.92	19.02	18.91	1.24	1.06	1.16	12.38	10.90	11.69
Crescent	$\bar{x}$	575.46	557.44	564.77	9.03	8.93	8.97	104.61	98.80	101.17	2.76	2.79	2.78	26.00	28.52	27.50
6/21-7/24	s	28.61	18.96	24.92	1.88	1.94	1.91	21.99	18.77	20.27	1.50	1.38	1.43	13.43	14.51	14.09
Crescent	$\bar{x}$	576.93	549.37	557.91	9.39	9.53	9.49	100.80	97.86	98.77	1.82	2.04	1.97	16.77	18.63	18.06
7/25-8/10	s	22.29	23.85	26.58	1.99	2.14	2.09	20.20	17.98	18.67	1.08	1.19	1.16	10.91	11.89	11.59
Fish	$\bar{x}$	561.43	536.84	543.93	21.80	22.41	22.23	251.90	260.80	258.23	1.63	1.65	1.64	14.90	16.73	16.20
7/11-8/12	s	25.53	26.64	28.49	3.97	2.78	3.16	44.06	29.08	34.09	1.16	1.46	1.37	10.97	15.08	13.99

-Continued-

Table 18. Mean ($\overline{X}$) and standard deviation (s) for each variable measured for age 5_2 sockeye salmon scales from spawning locations in Cook Inlet, 1981 (continued).

		NC3			ID3			NC4			ID4			NC5			ID5		
River		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Susitna	$\overline{x}$	23.81	23.46	23.59	375.43	374.27	374.69	23.18	21.77	22.28	327.74	311.30	317.22	11.76	11.23	11.42	192.54	179.87	184.43
6/28-7/12	s	2.04	2.43	2.30	38.89	39.56	39.23	3.62	3.21	3.42	55.56	41.63	47.64	2.06	1.94	2.00	31.54	31.17	31.81
Susitna	$\overline{x}$	24.19	23.87	24.05	404.52	397.79	401.46	22.82	22.63	22.73	349.50	339.56	344.98	11.64	10.93	11.32	196.81	180.85	189.55
7/13-7/31	s	2.28	2.75	2.50	41.35	45.03	43.09	3.03	3.33	3.16	41.72	47.15	44.44	2.09	2.05	2.10	34.54	33.60	34.95
Kenai	$\overline{x}$	25.94	25.99	25.97	413.60	408.82	410.49	24.43	24.02	24.16	351.57	339.86	343.96	11.93	11.98	11.97	190.71	184.74	186.83
6/23-7/10	s	2.44	2.35	2.38	41.44	38.35	39.42	2.57	2.37	2.44	42.81	43.96	43.81	1.98	1.99	1.98	33.49	29.13	30.77
Kenai	$\overline{x}$	26.57	26.40	26.47	435.47	430.67	432.68	24.38	23.67	23.97	356.47	347.33	351.15	13.49	12.45	12.88	217.18	197.60	205.79
7/11-7/27	s	2.36	2.26	2.30	41.62	40.63	41.00	2.43	2.63	2.57	41.84	41.30	41.65	2.44	1.88	2.19	45.00	30.51	38.38
Kasilof	$\overline{x}$	24.50	24.67	24.59	399.09	395.69	397.42	23.00	22.28	22.64	331.54	316.66	324.25	10.57	10.52	10.54	169.13	161.05	165.17
6/20-7/08	s	2.32	2.27	2.29	35.32	34.96	35.10	2.46	2.41	2.46	37.13	39.65	39.01	1.75	1.74	1.74	28.77	27.82	28.53
Kasilof	$\overline{x}$	25.07	24.71	24.91	403.57	395.56	399.88	22.53	22.48	22.50	323.18	318.52	321.04	10.34	10.78	10.54	162.04	165.22	163.50
7/09-7/23	s	2.25	2.31	2.28	36.56	38.46	37.52	2.82	2.44	2.64	44.81	36.34	41.05	1.92	1.95	1.94	32.01	31.68	31.79
Crescent	$\overline{x}$	24.37	24.49	24.44	397.61	401.53	399.94	23.41	23.41	23.41	345.10	336.19	339.81	12.10	11.83	11.94	193.93	188.73	190.85
6/21-7/24	s	2.27	2.11	2.17	41.88	41.43	41.51	3.11	2.90	2.97	48.00	44.16	45.81	2.30	1.89	2.06	34.89	32.18	33.29
Crescent	$\overline{x}$	25.27	25.22	25.24	411.41	403.51	405.96	24.34	23.57	23.81	351.45	334.15	339.51	12.18	11.72	11.87	200.75	183.29	188.70
7/25-8/10	s	2.45	2.50	2.48	46.75	43.25	44.35	3.21	3.03	3.09	41.92	42.09	42.65	1.88	1.87	1.88	31.83	31.31	32.39
Fish	$\overline{x}$	23.90	23.36	23.52	400.53	391.92	394.40	18.63	18.20	18.33	267.93	252.24	256.77	8.77	9.15	9.04	136.67	138.51	137.98
7/11-8/12	s	2.29	2.50	2.44	40.28	41.98	41.49	2.93	3.36	3.24	50.08	53.44	52.78	2.28	2.37	2.34	36.45	35.64	35.71

Classification Accuracy:

Jackknifed classification matrices for early and late stock identification models are reported in Tables 19 and 20, respectively. Classification models were constructed as required, i.e., when a stock dropped out of a catch composition a new model excluding that river was constructed.

The average overall classification accuracies for the models constructed from early escapement samples were 66.0% for the 5-way model (Table 19). The classification accuracy for the 4-way models ranged from 59.2% to 71.0%, 3-way models from 61.5% to 83.9%, and for the 2-way model 75.2%. Classification accuracies for late stock identification models were better than their early counterparts. The average overall classification accuracies for models shown in Table 20 representing late escapements were: 69.3% for the 5-way model, Classification accuracies were 61.2% and 71.3% for the 4-way models, 3-way models from 63.5% to 84.2%, and ranged from 77.0% to 83.4% for the 2-way models.

Fish Creek scale patterns were very distinct and were correctly classified 97.1% of the time. Crescent River scales were the second most correctly classified followed by Kenai River scales. In general, Susitna River scale patterns had the poorest classification accuracy. Samples from the Susitna River were most often misclassified as Kasilof River and vice versa.

Age Specific Stock Composition Estimates:

Stock composition estimates and their 90% confidence intervals developed from scale pattern analysis of age 5_2 fish are presented in Table 21. Because of substantial differences in classification accuracy confidence intervals varied considerably, but typically fell within the range of plus or minus 0.05 to plus or minus 0.30.

Catch Apportionment

In this section we present estimates of each river's contribution to the 1981 Upper Cook Inlet commercial sockeye salmon harvest. We also discuss additional factors which should be considered when interpreting the results.

Catch Summary by Fishery:

Estimates of the numbers of fish harvested by river of origin, age class, and date are outlined for each fishery in Tables 22-30.

The Northern District east-side set net fishery (Table 22) harvested 98,582 sockeye salmon of which 46.6% were Susitna River, 34.0% Fish Creek, and 19.4% Kenai River. Additional systems which probably contribute to this fishery's catch but are not included in the analysis are: Cottonwood Creek, Lake Creek, Matanuska River, Wasilla Creek, Chickaloon River, Swanson River, Palmer Creek, and Portage Creek. To give the reader an understanding of the potential contribution of these minor systems, historic abundance data is outlined in Table 31. Based on average exploitation rates of the major stocks, it was estimated that 27,787 sockeye salmon harvested in Upper Cook Inlet were produced in Cottonwood Creek. The harvest of Cottonwood Creek stocks by age class was

Table 19. Classification matrices from discriminant analyses of age 5_2 sockeye salmon scales from the early segment of the escapement into the Susitna, Kenai, Kasilof, and Crescent Rivers and the total escapement into Fish Creek, 1981[1].

Actual Group of Origin	Sample Size	Classified Group of Origin				
		Susitna	Kenai	Kasilof	Crescent	Fish
Susitna	200	.540	.090	.250	.105	.015
Kenai	200	.160	.530	.150	.160	.000
Kasilof	200	.195	.145	.595	.065	.000
Crescent	145	.076	.159	.103	.662	.000
Fish	104	.010	.010	.009	.000	.971

Overall correctly classified = .660

Actual Group of Origin	Sample Size	Classified Group of Origin			
		Susitna	Kenai	Kasilof	Fish
Susitna	200	.555	.155	.275	.015
Kenai	200	.125	.700	.175	.000
Kasilof	200	.190	.195	.615	.000
Fish	104	.010	.010	.009	.971

Overall correctly classified = .710

Actual Group of Origin	Sample Size	Classified Group of Origin			
		Susitna	Kenai	Kasilof	Crescent
Susitna	200	.540	.080	.230	.150
Kenai	200	.155	.515	.175	.155
Kasilof	200	.180	.160	.595	.065
Crescent	145	.069	.131	.083	.717

Overall correctly classified = .592

-Continued-

Note: Underlined proportions represent proportions correctly classified, all other proportions are misclassified.

Table 19. Classification matrices from discriminant analyses of age 5_2 sockeye salmon scales from the early segment of the escapement into the Susitna, Kenai, Kasilof, and Crescent Rivers and the total escapement into Fish Creek, 1981[1] (continued).

Actual Group of Origin	Sample Size	Classified Group of Origin		
		Susitna	Kenai	Kasilof
Susitna	200	.605	.125	.270
Kenai	200	.175	.655	.170
Kasilof	200	.210	.205	.585

Overall correctly classified = .615

Actual Group of Origin	Sample Size	Classified Group of Origin		
		Susitna	Kenai	Fish
Susitna	200	.780	.205	.015
Kenai	200	.235	.765	.000
Fish	104	.019	.010	.971

Overall correctly classified = .839

Actual Group of Origin	Sample Size	Classified Group of Origin		
		Kenai	Kasilof	Fish
Kenai	200	.745	.255	.000
Kasilof	200	.235	.765	.000
Fish	104	.000	.029	.971

Overall correctly classified = .827

-Continued-

Table 19. Classification matrices from discriminant analyses of age 5_2 sockeye salmon scales from the early segment of the escapement into the Susitna, Kenai, Kasilof, and Crescent Rivers and the total escapement into Fish Creek, 1981[1] (continued).

Actual Group of Origin	Sample Size	Classified Group of Origin		
		Kenai	Kasilof	Crescent
Kenai	200	.580	.240	.180
Kasilof	200	.175	.750	.075
Crescent	145	.110	.131	.759

Overall correctly classified = .696

Actual Group of Origin	Sample Size	Classified Group of Origin	
		Kenai	Kasilof
Kenai	200	.720	.280
Kasilof	200	.215	.785

Overall correctly classified = .752

[1] Sample dates included in each river are: Susitna 28 June through 12 July, Kenai 23 June through 10 July, Kasilof 20 June through 8 July, Crescent 24 June through 24 July, and Fish 11 July through 12 August.

Table 20. Classification matrices from discriminant analyses of age 5_2 sockeye salmon scales from the late segment of the escapement into the Susitna, Kenai, Kasilof, and Crescent Rivers and the total escapement into Fish Creek, 1981[1].

Actual Group of Origin	Sample Size	Classified Group of Origin				
		Susitna	Kenai	Kasilof	Crescent	Fish
Susitna	200	.460	.145	.250	.145	.000
Kenai	177	.158	.644	.107	.091	.000
Kasilof	137	.204	.124	.599	.073	.000
Crescent	142	.063	.106	.042	.789	.000
Fish	104	.010	.000	.010	.009	.971

Overall correctly classified = .693

Actual Group of Origin	Sample Size	Classified Group of Origin			
		Susitna	Kenai	Kasilof	Fish
Susitna	200	.555	.195	.250	.000
Kenai	177	.164	.706	.130	.000
Kasilof	137	.248	.132	.620	.000
Fish	104	.010	.010	.009	.971

Overall correctly classified = .713

Actual Group of Origin	Sample Size	Classified Group of Origin			
		Susitna	Kenai	Kasilof	Crescent
Susitna	200	.455	.155	.255	.135
Kenai	177	.147	.655	.107	.091
Kasilof	137	.226	.132	.562	.080
Crescent	142	.077	.106	.042	.775

Overall correctly classified = .612

-Continued-

Note: Underlined proportions represent proportions correctly classified, all other proportions are misclassified.

Table 20. Classification matrices from discriminant analyses of age 5_2 sockeye salmon scales from the late segment of the escapement into the Susitna, Kenai, Kasilof, and Crescent Rivers and the total escapement into Fish Creek, 1981[1] (continued).

Actual Group of Origin	Sample Size	Classified Group of Origin		
		Susitna	Kenai	Kasilof
Susitna	200	.590	.190	.220
Kenai	177	.153	.723	.124
Kasilof	137	.270	.139	.591

Overall correctly classified = .635

Actual Group of Origin	Sample Size	Classified Group of Origin		
		Susitna	Kenai	Fish
Susitna	200	.775	.225	.000
Kenai	177	.220	.780	.000
Fish	104	.019	.010	.971

Overall correctly classified = .842

Actual Group of Origin	Sample Size	Classified Group of Origin		
		Susitna	Kasilof	Crescent
Susitna	200	.575	.280	.145
Kasilof	137	.277	.672	.051
Crescent	142	.099	.063	.838

Overall correctly classified = .695

Actual Group of Origin	Sample Size	Classified Group of Origin	
		Susitna	Kenai
Susitna	200	.755	.245
Kenai	177	.215	.785

Overall correctly classified = .770

-Continued-

Table 20. Classification matrices from discriminant analyses of age 5_2 sockeye salmon scales from the late segment of the escapement into the Susitna, Kenai, Kasilof, and Crescent Rivers and the total escapement into Fish Creek, 1981[1] (continued).

Actual Group of Origin	Sample Size	Classified Group of Origin	
		Kenai	Kasilof
Kenai	177	.791	.209
Kasilof	137	.168	.832

Overall correctly classified = .812

Actual Group of Origin	Sample Size	Classified Group of Origin	
		Susitna	Crescent
Susitna	200	.815	.185
Crescent	142	.148	.852

Overall correctly classified = .834

[1] Sample dates included in each river are: Susitna 13 July through 31 July, Kenai 11 July through 28 July, Kasilof 9 July through 23 July, Crescent 25 July through 8 August, and Fish 11 July through 12 August.

Table 21. Stock composition estimates and 90% confidence intervals calculated from scale pattern analyses of age 5_2 sockeye salmon by fishery and date for Upper Cook Inlet, 1981[1].

Fishery	Date	Susitna		Kenai		Kasilof		Crescent		Fish	
		Proportion	90% C.I.	Proportion	90% C.I.	Proportion	90% C.I.	Proportion	90% C.I.	Proportion	90% C.I.
Northern District East-side Set Net	6/29-7/06	.499	(.315,.683)	.190	(.002,.357)					.311	(.207,.416)
	7/10	.579	(.385,.773)	.238	(.052,.424)					.183	(.099,.268)
	7/12	.445	(.214,.677)	.268	(.046,.490)					.287	(.160,.414)
	7/14	.695	(.497,.894)	.171	(0,.360)					.134	(.059,.208)
	7/17-7/19	.631	(.451,.812)	.180	(.009,.350)					.189	(.110,.267)
	7/21-7/27	.735	(.658,.813)							.265	(.187,.342)
Northern District West-side Set Net	6/26-7/06	.636	(.428,.845)	.353	(.148,.557)					.011	(0,.045)
	7/10	.734	(.530,.938)	.225	(.023,.427)					.041	(0,.085)
	7/12	.737	(.573,.902)	.263	(.098,.427)						
	7/14	.663	(.457,.868)	.296	(.093,.500)					.041	(0,.085)
	7/17-7/24	.870	(.668,1.00)	.109	(0,.309)					.021	(0,.052)

-Continued-

Table 21. Stock composition estimates and 90% confidence intervals calculated from scale pattern analyses of age 5_2 sockeye salmon by fishery and date for Upper Cook Inlet, 1981[1] (continued).

Fishery	Date	Susitna Proportion	Susitna 90% C.I.	Kenai Proportion	Kenai 90% C.I.	Kasilof Proportion	Kasilof 90% C.I.	Crescent Proportion	Crescent 90% C.I.	Fish Proportion	Fish 90% C.I.
Central District Drift Net	6/26	.034	(0,.308)	.313	(.065,.560)	.592	(.246,.937)			.061	(0,.123)
	6/27	.283	(0,.595)	.141	(0,.361)	.498	(.149,.846)			.078	(.007,.149)
	6/29	.504	(.172,.836)	.264	(.034,.494)	.188	(0,.520)			.044	(0,.102)
	6/30	.365	(.058,.672)	.236	(.015,.457)	.326	(0,.652)			.073	(.005,.141)
	7/01	.152	(0,.434)	.345	(.102,.587)	.433	(.103,.764)			.070	(.004,.136)
	7/02	.555	(.180,.930)	.343	(.076,.610)	.057	(0,.414)			.045	(0,.112)
	7/03	.202	(0,.498)	.291	(.052,.530)	.469	(.129,.810)			.038	(0,.088)
	7/06	.256	(0,.546)	.516	(.265,.767)	.202	(0,.512)			.026	(0,.070)
	7/10	.299	(0,.667)	.296	(.066,.527)	.375	(.050,.699)			.030	(0,.074)
	7/12	.559	(.353,.766)	.410	(.204,.616)					.031	(0,.068)
	7/14	.436	(.067,.805)	.517	(.257,.776)	.037	(0,.316)			.010	(0,.036)
	7/19	.497	(.290,.705)	.472	(.264,.679)					.031	(0,.069)
	7/21	.158	(0,.495)	.512	(.265,.759)	.279	(0,.575)			.051	(0,.108)
	7/24	.184	(0,.516)	.671	(.412,.929)	.105	(0,.372)			.041	(0,.091)
	7/27	.362	(.003,.721)	.470	(.219,.721)	.127	(0,.412)			.041	(0,.092)

-Continued-

Table 21. Stock composition estimates and 90% confidence intervals calculated from scale pattern analyses of age 5_2 sockeye salmon by fishery and date for Upper Cook Inlet, 1981[1] (continued).

Fishery	Date	Susitna		Kenai		Kasilof		Crescent		Fish	
		Proportion	90% C.I.	Proportion	90% C.I.	Proportion	90% C.I.	Proportion	90% C.I.	Proportion	90% C.I.
Central District West-side Set Net	6/24			.057	(0,.263)	.078	(0,.256)	.865	(.666,1.00)		
	7/03-7/10			.260	(.034,.487)	.115	(0,.296)	.625	(.431,.818)		
	7/19-7/27	.726	(.597,.855)					.274	(.145,.403)		
Kalgin Island Set Net	6/29-7/06	.062	(0,.382)	.422	(.078,.767)	.446	(.088,.804)	.010	(0,.191)	.060	(0,.128)
	7/10-7/14	.346	(0,.782)	.312	(.055,.570)	.178	(0,.511)	.061	(0,.216)	.103	(.017,.189)
	7/21-7/24	.457	(.089,.823)	.347	(.107,.588)	.144	(0,.404)			.082	(.012,.152)
Salamatof Beach Set Net	6/26-7/03	.230	(0,.497)	.361	(.140,.583)	.326	(.029,.623)			.083	(.017,.149)
	7/06-7/10			1.00	(.896,1.00)						
	7/12	.209	(.048,.371)	.791	(.629,.952)						
	7/14	.076	(. 0,.403)	.807	(.541,1.00)	.107	(0,.375)			.010	(0,.036)
	7/19			.964	(.828,1.00)	.036	(0,.172)				
	7/21-7/27	.215	(.010,.421)	.775	(.568,.981)					.010	(0,.032)

-Continued-

Table 21. Stock composition estimates and 90% confidence intervals calculated from scale pattern analyses of age 5_2 sockeye salmon by fishery and date for Upper Cook Inlet, 1981[1] (continued).

Fishery	Date	Susitna Proportion	Susitna 90% C.I.	Kenai Proportion	Kenai 90% C.I.	Kasilof Proportion	Kasilof 90% C.I.	Crescent Proportion	Crescent 90% C.I.	Fish Proportion	Fish 90% C.I.
Kalifonsky Beach Set Net	6/26	.016	(0,.262)	.245	(.008,.483)	.739	(.410,1.00)				
	6/27			.120	(0,.339)	.859	(.638,1.00)			.021	(0,.052)
	6/29			.387	(.212,.562)	.613	(.438,.788)				
	7/10-7/12	.257	(0,.535)	.611	(.398,.825)	.132	(0,.370)				
	7/14-7/19	.311	(.103,.519)	.679	(.470,.888)					.010	(0,.032)
	7/21-7/27	.150	(0,.354)	.840	(.635,1.00)					.010	(0,.032)
Cohoe/Ninilchik Beach Set Net	6/27			.126	(0,.293)	.874	(.707,1.00)				
	6/29	.162	(0,.447)	.452	(.199,.706)	.378	(.048,.708)			.008	(0,.034)
	7/01-7/02	.296	(0,.640)	.458	(.173,.744)	.237	(0,.603)			.009	(0,.044)
	7/03-7/06			.340	(.166,.513)	.660	(.487,.834)				
	7/09	.369	(0,.755)	.221	(0,.447)	.400	(.062,.739)			.010	(0,.036)
	7/12			.693	(.546,.839)	.307	(.161,.454)				
	7/19	.326	(.161,.490)	.674	(.510,.839)						
	7/21-7/27	.300	(.137,.464)	.700	(.536,.863)						

[1] The Central District drift net and the Kalgin Island set net catches classified with the five-way model which included all five rivers. Catch samples from the east-side beaches (Salamatof, Kalifonsky, Cohoe/Ninilchik) were classified with a four-way stock identification model which included all the rivers except Crescent River. Northern District set net catches were classified with a three-way stock identification model representing Susitna River, Kenai River, and Fish Creek. Central District west-side set net catches were classified with a four-way model comprised of Susitna, Kenai, Kasilof, and Crescent Rivers.

Table 22. Stock composition estimates of sockeye salmon catches by age class and date for Northern District east-side set net fishery, Upper Cook Inlet, 1981[1].

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
6/26	Susitna	6.5	28	49.8	264	34.7	51	63.3	31	0	0	32.3	374
	Kenai	3.0	13	19.1	101	49.0	72	36.7	18	0	0	17.6	204
	Fish	90.5	391	31.1	165	16.3	24	0	0	0	0	50.1	580
	Total	100.0	432	100.0	530	100.0	147	100.0	49	0	0	100.0	1,158
6/29	Susitna	6.4	62	49.9	589	34.8	114	62.4	68	0	0	32.3	833
	Kenai	3.1	30	19.0	224	49.1	161	37.6	41	0	0	17.7	456
	Fish	90.4	871	31.1	367	16.2	53	0	0	0	0	50.0	1,291
	Total	100.0	963	100.0	1,180	100.0	328	100.0	109	0	0	100.0	2,580
7/03	Susitna	6.8	7	50.5	46	35.0	7	60.0	3	0	0	28.8	63
	Kenai	2.9	3	18.7	17	50.0	10	40.0	2	0	0	14.6	32
	Fish	90.3	93	30.8	28	15.0	3	0	0	0	0	56.6	124
	Total	100.0	103	100.0	91	100.0	20	100.0	5	0	0	100.0	219
7/06	Susitna	4.6	68	49.9	506	33.5	53	66.7	26	7.1	1	24.3	654
	Kenai	3.1	46	19.0	193	50.0	79	33.3	13	0	0	12.3	331
	Fish	92.2	1,349	31.1	316	16.5	26	0	0	92.9	13	63.4	1,704
	Total	100.0	1,463	100.0	1,015	100.0	158	100.0	39	100.0	14	100.0	2,689
7/10	Susitna	7.9	480	57.9	12,425	33.7	879	67.2	487	0	0	46.2	14,271
	Kenai	12.7	773	23.8	5,107	58.0	1,513	32.8	238	0	0	24.7	7,631
	Fish	79.4	4,837	18.3	3,927	8.4	218	0	0	0	0	29.1	8,982
	Total	100.0	6,090	100.0	21,459	100.0	2,610	100.0	725	0	0	100.0	30,884
7/12	Susitna	4.2	173	44.5	3,057	24.8	577	58.3	766	0	0	31.2	4,573
	Kenai	9.9	409	26.8	1,841	62.6	1,455	41.7	547	0	0	29.0	4,252
	Fish	85.9	3,560	28.7	1,971	12.6	292	0	0	0	0	39.8	5,823
	Total	100.0	4,142	100.0	6,869	100.0	2,324	100.0	1,313	0	0	100.0	14,648

-Continued-

Table 22. Stock composition estimates of sockeye salmon catches by age class and date for Northern District east-side set net fishery, Upper Cook Inlet, 1981[1] (continued).

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
7/14	Susitna	12.3	504	69.5	6,213	45.9	234	77.8	49	11.8	15	51.1	7,015
	Kenai	11.9	486	17.1	1,529	47.3	241	22.2	14	0	0	16.5	2,270
	Fish	75.8	3,097	13.4	1,198	6.9	35	0	0	88.2	112	32.4	4,442
	Total	100.0	4,087	100.0	8,940	100.0	510	100.0	63	100.0	127	100.0	13,727
7/17	Susitna	28.7	415	63.1	2,760	48.1	296	53.0	98	0	0	53.9	3,569
	Kenai	7.9	114	18.0	787	26.1	161	47.0	87	0	0	17.3	1,149
	Fish	63.5	919	18.9	827	25.8	159	0	0	0	0	28.8	1,905
	Total	100.0	1,448	100.0	4,374	100.0	616	100.0	185	0	0	100.0	6,623
7/19	Susitna	27.7	465	63.1	2,316	46.5	238	76.1	108	60.7	17	52.1	3,144
	Kenai	11.0	185	18.0	661	28.5	146	23.9	34	0	0	17.0	1,026
	Fish	61.3	1,028	18.9	694	25.0	128	0	0	39.3	11	30.9	1,861
	Total	100.0	1,678	100.0	3,671	100.0	512	100.0	142	100.0	28	100.0	6,031
7/20	Susitna	27.7	712	63.1	4,002	46.5	321	75.8	314	0	0	53.4	5,349
	Kenai	11.0	284	18.0	1,142	28.6	197	24.2	100	0	0	17.2	1,723
	Fish	61.3	1,577	18.9	1,199	24.9	172	0	0	0	0	29.4	2,948
	Total	100.0	2,573	100.0	6,343	100.0	690	100.0	414	0	0	100.0	10,020
7/21	Susitna	27.4	128	73.5	979	61.1	66	100.0	99	55.6	15	63.3	1,287
	Kenai	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	72.6	340	26.5	353	38.9	42	0	0	44.4	12	36.7	747
	Total	100.0	468	100.0	1,332	100.0	108	100.0	99	100.0	27	100.0	2,034
7/24	Susitna	27.3	166	73.5	880	60.7	221	100.0	64	56.3	18	59.5	1,349
	Kenai	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	72.7	443	26.5	317	39.3	143	0	0	43.8	14	40.5	917
	Total	100.0	609	100.0	1,197	100.0	364	100.0	64	100.0	32	100.0	2,266

-Continued-

Table 22. Stock composition estimates of sockeye salmon catches by age class and date for Northern District east-side set net fishery, Upper Cook Inlet, 1981[1] (continued).

		4 2		5 2		5 3		6 3		Other		Total	
Date	System	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers
7/27	Susitna	40.5	233	73.5	1,034	44.6	214	100.0	80	35.4	17	60.9	1,578
	Kenai	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	59.5	343	26.5	373	55.4	266	0	0	64.6	31	39.1	1,013
	Total	100.0	576	100.0	1,407	100.0	480	100.0	80	100.0	48	100.0	2,591
7/29	Susitna	40.4	99	73.5	439	44.6	91	100.0	34	35.0	7	60.9	670
	Kenai	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	59.6	146	26.5	158	55.4	113	0	0	65.0	13	39.1	430
	Total	100.0	245	100.0	597	100.0	204	100.0	34	100.0	20	100.0	1,100
7/31	Susitna	40.4	59	73.4	262	44.6	54	100.0	20	33.3	4	60.8	399
	Kenai	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	59.6	87	26.6	95	55.4	67	0	0	66.7	8	39.2	257
	Total	100.0	146	100.0	357	100.0	121	100.0	20	100.0	12	100.0	656
After 7/31	Susitna	40.3	122	73.5	542	44.4	111	100.0	42	29.2	7	60.8	824
	Kenai	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	59.7	181	26.5	195	55.6	139	0	0	70.8	17	39.2	532
	Total	100.0	303	100.0	737	100.0	250	100.0	42	100.0	24	100.0	1,356
Total	Susitna	14.7	3,721	60.4	36,314	37.4	3,527	67.7	2,289	30.4	101	46.6	45,952
	Kenai	9.2	2,343	19.3	11,602	42.7	4,035	32.3	1,094	0	0	19.4	19,074
	Fish	76.1	19,262	20.3	12,183	19.9	1,880	0	0	69.6	231	34.0	33,556
	Total	100.0	25,326	100.0	60,099	100.0	9,442	100.0	3,383	100.0	332	100.0	98,582

[1] Catch total may differ slightly from figures presented in Table 1 due to rounding.

Table 23. Stock composition estimates of sockeye salmon catches by age class and date for Northern District and west-side set net fishery, Upper Cook Inlet, 1981[1].

		4		5		5		6		Other		Total	
		2		2		3		3					
Date	System	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers
6/26	Susitna	48.3	29	63.7	251	33.3	14	50.0	6	0	0	59.1	300
	Kenai	33.3	20	35.3	139	66.7	28	50.0	6	0	0	38.0	193
	Fish	18.3	11	1.0	4	0	0	0	0	0	0	3.0	15
	Total	100.0	60	100.0	394	100.0	42	100.0	12	0	0	100.0	508
6/29	Susitna	47.7	74	63.6	726	32.4	44	53.5	38	0	0	58.6	882
	Kenai	33.5	52	35.3	403	66.9	91	46.5	33	0	0	38.5	579
	Fish	18.7	29	1.1	13	0.7	1	0	0	0	0	2.9	43
	Total	100.0	155	100.0	1,142	100.0	136	100.0	71	0	0	100.0	1,504
7/03	Susitna	47.9	70	63.6	563	32.6	31	53.6	37	0	0	58.7	701
	Kenai	33.6	49	35.3	312	67.4	64	46.4	32	0	0	38.2	457
	Fish	18.5	27	1.1	10	0	0	0	0	0	0	3.1	37
	Total	100.0	146	100.0	885	100.0	95	100.0	69	0	0	100.0	1,195
7/06	Susitna	39.4	579	63.6	4,668	31.3	197	58.0	446	0	0	57.7	5,890
	Kenai	38.8	570	35.3	2,591	68.2	429	42.0	323	0	0	38.3	3,913
	Fish	21.7	319	1.1	81	0.5	3	0	0	0	0	3.9	403
	Total	100.0	1,468	100.0	7,340	100.0	629	100.0	769	0	0	100.0	10,206
7/10	Susitna	25.1	1,976	73.4	29,720	43.0	483	73.3	1,237	0	0	65.3	33,416
	Kenai	30.2	2,375	22.5	9,110	55.2	620	26.7	450	0	0	24.5	12,555
	Fish	44.7	3,522	4.1	1,660	1.9	21	0	0	0	0	10.2	5,203
	Total	100.0	7,873	100.0	40,490	100.0	1,124	100.0	1,687	0	0	100.0	51,174
7/12	Susitna	41.7	1,538	73.7	17,436	40.1	612	70.3	1,698	0	0	68.0	21,284
	Kenai	58.3	2,151	26.3	6,222	59.9	915	29.7	718	0	0	32.0	10,006
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	3,689	100.0	23,658	100.0	1,527	100.0	2,416	0	0	100.0	31,290

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Table 23. Stock composition estimates of sockeye salmon catches by age class and date for Northern District west-side set net fishery, Upper Cook Inlet, 1981[1] (continued).

		4		5		5		6					
		2		2		3		3		Other		Total	
Date	System	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers
7/14	Susitna	21.2	365	66.3	9,044	34.2	295	65.3	205	0	0	59.9	9,909
	Kenai	37.1	639	29.6	4,038	64.2	553	34.7	109	0	0	32.3	5,339
	Fish	41.8	720	4.1	559	1.6	14	0	0	0	0	7.8	1,293
	Total	100.0	1,724	100.0	13,641	100.0	862	100.0	314	0	0	100.0	16,541
7/17	Susitna	77.0	398	87.0	957	77.8	186	72.2	117	0	0	82.2	1,658
	Kenai	9.3	48	10.9	120	18.8	45	27.8	45	0	0	12.8	258
	Fish	13.7	71	2.1	23	3.3	8	0	0	0	0	5.1	102
	Total	100.0	517	100.0	1,100	100.0	239	100.0	162	0	0	100.0	2,018
7/19	Susitna	73.9	1,895	87.0	11,015	76.2	378	87.7	2,105	0	0	84.9	15,393
	Kenai	12.9	332	10.9	1,380	20.6	102	12.3	294	0	0	11.6	2,108
	Fish	13.2	338	2.1	266	3.2	16	0	0	0	0	3.4	620
	Total	100.0	2,565	100.0	12,661	100.0	496	100.0	2,399	0	0	100.0	18,121
7/20	Susitna	73.9	868	87.0	5,047	76.2	173	87.7	965	0	0	84.9	7,053
	Kenai	12.9	152	10.9	632	20.7	47	12.3	135	0	0	11.6	966
	Fish	13.2	155	2.1	122	3.1	7	0	0	0	0	3.4	284
	Total	100.0	1,175	100.0	5,801	100.0	227	100.0	1,100	0	0	100.0	8,303
7/24	Susitna	73.8	267	87.0	2,178	76.2	64	88.0	110	0	0	85.2	2,619
	Kenai	13.0	47	10.9	273	20.2	17	12.0	15	0	0	11.4	352
	Fish	13.3	48	2.1	53	3.6	3	0	0	0	0	3.4	104
	Total	100.0	362	100.0	2,504	100.0	84	100.0	125	0	0	100.0	3,075
7/27	Susitna	78.4	218	87.0	1,672	73.4	47	87.5	84	0	0	85.7	2,021
	Kenai	13.7	38	10.9	209	20.3	13	12.5	12	0	0	11.5	272
	Fish	7.9	22	2.1	40	6.3	4	0	0	0	0	2.8	66
	Total	100.0	278	100.0	1,921	100.0	64	100.0	96	0	0	100.0	2,359

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Table 23. Stock composition estimates of sockeye salmon catches by age class and date for Northern District west-side set net fishery, Upper Cook Inlet, 1981[1] (continued).

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
7/29	Susitna	78.5	281	87.0	2,156	74.4	61	87.9	109	0	0	85.7	2,607
	Kenai	13.7	49	10.9	270	19.5	16	12.1	15	0	0	11.5	350
	Fish	7.8	28	2.1	52	6.1	5	0	0	0	0	2.8	85
	Total	100.0	358	100.0	2,478	100.0	82	100.0	124	0	0	100.0	3,042
7/31	Susitna	78.9	45	87.1	344	71.4	10	89.5	17	0	0	85.8	416
	Kenai	14.0	8	10.9	43	21.4	3	10.5	2	0	0	11.5	56
	Fish	7.0	4	2.0	8	7.1	1	0	0	0	0	2.7	13
	Total	100.0	57	100.0	395	100.0	14	100.0	19	0	0	100.0	485
After 7/31	Susitna	79.0	98	87.0	756	75.0	21	86.4	38	0	0	85.7	913
	Kenai	13.7	17	10.9	95	21.4	6	13.6	6	0	0	11.7	124
	Fish	7.3	9	2.1	18	3.6	1	0	0	0	0	2.6	28
	Total	100.0	124	100.0	869	100.0	28	100.0	44	0	0	100.0	1,065
Total	Susitna	42.3	8,701	75.1	86,533	46.3	2,616	76.7	7,212	0	0	69.6	105,062
	Kenai	31.9	6,547	22.4	25,837	52.2	2,949	23.3	2,195	0	0	24.9	37,528
	Fish	25.8	5,303	2.5	2,909	1.5	84	0	0	0	0	5.5	8,296
	Total	100.0	20,551	100.0	115,279	100.0	5,649	100.0	9,407	0	0	100.0	150,886

[1] Catch total may differ slightly from figures presented in Table 1 due to rounding.

Table 24. Stock composition estimates of sockeye salmon catches by age class and date for Central District west-side set net fishery, Upper Cook Inlet, 1981[1].

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
6/19	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	1.4	1	5.7	38	4.4	4	0.2	1	0	0	3.3	44
	Kasilof	2.8	2	7.8	52	2.2	2	0.2	1	0	0	4.3	57
	Crescent	95.8	69	86.5	580	93.4	85	99.6	506	0	0	92.5	1,240
	Total	100.0	72	100.0	670	100.0	91	100.0	508	0	0	100.0	1,341
6/22	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	2.2	3	5.7	70	4.2	7	0.2	2	0	0	3.3	82
	Kasilof	2.2	3	7.8	96	2.4	4	0.1	1	0	0	4.2	104
	Crescent	95.5	128	86.5	1,068	93.4	156	99.7	931	0	0	92.5	2,283
	Total	100.0	134	100.0	1,234	100.0	167	100.0	934	0	0	100.0	2,469
6/24	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	1.9	2	5.7	56	4.5	6	0.3	2	0	0	3.4	66
	Kasilof	1.9	2	7.8	76	2.3	3	0.1	1	0	0	4.2	82
	Crescent	96.2	101	86.5	845	93.2	123	99.6	736	0	0	92.4	1,805
	Total	100.0	105	100.0	977	100.0	132	100.0	739	0	0	100.0	1,953
6/26	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	2.1	2	5.7	49	4.3	5	0.3	2	0	0	3.3	58
	Kasilof	2.1	2	7.8	68	2.6	3	0.2	1	0	0	4.3	74
	Crescent	95.7	90	86.5	749	93.2	109	99.5	653	0	0	92.4	1,601
	Total	100.0	94	100.0	866	100.0	117	100.0	656	0	0	100.0	1,733
6/29	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	1.7	2	5.6	35	3.7	3	0.3	1	0	0	3.5	41
	Kasilof	21.0	25	7.8	48	9.8	8	0	0	0	0	7.0	81
	Crescent	77.3	92	86.6	538	86.6	71	99.7	337	0	0	89.5	1,038
	Total	100.0	119	100.0	621	100.0	82	100.0	338	0	0	100.0	1,160

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Table 24. Stock composition estimates of sockeye salmon catchs by age class and date for Central District west-side set net fishery, Upper Cook Inlet, 1981[1] (continued).

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
7/03	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	7.7	43	26.0	757	19.2	74	1.5	23	0	0	16.5	897
	Kasilof	32.5	181	11.5	335	14.3	55	0.3	4	0	0	10.6	575
	Crescent	59.8	333	62.5	1,820	66.5	256	98.3	1,558	0	0	72.9	3,967
	Total	100.0	557	100.0	2,912	100.0	385	100.0	1,585	0	0	100.0	5,439
7/06	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	8.7	10	26.0	154	11.9	10	2.8	13	0	0	14.9	187
	Kasilof	36.5	42	11.5	68	8.3	7	0.4	2	0	0	9.5	119
	Crescent	54.8	63	62.5	370	79.8	67	96.7	445	0	0	75.5	945
	Total	100.0	115	100.0	592	100.0	84	100.0	460	0	0	100.0	1,251
7/10	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	17.1	77	26.0	681	12.3	16	2.5	20	0	0	19.9	794
	Kasilof	33.2	149	11.5	301	8.5	11	0.5	4	0	0	11.7	465
	Crescent	49.7	223	62.5	1,637	79.2	103	96.9	762	0	0	68.4	2,725
	Total	100.0	449	100.0	2,619	100.0	130	100.0	786	0	0	100.0	3,984
7/12	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	6.5	3	25.9	69	7.7	1	2.5	2	0	0	18.5	75
	Kasilof	78.3	36	11.7	31	38.5	5	1.3	1	0	0	18.0	73
	Crescent	15.2	7	62.4	166	53.8	7	96.3	77	0	0	63.5	257
	Total	100.0	46	100.0	266	100.0	13	100.0	80	0	0	100.0	405
7/14	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	7.7	1	26.4	9	12.5	1	0	0	0	0	15.9	11
	Kasilof	76.9	10	11.8	4	37.5	3	0	0	0	0	24.6	17
	Crescent	15.4	2	61.8	21	50.4	4	100.0	14	0	0	59.4	41
	Total	100.0	13	100.0	34	100.0	8	100.0	14	0	0	100.0	69

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Table 24. Stock composition estimates of sockeye salmon catches by age class and date for Central District west-side set net fishery, Upper Cook Inlet, 1981[1] (continued).

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
7/19	Susitna	72.2	582	72.6	721	27.3	150	4.5	33	0	0	48.1	1,486
	Kenai	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Crescent	27.8	224	27.4	272	72.7	400	95.5	705	0	0	51.9	1,601
	Total	100.0	806	100.0	993	100.0	550	100.0	738	0	0	100.0	3,087
7/24	Susitna	72.3	331	72.6	532	27.4	57	4.5	12	0	0	56.0	932
	Kenai	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Crescent	27.7	127	27.4	201	72.6	151	95.5	254	0	0	44.0	733
	Total	100.0	458	100.0	733	100.0	208	100.0	266	0	0	100.0	1,665
7/27	Susitna	72.2	387	72.6	731	27.3	35	4.7	7	0	0	63.7	1,160
	Kenai	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Crescent	27.8	149	27.4	276	72.7	93	95.3	143	0	0	36.3	661
	Total	100.0	536	100.0	1,007	100.0	128	100.0	150	0	0	100.0	1,821
7/29	Susitna	72.2	177	72.6	334	27.1	16	4.3	3	0	0	63.6	530
	Kenai	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Crescent	27.8	68	27.4	126	72.9	43	95.7	66	0	0	36.4	303
	Total	100.0	245	100.0	460	100.0	59	100.0	69	0	0	100.0	833
7/31	Susitna	72.1	75	72.6	143	28.0	7	3.4	1	0	0	63.7	226
	Kenai	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Crescent	27.9	29	27.4	54	72.0	18	96.6	28	0	0	36.3	129
	Total	100.0	104	100.0	197	100.0	25	100.0	29	0	0	100.0	355

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Table 24. Stock composition estimates of sockeye salmon catches by age class and date for Central District west-side set net fishery, Upper Cook Inlet, 1981[1] (continued).

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
After 7/31	Susitna	72.2	229	72.6	432	27.3	21	4.4	4	0	0	63.6	686
	Kenai	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Crescent	27.8	88	27.4	163	72.7	56	95.6	86	0	0	36.4	393
	Total	100.0	317	100.0	595	100.0	77	100.0	90	0	0	100.0	1,079
Total	Susitna	42.7	1,781	19.6	2,893	12.7	286	0.8	60	0	0	17.5	5,020
	Kenai	3.5	144	13.0	1,918	5.6	127	0.9	66	0	0	7.9	2,255
	Kasilof	10.8	452	7.3	1,079	4.5	101	0.2	15	0	0	5.7	1,647
	Crescent	43.0	1,793	60.1	8,886	77.2	1,742	98.1	7,301	0	0	68.9	19,722
	Total	100.0	4,170	100.0	14,776	100.0	2,256	100.0	7,442	0	0	100.0	28,644

[1] Catch total may differ slightly from figures presented in Table 1 due to rounding.

Table 25. Stock composition estimates of sockeye salmon catches by age class and date for Kalgin Island set net fishery, Upper Cook Inlet, 1981[1].

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
6/26	Susitna	2.5	9	6.2	56	2.5	7	4.8	4	0	0	4.7	76
	Kenai	21.4	78	42.2	380	67.5	189	46.4	39	0	0	42.1	686
	Kasilof	20.0	73	44.6	401	26.1	73	17.9	15	0	0	34.5	562
	Crescent	1.6	6	1.0	9	2.1	6	31.0	26	0	0	2.9	47
	Fish	54.5	199	6.0	54	1.8	5	0	0	0	0	15.8	258
	Total	100.0	365	100.0	900	100.0	280	100.0	84	0	0	100.0	1,629
6/29	Susitna	0.9	2	6.2	35	1.1	2	3.9	2	0	0	4.0	41
	Kenai	7.0	16	42.1	237	34.9	61	47.1	24	0	0	33.2	338
	Kasilof	73.2	167	44.6	251	61.7	108	17.6	9	0	0	52.6	535
	Crescent	0.4	1	1.1	6	1.1	2	31.4	16	0	0	2.5	25
	Fish	18.4	42	6.0	34	1.1	2	0	0	0	0	7.7	78
	Total	100.0	228	100.0	563	100.0	175	100.0	51	0	0	100.0	1,017
7/03	Susitna	0.9	1	6.1	25	0	0	4.8	1	0	0	4.8	27
	Kenai	7.0	8	42.2	172	36.0	9	47.6	10	0	0	35.0	199
	Kasilof	72.8	83	44.6	182	64.0	16	19.0	4	0	0	50.2	285
	Crescent	0.9	1	1.0	4	0	0	28.6	6	0	0	1.9	11
	Fish	18.4	21	6.1	25	0	0	0	0	0	0	8.1	46
	Total	100.0	114	100.0	408	100.0	25	100.0	21	0	0	100.0	568
7/06	Susitna	0.8	1	6.2	26	1.6	2	6.5	6	0	0	4.6	35
	Kenai	7.2	9	42.2	178	34.4	43	54.3	50	0	0	36.6	280
	Kasilof	72.8	91	44.8	189	60.8	76	20.7	19	0	0	49.1	375
	Crescent	0.8	1	0.9	4	2.4	3	18.5	17	0	0	3.3	25
	Fish	18.4	23	5.9	25	0.8	1	0	0	0	0	6.4	49
	Total	100.0	125	100.0	422	100.0	125	100.0	92	0	0	100.0	764
7/10	Susitna	4.2	29	34.6	449	9.5	47	17.6	105	0	0	20.5	630
	Kenai	15.0	103	31.2	405	36.5	178	18.8	112	0	0	26.0	798
	Kasilof	37.2	256	17.8	231	32.8	160	4.4	26	0	0	21.9	673
	Crescent	3.5	24	6.1	79	18.9	92	59.2	353	0	0	17.9	548
	Fish	40.1	276	10.3	134	2.3	11	0	0	0	0	13.7	421
	Total	100.0	688	100.0	1,298	100.0	488	100.0	596	0	0	100.0	3,070

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Table 25. Stock composition estimates of sockeye salmon catches by age class and date for Kalgin Island set net fishery, Upper Cook Inlet, 1981[1] (continued).

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
7/12	Susitna	1.2	11	34.6	1,349	3.6	28	17.3	139	0	0	23.9	1,527
	Kenai	4.4	40	31.2	1,216	13.8	107	18.5	149	0	0	23.7	1,512
	Kasilof	81.4	733	17.8	694	74.5	576	6.2	50	0	0	32.2	2,053
	Crescent	1.0	9	6.1	238	7.1	55	58.0	467	0	0	12.1	769
	Fish	12.0	108	10.3	401	0.9	7	0	0	0	0	8.1	516
	Total	100.0	901	100.0	3,898	100.0	723	100.0	805	0	0	100.0	6,377
7/14	Susitna	1.3	3	34.6	1,052	3.6	11	17.2	33	0	0	29.1	1,099
	Kenai	4.3	10	31.2	949	14.0	43	18.2	35	0	0	27.5	1,037
	Kasilof	81.4	188	17.8	541	74.4	229	6.3	12	0	0	25.7	970
	Crescent	0.9	2	6.1	185	7.1	22	58.3	112	0	0	8.5	321
	Fish	12.1	28	10.3	313	1.0	3	0	0	0	0	9.1	344
	Total	100.0	231	100.0	3,040	100.0	308	100.0	192	0	0	100.0	3,771
7/19	Susitna	9.0	34	45.7	999	13.4	62	43.3	237	0	0	37.3	1,332
	Kenai	9.6	36	34.7	759	21.9	101	36.7	201	0	0	30.7	1,097
	Kasilof	69.4	261	11.4	249	60.3	278	19.9	109	0	0	25.1	897
	Crescent	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	12.0	45	8.2	179	4.3	20	0	0	0	0	6.8	244
	Total	100.0	376	100.0	2,186	100.0	461	100.0	547	0	0	100.0	3,570
7/21	Susitna	9.0	52	45.7	734	13.4	87	43.3	407	70.6	12	34.1	1,292
	Kenai	9.6	56	34.7	557	21.9	142	36.7	345	0	0	29.0	1,100
	Kasilof	69.5	404	11.4	183	60.4	392	19.9	187	0	0	30.7	1,166
	Crescent	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	11.9	69	8.2	132	4.3	28	0	0	29.4	5	6.2	234
	Total	100.0	581	100.0	1,606	100.0	649	100.0	939	100.0	17	100.0	3,792
7/24	Susitna	9.0	42	45.7	275	13.3	34	43.2	108	0	0	29.1	459
	Kenai	9.6	45	34.7	209	21.9	56	36.8	92	0	0	25.5	402
	Kasilof	69.5	326	11.5	69	60.5	155	20.0	50	0	0	38.0	600
	Crescent	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	11.9	56	8.1	49	4.3	11	0	0	0	0	7.4	116
	Total	100.0	469	100.0	602	100.0	256	100.0	250	0	0	100.0	1,577

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Table 25. Stock composition estimates of sockeye salmon catches by age class and date for Kalgin Island set net fishery, Upper Cook Inlet, 1981[1] (continued).

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
7/27	Susitna	9.5	69	45.7	425	12.8	51	43.3	167	0	0	29.2	712
	Kenai	10.1	73	34.7	323	21.2	84	36.8	142	0	0	25.5	622
	Kasilof	73.4	533	11.4	106	57.9	230	19.9	77	0	0	38.8	946
	Crescent	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	7.0	51	8.2	76	8.1	32	0	0	0	0	6.5	159
	Total	100.0	726	100.0	930	100.0	397	100.0	386	0	0	100.0	2,439
7/29	Susitna	9.5	52	45.7	321	13.0	39	43.3	126	0	0	29.2	538
	Kenai	10.1	55	34.7	244	21.0	63	36.8	107	0	0	25.5	469
	Kasilof	73.5	402	11.4	80	58.0	174	19.9	58	0	0	38.8	714
	Crescent	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	6.9	38	8.2	58	8.0	24	0	0	0	0	6.5	120
	Total	100.0	547	100.0	703	100.0	300	100.0	291	0	0	100.0	1,841
7/31	Susitna	9.5	35	45.7	214	13.0	26	43.3	84	0	0	29.2	359
	Kenai	10.1	37	34.8	163	21.0	42	36.6	71	0	0	25.5	313
	Kasilof	73.3	269	11.4	53	58.0	116	20.1	39	0	0	38.8	477
	Crescent	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	7.1	26	8.1	38	8.0	16	0	0	0	0	6.5	80
	Total	100.0	367	100.0	468	100.0	200	100.0	194	0	0	100.0	1,229
After 7/31	Susitna	9.6	121	45.7	741	12.9	89	43.4	292	0	0	29.2	1,243
	Kenai	10.1	128	34.7	563	21.1	146	36.8	248	0	0	25.5	1,085
	Kasilof	73.3	929	11.4	185	58.0	401	19.8	133	0	0	38.8	1,648
	Crescent	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	7.0	89	8.2	132	8.0	55	0	0	0	0	6.5	276
	Total	100.0	1,267	100.0	1,621	100.0	691	100.0	673	0	0	100.0	4,252
Total	Susitna	6.6	461	35.9	6,701	9.5	485	33.4	1,711	0	0	26.1	9,370
	Kenai	10.0	694	34.1	6,355	24.6	1,264	31.7	1,625	0	0	27.7	9,938
	Kasilof	67.5	4,715	18.3	3,414	58.2	2,984	15.4	788	0	0	33.1	11,901
	Crescent	0.6	44	2.8	525	3.5	180	19.5	997	0	0	4.9	1,746
	Fish	15.3	1,071	8.9	1,650	4.2	215	0	0	0	0	8.2	2,941
	Total	100.0	6,985	100.0	18,645	100.0	5,128	100.0	5,121	0	0	100.0	35,896

[1] Catch totals may differ slightly from figures presented in Table 1 due to rounding.

Table 26. Stock composition estimates of sockeye salmon catches by age class and date for Central District drift net fishery, Upper Cook Inlet, 1981[1].

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
6/26	Susitna	1.4	23	3.4	347	1.6	27	4.0	28	5.3	3	3.0	428
	Kenai	16.0	271	31.3	3,197	56.8	932	57.3	406	0	0	33.6	4,806
	Kasilof	26.8	455	59.2	6,047	39.4	646	38.7	274	0	0	51.8	7,422
	Fish	55.9	949	6.1	623	2.2	36	0	0	94.7	54	11.6	1,662
	Total	100.0	1,698	100.0	10,214	100.0	1,641	100.0	708	100.0	57	100.0	14,318
6/27	Susitna	10.1	50	28.3	1,131	18.4	97	36.1	60	0	0	25.8	1,338
	Kenai	6.5	32	14.1	563	33.9	179	28.3	47	0	0	15.8	821
	Kasilof	20.0	99	49.8	1,990	43.9	232	35.5	59	0	0	45.9	2,380
	Fish	63.4	314	7.8	312	3.8	20	0	0	0	0	12.5	646
	Total	100.0	495	100.0	3,996	100.0	528	100.0	166	0	0	100.0	5,185
6/28	Susitna	6.4	25	39.4	838	11.8	28	43.7	31	0	0	32.6	922
	Kenai	4.1	16	20.2	429	22.7	54	35.2	25	0	0	18.5	524
	Kasilof	67.3	264	34.3	729	64.3	153	21.1	15	0	0	41.1	1,161
	Fish	22.2	87	6.1	130	1.3	3	0	0	0	0	7.8	220
	Total	100.0	392	100.0	2,126	100.0	238	100.0	71	0	0	100.0	2,827
6/29	Susitna	12.2	233	50.4	4,051	18.8	128	49.2	151	0	0	41.7	4,563
	Kenai	8.1	154	26.4	2,122	36.4	248	40.4	124	0	0	24.2	2,648
	Kasilof	55.5	1,059	18.8	1,511	43.6	297	10.4	32	0	0	26.5	2,899
	Fish	24.2	461	4.4	354	1.2	8	0	0	0	0	7.5	823
	Total	100.0	1,907	100.0	8,038	100.0	681	100.0	307	0	0	100.0	10,933
6/30	Susitna	5.8	42	36.5	663	11.1	16	39.6	19	0	0	27.1	740
	Kenai	4.7	34	23.6	429	26.4	38	39.6	19	0	0	19.0	520
	Kasilof	63.2	457	32.6	592	61.1	88	20.8	10	0	0	42.0	1,147
	Fish	26.3	190	7.3	133	1.4	2	0	0	0	0	11.9	325
	Total	100.0	723	100.0	1,817	100.0	144	100.0	48	0	0	100.0	2,732

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Table 26. Stock composition estimates of sockeye salmon catches by age class and date for Central District drift net fishery, Upper Cook Inlet, 1981[1] (continued).

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
7/01	Susitna	2.0	20	15.2	751	3.7	18	16.5	17	0	0	12.3	806
	Kenai	5.8	58	34.5	1,704	30.6	149	57.3	59	0	0	30.2	1,970
	Kasilof	70.8	707	43.3	2,139	64.5	314	26.2	27	0	0	48.8	3,187
	Fish	21.3	213	7.0	346	1.2	6	0	0	0	0	8.7	565
	Total	100.0	998	100.0	4,940	100.0	487	100.0	103	0	0	100.0	6,528
7/02	Susitna	20.6	141	55.5	1,949	25.1	99	49.1	26	0	0	47.7	2,215
	Kenai	16.0	110	34.3	1,205	57.5	227	47.2	25	0	0	33.7	1,567
	Kasilof	25.7	176	5.7	200	15.9	63	3.8	2	0	0	9.5	441
	Fish	37.8	259	4.5	158	1.5	6	0	0	0	0	9.1	423
	Total	100.0	686	100.0	3,512	100.0	395	100.0	53	0	0	100.0	4,646
7/03	Susitna	2.8	245	20.2	8,685	4.8	202	21.8	387	0	0	16.5	9,519
	Kenai	5.1	446	29.1	12,512	25.5	1,078	49.3	876	0	0	25.9	14,912
	Kasilof	80.0	6,929	46.9	20,165	69.0	2,915	28.9	514	0	0	52.9	30,523
	Fish	12.1	1,046	3.8	1,634	0.7	28	0	0	0	0	4.7	2,708
	Total	100.0	8,666	100.0	42,996	100.0	4,223	100.0	1,777	0	0	100.0	57,662
7/06	Susitna	4.7	617	25.6	13,599	7.0	386	24.9	701	0	0	20.5	15,303
	Kenai	16.8	2,209	51.6	27,410	55.8	3,053	65.7	1,847	0	0	46.3	34,519
	Kasilof	63.4	8,343	20.2	10,730	36.6	2,006	9.4	263	0	0	28.6	21,342
	Fish	15.2	2,000	2.6	1,381	0.6	31	0	0	0	0	4.6	3,412
	Total	100.0	13,169	100.0	53,120	100.0	5,476	100.0	2,811	0	0	100.0	74,576
7/10	Susitna	3.4	564	29.9	29,994	7.4	369	36.1	2,874	0	0	26.0	33,801
	Kenai	13.1	2,189	29.6	29,693	30.7	1,530	42.4	3,374	0	0	28.3	36,786
	Kasilof	72.7	12,119	37.5	37,617	61.3	3,050	21.6	1,717	0	0	41.9	54,503
	Fish	10.8	1,805	3.0	3,009	0.6	29	0	0	0	0	3.7	4,843
	Total	100.0	16,677	100.0	100,313	100.0	4,978	100.0	7,965	0	0	100.0	129,933

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Table 26. Stock composition estimates of sockeye salmon catches by age class and date for Central District drift net fishery, Upper Cook Inlet, 1981[1] (continued).

		4 2		5 2		5 3		6 3		Other		Total	
Date	System	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers
7/12	Susitna	17.7	2,451	55.9	52,370	24.3	1,267	53.5	2,912	0	0	49.9	59,000
	Kenai	50.9	7,049	41.0	38,411	74.7	3,895	46.5	2,532	0	0	43.9	51,887
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	31.3	4,337	3.1	2,904	1.1	55	0	0	0	0	6.2	7,296
	Total	100.0	13,837	100.0	93,685	100.0	5,217	100.0	5,444	0	0	100.0	118,183
7/14	Susitna	5.9	475	43.6	37,279	10.7	454	40.6	2,031	0	0	39.1	40,239
	Kenai	27.3	2,206	51.7	44,204	53.2	2,255	57.0	2,855	0	0	50.1	51,520
	Kasilof	62.6	5,060	3.7	3,164	35.9	1,520	2.4	122	0	0	9.6	9,866
	Fish	4.3	347	1.0	855	0.2	8	0	0	0	0	1.2	1,210
	Total	100.0	8,088	100.0	85,502	100.0	4,237	100.0	5,008	0	0	100.0	102,835
7/19	Susitna	35.5	1,070	49.7	11,261	32.6	880	48.6	1,060	0	0	46.7	14,271
	Kenai	47.1	1,422	47.2	10,695	66.6	1,796	51.4	1,123	0	0	49.2	15,036
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	17.4	525	3.1	702	0.7	20	0	0	0	0	4.1	1,247
	Total	100.0	3,017	100.0	22,658	100.0	2,696	100.0	2,183	0	0	100.0	30,554
7/21	Susitna	1.6	67	15.8	3,921	2.5	35	12.7	290	0	0	13.2	4,313
	Kenai	7.2	305	51.2	12,705	17.5	246	45.9	1,048	0	0	43.7	14,304
	Kasilof	87.1	3,682	27.9	6,923	79.8	1,123	41.3	943	0	0	38.7	12,671
	Fish	4.0	171	5.1	1,266	0.3	4	0	0	0	0	4.4	1,441
	Total	100.0	4,225	100.0	24,815	100.0	1,408	100.0	2,281	0	0	100.0	32,729
7/24	Susitna	3.9	92	18.4	2,626	5.1	28	16.3	95	67.6	23	16.1	2,864
	Kenai	20.1	468	67.0	9,563	40.1	220	66.6	388	0	0	59.9	10,639
	Kasilof	69.5	1,622	10.5	1,499	52.7	289	17.2	100	0	0	19.8	3,510
	Fish	6.5	151	4.1	585	2.0	11	0	0	32.4	11	4.3	758
	Total	100.0	2,333	100.0	14,273	100.0	548	100.0	583	100.0	34	100.0	17,771

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Table 26. Stock composition estimates of sockeye salmon catches by age class and date for Central District drift net fishery, Upper Cook Inlet, 1981[1] (continued).

		4		5		5		6					
		2		2		3		3		Other		Total	
Date	System	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers
7/27	Susitna	6.9	92	36.2	2,959	9.9	22	32.3	54	0	0	31.6	3,127
	Kenai	12.5	167	47.0	3,842	27.0	60	46.7	78	0	0	41.9	4,147
	Kasilof	74.8	999	12.7	1,038	61.3	136	21.0	35	0	0	22.3	2,208
	Fish	5.8	77	4.1	335	1.8	4	0	0	0	0	4.2	416
	Total	100.0	1,335	100.0	8,174	100.0	222	100.0	167	0	0	100.0	9,898
7/29	Susitna	7.1	44	36.2	1,373	9.7	10	32.5	25	0	0	31.6	1,452
	Kenai	12.9	80	47.0	1,783	26.2	27	46.8	36	0	0	41.9	1,926
	Kasilof	76.8	476	12.7	482	60.2	62	20.8	16	0	0	22.6	1,036
	Fish	3.2	20	4.1	156	3.9	4	0	0	0	0	3.9	180
	Total	100.0	620	100.0	3,794	100.0	103	100.0	77	0	0	100.0	4,594
7/31	Susitna	7.1	37	36.2	1,158	9.3	8	31.8	21	0	0	31.6	1,224
	Kenai	12.8	67	47.0	1,503	26.7	23	47.0	31	0	0	41.9	1,624
	Kasilof	76.8	401	12.7	406	60.5	52	21.2	14	0	0	22.5	873
	Fish	3.3	17	4.1	131	3.5	3	0	0	0	0	3.9	151
	Total	100.0	522	100.0	3,198	100.0	86	100.0	66	0	0	100.0	3,872
After 7/31	Susitna	7.0	31	36.2	979	8.2	6	34.6	18	0	0	31.6	1,034
	Kenai	12.7	56	47.0	1,272	26.0	19	46.2	24	0	0	41.9	1,371
	Kasilof	77.1	339	12.7	344	61.7	45	19.2	10	0	0	22.6	738
	Fish	3.2	14	4.1	112	4.1	3	0	0	0	0	3.9	129
	Total	100.0	440	100.0	2,707	100.0	73	100.0	52	0	0	100.0	3,272
Total	Susitna	7.9	6,319	35.9	175,934	12.2	4,080	36.2	10,800	28.6	26	31.2	197,159
	Kenai	21.7	17,339	41.5	203,242	48.0	16,029	49.9	14,917	0	0	39.7	251,527
	Kasilof	54.1	43,187	19.5	95,576	38.9	12,991	13.9	4,153	0	0	24.6	155,907
	Fish	16.3	12,983	3.1	15,126	0.9	281	0	0	71.4	65	4.5	28,455
	Total	100.0	79,828	100.0	489,878	100.0	33,381	100.0	29,870	100.0	91	100.0	633,048

[1] Catch total may differ slightly from figures presented in Table 1 due to rounding.

Table 27. Stock composition estimates of sockeye salmon catches by age class and date for Salamatof Beach set net fishery, Upper Cook Inlet, 1981[1].

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
6/26	Susitna	7.9	34	23.0	543	11.3	17	23.3	10	0	0	20.3	604
	Kenai	15.6	67	36.1	852	64.7	97	58.1	25	0	0	34.9	1,041
	Kasilof	12.4	53	32.6	769	21.3	32	18.6	8	0	0	28.9	862
	Fish	64.1	275	8.3	196	2.7	4	0	0	0	0	15.9	475
	Total	100.0	429	100.0	2,360	100.0	150	100.0	43	0	0	100.0	2,982
6/29	Susitna	3.6	12	23.0	411	6.2	18	23.4	32	0	0	18.5	473
	Kenai	6.8	23	36.1	646	36.6	106	57.7	79	0	0	33.5	854
	Kasilof	60.7	204	32.6	583	55.5	161	19.0	26	0	0	38.2	974
	Fish	28.9	97	8.3	148	1.7	5	0	0	0	0	9.8	250
	Total	100.0	336	100.0	1,788	100.0	290	100.0	137	0	0	100.0	2,551
7/03	Susitna	6.7	1	22.4	13	11.1	1	25.0	1	0	0	18.6	16
	Kenai	6.7	1	36.2	21	33.3	3	50.0	2	0	0	31.4	27
	Kasilof	60.0	9	32.8	19	55.6	5	25.0	1	0	0	39.5	34
	Fish	26.7	4	8.6	5	0	0	0	0	0	0	10.5	9
	Total	100.0	15	100.0	58	100.0	9	100.0	4	0	0	100.0	86
7/06	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	100.0	655	100.0	1,822	100.0	249	100.0	144	0	0	100.0	2,870
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	655	100.0	1,822	100.0	249	100.0	144	0	0	100.0	2,870
7/10	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	100.0	6,425	100.0	26,713	100.0	3,381	100.0	1,014	0	0	100.0	37,533
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	6,425	100.0	26,713	100.0	3,381	100.0	1,014	0	0	100.0	37,533

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Table 27. Stock composition estimates of sockeye salmon catches by age class and date for Salamatof Beach set net fishery, Upper Cook Inlet, 1981[1] (continued).

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
7/12	Susitna	6.3	171	20.9	4,742	5.9	53	18.3	110	0	0	18.9	5,076
	Kenai	93.7	2,534	79.1	17,946	94.1	848	81.7	491	0	0	81.1	21,819
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	2,705	100.0	22,688	100.0	901	100.0	601	0	0	100.0	26,895
7/14	Susitna	0.4	9	7.6	1,239	1.0	14	6.9	72	16.8	16	6.5	1,350
	Kenai	18.6	373	80.7	13,159	44.0	629	86.4	906	0	0	72.1	15,067
	Kasilof	79.0	1,583	10.7	1,745	55.0	786	6.8	71	0	0	20.0	4,185
	Fish	1.9	38	1.0	163	0.1	1	0	0	83.2	79	1.3	281
	Total	100.0	2,003	100.0	16,306	100.0	1,430	100.0	1,049	100.0	95	100.0	20,833
7/19	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	54.8	1,458	96.4	21,357	76.2	1,660	94.2	798	0	0	90.8	25,273
	Kasilof	45.2	1,205	3.6	798	23.8	519	5.8	49	0	0	9.2	2,571
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	2,663	100.0	22,155	100.0	2,179	100.0	847	0	0	100.0	27,844
7/21	Susitna	15.6	197	21.5	1,309	11.3	63	20.0	49	0	0	19.9	1,618
	Kenai	79.0	995	77.5	4,717	87.8	491	80.0	196	0	0	78.5	6,399
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	5.4	68	1.0	61	0.9	5	0	0	0	0	1.6	134
	Total	100.0	1,260	100.0	6,087	100.0	559	100.0	245	0	0	100.0	8,151
7/22	Susitna	15.4	19	21.5	128	10.9	6	20.8	5	0	0	19.8	158
	Kenai	78.9	97	77.5	461	87.3	48	79.2	19	0	0	78.4	625
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	5.7	7	1.0	6	1.8	1	0	0	0	0	1.8	14
	Total	100.0	123	100.0	595	100.0	55	100.0	24	0	0	100.0	797

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Table 27. Stock composition estimates of sockeye salmon catches by age class and date for Salamatof Beach set net fishery, Upper Cook Inlet, 1981[1] (continued).

		4 2		5 2		5 3		6 3		Other		Total	
Date	System	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers
7/24	Susitna	15.6	101	21.5	339	11.5	19	19.7	23	91.4	64	21.2	546
	Kenai	79.0	511	77.5	1,221	87.3	144	80.3	94	0	0	76.5	1,970
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	5.4	35	1.0	16	1.2	2	0	0	8.6	6	2.3	59
	Total	100.0	647	100.0	1,576	100.0	165	100.0	117	100.0	70	100.0	2,575
7/27	Susitna	16.0	120	21.5	426	11.4	15	20.1	31	81.8	18	20.1	610
	Kenai	80.9	606	77.5	1,536	87.1	115	79.9	123	0	0	78.3	2,380
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	3.1	23	1.0	20	1.5	2	0	0	18.2	4	1.6	49
	Total	100.0	749	100.0	1,982	100.0	132	100.0	154	100.0	22	100.0	3,039
7/29	Susitna	16.0	104	21.5	369	11.4	13	20.1	27	78.9	15	20.1	528
	Kenai	80.9	524	77.5	1,330	86.8	99	79.9	107	0	0	78.3	2,060
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	3.1	20	1.0	17	1.8	2	0	0	21.1	4	1.6	43
	Total	100.0	648	100.0	1,716	100.0	114	100.0	134	100.0	19	100.0	2,631
7/31	Susitna	16.1	62	21.5	219	11.8	8	20.0	16	81.8	9	20.1	314
	Kenai	80.8	312	77.5	791	86.8	59	80.0	64	0	0	78.3	1,226
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	3.1	12	1.0	10	1.5	1	0	0	18.2	2	1.6	25
	Total	100.0	386	100.0	1,020	100.0	68	100.0	80	100.0	11	100.0	1,565
After 7/31	Susitna	16.0	113	21.4	400	12.1	15	20.0	29	80.0	16	20.1	573
	Kenai	81.0	570	77.6	1,446	87.1	108	80.0	116	0	0	78.4	2,240
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	3.0	21	1.0	18	0.8	1	0	0	20.0	4	1.5	44
	Total	100.0	704	100.0	1,864	100.0	124	100.0	145	100.0	20	100.0	2,857
Total	Susitna	4.8	943	9.3	10,138	2.5	242	8.5	405	58.2	138	8.3	11,866
	Kenai	76.7	15,151	86.5	94,018	82.0	8,037	88.2	4,178	0	0	84.7	121,384
	Kasilof	15.5	3,054	3.6	3,914	15.3	1,503	3.3	155	0	0	6.0	8,626
	Fish	3.0	600	0.6	660	0.2	24	0	0	41.8	99	1.0	1,383
	Total	100.0	19,748	100.0	108,730	100.0	9,806	100.0	4,738	100.0	237	100.0	143,259

[1] Catch total may differ slightly from figures presented in Table 1 due to rounding.

Table 28. Stock composition estimates of sockeye salmon catches by age class and date for Kalifonsky Beach set net fishery, Upper Cook Inlet, 1981[1].

		4 2		5 2		5 3		6 3		Other		Total	
Date	System	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers
6/26	Susitna	1.5	7	1.6	75	1.0	3	2.0	3	0	0	1.6	88
	Kenai	26.8	129	24.5	1,153	47.0	143	47.4	72	0	0	26.5	1,497
	Kasilof	71.7	345	73.9	3,478	52.0	158	50.7	77	0	0	71.9	4,058
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	481	100.0	4,706	100.0	304	100.0	152	0	0	100.0	5,643
6/27	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	9.2	16	12.0	148	26.8	19	28.6	6	0	0	12.6	189
	Kasilof	60.7	105	85.9	1,056	71.8	51	71.4	15	0	0	82.1	1,227
	Fish	30.1	52	2.1	26	1.4	1	0	0	0	0	5.3	79
	Total	100.0	173	100.0	1,230	100.0	71	100.0	21	0	0	100.0	1,495
6/28	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	3.3	29	25.3	1,265	16.9	53	48.1	38	0	0	22.1	1,385
	Kasilof	94.0	814	73.6	3,680	83.1	261	51.9	41	0	0	76.6	4,796
	Fish	2.7	23	1.1	55	0	0	0	0	0	0	1.2	78
	Total	100.0	866	100.0	5,000	100.0	314	100.0	79	0	0	100.0	6,259
6/29	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	6.1	44	38.7	1,299	27.3	70	62.7	32	0	0	33.0	1,445
	Kasilof	93.9	673	61.3	2,057	72.7	186	37.3	19	0	0	67.0	2,935
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	717	100.0	3,356	100.0	256	100.0	51	0	0	100.0	4,380
6/30	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	6.2	34	38.7	999	27.4	54	64.1	25	0	0	33.0	1,112
	Kasilof	93.8	518	61.3	1,583	72.6	143	35.9	14	0	0	67.0	2,258
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	552	100.0	2,582	100.0	197	100.0	39	0	0	100.0	3,370
7/01	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	6.2	24	38.7	702	27.3	38	64.3	18	0	0	33.0	782
	Kasilof	93.8	364	61.3	1,112	72.7	101	35.7	10	0	0	67.0	1,587
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	388	100.0	1,814	100.0	139	100.0	28	0	0	100.0	2,369

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Table 28. Stock composition estimates of sockeye salmon catches by age class and date for Kalifonsky Beach set net fishery, Upper Cook Inlet, 1981[1] (continued).

		4 2		5 2		5 3		6 3		Other		Total	
Date	System	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers
7/02	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	6.0	8	38.8	243	27.1	13	60.0	6	0	0	33.0	270
	Kasilof	94.0	126	61.2	384	72.9	35	40.0	4	0	0	67.0	549
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	134	100.0	627	100.0	48	100.0	10	0	0	100.0	819
7/03	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	5.7	3	38.7	96	26.3	5	66.7	2	0	0	32.8	106
	Kasilof	94.3	50	61.3	152	73.7	14	33.3	1	0	0	67.2	217
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	53	100.0	248	100.0	19	100.0	3	0	0	100.0	323
7/06	Susitna	1.8	31	12.8	325	2.9	14	13.6	24	0	0	7.9	394
	Kenai	11.9	211	49.9	1,267	43.0	209	67.8	120	0	0	36.4	1,807
	Kasilof	86.3	1,524	37.3	947	54.1	263	18.6	33	0	0	55.7	2,767
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	1,766	100.0	2,539	100.0	486	100.0	177	0	0	100.0	4,968
7/10	Susitna	5.2	192	25.7	1,359	7.0	71	24.7	91	0	0	16.6	1,713
	Kenai	48.8	1,794	61.1	3,232	69.4	703	69.3	255	0	0	57.8	5,984
	Kasilof	46.0	1,693	13.2	698	23.6	239	6.0	22	0	0	25.6	2,652
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	3,679	100.0	5,289	100.0	1,013	100.0	368	0	0	100.0	10,349
7/12	Susitna	1.3	63	25.7	2,748	3.2	25	24.1	51	0	0	17.6	2,887
	Kenai	12.5	591	61.1	6,533	31.9	248	67.5	143	0	0	45.8	7,515
	Kasilof	86.2	4,090	13.2	1,411	64.9	505	8.5	18	0	0	36.7	6,024
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	4,744	100.0	10,692	100.0	778	100.0	212	0	0	100.0	16,426
7/14	Susitna	9.4	228	31.1	1,817	9.8	61	27.8	65	46.2	18	23.9	2,189
	Kenai	80.9	1,953	67.9	3,968	89.9	561	72.2	169	0	0	72.6	6,651
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	9.7	234	1.0	58	0.3	2	0	0	53.8	21	3.4	315
	Total	100.0	2,415	100.0	5,843	100.0	624	100.0	234	100.0	39	100.0	9,155

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Table 28. Stock composition estimates of sockeye salmon catches by age class and date for Kalifonsky Beach set net fishery, Upper Cook Inlet, 1981[1] (continued).

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
7/19	Susitna	23.3	976	31.1	3,248	17.4	191	29.1	100	0	0	28.1	4,515
	Kenai	71.2	2,983	67.9	7,092	81.6	897	70.9	244	0	0	69.8	11,216
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	5.5	232	1.0	104	1.0	11	0	0	0	0	2.2	347
	Total	100.0	4,191	100.0	1,099	100.0	10,444	100.0	344	0	0	100.0	16,078
7/21	Susitna	10.7	158	15.0	654	7.7	21	13.8	30	0	0	13.6	863
	Kenai	84.0	1,237	84.0	3,665	91.5	249	86.2	188	0	0	84.4	5,339
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	5.3	78	1.0	44	0.7	2	0	0	0	0	2.0	124
	Total	100.0	1,473	100.0	4,363	100.0	272	100.0	218	0	0	100.0	6,326
7/22	Susitna	10.6	10	15.0	42	5.9	1	14.3	2	0	0	13.6	55
	Kenai	84.0	79	83.9	234	94.1	16	85.7	12	0	0	84.4	341
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	5.3	5	1.1	3	0	0	0	0	0	0	2.0	8
	Total	100.0	94	100.0	279	100.0	17	100.0	14	0	0	100.0	404
7/24	Susitna	10.8	57	15.0	306	7.0	3	13.6	8	87.9	51	15.6	425
	Kenai	83.9	444	84.0	1,713	93.0	40	86.4	51	0	0	82.4	2,248
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	5.3	28	1.0	20	0	0	0	0	12.1	7	2.0	55
	Total	100.0	529	100.0	2,039	100.0	43	100.0	59	100.0	58	100.0	2,728
7/27	Susitna	10.8	31	15.0	202	7.7	9	14.1	21	0	0	13.8	263
	Kenai	86.1	247	84.0	1,134	90.6	106	85.9	128	0	0	84.9	1,615
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	3.1	9	1.0	13	1.7	2	0	0	0	0	1.3	24
	Total	100.0	287	100.0	1,349	100.0	117	100.0	149	0	0	100.0	1,902
7/29	Susitna	10.9	15	15.0	98	7.1	4	13.9	10	0	0	13.8	127
	Kenai	86.2	119	83.9	547	91.1	51	86.1	62	0	0	84.9	779
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	2.9	4	1.1	7	1.8	1	0	0	0	0	1.3	12
	Total	100.0	138	100.0	652	100.0	56	100.0	72	0	0	100.0	918

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Table 28. Stock composition estimates of sockeye salmon catches by age class and date for Kalifonsky Beach set net fishery, Upper Cook Inlet, 1981[1] (continued).

		4 2		5 2		5 3		6 3		Other		Total	
Date	System	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers
7/31	Susitna	10.8	18	15.0	118	7.4	5	13.8	12	0	0	13.8	153
	Kenai	86.2	144	84.0	660	91.2	62	86.2	75	0	0	84.9	941
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	3.0	5	1.0	8	1.5	1	0	0	0	0	1.3	14
	Total	100.0	167	100.0	786	100.0	68	100.0	87	0	0	100.0	1,108
After 7/31	Susitna	11.0	27	15.0	173	7.1	7	14.2	18	0	0	13.9	225
	Kenai	86.1	211	84.0	967	91.9	91	85.8	109	0	0	84.9	1,378
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Fish	2.9	7	1.0	11	1.0	1	0	0	0	0	1.2	19
	Total	100.0	245	100.0	1,151	100.0	99	100.0	127	0	0	100.0	1,622
Total	Susitna	7.9	1,813	17.2	11,165	6.9	415	17.8	435	71.1	69	14.4	13,897
	Kenai	44.6	10,300	56.8	36,917	60.3	3,628	71.8	1,755	0	0	54.4	52,600
	Kasilof	44.6	10,302	25.5	16,558	32.5	1,956	10.4	254	0	0	30.1	29,070
	Fish	2.9	677	0.5	349	0.3	21	0	0	28.9	28	1.1	1,075
	Total	100.0	23,092	100.0	64,989	100.0	6,020	100.0	2,444	100.0	97	100.0	96,642

[1] Catch totals may differ slightly from figures presented in Table 1 due to rounding.

Table 29. Stock composition estimates of sockeye salmon catches by age class and date for Cohoe/Ninilchik Beach set net fishery, Upper Cook Inlet, 1981[1].

		4 2		5 2		5 3		6 3		Other		Total	
Date	System	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers
6/26	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	14.0	205	12.6	1,989	28.3	317	28.8	199	0	0	14.2	2,710
	Kasilof	86.0	1,262	87.4	13,798	71.7	805	71.2	491	0	0	85.8	16,356
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	1,467	100.0	15,787	100.0	1,122	100.0	690	0	0	100.0	19,066
6/27	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	14.0	169	12.6	1,067	28.2	248	28.8	95	0	0	14.5	1,579
	Kasilof	86.0	1,041	87.4	7,402	71.8	631	71.2	235	0	0	85.5	9,309
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	1,210	100.0	8,469	100.0	879	100.0	330	0	0	100.0	10,888
6/28	Susitna	1.0	27	8.1	1,051	1.6	18	9.0	52	0	0	6.6	1,148
	Kenai	4.5	120	28.9	3,751	21.2	245	50.9	293	0	0	25.3	4,409
	Kasilof	93.4	2,515	62.6	8,126	77.1	890	40.1	231	0	0	67.6	11,762
	Fish	1.1	30	0.4	52	0.1	1	0	0	0	0	0.5	83
	Total	100.0	2,692	100.0	12,980	100.0	1,154	100.0	576	0	0	100.0	17,402
6/29	Susitna	2.9	38	16.2	762	3.8	14	14.9	30	0	0	12.9	844
	Kenai	10.3	134	45.2	2,125	40.0	146	65.3	132	0	0	38.6	2,537
	Kasilof	83.4	1,082	37.8	1,777	55.9	204	19.8	40	0	0	47.3	3,103
	Fish	3.3	43	0.8	38	0.3	1	0	0	0	0	1.2	82
	Total	100.0	1,297	100.0	4,702	100.0	365	100.0	202	0	0	100.0	6,566
6/30	Susitna	4.8	155	22.9	2,202	6.0	96	20.5	73	0	0	17.1	2,526
	Kenai	12.1	389	45.5	4,375	43.9	704	63.8	227	0	0	38.5	5,695
	Kasilof	79.2	2,539	30.8	2,962	49.9	800	15.7	56	0	0	43.0	6,357
	Fish	3.8	123	0.8	77	0.1	2	0	0	0	0	1.4	202
	Total	100.0	3,206	100.0	9,616	100.	1,602	100.0	356	0	0	100.0	14,780

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Table 29. Stock composition estimates of sockeye salmon catches by age class and date for Cohoe/Ninilchik Beach set net fishery, Upper Cook Inlet, 1981[1] (continued).

		4 2		5 2		5 3		6 3		Other		Total	
Date	System	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers
7/01	Susitna	7.5	99	29.6	935	8.5	73	25.0	8	0	0	20.8	1,115
	Kenai	14.6	193	45.8	1,446	48.8	417	62.5	20	0	0	38.7	2,076
	Kasilof	72.9	966	23.7	749	42.4	362	12.5	4	0	0	38.8	2,081
	Fish	5.1	68	0.9	28	0.2	2	0	0	0	0	1.8	98
	Total	100.0	1,326	100.0	3,158	100.0	854	100.0	32	0	0	100.0	5,370
7/02	Susitna	7.5	140	29.6	1,014	8.7	20	25.6	42	0	0	21.3	1,216
	Kenai	14.6	274	45.8	1,570	48.9	113	62.8	103	0	0	36.1	2,060
	Kasilof	72.8	1,367	23.7	812	42.4	98	11.6	19	0	0	40.3	2,296
	Fish	5.2	97	0.9	31	0	0	0	0	0	0	2.2	128
	Total	100.0	1,878	100.0	3,427	100.0	231	100.0	164	0	0	100.0	5,700
7/03	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	5.1	81	34.0	1,039	23.4	128	58.9	73	0	0	24.9	1,321
	Kasilof	94.9	1,509	66.0	2,016	76.6	418	41.1	51	0	0	75.1	3,994
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	1,590	100.0	3,055	100.0	546	100.0	124	0	0	100.0	5,315
7/06	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	5.1	200	34.0	2,086	23.5	293	58.7	88	0	0	23.2	2,667
	Kasilof	94.9	3,741	66.0	4,049	76.5	954	41.3	62	0	0	76.8	8,806
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	3,941	100.0	6,135	100.0	1,247	100.0	150	0	0	100.0	11,473
7/09	Susitna	4.4	554	36.9	10,329	9.4	434	44.9	662	0	0	25.6	11,979
	Kenai	10.3	1,301	22.1	6,186	23.5	1,088	31.9	470	0	0	19.4	9,045
	Kasilof	81.5	10,293	40.0	11,197	66.9	3,099	23.2	342	0	0	53.4	24,931
	Fish	3.8	479	1.0	280	0.2	9	0	0	0	0	1.6	768
	Total	100.0	12,627	100.0	27,992	100.0	4,630	100.0	1,474	0	0	100.0	46,723

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Table 29. Stock composition estimates of sockeye salmon catches by age class and date for Cohoe/Ninilchik Beach set net fishery, Upper Cook Inlet, 1981[1].

		4 2		5 2		5 3		6 3		Other		Total	
Date	System	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers
7/10	Susitna	2.2	241	18.4	4,482	4.1	218	20.6	401	0	0	12.6	5,342
	Kenai	21.8	2,342	45.7	11,133	43.2	2,271	60.6	1,181	0	0	40.0	16,927
	Kasilof	74.0	7,928	35.4	8,624	52.6	2,768	18.8	367	0	0	46.6	19,687
	Fish	1.9	209	0.5	122	0.1	5	0	0	0	0	0.8	336
	Total	100.0	10,720	100.0	24,361	100.0	5,262	100.0	1,949	0	0	100.0	42,292
7/12	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	25.0	43	0.3	43
	Kenai	6.6	192	69.3	7,274	19.3	266	79.1	408	0	0	52.6	8,140
	Kasilof	93.4	2,733	30.7	3,222	80.7	1,110	20.9	108	0	0	46.3	7,173
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	74.9	129	0.8	129
	Total	100.0	2,925	100.0	10,496	100.0	1,376	100.0	516	100.0	172	100.0	15,485
7/14	Susitna	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Kenai	6.6	349	69.3	3,675	19.4	214	79.2	350	0	0	37.8	4,588
	Kasilof	93.4	4,954	30.7	1,628	80.6	891	20.8	92	0	0	62.2	7,565
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace
	Total	100.0	5,303	100.0	5,303	100.0	1,105	100.0	442	0	0	100.0	12,153
7/19	Susitna	25.7	1,290	32.6	4,502	18.3	248	30.2	292	100.0	97	30.3	6,429
	Kenai	74.3	3,732	67.4	9,308	81.7	1,104	69.8	674	0	0	69.7	14,818
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Total	100.0	5,022	100.0	13,810	100.0	1,352	100.0	966	100.0	97	100.0	21,247
7/21	Susitna	23.4	510	30.0	1,841	16.6	145	27.9	85	100.0	44	27.5	2,625
	Kenai	76.6	1,666	70.0	4,295	83.4	726	72.1	220	0	0	72.5	6,907
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Total	100.0	2,176	100.0	6,136	100.0	871	100.0	305	100.0	44	100.0	9,532

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Table 29. Stock composition estimates of sockeye salmon catches by age class and date for Cohoe/Ninilchik Beach set net fishery, Upper Cook Inlet, 1981[1] (continued).

		4		5		5		6					
		2		2		3		3		Other		Total	
Date	System	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers
7/22	Susitna	21.4	3	30.8	12	16.7	1	50.0	1	0	0	27.9	17
	Kenai	78.6	11	69.2	27	83.3	5	50.0	1	0	0	72.1	44
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Total	100.0	14	100.0	39	100.0	6	100.0	2	0	0	100.0	61
7/24	Susitna	23.5	218	30.0	549	16.7	53	27.9	39	100.0	13	27.0	872
	Kenai	76.5	710	70.0	1,281	83.3	265	72.1	101	0	0	73.0	2,357
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Total	100.0	928	100.0	1,830	100.0	318	100.0	140	100.0	13	100.0	3,229
7/27	Susitna	23.5	115	30.0	411	16.9	23	27.5	41	100.0	41	28.9	631
	Kenai	76.5	374	70.0	960	83.1	113	72.5	108	0	0	71.1	1,555
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Total	100.0	489	100.0	1,371	100.0	136	100.0	149	100.0	41	100.0	2,186
7/29	Susitna	23.4	71	30.0	255	16.7	14	28.0	26	100.0	25	28.9	391
	Kenai	76.6	232	70.0	595	83.3	70	72.0	67	0	0	71.1	964
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Total	100.0	303	100.0	850	100.0	84	100.0	93	100.0	25	100.0	1,355
7/31	Susitna	23.5	92	30.0	330	16.5	18	27.7	33	100.0	33	28.9	506
	Kenai	76.5	300	70.0	769	83.5	91	72.3	86	0	0	71.1	1,246
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Total	100.0	392	100.0	1,099	100.0	109	100.0	119	100.0	33	100.0	1,752

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Table 29. Stock composition estimates of sockeye salmon catches by age class and date for Cohoe/Ninilchik Beach set net fishery, Upper Cook Inlet[1] (continued).

Date	System	4_2 %	4_2 Numbers	5_2 %	5_2 Numbers	5_3 %	5_3 Numbers	6_3 %	6_3 Numbers	Other %	Other Numbers	Total %	Total Numbers
After 7/31	Susitna	23.6	123	30.0	439	16.7	24	27.7	44	100.0	43	28.9	673
	Kenai	76.4	399	70.0	1,023	83.3	120	72.3	115	0	0	71.1	1,657
	Kasilof	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	Fish	Trace	Trace	Trace	Trace	Trace	Trace	0	0	Trace	Trace	Trace	Trace
	Total	100.0	522	100.0	1,462	100.0	144	100.0	159	100.0	43	100.0	2,330
Total	Susitna	6.1	3,676	18.0	29,114	6.0	1,399	20.4	1,829	72.4	339	14.3	36,357
	Kenai	22.3	13,373	40.7	65,974	38.2	8,944	56.1	5,011	0	0	36.6	93,302
	Kasilof	69.9	41,930	40.9	66,362	55.7	13,030	23.5	2,098	Trace	0	48.4	123,420
	Fish	1.7	1,049	0.4	628	0.1	20	0	0	27.6	129	0.7	1,826
	Total	100.0	60,028	100.0	162,078	100.0	23,393	100.0	8,938	100.0	468	100.0	254,905

[1] Catch total may differ slightly from figures presented in Table 1 due to rounding.

Table 30. Stock composition estimates of the Upper Cook Inlet sockeye salmon harvest by age class and date, 1981[1].

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
6/19	Susitna	0	0	0	0	0	0	0	0	0	0	0	0
	Kenai	1.4	1	5.7	38	4.4	4	0.2	1	0	0	3.3	44
	Kasilof	2.8	2	7.8	52	2.2	2	0.2	1	0	0	4.3	57
	Crescent	95.8	69	86.5	580	93.4	85	99.6	506	0	0	92.4	1,240
	Fish	0	0	0	0	0	0	0	0	0	0	0	0
	Total	100.0	72	100.0	670	100.0	91	100.0	508	0	0	100.0	1,341
6/22	Susitna	0	0	0	0	0	0	0	0	0	0	0	0
	Kenai	2.2	3	5.7	70	4.2	7	0.2	2	0	0	3.3	82
	Kasilof	2.2	3	7.8	96	2.4	4	0.1	1	0	0	4.2	104
	Crescent	95.6	128	86.5	1,068	93.4	156	99.7	931	0	0	92.5	2,283
	Fish	0	0	0	0	0	0	0	0	0	0	0	0
	Total	100.0	134	100.0	1,234	100.0	167	100.0	934	0	0	100.0	2,469
6/24	Susitna	0	0	0	0	0	0	0	0	0	0	0	0
	Kenai	1.9	2	5.7	56	4.5	6	0.3	2	0	0	3.4	66
	Kasilof	1.9	2	7.8	76	2.3	3	0.1	1	0	0	4.2	82
	Crescent	96.2	101	86.5	845	93.2	123	99.6	736	0	0	92.4	1,805
	Fish	0	0	0	0	0	0	0	0	0	0	0	0
	Total	100.0	105	100.0	977	100.0	132	100.0	739	0	0	100.0	1,953
6/26	Susitna	2.6	130	4.3	1,536	3.1	119	3.4	82	5.3	3	4.0	1,870
	Kenai	15.6	785	22.0	7,860	46.9	1,783	32.0	767	0	0	23.8	11,195
	Kasilof	43.6	2,190	68.7	24,561	45.2	1,717	36.2	866	0	0	62.4	29,334
	Crescent	1.9	96	2.1	758	3.0	115	28.4	679	0	0	3.5	1,648
	Fish	36.3	1,825	2.9	1,042	1.8	69	0	0	94.7	54	6.4	2,990
	Total	100.0	5,026	100.0	35,757	100.0	3,803	100.0	2,394	100.0	57	100.0	47,037
6/27	Susitna	2.7	50	8.3	1,131	6.6	97	11.6	60	0	0	7.6	1,338
	Kenai	11.6	217	13.0	1,778	30.2	446	28.6	148	0	0	14.7	2,589
	Kasilof	66.2	1,245	76.2	10,448	61.8	914	59.8	309	0	0	73.6	12,916
	Crescent	0	0	0	0	0	0	0	0	0	0	0	0
	Fish	19.5	366	2.5	338	1.4	21	0	0	0	0	4.1	725
	Total	100.0	1,878	100.0	13,695	100.0	1,478	100.0	517	0	0	100.0	17,568
6/28	Susitna	1.3	52	9.4	1,889	2.7	46	11.4	83	0	0	7.8	2,070
	Kenai	4.2	165	27.1	5,445	20.6	352	49.1	356	0	0	23.9	6,318
	Kasilof	91.0	3,593	62.3	12,535	76.5	1,304	39.5	287	0	0	66.9	17,719
	Crescent	0	0	0	0	0	0	0	0	0	0	0	0
	Fish	3.5	140	1.2	237	0.2	4	0	0	0	0	1.4	381
	Total	100.0	3,950	100.0	20,106	100.0	1,706	100.0	726	0	0	100.0	26,488

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Table 30. Stock composition estimates of the Upper Cook Inlet sockeye salmon harvest by age class and date, 1981[1] (continued).

Date	System	4_2 %	4_2 Numbers	5_2 %	5_2 Numbers	5_3 %	5_3 Numbers	6_3 %	6_3 Numbers	Other %	Other Numbers	Total %	Total Numbers
6/29	Susitna	7.4	421	30.7	6,574	13.8	320	25.4	321	0	0	24.9	7,636
	Kenai	8.0	455	33.2	7,091	38.3	886	36.7	466	0	0	29.0	8,898
	Kasilof	56.1	3,210	29.1	6,227	41.7	964	10.0	126	0	0	34.2	10,527
	Crescent	1.6	93	2.5	544	3.2	73	27.9	353	0	0	3.5	1,063
	Fish	27.0	1,543	4.5	954	3.0	70	0	0	0	0	8.4	2,567
	Total	100.0	5,722	100.0	21,390	100.0	2,313	100.0	1,266	0	0	100.0	30,691
6/30	Susitna	4.4	197	20.4	2,865	5.8	112	20.8	92	0	0	15.6	3,266
	Kenai	10.2	457	41.4	5,803	41.0	796	61.1	271	0	0	35.1	7,327
	Kasilof	78.4	3,514	36.7	5,137	53.0	1,031	18.1	80	0	0	46.8	9,762
	Crescent	0	0	0	0	0	0	0	0	0	0	0	0
	Fish	7.0	313	1.5	210	0.2	4	0	0	0	0	2.5	527
	Total	100.0	4,481	100.0	14,015	100.0	1,943	100.0	443	0	0	100.0	20,882
7/01	Susitna	4.4	119	17.0	1,686	6.1	91	15.3	25	0	0	13.5	1,921
	Kenai	10.1	275	38.9	3,852	40.8	604	59.5	97	0	0	33.8	4,828
	Kasilof	75.1	2,037	40.3	4,000	52.6	777	25.2	41	0	0	48.1	6,855
	Crescent	0	0	0	0	0	0	0	0	0	0	0	0
	Fish	10.4	281	3.8	374	0.5	8	0	0	0	0	4.6	663
	Total	100.0	2,712	100.0	9,912	100.0	1,480	100.0	163	0	0	100.0	14,267
7/02	Susitna	10.4	281	39.2	2,963	17.7	119	30.0	68	0	0	30.7	3,431
	Kenai	14.5	392	39.9	3,018	52.4	353	59.0	134	0	0	34.9	3,897
	Kasilof	61.9	1,669	18.5	1,396	29.1	196	11.0	25	0	0	29.4	3,286
	Crescent	0	0	0	0	0	0	0	0	0	0	0	0
	Fish	13.2	356	2.5	189	0.9	6	0	0	0	0	4.9	551
	Total	100.0	2,698	100.0	7,566	100.0	674	100.0	227	0	0	100.0	11,165
7/03	Susitna	2.9	324	18.4	9,332	4.5	241	12.0	429	0	0	14.6	10,326
	Kenai	5.6	634	29.5	14,926	25.8	1,371	28.4	1,020	0	0	25.4	17,951
	Kasilof	77.9	8,761	45.1	22,869	64.3	3,423	16.0	575	0	0	50.3	35,628
	Crescent	3.0	334	3.6	1,824	4.8	256	43.6	1,564	0	0	5.6	3,978
	Fish	10.6	1,191	3.4	1,702	0.6	31	0	0	0	0	4.1	2,924
	Total	100.0	11,244	100.0	50,653	100.0	5,322	100.0	3,588	0	0	100.0	70,807
7/06	Susitna	5.7	1,296	26.2	19,124	7.7	652	25.9	1,203	7.1	1	20.5	22,276
	Kenai	17.2	3,910	48.9	35,701	51.6	4,365	56.0	2,598	0	0	42.8	46,574
	Kasilof	60.5	13,741	21.9	15,983	39.1	3,306	8.2	379	0	0	30.7	33,409
	Crescent	0.3	64	0.5	374	0.8	70	10.0	462	0	0	0.9	970
	Fish	16.3	3,691	2.5	1,803	0.7	61	0	0	92.9	13	5.1	5,568
	Total	100.0	22,702	100.0	72,985	100.0	8,454	100.0	4,642	100.0	14	100.0	108,797

-Continued-

Table 30. Stock composition estimates of Upper Cook Inlet sockeye salmon harvest by age class and date, 1981[1] (continued).

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
7/09	Susitna	4.4	554	36.9	10,329	9.4	434	44.9	662	0	0	25.6	11,979
	Kenai	10.3	1,301	22.1	6,186	23.5	1,088	31.9	470	0	0	19.4	9,045
	Kasilof	81.5	10,293	40.0	11,197	66.9	3,099	23.2	342	0	0	53.4	24,931
	Crescent	0	0	0	0	0	0	0	0	0	0	0	0
	Fish	3.8	479	1.0	280	0.2	9	0	0	0	0	1.6	768
	Total	100.0	12,627	100.0	27,992	100.0	4,630	100.0	1,474	0	0	100.0	46,723
7/10	Susitna	6.6	3,482	35.2	78,429	10.9	2,067	34.4	5,195	0	0	28.8	89,173
	Kenai	30.6	16,078	38.7	86,074	53.8	10,212	44.0	6,644	0	0	38.5	119,008
	Kasilof	42.1	22,145	21.3	47,471	32.8	6,228	14.2	2,136	0	0	25.2	77,980
	Crescent	0.5	247	0.8	1,716	1.0	195	7.4	1,115	0	0	1.1	3,273
	Fish	20.2	10,649	4.0	8,852	1.5	284	0	0	0	0	6.4	19,785
	Total	100.0	52,601	100.0	222,542	100.0	18,986	100.0	15,090	0	0	100.0	309,219
7/12	Susitna	13.4	4,407	47.4	81,702	19.8	2,562	49.8	5,676	25.1	43	41.1	94,390
	Kenai	39.3	12,969	46.2	79,512	59.9	7,735	43.8	4,990	0	0	45.8	105,206
	Kasilof	23.0	7,592	3.1	5,358	17.0	2,196	1.6	177	0	0	6.7	15,323
	Crescent	0.0	16	0.2	404	0.5	62	4.8	544	0	0	0.4	1,026
	Fish	24.3	8,005	3.1	5,276	2.7	354	0	0	74.9	129	6.0	13,764
	Total	100.0	32,989	100.0	172,252	100.0	12,909	100.0	11,387	100.0	172	100.0	229,709
7/14	Susitna	6.6	1,584	40.9	56,644	11.8	1,069	33.6	2,455	18.8	49	34.5	61,801
	Kenai	25.2	6,017	51.6	71,531	49.5	4,497	60.7	4,438	0	0	48.3	86,483
	Kasilof	49.5	11,795	5.1	7,082	37.7	3,429	4.1	297	0	0	12.6	22,603
	Crescent	0.0	4	0.1	206	0.3	26	1.7	126	0	0	0.2	362
	Fish	18.7	4,464	2.3	3,146	0.7	63	0	0	81.2	212	4.4	7,885
	Total	100.0	23,864	100.0	138,609	100.0	9,084	100.0	7,316	100.0	261	100.0	179,134
7/17	Susitna	41.4	813	67.9	3,717	56.4	482	62.0	215	0	0	60.5	5,227
	Kenai	8.2	162	16.6	907	24.1	206	38.0	132	0	0	16.3	1,407
	Kasilof	0	0	0	0	0	0	0	0	0	0	0	0
	Crescent	0	0	0	0	0	0	0	0	0	0	0	0
	Fish	50.4	990	15.5	850	19.5	167	0	0	0	0	23.2	2,007
	Total	100.0	1,965	100.0	5,474	100.0	855	100.0	347	0	0	100.0	8,641
7/19	Susitna	31.1	6,312	38.5	34,062	23.0	2,147	48.2	3,935	91.2	114	36.8	46,570
	Kenai	49.9	10,148	57.9	51,252	62.1	5,806	41.2	3,368	0	0	55.8	70,574
	Kasilof	7.2	1,466	1.2	1,047	8.5	797	1.9	158	0	0	2.7	3,468
	Crescent	1.1	224	0.3	272	4.3	400	8.6	705	0	0	1.3	1,601
	Fish	10.7	2,168	2.2	1,945	2.1	195	0	0	8.8	11	3.4	4,319
	Total	100.0	20,318	100.0	88,578	100.0	9,345	100.0	8,166	100.0	125	100.0	126,532

-Continued-

Table 30. Stock composition estimates of the Upper Cook Inlet sockeye salmon harvest by age class and date, 1981[1] (continued).

Date	System	4 2 %	4 2 Numbers	5 2 %	5 2 Numbers	5 3 %	5 3 Numbers	6 3 %	6 3 Numbers	Other %	Other Numbers	Total %	Total Numbers
7/20	Susitna	42.2	1,580	74.5	9,049	53.9	494	84.5	1,279	0	0	67.7	12,402
	Kenai	11.6	436	14.6	1,774	26.6	244	15.5	235	0	0	14.7	2,689
	Kasilof	0	0	0	0	0	0	0	0	0	0	0	0
	Crescent	0	0	0	0	0	0	0	0	0	0	0	0
	Fish	46.2	1,732	10.9	1,321	19.5	179	0	0	0	0	17.6	3,232
	Total	100.0	3,748	100.0	12,144	100.0	917	100.0	1,514	0	0	100.0	18,323
7/21	Susitna	10.9	1,112	21.3	9,438	10.8	417	23.5	960	80.7	71	19.2	11,998
	Kenai	41.8	4,259	58.5	25,939	47.9	1,854	48.9	1,997	0	0	54.4	34,049
	Kasilof	40.1	4,086	16.0	7,106	39.2	1,515	27.6	1,130	0	0	22.1	13,837
	Crescent	0	0	0	0	0	0	0	0	0	0	0	0
	Fish	7.1	726	4.2	1,856	2.1	81	0	0	19.3	17	4.3	2,680
	Total	100.0	10,183	100.0	44,339	100.0	3,867	100.0	4,087	100.0	88	100.0	62,564
7/22	Susitna	13.9	32	19.9	182	10.3	8	20.0	8	0	0	18.2	230
	Kenai	81.0	187	79.1	722	88.5	69	80.0	32	0	0	80.0	1,010
	Kasilof	0	0	0	0	0	0	0	0	0	0	0	0
	Crescent	0	0	0	0	0	0	0	0	0	0	0	0
	Fish	5.2	12	1.0	9	1.3	1	0	0	0	0	1.7	22
	Total	100.0	231	100.0	913	100.0	78	100.0	40	0	0	100.0	1,262
7/24	Susitna	20.1	1,274	31.0	7,685	24.1	479	28.6	459	81.6	169	28.9	10,066
	Kenai	35.1	2,225	57.6	14,260	37.4	742	46.2	741	0	0	51.5	17,968
	Kasilof	30.7	1,948	6.3	1,568	22.4	444	9.4	150	0	0	11.8	4,110
	Crescent	2.0	127	0.8	201	7.6	151	15.8	254	0	0	2.1	733
	Fish	12.0	761	4.2	1,040	8.6	170	0	0	18.4	38	5.8	2,009
	Total	100.0	6,335	100.0	24,754	100.0	1,986	100.0	1,604	100.0	207	100.0	34,886
7/27	Susitna	25.4	1,265	43.3	7,860	24.8	416	36.4	485	68.5	76	38.5	10,102
	Kenai	30.2	1,505	44.1	8,004	29.3	491	44.4	591	0	0	40.4	10,591
	Kasilof	30.8	1,532	6.3	1,144	21.8	366	8.4	112	0	0	12.0	3,154
	Crescent	3.0	149	1.5	276	5.5	93	10.7	143	0	0	2.5	661
	Fish	10.6	525	4.7	857	18.5	310	0	0	31.5	35	6.6	1,727
	Total	100.0	4,976	100.0	18,141	100.0	1,676	100.0	1,331	100.0	111	100.0	26,235
7/29	Susitna	27.2	843	47.5	5,345	24.8	248	40.3	360	73.4	47	41.9	6,843
	Kenai	34.1	1,059	42.4	4,769	32.5	326	44.1	394	0	0	40.1	6,548
	Kasilof	28.3	878	5.0	562	23.6	236	8.3	74	0	0	10.7	1,750
	Crescent	2.2	68	1.1	126	4.3	43	7.4	66	0	0	1.9	303
	Fish	8.2	256	4.0	448	14.9	149	0	0	26.6	17	5.3	870
	Total	100.0	3,104	100.0	11,250	100.0	1,002	100.0	894	100.0	64	100.0	16,314

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Table 30. Stock composition estimates of the Upper Cook Inlet sockeye salmon harvest by age class and date, 1981[1] (continued).

Date	System	4_2 %	4_2 Numbers	5_2 %	5_2 Numbers	5_3 %	5_3 Numbers	6_3 %	6_3 Numbers	Other %	Other Numbers	Total %	Total Numbers
7/31	Susitna	19.8	423	37.1	2,788	19.7	136	33.2	204	82.1	46	32.6	3,597
	Kenai	40.5	868	52.2	3,929	40.5	280	53.6	329	0	0	49.0	5,406
	Kasilof	31.3	670	6.1	459	24.3	168	8.6	53	0	0	12.2	1,350
	Crescent	1.4	29	0.7	54	2.6	18	4.6	28	0	0	1.2	129
	Fish	7.1	151	3.9	290	12.9	89	0	0	17.9	10	4.9	540
	Total	100.0	2,141	100.0	7,520	100.0	691	100.0	614	100.0	56	100.0	11,022
After 7/31	Susitna	22.0	864	40.5	4,462	19.8	294	36.4	485	75.9	66	34.6	6,171
	Kenai	35.3	1,381	48.8	5,366	33.0	490	46.4	618	0	0	44.0	7,855
	Kasilof	32.3	1,268	4.8	529	30.0	446	10.7	143	0	0	13.4	2,386
	Crescent	2.2	88	1.5	163	3.8	56	6.5	86	0	0	2.2	393
	Fish	8.2	321	4.4	486	13.4	200	0	0	24.1	21	5.8	1,028
	Total	100.0	3,922	100.0	11,006	100.0	1,486	100.0	1,332	100.0	87	100.0	17,833
Total	Susitna	11.4	27,415	34.7	358,792	13.7	13,050	34.7	24,741	55.2	685	29.5	424,683
	Kenai	27.5	65,891	43.1	445,863	47.3	45,013	43.2	30,841	0	0	40.7	587,608
	Kasilof	43.2	103,640	18.1	186,903	34.3	32,565	10.5	7,463	0	0	22.9	330,571
	Crescent	0.8	1,837	0.9	9,411	2.0	1,922	11.6	8,298	0	0	1.5	21,468
	Fish	17.1	40,945	3.2	33,505	2.7	2,525	0	0	44.8	557	5.4	77,532
	Total	100.0	239,728	100.0	1,034,474	100.0	95,075	100.0	71,343	100.0	1,242	100.0	1,441,862

[1] Catch tables may differ slightly from figures presented in Table 1 due to rounding.

Table 31. Sockeye salmon abundance data for minor sockeye salmon systems in Upper Cook Inlet[1].

System	Year	Estimate	Comments
Beluga River			
Coal Creek	1978	2,200	Aerial Survey
Pretty Creek	1959	475	Method of estimate unknown
Lone King Creek	1950	2,000	Aerial Survey
Bishop Creek and Lake	1954	9,287	Weir
Blue Lake	1960	3,275	Aerial Survey
Chakachatna River	1981		Estimates represent ground and aerial observations
Chilligan River		10,000-20,000	Made during a two week period in Mid-September
Igitna River		10,000-20,000	Source: April 1982. The Susitna Hydro studies
Chakachatna Mainstream		1,500-3,000	Newsletter. Alaska Power Authority Public
Straight Creek and Tributaries		100-200	Participation Office.
Noaukta Slough		25-50	
Chickaloon River (Swan Lake)	1980	5,000	Aerial Survey
Cornelius Lake	1956	132	Method of estimate unknown
Kustatan River (Jensen Creek)	1981	2,000	Aerial Survey
Lake Creek (Nancy Lake)	1977	4,801	Weir
McArthur River	1981	1,000-2,000	Source and methods of estimate
McArthur Tributaries		250-500	same as Chakachatna River
Matanuska River			
Bodenburg Slough	1978	505	Ground Survey
Moose Creek	1970	120	Ground Survey
Palmer Creek	1978	505	Method of estimate unknown
Portage Creek	1952	650	Method of estimate unknown
Three Mile Creek	1980	1,000	Aerial survey, personal communication, Stan Kubik
Twenty Mile River (Carmen Lake)	1978	600	Method of estimate unknown
Swanson River	1955	100	Method of estimate unknown
Waddell Lake	1981	1,200	Aerial Survey
Wasilla Lake	1972	660	Ground Survey
Williwaw Creek	1978	192	Method of estimate unknown

[1] Figures above represent peak counts of sockeye salmon observed through the years. Methods include ground surveys, aerial surveys, and weir counts. Unless sourced differently data was taken from files of Commercial Fish, Alaska Department of Fish and Game, Soldotna, Alaska. Systems listed above do not represent all the systems in Cook Inlet which produce sockeye salmon.

16,363 age 4_2 fish, 251 age 5_2 fish, 10,896 age 5_3 fish, and 277 age "other" fish. The majority of Cottonwood Creek fish were probably harvested by the Central District drift net and the Northern District east-side set net fisheries.

The Northern District west-side set net fishery (Table 23) harvested 150,886 sockeye salmon of which 69.6% were Susitna River, 24.9% Kenai River, and 5.5% Fish Creek. Considering the geographical distance between the fishery and the Kenai River it would appear that the estimate of Kenai River's contribution is too high. One possible explanation of this is that stocks not included in the model are being classified as Kenai River. River systems which probably contribute significantly to the Northern District west-side fishery but are not included in the analysis are: Chakachatna River, Beluga River, and the McArthur River. Historic abundance estimates (Table 31) of these systems give an indication of their potential contributions.

The Central District west-side set net fishery (Table 24) harvested 28,644 sockeye salmon of which: 68.9% were Crescent River, 17.5% Susitna River, 7.9% Kenai River, and 5.7% Kasilof River. When interpreting these results the reader should be cognizant that there are several minor systems along the west-side which produce sockeye salmon and are not included in the analysis. Additional systems which probably contribute to the Central District west-side set net catch include: Big River (Wolverine Creek), Kustatan River, Blue Lake (Red River), and Waddell Lake (Harriet Point). Abundance data for these systems is outlined in Table 31. Estimate of Wolverine Creek's contribution to the commercial harvest based on average exploitation rates and known escapement totaled 22,952 sockeye salmon. The catch of Wolverine Creek fish by age class equaled 3,177 age 4_2, 2,133 age 5_2, 16,202 age 5_3, and 1,353 age 6_3 fish. The majority of Wolverine Creek fish were probably harvested by the Central District west-side set net fishery and the Central District drift net fishery.

The Kalgin Island set net fishery (Table 25) harvested 35,896 sockeye salmon of which: 33.1% were Kailof River, 27.7% Kenai River, 26.1% Susitna River, 8.2% Fish Creek, and 4.9% Crescent River. This allocation does not take into account the contribution of Packers Creek. The estimated commercial catch of Packers Creek sockeye salmon totaled 13,924 fish of which the majority were probably harvested by the Kalgin Island set net fishery and the Central District drift net fishery. Packers Creek estimated contribution by age class equaled 7,098 age 4_2 fish, 1,052 age 5_2 fish, 2,368 age 5_3 fish, 3,107 age 6_3 fish, and 299 "other" age fish.

The Central District drift net fishery (Table 26) harvested 633,048 sockeye salmon of which 39.7% were Kenai River, 31.2% Susitna River, 24.6% Kasilof River, and 4.5% Fish Creek. The drift fleet was restricted to an area between Cape Kasilof and Cape Ninilchik within 5 miles of the eastern shore during fishing periods from 27 June through 3 July. Estimates of Susitna River's contribution to the drift catch from this discrete area appear too high on 29 June and 2 July; conversely, Kasilof River's estimated contribution to the drift catch varies considerably from period to period. Problems with misclassification of Susitna and Kasilof River scale patterns and the possibility that scale samples were not representative of the catches may be responsible in part for these inconsistent results. In addition to the major stock contributions to the drift net harvest, numerous minor stocks contributed to this fishery (Table 31).

The Salamatof Beach set net fishery (Table 27) harvested 143,259 sockeye salmon of which: 84.7% were Kenai River, 8.3% Susitna River, 6.0% Kasilof River, and 1.0% Fish Creek. Approximately 79% of the Salamatof Beach sockeye salmon harvest was taken in a 9 day period from 10 July through 19 July. This period of high catches coincides with peak escapements into the Kenai River.

The Kalifonsky Beach set net fishery (Table 28) harvested 96,642 sockeye salmon of which: 54.4% were Kenai River, 30.1% Kasilof River, 14.4% Susitna River, and 1.1% Fish Creek.

The Kalifonsky Beach set net fishery (Table 28) harvested 96,642 sockeye salmon of which: 54.4% were Kenai River, 30.1% Kasilof River, 14.4% Susitna River, and 1.1% Fish Creek.

The Cohoe/Ninilchik Beach set net fishery (Table 29) harvested 254,905 sockeye salmon of which: 48.4% were Kasilof River, 36.6% Kenai River, 14.3% Susitna River, and 0.7% Fish Creek. Set nets along Cohoe/Ninilchik Beach were given 9 consecutive days of fishing during the period of 26 June through 3 July. Extra fishing time was allotted so that surplus Kasilof River fish could be harvested. During this period the majority (65%) of the Cohoe/Ninilchik Beach catch was comprised of Kasilof River stocks, with Kenai and Susitna Rivers comprising 26.3% and 19.8%, respectively. Estimates of Susitna River's contribution to the Cohoe/Ninilchik catch during this period seem high considering the geography of the inlet. The 1978-1980 stock composition estimates for this fishery averaged 10.9% Susitna River, 32.5% Kenai River, and 56.0% Kasilof River. Errors in the classification model may have resulted in overestimating Susitna River's contribution and, conversely, underestimating Kasilof River's contribution.

Another possible explanation for the unexpectedly large percentage of Susitna River fish comprising the Cohoe/Ninilchik Beach catch could be the weather patterns (strong southwest winds) in 1981 coupled with the offshore distribution of nets along the beach. A drift card study was conducted in 1981 by ADF&G Habitat Section in Upper Cook Inlet. Large numbers of the drift cards released off Clam Gulch were recovered along Granite Point (personal communication, Kim Sundberg). The northeasterly direction of surface currents during July of 1981 could have influenced the migration patterns of the fish.

Stock Summary

The total return of sockeye salmon to Upper Cook Inlet in 1981 was 2,538,050 fish of which 1,441,862 (56.8%) were commercially harvested and 1,096,188 escaped to spawn (Table 32).

The number of sockeye salmon estimated to have returned to the Kenai River in 1981 equaled 995,247 fish which accounted for 39.2% of the total return to Upper Cook Inlet (Table 32). The majority (73.8%) of Kenai River's return were age 5_2 fish. Age 4_2 fish comprised 13.3% of the return, age 5_3 comprised 7.8%, and age 6_3 fish comprised 5.1%. The exploitation rate for Kenai River stocks equaled 0.590. The Central District drift fishery harvested the largest portion (42.8%) of the Kenai River catch (Table 33). Other fisheries which took significant amounts of Kenai River fish included: Salamatof Beach (20.7%), Cohoe/Ninilchik Beach (15.9%), and Kalifonsky Beach (8.9%).

Table 32. Catch, escapement, and total return of sockeye salmon by age class and stock, Upper Cook Inlet, 1981[1].

Stock		Catch					
		4 2	5 2	5 3	6 3	Other	Total
Susitna	Numbers	27,415	358,792	13,050	24,741	685	424,683
	Percent	6.4	84.5	3.1	5.8	0.2	100.0
Kenai	Numbers	65,891	445,863	45,013	30,841	0	587,608
	Percent	11.2	75.9	7.7	5.2	0	100.0
Kasilof	Numbers	103,640	186,903	32,565	7,463	0	330,571
	Percent	31.4	56.5	9.8	2.3	0	100.0
Crescent	Numbers	1,837	9,411	1,922	8,298	0	21,468
	Percent	8.6	43.8	9.0	38.6	0	100.0
Fish	Numbers	40,945	33,505	2,525	0	557	77,532
	Percent	52.8	43.2	3.3	0	0.7	100.0
Total	Numbers	239,728	1,034,474	95,075	71,343	1,242	1,441,862
	Percent	16.6	71.8	6.6	4.9	0.1	100.0

Stock		Escapement					
		4 2	5 2	5 3	6 3	Other	Total
Susitna	Numbers	30,198	282,368	10,300	15,341	2,025	340,232
	Percent	8.9	83.0	3.0	4.5	0.6	100.0
Kenai	Numbers	66,033	289,023	32,873	19,710	0	407,639
	Percent	16.2	70.9	8.1	4.8	0	100.0
Kasilof	Numbers	77,451	159,556	15,433	4,185	0	256,625
	Percent	30.2	62.2	6.0	1.6	0	100.0
Crescent	Numbers	3,370	13,243	3,960	20,549	91	41,213
	Percent	8.2	32.1	9.6	49.9	0.2	100.0
Fish	Numbers	30,779	18,212	695	0	793	50,479
	Percent	60.9	36.1	1.4	0	1.6	100.0
Total	Numbers	207,830	762,402	63,261	59,785	2,909	1,096,188
	Percent	19.0	69.5	5.8	5.4	0.3	100.0

Stock		Total Return					
		4 2	5 2	5 3	6 3	Other	Total
Susitna	Numbers	57,613	641,160	23,350	40,082	2,710	764,915
	Percent	7.5	83.8	3.1	5.2	0.4	100.0
Kenai	Numbers	131,924	734,886	77,886	50,551	0	995,247
	Percent	13.3	73.8	7.8	5.1	0	100.0
Kasilof	Numbers	181,091	346,459	47,998	11,648	0	587,196
	Percent	30.8	59.0	8.2	2.0	0	100.0
Crescent	Numbers	5,207	22,654	5,882	28,847	91	62,681
	Percent	8.3	36.1	9.4	46.0	0.2	100.0
Fish	Numbers	71,724	51,717	3,220	0	1,350	128,011
	Percent	56.0	40.4	2.5	0	1.1	100.0
Total	Numbers	447,559	1,796,876	158,336	131,128	4,151	2,538,050
	Percent	17.6	70.8	6.2	5.2	0.2	100.0

[1] Catch totals may differ slightly from Table 1 due to rounding.

Table 33. Summary of the catch by fishery and stock for sockeye salmon returning to Upper Cook Inlet, 1981.

Stock	FISHERY								
	Northern District East-side Set Net	Northern District West-side Set Net	Central District Drift Net	Central District West-side Set Net	Kalgin Island Set Net	Salamatof Beach Set Net	Kalifonsky Beach Set Net	Cohoe/Ninilchik Beach Set Net	Total
Susitna									
Numbers	45,952	105,062	197,159	5,020	9,370	11,866	13,897	36,357	424,683
Percent	10.8	24.7	46.4	1.2	2.2	2.8	3.3	8.6	100.0
Kenai									
Numbers	19,074	37,528	251,527	2,255	9,938	121,384	52,600	93,302	587,608
Percent	3.2	6.4	42.8	0.4	1.7	20.7	8.9	15.9	100.0
Kasilof									
Numbers	0	0	155,907	1,647	11,901	8,626	29,070	123,420	330,571
Percent	0	0	47.2	0.5	3.6	2.6	8.8	37.3	100.0
Crescent									
Numbers	0	0	0	19,722	1,746	0	0	0	21,468
Percent	0	0	0	91.9	8.1	0	0	0	100.0
Fish Creek									
Numbers	33,556	8,296	28,455	0	2,941	1,383	1,075	1,826	77,532
Percent	43.3	10.7	36.7	0	3.8	1.8	1.4	2.3	100.0

An estimated 764,915 sockeye salmon returning to Upper Cook Inlet in 1981 were of Susitna River origin (Table 32). The Susitna River runs accounted for 30.1% of the total return. Age 5_2 fish dominated (83.8%) the return followed by ages 4_2 (7.5%), 6_3 (5.2%), 5_3 (3.1%), and other ages (0.4%). Susitna River stocks were most heavily harvested by the Central District drift fishery which took approximately 46.4% of the catch, the Northern District west-side fishery harvested 24.7% of the catch, and the Northern District east-side fishery accounted for 10.8% of the catch (Table 33). The exploitation rate for the Susitna River was 0.555.

In 1981 a total of 587,196 Kasilof River sockeye salmon returned which represented 23.1% of the Upper Cook Inlet total return (Table 32). The Kasilof River return was composed primarily of age 5_2 (59.0%) and age 4_2 (30.8%) fish. Age 5_3 and age 6_3 fish comprised 8.2% and 2.0% of the Kasilof's return, respectively. The exploitation rate for Kasilof River was estimated at 0.563. The majority of Kasilof River fish harvested were taken by the Central District drift net fishery which accounted for 47.2% of the catch and Cohoe/Ninilchik Beach set net fishery which represented 37.3% (Table 33). Smaller percentages of Kasilof River fish were also harvested by Kalifonsky Beach (8.8%), Kalgin Island (3.6%), and Salamatof Beach (2.6%) fisheries.

The return to Fish Creek in 1981 was estimated to equal 128,011 sockeye salmon which represented 5.1% of the total return to Upper Cook Inlet (Table 32). The Fish Creek return was composed principally of age 4_2 (56.0%) and age 5_2 (40.4%) fish. Small percentages of age 5_3 (2.5%) and other ages (1.1%) made up the remainder of the Fish Creek return. The largest portion (43.3%) of Fish Creek's catch was taken by the Northern District east-side set net fishery, followed by the Central District drift fishery which took 36.7% (Table 33). The remainder of the Fish Creek catch was distributed among the Northern District west-side fishery (10.7%), Kalgin Island (3.8%), Cohoe/Ninilchik Beach (2.3%), Salamatof Beach (1.8%), and Kalifonsky Beach (1.4%). The exploitation rate on Fish Creek stocks equaled 0.606.

An estimated 62,681 sockeye salmon returned to Crescent River in 1981 which accounted for 2.5% of the Upper Cook Inlet total return (Table 32). Age 6_3 and age 5_2 fish dominated the Crescent River return, comprising 46.0% and 36.1%, respectively. Age 5_3 fish (9.4%), age 4_2 fish (8.3%), and other ages (0.2%) comprised the remainder of Crescent River return. The Central District west-side set net fishery took 91.9% of the Crescent River fish harvested and Kalgin Island accounted for 8.1%. The Central District drift fishery probably harvested some Crescent River fish. However, the numbers of Crescent River fish were small compared to the other stocks and scale pattern analysis did not detect its contribution. The exploitation rate of Crescent River fish was 0.342.

Run Timing

Tables 34-38 outline the daily and cumulative return of sockeye salmon to each of the five major river systems. Escapement and catch by stock were combined to calculate total return by date by incorporating migration times from the fisheries to the escapement counting sites. Table 39 summarizes the mean Julian date and variance of Upper Cook Inlet's sockeye salmon runs. The

Table 34. Summary of daily and cumulative return of sockeye salmon to the Susitna River, Upper Cook Inlet, 1981[1].

Date	Numbers of Fish				Proportion	
	Escapement	Catch	Daily Return	Cumulative Return	Daily Proportion	Cumulative Proportion
6/27	106		106	106	.000	.000
6/28	104		104	210	.000	.000
6/29	398		398	608	.001	.001
6/30	476		476	1,084	.001	.002
7/01	637		637	1,721	.001	.003
7/02	1,946	1,870	3,816	5,537	.005	.008
7/03	1,140	1,338	2,478	8,015	.003	.011
7/04	551	2,070	2,621	10,636	.003	.014
7/05	469	7,636	8,105	18,741	.011	.025
7/06	447	3,266	3,713	22,454	.005	.030
7/07	358	1,921	2,279	24,733	.003	.033
7/08	390	3,431	3,821	28,554	.005	.038
7/09	1,553	10,326	11,879	40,433	.015	.053
7/10	6,349		6,349	46,782	.008	.061
7/11	13,368		13,368	60,150	.018	.079
7/12	16,245	22,276	38,521	98,671	.050	.129
7/13	21,360		21,360	120,031	.028	.157
7/14	32,250		32,250	152,281	.042	.199
7/15	33,525	11,979	45,504	197,785	.060	.259
7/16	27,083	89,173	116,256	314,041	.152	.411
7/17	19,462		19,462	333,503	.025	.436
7/18	15,644	94,390	110,034	443,537	.144	.580
7/19	14,149		14,149	457,686	.018	.598
7/20	15,086	61,801	76,887	534,573	.101	.699
7/21	23,581		23,581	558,154	.031	.730
7/22	11,219		11,219	569,373	.014	.744
7/23	13,064	5,227	18,291	587,664	.024	.768
7/24	11,368		11,368	599,032	.015	.783
7/25	8,480	46,570	55,050	654,082	.072	.855
7/26	6,661	12,402	19,063	673,145	.025	.880
7/27	8,015	11,998	20,013	693,158	.026	.906
7/28	7,021	230	7,251	700,409	.009	.915
7/29	4,400		4,400	704,809	.006	.921
7/30	3,409	10,066	13,475	718,284	.018	.939
7/31	3,223		3,223	721,507	.004	.943
8/01	1,905		1,905	723,412	.003	.946
8/02	1,235	10,102	11,337	734,749	.015	.961
8/03	840		840	735,589	.001	.962
8/04	1,383	6,843	8,226	743,815	.011	.973
8/05	1,905		1,905	745,720	.002	.975
8/06	1,127	3,597	4,724	750,444	.006	.981
8/07	1,095		1,095	751,539	.001	.982
8/08	730		730	752,269	.001	.983
8/09	344	3,485	3,829	756,098	.005	.988
8/10	248		248	756,346	.000	.988
8/11	339		339	756,685	.001	.989
8/12	316		316	757,001	.001	.990
8/13	334	1,173	1,507	758,508	.002	.992
8/14	245		245	758,753	.000	.992
8/15	234		234	758,987	.000	.992
8/16	228	748	976	759,963	.001	.993
8/17	199		199	760,162	.000	.993
8/18	278	141	419	760,581	.001	.994
8/19	868		868	761,449	.001	.995
8/20	655	319	974	762,423	.001	.996
8/21	670		670	763,093	.001	.997
8/22	374		374	763,467	.001	.998
8/23	345	142	487	763,954	.001	.999
8/24	386		386	764,340	.001	1.000
8/25	275		275	764,615	.000	1.000
After 8/25	137	163	300	764,915	.000	1.000
Total	340,232	424,683	764,915	764,915	1.000	1.000

[1] Dates represent escapement dates, i.e., the return of fish to the river counting site. Catch dates were adjusted to account for migration time to the river. The lag time used from the fisheries to the Susitna River was six days.

Table 35. Summary of daily and cumulative return of sockeye salmon to the Kenai River, Upper Cook Inlet, 1981[1].

Date	Numbers of Fish				Proportion	
	Escapement	Catch	Daily Return	Cumulative Return	Daily Proportion	Cumulative Proportion
6/22	253	44	297	297	.000	.000
6/23	316		316	613	.000	.000
6/24	329		329	942	.000	.000
6/25	389	82	471	1,413	.001	.001
6/26	507		507	1,920	.001	.002
6/27	614	66	680	2,600	.001	.003
6/28	501		501	3,101	.001	.004
6/29	534	11,195	11,729	14,830	.011	.015
6/30	313	2,589	2,902	17,732	.003	.018
7/01	405	6,318	6,723	24,455	.007	.025
7/02	552	8,898	9,450	33,905	.009	.034
7/03	255	7,327	7,582	41,487	.008	.042
7/04	142	4,828	4,970	46,457	.005	.047
7/05	281	3,897	4,178	50,635	.004	.051
7/06	333	17,951	18,284	68,919	.018	.069
7/07	744		744	69,663	.001	.070
7/08	1,013		1,013	70,676	.001	.071
7/09	18,597	46,574	65,171	135,847	.065	.136
7/10	49,646		49,646	185,493	.050	.186
7/11	31,063		31,063	216,556	.031	.217
7/12	42,262	9,045	51,307	267,863	.052	.269
7/13	39,623	119,008	158,631	426,494	.159	.428
7/14	20,097		20,097	446,591	.020	.448
7/15	14,929	105,206	120,135	566,726	.121	.569
7/16	4,344		4,344	571,070	.005	.574
7/17	5,290	86,483	91,773	662,843	.092	.666
7/18	13,316		13,316	676,159	.013	.679
7/19	25,315		25,315	701,474	.026	.705
7/20	32,636	1,407	34,043	735,517	.034	.739
7/21	22,882		22,882	758,399	.023	.762
7/22	12,974	70,574	83,548	841,947	.084	.846
7/23	5,165	2,689	7,854	849,801	.008	.854
7/24	6,685	34,049	40,734	890,535	.041	.895
7/25	4,728	1,010	5,738	896,273	.006	.901
7/26	7,398		7,398	903,671	.007	.908
7/27	7,103	17,968	25,071	928,742	.025	.933
7/28	3,922		3,922	932,664	.004	.937
7/29	4,534		4,534	937,198	.005	.942
7/30	3,217	10,591	13,808	951,006	.014	.956
7/31	3,316		3,316	954,322	.003	.959
8/01	2,702	6,548	9,250	963,572	.009	.968
8/02	3,739		3,739	967,311	.004	.972
After 8/02	14,675	13,261	27,936	995,247	.028	1.000
Total	407,639	587,608	995,247	995,247	1.000	1.000

[1] Dates represent escapement dates, i.e., the return of fish to the river counting site. Catch dates were adjusted to account for migration times to the river. The lag time used from the fisheries to the Kenai River was three days.

Table 36. Summary of daily and cumulative return of sockeye salmon to the Kasilof River, Upper Cook Inlet, 1981[1].

Date	Numbers of Fish				Proportion	
	Escapement	Catch	Daily Return	Cumulative Return	Daily Proportion	Cumulative Proportion
5/14	32		32	32	.000	.000
5/15	288		288	320	.000	.000
5/16	330		330	650	.001	.001
5/17	177		177	827	.000	.001
5/18	361		361	1,188	.001	.002
5/19	272		272	1,460	.000	.002
5/20	177		177	1,637	.000	.002
5/21	192		192	1,829	.000	.002
5/22	185		185	2,014	.000	.002
5/23	164		164	2,178	.000	.002
5/24	292		292	2,470	.001	.003
5/25	300		300	2,770	.001	.004
5/26	328		328	3,098	.001	.005
5/27	253		253	3,351	.000	.005
5/28	208		208	3,559	.000	.005
5/29	244		244	3,803	.000	.005
5/30	400		400	4,203	.001	.006
5/31	393		393	4,596	.001	.007
6/01	444		444	5,040	.001	.008
6/02	540		540	5,580	.001	.009
6/03	757		757	6,337	.001	.010
6/04	628		628	6,965	.001	.011
6/05	769		769	7,734	.001	.012
6/06	487		487	8,221	.001	.013
6/07	697		697	8,918	.001	.014
6/08	894		894	9,812	.002	.016
6/09	459		459	10,271	.001	.017
6/10	746		746	11,017	.001	.018
6/11	650		650	11,667	.001	.019
6/12	462		462	12,129	.001	.020
6/13	524		524	12,653	.001	.021
6/14	531		531	13,184	.001	.022
6/15	863		863	14,047	.001	.023
6/16	1,069		1,069	15,116	.002	.025
6/17	1,315		1,315	16,431	.002	.027
6/18	2,690		2,690	19,121	.005	.032
6/19	2,044		2,044	21,165	.004	.036
6/20	4,171		4,171	25,336	.007	.043
6/21	3,858		3,858	29,194	.007	.050
6/22	4,958		4,958	34,152	.008	.058
6/23	7,458	57	7,515	41,667	.013	.071
6/24	8,519		8,519	50,186	.014	.085
6/25	7,074		7,074	57,260	.012	.097
6/26	9,707	104	9,811	67,071	.017	.114
6/27	7,001		7,001	74,072	.012	.126
6/28	13,903	82	13,985	88,057	.024	.150
6/29	12,033		12,033	100,090	.021	.171
6/30	12,467	29,334	41,801	141,891	.071	.242
7/01	16,068	12,916	28,984	170,875	.049	.291
7/02	2,965	17,719	20,684	191,559	.035	.326
7/03	2,494	10,527	13,021	204,580	.022	.348
7/04	1,825	9,762	11,587	216,167	.020	.368

-Continued-

Table 36. Summary of daily and cumulative return of sockeye salmon to the Kasilof River, Upper Cook Inlet, 1981[1] (continued).

Date	Numbers of Fish				Proportion	
	Escapement	Catch	Daily Return	Cumulative Return	Daily Proportion	Cumulative Proportion
7/05	1,468	6,855	8,323	224,490	.014	.382
7/06	2,331	3,286	5,617	230,107	.010	.392
7/07	1,918	35,628	37,546	267,653	.064	.456
7/08	2,861		2,861	270,514	.005	.461
7/09	10,707		10,707	281,221	.018	.479
7/10	11,639	33,409	45,048	326,269	.077	.556
7/11	7,059		7,059	333,328	.012	.568
7/12	8,946		8,946	342,274	.015	.583
7/13	8,938	24,931	33,869	376,143	.058	.641
7/14	12,933	77,980	90,913	467,056	.155	.796
7/15	10,552		10,552	477,608	.018	.814
7/16	6,520	15,323	21,843	499,451	.037	.851
7/17	3,605		3,605	503,056	.006	.857
7/18	3,502	22,603	26,105	529,161	.044	.901
7/19	3,264		3,264	532,425	.006	.907
7/20	4,649		4,649	537,074	.008	.915
7/21	3,542		3,542	540,616	.006	.921
7/22	1,702		1,702	542,318	.003	.924
7/23	1,153	3,468	4,621	546,939	.008	.932
7/24	1,230		1,230	548,169	.002	.934
7/25	680	13,837	14,517	562,686	.025	.959
7/26	683		683	563,369	.001	.960
7/27	634		634	564,003	.001	.961
7/28	633	4,110	4,743	568,746	.008	.969
7/29	310		310	569,056	.000	.969
7/30	357		357	569,413	.001	.970
7/31	469	3,154	3,623	573,036	.006	.976
After 7/31	8,674	5,486	14,160	587,196	.024	1.000
Total	256,625	330,571	587,196	587,196	1.000	1.000

[1] Dates represent escapement dates, i.e, the return of fish to the river counting site. Catch dates were adjusted to account for migration times to the river. The lag time used from the fisheries to the Kasilof River was four days.

Table 37. Summary of daily and cumulative return of sockeye salmon to the Crescent River, Upper Cook Inlet, 1981[1].

Date	Numbers of Fish				Proportion	
	Escapement	Catch	Daily Return	Cumulative Return	Daily Proportion	Cumulative Proportion
6/28		1,240	1,240	1,240	.020	.020
6/29			0	1,240	.000	.020
6/30			0	1,240	.000	.020
7/01		2,283	2,283	3,523	.036	.056
7/02	476		476	3,999	.008	.064
7/03	1,024	1,805	2,829	6,828	.045	.109
7/04	1,014		1,014	7,842	.016	.125
7/05	908	1,648	2,556	10,398	.041	.166
7/06	566		566	10,964	.009	.175
7/07	850		850	11,814	.013	.188
7/08	1,309	1,063	2,372	14,186	.038	.226
7/09	713		713	14,899	.011	.237
7/10	550		550	15,449	.009	.246
7/11	561		561	16,010	.009	.255
7/12	366	3,978	4,344	20,354	.070	.325
7/13	516		516	20,870	.008	.333
7/14	796		796	21,666	.013	.346
7/15	1,313	970	2,283	23,949	.036	.382
7/16	1,839		1,839	25,788	.029	.411
7/17	1,496		1,496	27,284	.024	.435
7/18	1,613		1,613	28,897	.026	.461
7/19	1,986	3,273	5,259	34,156	.084	.545
7/20	2,418		2,418	36,574	.039	.584
7/21	2,369	1,026	3,395	39,969	.054	.638
7/22	2,213		2,213	42,182	.035	.673
7/23	2,114	362	2,476	44,658	.039	.712
7/24	1,946		1,946	46,604	.031	.743
7/25	996		996	47,600	.016	.759
7/26	570		570	48,170	.009	.768
7/27	782		782	48,952	.013	.781
7/28	684	1,601	2,285	51,237	.036	.817
7/29	904		904	52,141	.015	.832
7/30	946		946	53,087	.015	.847
7/31	634		634	53,721	.010	.857
8/01	449		449	54,170	.007	.864
8/02	759	733	1,492	55,662	.024	.888
8/03	818		818	56,480	.013	.901
8/04	652		652	57,132	.010	.911
8/05	703	661	1,364	58,496	.022	.933
8/06	660		660	59,156	.011	.944
8/07	590	303	893	60,049	.014	.958
8/08	639		639	60,688	.010	.968
8/09	377	129	506	61,194	.008	.976
After 8/09	1,094	393	1,487	62,681	.024	1.000
Total	41,213	21,468	62,681	62,681	1.000	1.000

[1] Dates represent escapement dates, i.e., the return of fish to the river counting site. Catch dates were adjusted to account for migration times to the river. The lag time used from the fisheries to the Crescent River was nine days.

Table 38. Summary of daily and cumulative return of sockeye salmon to Fish Creek, Upper Cook Inlet, 1981[1].

Date	Numbers of Fish				Proportion	
	Escapement	Catch	Daily Return	Cumulative Return	Daily Proportion	Cumulative Proportion
7/03		2,990	2,990	2,990	.023	.023
7/04		725	725	3,715	.006	.029
7/05		381	381	4,096	.003	.032
7/06		2,567	2,567	6,663	.020	.052
7/07		527	527	7,190	.004	.056
7/08	400	663	1,063	8,253	.008	.064
7/09	9	551	560	8,813	.004	.068
7/10	223	2,924	3,147	11,960	.025	.093
7/11	1,397		1,397	13,357	.011	.104
7/12	3,541		3,541	16,898	.028	.132
7/13	1,836	5,568	7,404	24,302	.058	.190
7/14	5,523		5,523	29,825	.043	.233
7/15	7,300		7,300	37,125	.057	.290
7/16	5,570	768	6,338	43,463	.050	.340
7/17	2,933	19,785	22,718	66,181	.177	.517
7/18	3,080		3,080	69,261	.024	.541
7/19	3,602	13,764	17,366	86,627	.136	.677
7/20	2,365		2,365	88,992	.018	.695
7/21	1,734	7,885	9,619	98,611	.075	.770
7/22	1,945		1,945	100,556	.015	.785
7/23	457		457	101,013	.004	.789
7/24	876	2,007	2,883	103,896	.023	.812
7/25	1,168		1,168	105,064	.009	.821
7/26	1,327	4,319	5,646	110,710	.044	.865
7/27	148	3,232	3,380	114,090	.026	.891
7/28	1,567	2,680	4,247	118,337	.033	.924
7/29	193	22	215	118,552	.002	.926
7/30	1,651		1,651	120,203	.013	.939
7/31	432	2,009	2,441	122,644	.019	.958
8/01	343		343	122,987	.003	.961
8/02	114		114	123,101	.001	.962
8/03	135	1,727	1,862	124,963	.014	.976
8/04	98		98	125,061	.001	.977
8/05	14	870	884	125,945	.007	.984
8/06	38		38	125,983	.000	.984
8/07	72	540	612	126,595	.005	.989
8/08	27		27	126,622	.000	.989
8/09	175		175	126,797	.001	.990
8/10	52	581	633	127,430	.005	.995
8/11	27		27	127,457	.000	.995
8/12	22		22	127,479	.000	.995
8/13	28		28	127,507	.001	.996
8/14	9	140	149	127,656	.001	.997
8/15	2		2	127,658	.000	.997
8/16	7		7	127,665	.000	.997
8/17	6	133	139	127,804	.001	.998
8/18	4		4	127,808	.000	.998
8/19	6	6	12	127,820	.000	.998
8/20	1		1	127,821	.000	.998
8/21	2	101	103	127,924	.001	.999
After 8/21	20	67	87	128,011	.001	1.000
Total	50,479	77,532	128,011	128,011	1.000	1.000

[1] Dates represent escapement dates, i.e., the return of fish to the river counting site. Catch dates were adjusted to account for migration times to the river. The lag time used from the fisheries to the Fish Creek was seven days.

Table 39. The mean date (Julian) and variance of the runs of sockeye salmon, Upper Cook Inlet, by stock, 1981

Stock	Mean	Variance
Susitna River	200.1	51.8
Kenai River	197.1	50.6
Kasilof River	189.0	115.7
Crescent River	199.5	118.1
Fish Creek	199.6	50.0

return of sockeye salmon to the Kasilof River was the earliest (mean = 189.0) and fairly protracted (variance = 115.7). Their were small differences in the mean dates for the Kenai River (197.1), Crescent River (199.5), Fish Creek (199.6), and Susitna River (200.1). The Crescent River did show a substantially more protracted run (variance = 118.1) than either the Kenai River (50.6), Fish Creek (50.0), or the Susitna River (51.8).

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