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HARVEST, EFFORT, AND ESCAPEMENT STATISTICS FOR SELECTED CHINOOK SALMON *(Oncorhynchus tshawytscha)* SPORT FISHERIES IN NORTHERN COOK INLET, ALASKA, 1986

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ABSTRACT

Selected northern Cook Inlet road-accessible and remote chinook salmon (*Oncorhynchus tshawytscha* Walbaum) sport fisheries were creel surveyed with roving and direct expansion programs in 1986. Remote streams and the road-accessible Little Susitna River were open to chinook salmon sport fishing 7 days each week while all other road-accessible streams were open to fishing on weekends only. All chinook salmon sport fisheries were closed to fishing on midnight of 6 July 1986.

An estimated 14,306 chinook salmon were harvested in all northern Cook Inlet chinook salmon sport fisheries in an estimated 251,072 hours of sport fishing effort. Anglers fishing the remote streams harvested an estimated 8,988 chinook salmon in an estimated 137,716 hours of effort while anglers fishing the road-accessible streams harvested an estimated 5,318 chinook salmon in an estimated 113,356 hours of effort. The sport harvests of Northern Cook Inlet chinook salmon were dominated by age 1.3 fish. The cumulative observed spawning escapement for Northern Cook Inlet chinook salmon was 54,461 fish.

KEY WORDS: chinook salmon, *Oncorhynchus tshwatscha*, northern Cook Inlet, creel survey, harvest, effort, escapement counts, population age structure.

INTRODUCTION

The northern Cook Inlet chinook salmon (*Oncorhynchus tshawytscha* Walbaum) sport fishery is among the most important recreational fisheries in the State (Mills 1986). The fishery encompasses select tributaries within the Susitna River drainage and select waters that drain directly into northern Cook Inlet (Figure 1). The sport fishery has several distinct components that include: (1) east side Susitna River tributaries that are road-accessible from the Parks Highway; (2) remote Susitna and Yentna river tributaries that are not road-accessible and primarily enter the mainstem from the west and north; (3) the Little Susitna River and (4) remote river systems that drain directly into northern Cook Inlet from the north and west.

The inriver sport fisheries of the Susitna River drainage, the Little Susitna River, and the west Cook Inlet streams have been monitored closely since 1979. Monitoring these fisheries has allowed inseason assessment of run strength and has prevented the over-harvest of discrete chinook salmon stocks.

During the 1960's and 1970's, the northern Cook Inlet chinook salmon sport fishery was periodically closed due to depressed returns. Due partially to these closures, increased returns occurred in the late 1970's and early to mid 1980's, and as a result, the sport fishery has been open every year since 1979. Stocks have continued to increase to where in 1986, the first commercial fishery directly targeting northern Cook Inlet chinook salmon stocks was conducted since its closure in 1963.

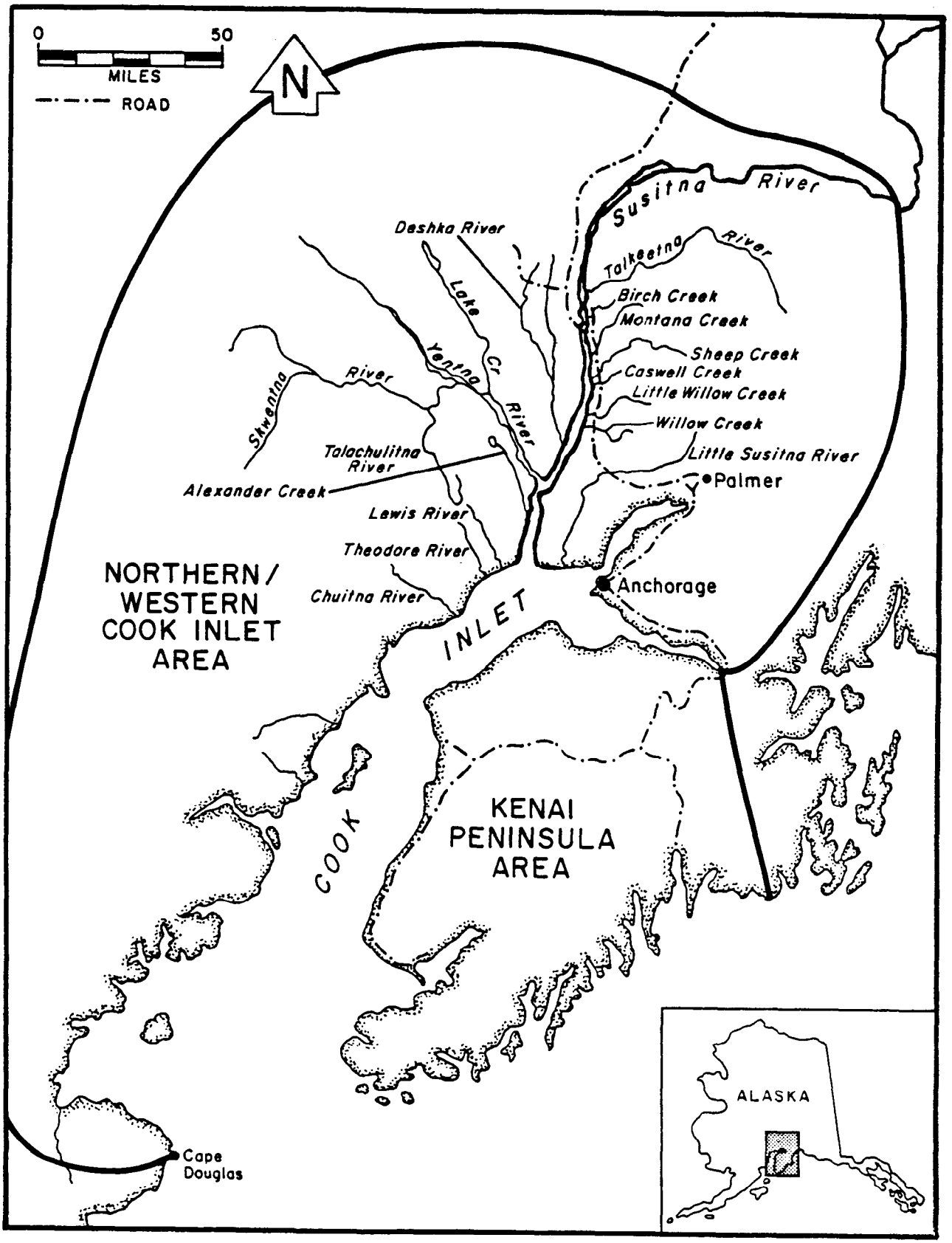

Figure 1. Northern Cook Inlet study area; Susitna River and Little Susitna River drainage, Alaska, 1986.

Prior to 1986, only five streams were open to chinook salmon fishing along the Parks Highway. Three of these streams (Willow, Montana, and Caswell Creeks) were only open during four weekends while the Talkeetna and Little Susitna Rivers were open to continuous fishing throughout the week. These fisheries are road-accessible and fishing pressure has increased from an estimated 47,500 angler-hours in 1979 to over 155,000 angler-hours in 1985. Harvests during this period ranged from an estimated low of 1,650 in 1979 to an estimated record high of nearly 4,900 in 1984. In 1986, five additional road-accessible streams (Little Willow, Sheep, Goose, Sunshine and Birch Creeks) were opened to fishing during the four weekend period.

Remote streams open to chinook salmon fishing in the Susitna and Yentna River drainages and in west Cook Inlet have also increased since 1979. From 1979 to 1982 only the Deshka River and Lake and Alexander Creeks were open to chinook salmon fishing. In 1983, the open area was expanded to include the Chuitna and Yentna River drainages. In 1984, all remaining coastal streams draining into west Cook Inlet north of the West Foreland and all tributaries to the westside of the Susitna River downstream of the Deshka River were added to the open area. With these openings, angling effort increased from an estimated 65,900 angler-hours in 1979 to an estimated 136,400 angler-hours in 1985 with harvests ranging from an estimated low of 3,166 in 1981 to an estimated record high of 11,413 in 1985.

The objectives of this report are to present: (1) base-line harvest, effort, catch per unit of effort and biological statistics for the 1986 return of chinook salmon to selected streams in the Susitna River drainage and in the Little Susitna River; and (2) chinook salmon escapement estimates for selected northern Cook Inlet index streams.

Harvest and effort data for the years 1979-1985 are from Bentz (1982, 1983), Delaney and Hepler (1983), Hepler and Bentz (1984, 1985, 1986a), Hepler and Kubik (1982), Kubik (1980, 1981), and Watsjold (1980, 1981). Additional effort and harvest data for the 1986 chinook salmon sport fishery are presented in Hepler and Bentz (1986b).

METHODS

Two types of creel surveys were employed in the northern Cook Inlet study area: a roving creel survey and a direct expansion creel survey. The methods followed in each of these survey procedures are described below.

Roving Creel Survey

Roving design creel surveys were utilized on six of the 12 streams that were surveyed in the study area. These included:

1. Deshka River (Susitna River drainage): Approximately 50 km (31 mi) of the Deshka River were open to the harvest of chinook salmon in 1986. The open area was divided into two survey locations. The first area encompassed the lower 1.6 km (1.0 mi) from the confluence with the Susitna River upstream to the Alaska Department of Fish and

Game cabin. The second area included the remaining area open to fishing from the cabin to the confluence of Moose and Kroto Creeks. Primary access to the lower river section was by riverboats launched from Susitna Landing while most access to the upper river section was by riverboats that traveled upstream from the mouth, floatplanes that landed on corridor lakes, and float trips that originated from Petersville Road.

2. Alexander Creek (Susitna River drainage): The entire Alexander Creek drainage was open to the harvest of chinook salmon in 1986. The open area was divided into two sampling locations; the first encompassing the lower 1.6 km (1.0 mi) from the confluence with the Susitna River upstream to Gabbert's Fish Camp and the second encompassing the remaining open area from Gabbert's Fish Camp upstream to Alexander Lake. Anglers accessed the lower section using riverboats, wheelplanes, and floatplanes while primary access to the upper section was by float trips that originated from Alexander Lake and riverboats that traveled upstream from the mouth.

3. Lake Creek (Susitna River drainage): The entire drainage of Lake Creek was open to the harvest of chinook salmon in 1986. However, physical barriers within the river restricted the majority of the anglers to the lower 3.2 km (2.0 mi) of the river. Angler access was by float planes and privately-owned riverboats.

4. Willow Creek at Parks Highway (Susitna River drainage): The area open to the harvest of chinook salmon in Willow Creek in 1986 included all the waters within a 0.4 km (0.25 mi) radius of its confluence with the Susitna River upstream to the Parks Highway. Generally, salmon hold in the confluence area and migrate upstream to the area near the Parks Highway Bridge in early July. Because the stream is road-accessible, angler access is primarily by vehicle and foot. The majority of angling effort is normally concentrated to within 0.8 km (0.5 mi) downstream of the bridge.

5. The Little Susitna River: The area open in 1986 to the harvest of chinook salmon encompassed approximately 113 river kilometers (70 mi). A creel survey was conducted at two major access points. The lower river access site, referred to as the Burma Road, is located 45 km (28 mi) upstream from the mouth. Most anglers reach this site from a gravel road that branches off the Knik-Goose Bay Road. The upper sampling location was near the Parks Highway Bridge which marks the upper limit of the open fishing area for chinook salmon.

6. Theodore River: The entire Theodore River drainage was open to the harvest of chinook salmon in 1986. The majority of the angling effort occurred in the lower 13 km (8 mi) of river which was accessible by wheelplanes and vehicles from the Standard Oil road system. The creel survey encompassed approximately 13 km (8 mi) of the river but was concentrated mainly on the lower 5 km (3 mi) from tidewater to the Standard Oil bridge. Anglers fished primarily in conjunction with high tides.

Study Design:

Two-stage random sampling design for angler counts and collecting angler interviews was employed for all surveyed rivers except Willow Creek, where count times were systematically selected. Days were considered the primary sample units and the secondary sample units were hours in a day for the angler counts and anglers for the interviews. Time periods to be sampled in each time strata were randomly selected without replacement. Each week of the fishery on Alexander and Lake Creeks and the Deshka and Little Susitna Rivers was sampled to provide harvest and effort estimates for inseason management. All weekends/holidays were sampled and approximately 57% of weekdays were sampled. The Willow Creek fishery at the Parks Highway was only sampled one weekend because fish were present at the site only during the last weekend of the season. The Theodore River creel survey was initiated approximately 1 week before the first opening for the northern district commercial fishery and continued until approximately 1 week after the last commercial opening. Each day was sampled during this time frame.

The fishing day for Alexander and Lake Creeks and the Deshka and Theodore Rivers was considered to be 18 hours long (0500-2300 hrs). Fishing days for Alexander Creek and the Deshka River were divided into three 6-hour sample periods: (1) 0500-1059 hrs; (2) 1100-1659 hrs; and (3) 1700-2300 hrs. Fishing days for Lake Creek were divided into six 3-hour sample periods: (1) 0500-0759 hrs; (2) 0800-1059 hrs; (3) 1100-1359 hrs; (4) 1400-1659 hrs; (5) 1700-1959 hrs; and (6) 2000-2300 hrs. Theodore River sampling occurred during a single 4-hour sample period that started two hours before the peak of high tide.

Fishing days for the Little Susitna River were considered to be 20 hours long (0400-2400 hrs) and were divided into five 4-hour sample periods: (1) 0400-0759 hrs; (2) 0800-1159 hrs; (3) 1200-1559 hrs; (4) 1600-1959 hrs; and (5) 2000-2400 hrs. Fishing days for Willow Creek at the highway bridge were 24 hours long (0000-2400 hrs). Fishing days were divided into four 6-hour sample periods: (1) 0000-0559 hrs; (2) 0600-1159 hrs; (3) 1200-1759 hrs; and (4) 1800-2400 hrs.

Weekdays and weekend/holidays were treated as separate strata for all rivers except Willow Creek and Theodore River.

Several assumptions were necessary for this roving creel survey sampling design and are as follows:

1. Angler counts made during the same day and on consecutive days are assumed to be independent;

2. No significant fishing effort occurs during the hours 2300-0500 on Alexander Creek, Deshka River, Lake Creek and the Theodore River and during the hours 0000-0400 on the Little Susitna River;

3. Interviewed anglers are representative of the total angler population;

4. The number of anglers interviewed during any day in a stratum is proportional to the effort on that day; and,

5. Fishing effort does not influence CPUE.

For additional details regarding the roving creel survey methods, refer to Hepler and Bentz (1986c).

Data Collection:

During each selected sample period, a random starting time was selected to count the number of anglers. Angler counts were conducted by driving the length of the fishery in riverboats on Lake Creek and in the lower sampling locations on Alexander Creek and the Deshka River. Fixed-wing aircraft were utilized to count the upper sampling locations on Alexander Creek and the Deshka River. Riverboats were used to count anglers at the Pipeline Crossing and My Creek from the Burma Road sampling location. Anglers at the Parks Highway Bridge sampling locations on the Little Susitna River and Willow Creek were counted by walking. Angler counts were not conducted on the Theodore River since catch rate was the only estimated statistic. At the start of a selected count time, a coin was tossed to determine the fishery and starting point (upstream/downstream) from which the counts would be initiated. Angler counts were considered instantaneous (Nuhold and Lu 1957).

Interviews were conducted by a roving creel survey clerk throughout the length of the sampling location on Alexander and Lake Creeks and the Deshka and Theodore Rivers. Angler interviews on the Little Susitna River were collected by monitoring major access points at each fishery location and interviewing anglers as they departed. Survey clerks recorded harvest and effort data, biological characteristics of harvested fish and whether or not the angler had completed fishing for the day.

Analysis:

Effort and harvest rates were computed using a formula for a two-stage sampling design with a finite number of primary sampling units and an unknown number of secondary units (Sukhatme et al 1984, Von Geldern and Tomlinson 1973). An inadequate number of interviews with anglers who had completed fishing (completed anglers), necessitated using interviews from anglers who had not completed fishing (incomplete anglers) to compute harvest rate data on select weekly strata for Alexander and Lake Creeks and the Deshka River.

Effort. The mean number of anglers per count and total effort in angler hours was computed by week for each weekend/holiday and weekday stratum for each sampling location. The following conventions are used for analytical notation:

i = days,

j = sample in day i,

d = total number of days on which sampling was conducted,

D = total number of possible days in a week,

N = total number of possible hours of fishing in a week,

Yi_J = angler count for sample period j on day i,

$\overline{Y}i$ = mean angler count for day i,

$\overline{Y}$ = mean angler count for a week,

m_i = number of angler counts on day i, and

M = total number of angler counts for a week.

Effort in angler-hours, E, was estimated for each week as

$$\hat{E} = \overline{Y} \times N.$$

The sampling variance of $\hat{E}$ was estimated as:

$$\hat{V}(\hat{E}) = N^2 V(\overline{Y})$$

where:

$$V(\overline{Y}) = [1-(d/D)]\ s^2_B/d + [\sum_{t=1}^{d} (s^2 W_i/m_i)]/dD,$$

$$s^2_B = [\overline{Y}_i - \overline{Y})^2]/(d-1), \text{ and}$$

$$s^2_{Wi} = [\sum_{i=1}^{d} (Y_{iJ} - \overline{Y}_i)^2]/(m_i - 1).$$

<u>Harvest Rates</u>. Computation of harvest rates for each sampled day and for each week were determined by analysis of the effort data. For any week, the following conventions are used for analytical notation:

C = total catch by interviewed anglers during a week,

F = total effort (angler-hours) by interviewed anglers in a week,

$\overline{C}$ = mean catch per angler,

$\overline{F}$ = mean effort per angler,

M = number of anglers interviewed in a week,

$s^2_{\overline{C}}$ = variance of $\overline{C}$,

$s^2_{\overline{F}}$ = variance of $\overline{F}$, and

R = correlation coefficient for $\overline{C}$ and $\overline{F}$.

Catch per effort was computed for each stratum as $\hat{C/F}$ with its variance being computed as:

$$\hat{V}(\hat{C/F}) = (\hat{C/F})^2 \; [(s^2_C/\overline{C})+(s^2_F/\overline{F})-(2Rs^2_{\overline{C}}s^2_{\overline{F}}/\overline{CF})].$$

The variance for mean catch and effort per angler were computed using the two stage random sampling formulae previously defined for mean angler counts. The Y_i's represent the effort or catch of an interviewed angler and m_i's represent the total number of anglers interviewed on day i.

Total Harvest. Total harvest for any week was computed as

$$\hat{H} = \hat{E} \times (\hat{C/F}),$$

The variance of this estimate was calculated using the formula for the product of two independent random variables (Goodman 1960):

$$\hat{V}(\hat{H}) = [\hat{E}^2 \; \hat{V}(\hat{C/F})] + [(\hat{C/F})^2 \; \hat{V}(\hat{E})] - [\hat{V}(\hat{E}) \; \hat{V}(\hat{C/F})].$$

Variance estimates for harvest and effort for survey locations within specific streams were considered independent estimates and therefore the estimated variance of the total is the sum of the variances.

Direct Expansion Surveys

Direct expansion design creel surveys were utilized on all east side Susitna River weekend-only fishing streams, the Talkeetna River, and at two access points (Burma Road and Miller's Landing) on the Little Susitna River.

1. East side Susitna River weekend-only streams: East side Susitna River streams open to weekend-only fishing were Birch, Sunshine, Montana, Goose, Sheep, Caswell, Little Willow, and Willow Creeks. These streams are accessible by the Parks Highway, foot trails from the Parks Highway to the open fishing areas, and by riverboat.

   Birch and Sunshine Creeks were open to chinook salmon fishing within a 0.4 km (0.25 mi) radius of their confluence with the Susitna River. Montana, Goose, Sheep, Caswell, Little Willow, and Willow Creeks were open within a 0.4 km (0.25 mi) radius of their confluence with the Susitna River and upstream to the Parks Highway Bridge. The length of each stream open to fishing varies with the morphology of the stream and ranges from approximately 0.8 to 13.0 km (0.5 to 8.0 mi).

All weekend-only fishing streams, with the exception of Caswell Creek, were surveyed.

2. Talkeetna River: The Talkeetna River is a major tributary to the Susitna River, entering from the east at kilometer 157.8 (mile 98.0). The entire Talkeetna River drainage is open to chinook salmon fishing, however due to normally high turbidity in the mainstem Talkeetna River and rapids which are not passable by boat at approximately kilometer 29.0 (mile 18.0), fishing effort is concentrated at kilometer 8.1 (mile 5.0) near the mouth of Clear (Chunilna) Creek. Clear Creek was open to chinook salmon fishing for 3.2 km (2.0 mi) upstream from its mouth. The Talkeetna River fishery at Clear Creek was accessible only by riverboat and was surveyed at the boat landing in the village of Talkeetna. Over 95% of fishing effort in the Talkeetna River drainage originates from this access point.

3. Little Susitna River: Direct expansion methods were utilized at the Burma Road and Miller's Landing access points to the Little Susitna River (for a description of the Little Susitna River study area, refer to the Roving Creel Survey methods section). Miller's Landing is approximately 1.6 km (1.0 mi) downstream of the Parks Highway Bridge survey location. Burma Road is utilized by both shore and boat anglers while Miller's Landing is a private fee facility used primarily by boat anglers.

Study Design:

A stratified-random sample design was employed in all creel surveys utilizing direct expansion. Each survey was stratified by weekday/weekend and by boat/shore anglers where appropriate. Sample periods (times) within the weekdays and weekends were selected at random without replacement. Only anglers who had completed fishing were interviewed. Anglers observed leaving the site during the survey but who were not interviewed were recorded as missed anglers.

All weekend-only fisheries were open on consecutive weekends from 14 June through 6 July 1986. The entire weekend was considered available for fishing beginning at 0000 hours Saturday and closing at 2400 hours Sunday. Fishing days were divided into six 4-hour sample periods: (1) 0000-0400 hrs; (2) 0401-0800 hrs; (3) 0801-1200 hrs; (3) 1201-1600 hrs; (4) 1601-2000 hrs; and (5) 2001-2400 hrs.

The Talkeetna River was open to chinook salmon fishing from 1 January through 6 July 1986. The creel survey was operated from 14 June through 6 July 1986. Fishing days were considered to be 20 hours long. Fishing days were divided into five 4-hour sample periods: (1) 0400-0800 hrs; (2) 0801-1200 hrs; (3) 1201-1600 hrs; (4) 1601-2000 hrs; and (5) 2001-2400 hrs.

The Little Susitna River was open to chinook salmon fishing from 1 January through 6 July 1986. Creel survey began on 24 May 1986 at Burma Road. The fishing day and sample periods were as described in the Roving Creel Survey method section. At Burma Road, both shore and boat anglers were surveyed. The creel survey at Miller's Landing began on 14 June 1986.

Only boat anglers were surveyed. The schedule for Miller's Landing was an integral part of the schedule for the Parks Highway angler count. The time periods for the survey at Miller's Landing were selected at random from the Parks Highway angler count sample period. A 20-hour fishing day with the time periods described in the Roving Creel Survey methods section was used.

Assumptions necessary for the direct expansion survey design are:

1. No significant fishing effort takes place during the hours not included in the fishing day (0000-0400 hours on the Talkeetna and Little Susitna Rivers); and,

2. Interviewed anglers are representative of the total angler population.

For additional details regarding the direct expansion methods used, refer to Hepler and Bentz (1986c).

Data Collection:

Data for the calculation of direct expansion estimates of fishing effort, harvest, and total catch were collected by interviewing completed anglers in the area of traditional angler concentration or at an appropriate access point in accordance with the sampling schedule described above.

Analysis:

Estimation of effort ($\hat{E}$), harvest ($\hat{H}$), and catch ($\hat{C}$) by direct expansion are calculated as:

$\hat{E}$ = (hours possible/hours interviewed) x
[missed anglers x (hours fished/anglers interviewed
+ hours fished],

$\hat{H}$ = (hours possible/hours interviewed) x
[missed anglers x (observed harvest/anglers
interviewed) + observed harvest], and

$\hat{C}$ = (hours possible/hours interviewed) x
[missed anglers x (observed catch/anglers
interviewed) + observed catch].

Data inclusive in the direct expansion tables were derived from daily summaries appended in this report (Appendices A and B).

Age, Sex and Size Data

All chinook salmon over 406 mm (16 in) checked during the creel survey were sampled for scales, sex, and length. Scales were collected on the left side of the fish approximately two rows above the lateral line and on the diagonal row downward from the posterior insertion of the dorsal fin as described in INPFC (1963). Scales were mounted on gum cards and impressions were made in cellulose acetate as described in Clutter and

Whitesel (1956). Age determinations were accomplished by examination of scales using a microfiche reader. The European method was used to denote anadromous age classes. The first numeral refers to the number of years of freshwater residence after emergence. The second number refers to the number of years of marine residence. Fish lengths were measured from middle of the eye to fork of the tail to the nearest 0.5 cm.

Escapement Data

Spawning chinook salmon were counted during aerial and stream surveys on established index streams within the study area. Ease of access determined the survey type for the index streams. Surveys were conducted during the peak spawning period. The peak spawning period was identified through frequent inspections of chinook spawning activity in easily accessible index streams. Reported escapement data are the maximum number of fish, both live and dead, observed during a single survey. No attempt has been made to account for fish not observed due to poor visibility, migrational timing, or decay. Additional escapement data were collected from a weir located on Deception Creek.

RESULTS

Harvest and Effort

Overall, an estimated 14,306 chinook salmon were harvested in an estimated 251,072 angler-hours of effort in northern Cook Inlet. The largest contributors to this harvest were the Susitna River fisheries which accounted for 93% and 79% of the northern Cook Inlet total harvest and effort, respectively (Table 1).

Susitna River:

The remote fisheries of the Susitna River (Alexander and Lake Creeks and the Deshka and Talkeetna Rivers) accounted for 62% and 55% of the harvest and effort totals, respectively. Lake Creek, followed by the Deshka River, were the largest producers of chinook salmon within these fisheries (Tables 2, 3, 4, and 5).

In all of the remote fisheries, the majority of the effort and harvest occurred on weekdays. The largest percentage of the effort and harvest within the Deshka River occurred in the downstream location. In the upstream location, an estimated 821 chinook salmon were harvested in an estimated 15,420 angler-hours, representing 28% of the estimated harvest and effort totals for the Deshka River. The estimated harvest rates for both locations were similar. This contrasts with Alexander Creek where the upstream location accounted for the largest percentage of the harvest and effort and where the harvest rate was higher than in the downstream location.

Anglers from the Susitna River roadside fisheries harvested an estimated 4,338 chinook salmon in an estimated 61,394 hours of effort (Table 1). These totals are significantly less than estimates from the Susitna River remote fisheries. The major reason for these differences is that the

Table 1. Northern Cook Inlet chinook salmon harvest, effort and harvest rate (hrs) summary for the sport fishery, 1986.

Fishery	Total effort [1]	Harvest	Harvest rate
SUSITNA RIVER			
Alexander Creek			
Downstream	16,091	763	0.0474
Upstream	14,052	1,064	0.0757
Total	30,143	1,827	0.0606
Deshka River			
Downstream	39,582	2,098	0.0530
Upstream	15,420	821	0.0532
Total	55,002	2,919	0.0531
Lake Creek	30,824	3,094	0.1004
Talkeetna River	21,747	1,148	0.0528
Birch Creek	795	65	0.0818
Sunshine Creek	1,797	82	0.0456
Montana Creek	19,632	1,465	0.0746
Goose Creek	2,542	172	0.0677
Sheep Creek	19,870	1,069	0.0538
Little Willow Creek	4,568	442	0.0968
Willow Creek	12,190	1,043	0.0856
Total	199,110	13,326	
LITTLE SUSITNA RIVER			
Burma Road			
Boat anglers	23,682	676	0.0286
Shore anglers	17,552	195	0.0111
Parks Highway			
Shore anglers	5,197	0	0.0000
Miller's Landing			
Boat anglers	5,531	109	0.0197
Total	51,962	980	
Northern Cook Inlet Total	251,072	14,306	

[1] Hours

Table 2. Total effort and harvest of chinook salmon in the Deshka River chinook salmon sport fishery over time, 1986.

Location	Time Frame	Strata	Effort Total	Effort Rel Pre [1]	Chinook Harvest Rate Mean	Chinook Harvest Rate Rel Pre [1]	Chinook Harvest Total	Chinook Harvest Std Err	Chinook Harvest Rel Pre [1]
Downstream	Wknd-Hol	5/24-5/26	1,902.0	17.8%	0.0120	9.2%	23	2.3	19.9%
	Wkday	5/27-5/30	804.0	46.7%	0.0000	NA[2]	0	0.0	NA[2]
	Wknd-Hol	5/31-6/01	2,190.0	45.1%	0.0837	15.5%	183	44.5	47.6%
	Wkday	6/02-6/06	5,790.0	34.8%	0.0331	6.9%	192	34.6	35.3%
	Wknd-Hol	6/07-6/08	4,488.0	19.4%	0.0264	3.7%	118	11.9	19.8%
	Wkday	6/09-6/13	8,510.0	25.3%	0.0715	11.3%	608	85.9	27.7%
	Wknd-Hol	6/14-6/15	3,876.0	38.1%	0.0451	4.7%	175	34.2	38.3%
	Wkday	6/16-6/20	5,180.0	22.0%	0.0405	4.1%	210	23.9	22.3%
	Wknd-Hol	6/21-6/22	2,052.0	46.2%	0.0527	1.9%	108	25.5	46.3%
	Wkday	6/23-6/27	2,660.0	25.8%	0.1403	3.8%	373	49.7	26.1%
	Wknd-Hol	6/28-6/29	1,380.0	25.9%	0.0591	3.8%	82	10.9	26.0%
	Wkday	6/30-7/03	516.0	49.2%	0.0369	15.8%	19	5.0	51.6%
	Wknd-Hol	7/04-7/06	234.0	50.5%	0.0301	14.5%	7	1.9	52.7%
		Total	39,582	10.0%			2,098	125.3	11.7%
Upstream	Wknd-Hol	5/24-5/26	378.0	128.3%	0.0111	19.1%	4	2.8	135.5%
	Wkday	5/27-5/30	144.0	0.0%	0.0000	NA[2]	0	0.0	NA[2]
	Wknd-Hol	5/31-6/01	360.0	78.4%	0.0800	12.9%	29	11.7	78.7%
	Wkday	6/02-6/06	600.0	110.4%	0.0366	10.3%	22	12.4	110.6%
	Wknd-Hol	6/07-6/08	1,890.0	42.9%	0.0668	3.5%	126	27.7	43.2%
	Wkday	6/09-6/13	1,950.0	16.0%	0.0681	5.8%	133	11.5	16.9%
	Wknd-Hol	6/14-6/15	1,566.0	24.8%	0.0407	2.8%	64	8.1	24.8%
	Wkday	6/16-6/20	2,670.0	101.1%	0.0400	3.4%	107	55.1	100.9%
	Wknd-Hol	6/21-6/22	1,170.0	15.1%	0.0707	1.4%	83	6.4	15.1%
	Wkday	6/23-6/27	2,430.0	43.6%	0.0366	3.2%	89	19.8	43.6%
	Wknd-Hol	6/28-6/29	918.0	103.8%	0.1121	2.3%	103	54.5	103.7%
	Wkday	6/30-7/03	624.0	65.7%	0.0418	7.0%	26	8.8	66.3%
	Wknd-Hol	7/04-7/06	720.0	89.2%	0.0489	2.9%	35	16.0	89.7%
		Total	15,420.0	22.1%			821	89.7	21.4%

[1] =0.05

[2] Not possible to compute estimate.

Table 3. Total effort and harvest of chinook salmon in the Alexander Creek chinook salmon sport fishery over time, 1986.

Location	Time Frame	Strata	Effort Total	Effort Rel Pre [1]	Chinook Harvest Rate Mean	Chinook Harvest Rate Rel Pre [1]	Chinook Harvest Total	Chinook Harvest Std Err	Chinook Harvest Rel Pre [1]
Downstream	Wknd-Hol	5/24-5/26	2,772.0	79.4%	0.0154	10.0%	43	17.4	79.4%
	Wkday	5/27-5/30	564.0	50.0%	0.1104	14.7%	62	16.5	52.2%
	Wknd-Hol	5/31-6/01	1,536.0	58.4%	0.0382	2.8%	59	17.5	58.1%
	Wkday	6/02-6/06	1,790.0	94.8%	0.1018	12.8%	182	88.8	95.6%
	Wknd-Hol	6/07-6/08	2,478.0	25.2%	0.0266	1.9%	66	8.5	25.3%
	Wkday	6/09-6/13	3,330.0	43.7%	0.0688	2.0%	229	51.2	43.8%
	Wknd-Hol	6/14-6/15	1,245.0	16.2%	0.0212	5.6%	26	2.3	17.4%
	Wkday	6/16-6/20	1,800.0	40.6%	0.0300	11.6%	54	11.6	42.1%
	Wknd-Hol	6/21-6/22	174.0	100.9%	0.0623	31.2%	11	5.8	102.9%
	Wkday	6/23-6/27	360.0	83.9%	0.0855	53.5%	31	15.2	96.2%
	Wknd-Hol	6/28-6/29	36.0	166.6%	0.0000	NA[2]	0	0.0	NA[2]
	Wkday	6/30-7/03	0.0	NA[2]	0.0000	NA[2]	0	0.0	NA[2]
	Wknd-Hol	7/04-7/06	6.0	196.0%	0.0000	NA[2]	0	0.0	NA[2]
		Total	16,091.0	21.4%			763	108.9	28.0%
Upstream	Wknd-Hol	5/24-5/26	0.0	NA[2]	0.0000	NA[2]	0	0.0	NA[2]
	Wkday	5/27-5/30	0.0	NA2	0.0000	NA[2]	0	0.0	NA[2]
	Wknd-Hol	5/31-6/01	198.0	17.8%	0.0274	8.1%	5	0.5	21.2%
	Wkday	6/02-6/06	0.0	NA[2]	0.0122	43.8%	0	0.0	NA[2]
	Wknd-Hol	6/07-6/08	1,368.0	5.2%	0.0886	3.1%	121	3.7	6.0%
	Wkday	6/09-6/13	1,920.0	13.3%	0.1282	13.4%	246	23.7	18.9%
	Wknd-Hol	6/14-6/15	1,368.0	56.7%	0.0452	4.0%	62	17.9	56.7%
	Wkday	6/16-6/20	1,770.0	128.7%	0.0271	9.7%	48	31.5	128.8%
	Wknd-Hol	6/21-6/22	1,962.0	62.9%	0.0918	2.5%	180	57.9	63.0%
	Wkday	6/23-6/27	2,820.0	43.1%	0.0522	8.9%	147	33.0	44.0%
	Wknd-Hol	6/28-6/29	990.0	60.6%	0.1000	8.7%	99	30.9	61.1%
	Wkday	6/30-7/03	864.0	57.4%	0.0395	66.3%	34	14.9	85.8%
	Wknd-Hol	7/04-7/06	792.0	115.8%	0.1545	4.5%	122	72.3	116.2%
		Total	14,052.0	22.9%			1,064	112.9	20.8%

[1] =0.05

[2] Not possible to compute estimate.

Table 4. Total effort and harvest of chinook salmon in the Lake Creek chinook salmon sport fishery over time, 1986.

Location	Time Frame	Strata	Effort Total	Effort Rel Pre [1]	Chinook Harvest Rate Mean	Chinook Harvest Rate Rel Pre [1]	Chinook Harvest Total	Chinook Harvest Std Err	Chinook Harvest Rel Pre [1]
Lake Cr.	Wknd-Hol	5/24-5/26	0.0	NA[2]	0.0000	NA[2]	0	0.0	NA[2]
	Wkday	5/27-5/30	0.0	NA[2]	0.0000	NA[2]	0	0.0	NA[2]
	Wknd-Hol	5/31-6/01	0.0	NA[2]	0.0000	NA[2]	0	0.0	NA[2]
	Wkday	6/02-6/06	1,340.0	45.1%	0.0733	10.4%	98	23.2	46.3%
	Wknd-Hol	6/07-6/08	618.0	44.9%	0.0763	8.2%	47	11.0	45.7%
	Wkday	6/09-6/13	2340	39.7%	0.0916	9.7%	214	44.6	40.9%
	Wknd-Hol	6/14-6/15	2,496.0	12.9%	0.1217	6.8%	304	22.6	14.6%
	Wkday	6/16-6/20	6,900.0	25.8%	0.1061	8.7%	732	101.6	27.2%
	Wknd-Hol	6/21-6/22	3,354.0	15.6%	0.0426	15.5%	143	16.0	21.9%
	Wkday	6/23-6/27	5,850.0	37.6%	0.1916	7.9%	1,121	219.4	38.4%
	Wknd-Hol	6/28-6/29	2,718.0	10.0%	0.0561	1.5%	152	7.9	10.1%
	Wkday	6/30-7/03	3,048.0	35.7%	0.0633	4.3%	193	35.4	36.0%
	Wknd-Hol	7/04-7/06	2,160.0	21.5%	0.0415	3.4%	90	9.9	21.6%
		Total	30,824.0	10.8%			3,094	251.6	15.9%

[1] =0.05

[2] Not possible to compute estimate.

Table 5. Estimated effort, harvest, and catch, Talkeetna River chinook salmon, 1986.

Time Frame	Strata	Total Hrs pos	Hours Interv'd	Hours Fished	Anglers Interv'd	Obs'd Harvest	Obs'd Catch	Anglers Missed	Est. Effort[1]	Est. Harvest	Est. Catch
We	6-14/15	40	40.0	473.9	111	1	1	0	473.9	1	1
Wd	6-16/20	100	30.0	533.9	89	15	16	2	1,819.7	51	55
We	6-21/22	40	40.0	1,836.0	326	44	52	0	1,836.0	44	52
Wd	6-23/27	100	31.0	718.0	124	42	56	0	2,316.0	135	181
We	6-28/29	40	40.0	4,217.6	709	297	384	48	4,503.1	317	410
Wd	6-30/7-03	80	11.5	664.0	107	52	60	0	4,619.3	362	417
We/hol	7-04/06	60	60.0	6,080.8	803	234	289	13	6,179.3	238	294

[1] Angler-hours

roadside fisheries were open for fishing only on weekends whereas the remote locations were open throughout the week. Harvest rates for the road-accessible fisheries ranged from 0.06 chinook per hour on Sheep Creek to 0.18 chinook per hour on Little Willow Creek. The Montana, Sheep, and Willow Creeks fisheries accounted for 84% and 86% of the Susitna River roadside chinook harvest and effort totals, respectively.

Little Susitna River:

Total chinook salmon harvest on the Little Susitna River was estimated at 980 fish in an estimated 51,962 hours of effort (Table 1). Boat anglers accounted for 80% of the harvest and 56% of the effort, respectively. Anglers that exited the Burma Road access site harvested an estimated 871 chinook salmon in an estimated 41,234 hours. This represented 89% and 80% of the respective total estimated harvest and effort.

Population Structure

Thirty-eight percent of the total fish harvested in the Susitna River chinook salmon sport fishery were age 1.3 (Table 6). Three of the eleven sampled streams (Lake, Sheep, and Willow Creeks), however, had harvests dominated by age 1.4 fish. The Little Susitna River and Theodore River harvests were dominated by age 1.3 fish followed by age 1.4 and age 1.2.

Escapement

The cumulative observed chinook salmon spawning escapement for northern Cook Inlet was 56,461 (Table 7). The Susitna River drainage had the highest recorded escapements estimates of all the surveyed rivers, with remote streams accounting for 86% of the total Susitna River drainage observed escapement. Of the remote streams, the Deshka River had the highest observed escapement accounting for 52% of the total estimated escapement for the remote streams. A total of 6,698 chinook were counted in the five roadside streams in the Susitna River drainage.

In west Cook Inlet, a total of 6,114 chinook salmon were counted with the Chuitna River accounting for 65% of this total. A total of 2,400 chinook were counted in the Anchorage bowl area with Ship Creek accounting for 60% of the total.

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Table 6. Northern Cook Inlet chinook salmon age class composition from the sport fishery, 1986.

Fishery	Sample Size	Total Harvest	Age Class 1.5	2.4	1.4	2.3	1.3	2.2	1.2	2.1
SUSITNA RIVER										
Alexander Creek	236	1,827	0.00	0.00	21.61	0.00	50.42	0.00	27.97	0.00
Deshka River	382	2,919	0.00	0.00	26.96	0.00	39.79	0.00	33.25	0.00
Lake Creek	232	3,094	0.43	0.00	50.86	0.00	33.19	0.00	15.52	0.00
Talkeetna River	36	1,148	0.00	0.00	30.56	0.00	38.89	0.00	30.56	0.00
Birch Creek	19	65	0.00	0.00	26.32	0.00	36.84	0.00	36.84	0.00
Sunshine Creek	20	82	0.00	0.00	10.00	0.00	35.00	0.00	55.00	0.00
Montana Creek	82	1,820	2.44	0.00	34.15	0.00	20.73	2.44	40.24	0.00
Goose Creek	18	172	0.00	0.00	27.78	0.00	44.44	0.00	27.78	0.00
Sheep Creek	110	1,069	3.64	0.91	39.09	0.91	23.64	0.91	30.91	0.00
Little Willow Creek	64	442	1.56	1.56	39.06	1.56	40.63	0.00	15.63	0.00
Willow Creek	147	876	2.04	0.68	44.90	0.00	37.41	0.00	14.97	0.00
LITTLE SUSITNA RIVER										
	230	992	0.43	0.00	30.87	0.00	42.17	0.00	26.52	0.00
WEST COOK INLET										
Theodore River	118	NA [1]	0.00	0.00	35.59	0.00	48.31	0.85	15.25	0.00

[1] Harvest estimate is not available.

Table 7. Observed chinook salmon escapement for Northern Cook Inlet, 1986.

Fishery	1986
SUSITNA RIVER	
Alexander Creek	5,225
Deshka River	21,080
Lake Creek	ns[1]
Talachulitna River	3,686
Peters Creek	1,915
Cache Creek	424
Praire Creek	7,300
Grizzly Creek	1,200
Chulitna River	ns[1]
Birch Creek	ns[1]
Sunshine Creek	ns[1]
Montana Creek	ns[1]
Goose Creek	ns[1]
Sheep Creek	1,285
North Fork Kashwitna River	700
Little Willow Creek	2,133
Willow Creek	2,059
Deception Creek	521
Total	47,528
LITTLE SUSITNA RIVER	ns[1]
MATANUSKA RIVER	
Moose Creek	419
WEST COOK INLET	
Theodore River	1,281
Chuitna River	3,946
Lewis River	722
Olsen Creek	165
Total	6,114
ANCHORAGE BOWL	
South Fork Eagle River	222
Ship Creek	1,433
Big Rabbit Creek	10
Campbell Creek	735
Total	2,400
Cumulative total	56,461

[1] No survey

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APPENDIX A

Creel census data for the 1986 Susitna River chinook salmon sport fishery.

Appendix A Table 1. Angler counts in the Deshka River chinook salmon fishery, 1986.

		Counts by Period[1]					
		Downstream Fishery			Upstream Fishery		
Date	Wknd-Hol (*)	A	B	C	A	B	C
24-May	*	64	44	54			16
25-May	*	31	32	31	1		
26-May	*	29	27	5		4	
27-May		3	15	10		2	
28-May		2	20	17			2
29-May							
30-May							
31-May	*	7	80	78		14	
01-Jun	*	83	79	38			6
02-Jun		17	44	59	0		
03-Jun		56	66	56			7
04-Jun							
05-Jun		59	117	105	13		
06-Jun							
07-Jun	*	131	109	87			64
08-Jun	*	142	176	103		41	
09-Jun		48	109	66		25	
10-Jun		64	123	66		19	
11-Jun							
12-Jun		122	143	110			21
13-Jun							
14-Jun	*	51	181	125			49
15-Jun	*	127	98	64			38
16-Jun		59	78	68		51	
17-Jun		67	75	54	38		
18-Jun							
19-Jun							
20-Jun		27	45	45	0		
21-Jun	*	51	125	62	30		
22-Jun	*	42	54	8		35	
23-Jun							
24-Jun		37	35	31	15		
25-Jun		21	47	23			33
26-Jun		14	44	14			33
27-Jun							
28-Jun	*	48	63	39	39		
29-Jun	*	22	41	17		12	
30-Jun		9	15	3		14	
01-Jul		6	6	4		4	
02-Jul							8
03-Jul							
04-Jul	*	2	13	5		24	
05-Jul	*	5	6	7		13	
06-Jul	*	0	0	1	3		

[1] Period A: 0500 to 1059 hrs.
Period B: 1100 to 1659 hrs.
Period C: 1700 to 2300 hrs.

Appendix A Table 2. Angler interviews for harvested fish in the downstream location of the Deshka River chinook salmon sport fishery, 1986.

		Incomplete Anglers						Complete Anglers					
			Effort		Chinook Harvest				Effort		Chinook Harvest		
Date	Wknd-Hol (*)	Sample Size	Mean	Std Err	Mean	Std Err	CPUE	Sample Size	Mean	Std Err	Mean	Std Err	CPUE
24-May	*	53	4.069	0.35658	0.03774	0.02643	0.00927	0	0.000	0.00000	0.00000	0.00000	0.00000
25-May	*	31	1.766	0.41021	0.00000	0.00000	0.00000	3	2.000	0.00000	0.00000	0.00000	0.00000
26-May	*	28	2.250	0.22930	0.07143	0.04956	0.03175	6	4.000	0.89443	0.00000	0.00000	0.00000
27-May		14	3.107	0.56738	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
28-May		10	4.725	0.84931	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
29-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
30-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
31-May	*	104	3.148	0.27692	0.07692	0.02626	0.02443	6	7.333	1.68655	0.33333	0.21082	0.04545
01-Jun	*	48	5.216	0.48167	0.16667	0.06198	0.03195	17	5.147	0.95752	0.52941	0.12478	0.10286
02-Jun		62	1.446	0.12097	0.19355	0.05557	0.13381	31	3.871	0.47347	0.32258	0.10763	0.08333
03-Jun		33	3.065	0.32096	0.03030	0.03030	0.00989	20	6.575	0.66320	0.10000	0.06882	0.01521
04-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
05-Jun		83	2.549	0.27005	0.16867	0.04135	0.06616	69	4.667	0.24136	0.10145	0.03661	0.02174
06-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
07-Jun	*	92	5.541	0.40637	0.01087	0.01087	0.00196	74	5.801	0.35254	0.12162	0.04282	0.02097
08-Jun	*	142	3.379	0.19955	0.09155	0.02429	0.02709	74	4.439	0.32710	0.14865	0.04587	0.03349
09-Jun		120	3.826	0.18728	0.33333	0.04783	0.08713	21	4.024	0.41616	0.47619	0.14831	0.11834
10-Jun		138	3.254	0.16010	0.16667	0.03184	0.05122	11	5.000	0.60302	0.72727	0.23706	0.14545
11-Jun		11	1.545	0.27348	0.09091	0.09091	0.05882	0	0.000	0.00000	0.00000	0.00000	0.00000
12-Jun		158	5.369	0.24280	0.15823	0.03048	0.02947	23	5.491	0.38586	0.04348	0.04348	0.00792
13-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
14-Jun	*	92	5.668	0.31617	0.09783	0.03114	0.01726	31	5.032	0.39550	0.35484	0.08736	0.07051
15-Jun	*	54	4.185	0.37450	0.07407	0.03597	0.01770	46	5.289	0.40780	0.15217	0.05354	0.02877
16-Jun		85	3.733	0.19479	0.16471	0.04688	0.04412	21	7.357	0.59074	0.14286	0.07825	0.01942
17-Jun		59	2.429	0.19591	0.08475	0.03657	0.03489	25	3.354	0.43105	0.20000	0.08165	0.05964
18-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
19-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
20-Jun		59	2.674	0.26882	0.11864	0.04886	0.04437	57	5.777	0.48696	0.26316	0.05884	0.04555
21-Jun	*	123	2.244	0.15691	0.21138	0.03696	0.09420	48	5.146	0.46174	0.12500	0.04824	0.02429
22-Jun	*	92	3.897	0.26188	0.16304	0.03872	0.04184	94	5.856	0.22797	0.38298	0.05041	0.06540
23-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
24-Jun		41	2.598	0.29229	0.17073	0.05949	0.06573	32	4.555	0.57301	0.65625	0.10634	0.14408
25-Jun		52	3.618	0.41472	0.15385	0.05052	0.04252	43	5.651	0.34202	0.86047	0.10301	0.15226
26-Jun		41	4.695	0.49073	0.29268	0.07194	0.06234	12	3.833	0.77688	0.25000	0.13056	0.06522
27-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
28-Jun	*	76	1.803	0.15854	0.13158	0.04329	0.07297	43	5.221	0.59583	0.51163	0.09035	0.09800
29-Jun	*	94	2.628	0.17699	0.13830	0.03580	0.05263	53	4.708	0.49259	0.11321	0.04394	0.02405
30-Jun		50	2.348	0.26633	0.12000	0.04642	0.05111	12	1.292	0.11445	0.25000	0.13056	0.19355
01-Jul		11	4.091	0.46621	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
02-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
03-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
04-Jul	*	20	2.525	0.34693	0.10000	0.06882	0.03960	16	2.344	0.36719	0.12500	0.08539	0.05333
05-Jul	*	10	1.980	0.69631	0.00000	0.00000	0.00000	6	4.333	0.55777	0.00000	0.00000	0.00000
06-Jul	*	0	0.000	0.00000	0.00000	0.00000	0.00000	2	1.500	0.00000	0.00000	0.00000	0.00000

Appendix A Table 3. Angler interviews for all fish caught in the downstream location of the Deshka River chinook salmon sport fishery, 1986.

		Incomplete Anglers						Complete Anglers					
			Effort		Chinook Catch				Effort		Chinook Catch		
Date	Wknd-Hol (*)	Sample Size	Mean	Std Err	Mean	Std Err	CPUE	Sample Size	Mean	Std Err	Mean	Std Err	CPUE
24-May	*	53	4.069	0.35658	0.03774	0.02643	0.00927	0	0.000	0.00000	0.00000	0.00000	0.00000
25-May	*	31	1.766	0.41021	0.00000	0.00000	0.00000	3	2.000	0.00000	0.00000	0.00000	0.00000
26-May	*	28	2.250	0.22930	0.10714	0.05952	0.04762	6	4.000	0.89443	0.00000	0.00000	0.00000
27-May		14	3.107	0.56738	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
28-May		10	4.725	0.84931	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
29-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
30-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
31-May	*	104	3.148	0.27692	0.08654	0.02770	0.02749	6	7.333	1.68655	0.33333	0.21082	0.04545
01-Jun	*	48	5.216	0.48167	0.16667	0.06198	0.03195	17	5.147	0.95752	0.52941	0.12478	0.10286
02-Jun		62	1.446	0.12097	0.51613	0.12956	0.35682	31	3.871	0.47347	1.48387	0.57337	0.38333
03-Jun		33	3.065	0.32096	0.06061	0.04218	0.01977	20	6.575	0.66320	0.10000	0.06882	0.01521
04-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
05-Jun		83	2.549	0.27005	0.18072	0.04249	0.07089	69	4.667	0.24136	0.11594	0.03882	0.02484
06-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
07-Jun	*	92	5.541	0.40637	0.04348	0.02138	0.00785	74	5.801	0.35254	0.12162	0.04282	0.02097
08-Jun	*	142	3.379	0.19955	0.09155	0.02429	0.02709	74	4.439	0.32710	0.22973	0.05286	0.05175
09-Jun		120	3.826	0.18728	0.35000	0.04972	0.09148	21	4.024	0.41616	0.52381	0.16358	0.13018
10-Jun		138	3.254	0.16010	0.25362	0.04491	0.07795	11	5.000	0.60302	0.81818	0.26348	0.16364
11-Jun		11	1.545	0.27348	0.09091	0.09091	0.05882	0	0.000	0.00000	0.00000	0.00000	0.00000
12-Jun		158	5.369	0.24280	0.18354	0.03217	0.03419	23	5.491	0.38586	0.04348	0.04348	0.00792
13-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
14-Jun	*	92	5.668	0.31617	0.16304	0.04708	0.02876	31	5.032	0.39550	0.80645	0.27207	0.16026
15-Jun	*	54	4.185	0.37450	0.09259	0.03982	0.02212	46	5.289	0.40780	0.17391	0.05650	0.03288
16-Jun		85	3.733	0.19479	0.17647	0.04786	0.04727	21	7.357	0.59074	0.14286	0.07825	0.01942
17-Jun		59	2.429	0.19591	0.15254	0.04721	0.06281	25	3.354	0.43105	0.20000	0.08165	0.05964
18-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
19-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
20-Jun		59	2.674	0.26882	0.15254	0.05829	0.05705	57	5.777	0.48696	0.33333	0.07226	0.05770
21-Jun	*	123	2.244	0.15691	0.35772	0.07222	0.15941	48	5.146	0.46174	0.12500	0.04824	0.02429
22-Jun	*	92	3.897	0.26188	0.20652	0.04773	0.05300	94	5.856	0.22797	0.48936	0.06549	0.08356
23-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
24-Jun		41	2.598	0.29229	0.17073	0.05949	0.06573	32	4.555	0.57301	0.65625	0.10634	0.14408
25-Jun		52	3.618	0.41472	0.15385	0.05052	0.04252	43	5.651	0.34202	0.90698	0.10425	0.16049
26-Jun		41	4.695	0.49073	0.31707	0.07358	0.06753	12	3.833	0.77688	0.41667	0.14865	0.10870
27-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
28-Jun	*	76	1.803	0.15854	0.13158	0.04329	0.07297	43	5.221	0.59583	0.51163	0.09035	0.09800
29-Jun	*	94	2.628	0.17699	0.15957	0.04088	0.06073	53	4.708	0.49259	0.11321	0.04394	0.02405
30-Jun		50	2.348	0.26633	0.14000	0.04957	0.05963	12	1.292	0.11445	0.33333	0.14213	0.25806
01-Jul		11	4.091	0.46621	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
02-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
03-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
04-Jul	*	20	2.525	0.34693	0.15000	0.10942	0.05941	16	2.344	0.36719	0.18750	0.10078	0.08000
05-Jul	*	10	1.980	0.69631	0.00000	0.00000	0.00000	6	4.333	0.55777	0.00000	0.00000	0.00000
06-Jul	*	0	0.000	0.00000	0.00000	0.00000	0.00000	2	1.500	0.00000	0.00000	0.00000	0.00000

Appendix A Table 4. Angler interviews for harvested fish in the upstream location of the Deshka River chinook salmon sport fishery, 1986.

		Incomplete Anglers						Complete Anglers					
			Effort		Chinook Harvest				Effort		Chinook Harvest		
Date	Wknd-Hol (*)	Sample Size	Mean	Std Err	Mean	Std Err	CPUE	Sample Size	Mean	Std Err	Mean	Std Err	CPUE
24-May	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
25-May	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
26-May	*	17	0.882	0.04850	0.00000	0.00000	0.00000	37	2.441	0.25348	0.02703	0.02703	0.01107
27-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
28-May		2	0.500	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
29-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
30-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
31-May	*	54	3.218	0.21071	0.14815	0.04880	0.04604	12	5.500	1.43284	0.66667	0.22473	0.12121
01-Jun	*	8	5.250	0.61962	0.00000	0.00000	0.00000	9	3.778	0.57198	0.00000	0.00000	0.00000
02-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	6	3.833	0.73786	0.33333	0.21082	0.08696
03-Jun		18	3.073	0.69644	0.22222	0.10083	0.07231	15	7.267	0.66524	0.26667	0.11819	0.03670
04-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
05-Jun		18	1.616	0.31280	0.22222	0.10083	0.13755	49	4.551	0.32018	0.14286	0.05051	0.03139
06-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
07-Jun	*	80	5.647	0.31523	0.01250	0.01250	0.00221	48	6.167	0.42665	0.16667	0.05436	0.02703
08-Jun	*	75	3.073	0.24764	0.16000	0.04262	0.05206	39	3.923	0.26588	0.56410	0.08843	0.14379
09-Jun		58	3.851	0.36841	0.18966	0.05193	0.04925	4	3.500	0.50000	0.00000	0.00000	0.00000
10-Jun		23	2.707	0.40516	0.43478	0.12298	0.16062	15	5.753	0.76088	0.53333	0.13333	0.09270
11-Jun		22	3.068	0.34235	0.18182	0.08417	0.05926	11	4.682	0.62258	0.27273	0.14084	0.05825
12-Jun		35	4.411	0.41146	0.20000	0.06860	0.04534	26	5.454	0.64663	0.34615	0.12332	0.06347
13-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
14-Jun	*	114	5.687	0.37005	0.19298	0.03712	0.03393	84	5.869	0.44450	0.32143	0.06595	0.05477
15-Jun	*	56	5.125	0.45943	0.14286	0.04718	0.02787	50	5.860	0.60542	0.10000	0.05151	0.01706
16-Jun		70	4.210	0.34699	0.31429	0.05948	0.07464	61	2.779	0.21529	0.19672	0.06105	0.07080
17-Jun		25	2.307	0.29308	0.24000	0.08718	0.10402	32	4.719	0.58842	0.28125	0.09240	0.05960
18-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
19-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
20-Jun		23	2.500	0.38339	0.13043	0.07180	0.05217	82	7.976	0.49393	0.21951	0.04599	0.02752
21-Jun	*	42	2.200	0.39708	0.19048	0.07016	0.08657	89	4.597	0.30998	0.35955	0.05115	0.07822
22-Jun	*	100	3.023	0.18359	0.12000	0.03266	0.03969	98	5.059	0.25835	0.32653	0.04977	0.06454
23-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
24-Jun		23	2.890	0.47217	0.39130	0.10405	0.13542	39	7.521	0.76448	0.17949	0.06225	0.02387
25-Jun		43	7.802	0.62681	0.44186	0.08354	0.05663	43	7.791	0.69451	0.23256	0.06519	0.02985
26-Jun		19	4.421	0.90099	0.63158	0.11370	0.14286	40	6.125	0.64394	0.37500	0.07752	0.06122
27-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
28-Jun	*	8	2.229	0.86081	0.00000	0.00000	0.00000	23	2.830	0.39505	0.26087	0.09362	0.09217
29-Jun	*	34	5.121	0.39418	0.32353	0.08144	0.06318	68	6.524	0.42863	0.75000	0.09222	0.11497
30-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
01-Jul		32	4.953	0.51157	0.31250	0.08325	0.06310	31	4.629	0.52873	0.19355	0.07213	0.04181
02-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
03-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
04-Jul	*	36	1.821	0.32847	0.25000	0.07319	0.13726	17	2.452	0.70965	0.00000	0.00000	0.00000
05-Jul	*	47	3.053	0.34803	0.17021	0.05541	0.05575	50	4.926	0.51207	0.22000	0.06571	0.04466
06-Jul	*	17	1.956	0.21887	0.41176	0.12304	0.21053	36	3.361	0.40709	0.25000	0.07319	0.07438

Appendix A Table 5. Angler interviews for all fish caught in the upstream location of the Deshka River chinook salmon sport fishery, 1986.

		Incomplete Anglers						Complete Anglers					
			Effort		Chinook Catch				Effort		Chinook Catch		
Date	Wknd-Hol (*)	Sample Size	Mean	Std Err	Mean	Std Err	CPUE	Sample Size	Mean	Std Err	Mean	Std Err	CPUE
24-May	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
25-May	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
26-May	*	17	0.882	0.04850	0.00000	0.00000	0.00000	37	2.441	0.25348	0.02703	0.02703	0.01107
27-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
28-May		2	0.500	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
29-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
30-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
31-May	*	54	3.218	0.21071	0.18519	0.06515	0.05755	12	5.500	1.43284	0.75000	0.27866	0.13636
01-Jun	*	8	5.250	0.61962	0.00000	0.00000	0.00000	9	3.778	0.57198	0.00000	0.00000	0.00000
02-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	6	3.833	0.73786	1.33333	0.42164	0.34783
03-Jun		18	3.073	0.69644	1.00000	0.25565	0.32538	15	7.267	0.66524	1.40000	0.60788	0.19266
04-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
05-Jun		18	1.616	0.31280	0.38889	0.18327	0.24072	49	4.551	0.32018	0.18367	0.06946	0.04036
06-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
07-Jun	*	80	5.647	0.31523	0.05000	0.02452	0.00885	48	6.167	0.42665	0.37500	0.09705	0.06081
08-Jun	*	75	3.073	0.24764	0.24000	0.07313	0.07809	39	3.923	0.26588	0.66667	0.11809	0.16993
09-Jun		58	3.851	0.36841	0.22414	0.06046	0.05821	4	3.500	0.50000	0.50000	0.28868	0.14286
10-Jun		23	2.707	0.40516	0.73913	0.21975	0.27305	15	5.753	0.76088	0.60000	0.16330	0.10429
11-Jun		22	3.068	0.34235	0.54545	0.18290	0.17778	11	4.682	0.62258	0.27273	0.14084	0.05825
12-Jun		35	4.411	0.41146	0.22857	0.08287	0.05182	26	5.454	0.64663	0.73077	0.18858	0.13399
13-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
14-Jun	*	114	5.687	0.37005	0.28070	0.06041	0.04936	84	5.869	0.44450	1.80952	0.42729	0.30832
15-Jun	*	56	5.125	0.45943	0.16071	0.04952	0.03136	50	5.860	0.60542	0.18000	0.09342	0.03072
16-Jun		70	4.210	0.34699	0.31429	0.05948	0.07464	61	2.779	0.21529	0.24590	0.06468	0.08850
17-Jun		25	2.307	0.29308	0.24000	0.08718	0.10402	32	4.719	0.58842	0.40625	0.09898	0.08609
18-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
19-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
20-Jun		23	2.500	0.38339	0.13043	0.07180	0.05217	82	7.976	0.49393	0.37805	0.08257	0.04740
21-Jun	*	42	2.200	0.39708	0.26190	0.10809	0.11903	89	4.597	0.30998	0.60674	0.09127	0.13200
22-Jun	*	100	3.023	0.18359	0.15000	0.04352	0.04961	98	5.059	0.25835	0.42857	0.07537	0.08471
23-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
24-Jun		23	2.890	0.47217	0.47826	0.15232	0.16551	39	7.521	0.76448	0.35897	0.08605	0.04773
25-Jun		43	7.802	0.62681	1.09302	0.22277	0.14009	43	7.791	0.69451	0.53488	0.14255	0.06866
26-Jun		19	4.421	0.90099	0.73684	0.14989	0.16667	40	6.125	0.64394	0.92500	0.23585	0.15102
27-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
28-Jun	*	8	2.229	0.86081	0.50000	0.37796	0.22434	23	2.830	0.39505	0.26087	0.09362	0.09217
29-Jun	*	34	5.121	0.39418	0.58824	0.12749	0.11488	68	6.524	0.42863	1.01471	0.15467	0.15555
30-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
01-Jul		32	4.953	0.51157	2.31250	0.66514	0.46691	31	4.629	0.52873	1.41935	0.35248	0.30662
02-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
03-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
04-Jul	*	36	1.821	0.32847	0.27778	0.07571	0.15251	17	2.452	0.70965	0.00000	0.00000	0.00000
05-Jul	*	47	3.053	0.34803	0.38298	0.07786	0.12544	50	4.926	0.51207	0.94000	0.24811	0.19082
06-Jul	*	17	1.956	0.21887	0.70588	0.16638	0.36090	36	3.361	0.40709	0.44444	0.11578	0.13223

Appendix A Table 6. Effort (hours) in the Deshka River chinook salmon sport fishery, 1986.

Location	Time Frame	Strata	Number Counts	Number Days Possible	Number Days Sampled	Counts Mean	Counts Std Err	Effort Total	Effort Std Err
Downstream	Wknd-Hol	5/24-5/26	9	3	3	35.2	3.2	1,902.0	173.2
	Wkday	5/27-5/30	6	4	2	11.2	2.7	804.0	191.4
	Wknd-Hol	5/31-6/01	6	2	2	60.8	14.0	2,190.0	503.7
	Wkday	6/02-6/06	9	5	3	64.3	11.4	5,790.0	1,026.7
	Wknd-Hol	6/07-6/08	6	2	2	124.7	12.3	4,488.0	443.2
	Wkday	6/09-6/13	9	5	3	94.6	12.2	8,510.0	1,098.6
	Wknd-Hol	6/14-6/15	6	2	2	107.7	20.9	3,876.0	752.7
	Wkday	6/16-6/20	9	5	3	57.6	6.5	5,180.0	580.7
	Wknd-Hol	6/21-6/22	6	2	2	57.0	13.4	2,052.0	483.4
	Wkday	6/23-6/27	9	5	3	29.6	3.9	2,660.0	350.3
	Wknd-Hol	6/28-6/29	6	2	2	38.3	5.1	1,380.0	182.2
	Wkday	6/30-7/03	6	4	2	7.2	1.8	516.0	129.5
	Wknd-Hol	7/04-7/06	9	3	3	4.3	1.1	234.0	60.3
	Total		96	44	32			39,582.0	2,022.8
Upstream	Wknd-Hol	5/24-5/26	3	3	3	7.0	4.6	378.0	247.5
	Wkday	5/27-5/30	2	4	2	2.0	0.0	144.0	0.0
	Wknd-Hol	5/31-6/01	2	2	2	10.0	4.0	360.0	144.0
	Wkday	6/02-6/06	3	5	3	6.7	3.8	600.0	338.1
	Wknd-Hol	6/07-6/08	2	2	2	52.5	11.5	1,890.0	414.0
	Wkday	6/09-6/13	3	5	3	21.7	1.8	1,950.0	158.8
	Wknd-Hol	6/14-6/15	2	2	2	43.5	5.5	1,566.0	198.0
	Wkday	6/16-6/20	3	5	3	29.7	15.3	2,670.0	1,377.1
	Wknd-Hol	6/21-6/22	2	2	2	32.5	2.5	1,170.0	90.0
	Wkday	6/23-6/27	3	5	3	27.0	6.0	2,430.0	540.0
	Wknd-Hol	6/28-6/29	2	2	2	25.5	13.5	918.0	486.0
	Wkday	6/30-7/03	3	4	3	8.7	2.9	624.0	209.2
	Wknd-Hol	7/04-7/06	3	3	3	13.3	6.1	720.0	327.5
	Total		33	44	33			15,420.0	1,736.5

Appendix A Table 7. Harvest rates (per hour) in the Deshka River chinook salmon sport fishery, 1986.

Location	Time Frame	Strata	Number Intv's	Number Days Possible	Number Days Sampled	Effort Mean	Effort Std Err	Chinook Harvest Mean	Chinook Harvest Std Err	Chinook Harvest Eff Corr	Chinook Harvest CPUE	Chinook Harvest Std.Err
Downstream[1]	Wknd-Hol	5/24-5/26	112	3	3	2.9770	1.97E-01	0.0357	1.90E-02	0.0805	0.0120	5.62E-04
	Wkday	5/27-5/30	24	4	2	3.7812	6.83E-01	0.0000	0.00E+00	0.0000	0.0000	0.00E+00
	Wknd-Hol	5/31-6/01	23	2	2	5.7174	9.70E-01	0.4783	1.22E-01	(0.5729)	0.0837	6.62E-03
	Wkday	6/02-6/06	120	5	3	4.7792	5.65E-01	0.1583	5.80E-02	0.0222	0.0331	1.17E-03
	Wknd-Hol	6/07-6/08	148	2	2	5.1199	2.40E-01	0.1351	3.10E-02	0.2125	0.0264	4.92E-04
	Wkday	6/09-6/13	55	5	3	4.8327	3.47E-01	0.3455	1.49E-01	0.1394	0.0715	4.13E-03
	Wknd-Hol	6/14-6/15	77	2	2	5.1957	2.84E-01	0.2338	5.10E-02	0.2814	0.0451	1.08E-03
	Wkday	6/16-6/20	103	5	3	5.5111	7.71E-01	0.2233	4.10E-02	0.1640	0.0405	8.41E-04
	Wknd-Hol	6/21-6/22	142	2	2	5.6162	2.57E-01	0.2958	3.50E-02	0.2422	0.0527	5.11E-04
	Wkday	6/23-6/27	87	5	3	4.9971	4.49E-01	0.7011	1.34E-01	0.3461	0.1403	2.72E-03
	Wknd-Hol	6/28-6/29	96	2	2	4.9375	3.87E-01	0.2917	5.02E-02	0.0099	0.0591	1.14E-03
	Wkday	6/30-7/03	61	4	2	2.6623	7.56E-01	0.0984	5.30E-02	(0.0852)	0.0369	2.98E-03
	Wknd-Hol	7/04-7/06	24	3	3	2.7708	2.23E-01	0.0833	2.85E-02	(0.1440)	0.0301	2.22E-03
Upstream[2]	Wknd-Hol	5/24-5/26	37	3	1	2.4414	1.46E-01	0.0270	1.56E-02	(0.2314)	0.0111	1.08E-03
	Wkday	5/27-5/30	0	0	0	0.0000	0.00E+00	0.0000	0.00E+00	0.0000	0.0000	0.00E+00
	Wknd-Hol	5/31-6/01	21	2	2	4.7619	7.72E-01	0.3810	1.12E-01	0.2260	0.0800	5.28E-03
	Wkday	6/02-6/06	70	5	3	5.0714	7.17E-01	0.1857	7.79E-02	0.0156	0.0366	1.93E-03
	Wknd-Hol	6/07-6/08	87	2	2	5.1609	2.51E-01	0.3448	5.19E-02	(0.1620)	0.0668	1.19E-03
	Wkday	6/09-6/13	56	5	4	5.2429	3.78E-01	0.3571	7.35E-02	(0.0347)	0.0681	2.01E-03
	Wknd-Hol	6/14-6/15	134	2	2	5.8657	3.76E-01	0.2388	4.18E-02	0.3006	0.0407	5.89E-04
	Wkday	6/16-6/20	175	5	3	5.5686	9.98E-01	0.2229	3.51E-02	0.0635	0.0400	6.99E-04
	Wknd-Hol	6/21-6/22	187	2	2	4.8390	2.02E-01	0.3422	3.57E-02	0.2808	0.0707	5.22E-04
	Wkday	6/23-6/27	122	5	3	7.1582	4.32E-02	0.2623	4.80E-02	0.2514	0.0366	5.91E-04
	Wknd-Hol	6/28-6/29	91	2	2	5.5901	2.91E-01	0.6264	6.57E-02	0.1533	0.1121	1.29E-03
	Wkday	6/30-7/03	31	4	1	4.6290	2.64E-01	0.1935	3.61E-02	(0.0782)	0.0418	1.50E-03
	Wknd-Hol	7/04-7/06	103	3	3	3.9707	3.22E-01	0.1942	3.28E-02	0.4625	0.0489	7.22E-04

[1] In the downstream location harvest rate data were computed from completed angler interviews for strata: 5/31-6/29 and 7/4-7/6; and from incompleted angler interviews for strata: 5/24-5/30 and 6/30-7/3.

[2] In the upstream location harvest rate data were computed from completed angler interviews for strata: 5/24-7/6.

Appendix A Table 8. Angler counts in the Alexander Creek chinook salmon fishery, 1986.

		Counts by Period[1]					
		Downstream Fishery			Upstream Fishery		
Date	Wknd-Hol (*)	A	B	C	A	B	C
24-May	*	42	34	39			0
25-May	*	221	52	22	0		
26-May	*	11	32	9		0	
27-May		3	13	4		0	
28-May		4	17	6			0
29-May							
30-May							
31-May	*	9	64	62		5	
01-Jun	*	43	70	8			6
02-Jun		0	23	0	0		
03-Jun		9	11	7			0
04-Jun							
05-Jun		6	85	38	0		
06-Jun							
07-Jun	*	95	77	42			37
08-Jun	*	83	61	55		39	
09-Jun		7	60			24	
10-Jun		17	53	25		19	
11-Jun							
12-Jun		64	40	30			21
13-Jun							
14-Jun	*	37	50	33			49
15-Jun	*	24	29				27
16-Jun		25	31	23		44	
17-Jun		23	30	23	15		
18-Jun							
19-Jun							
20-Jun		0	21	4	0		
21-Jun	*	0	11	5	72		
22-Jun	*	1	12	0		37	
23-Jun							
24-Jun		10	10	7	45		
25-Jun		2	5	2			26
26-Jun		0	0	0			23
27-Jun							
28-Jun	*	5	0	0	36		
29-Jun	*	1	0	0		19	
30-Jun		0	0	0		19	
01-Jul		0	0	0		8	
02-Jul							9
03-Jul							
04-Jul	*	0	0	0		30	
05-Jul	*	0	1	0		14	
06-Jul	*	0	0	0	0		

[1] Period A: 0500 to 1059 hrs.
Period B: 1100 to 1659 hrs.
Period C: 1700 to 2300 hrs.

Appendix A Table 9. Angler interviews for harvested fish in the downstream location of the Alexander Creek chinook salmon sport fishery, 1986.

		Incomplete Anglers						Complete Anglers					
			Effort		Chinook Harvest				Effort		Chinook Harvest		
Date	Wknd-Hol (*)	Sample Size	Mean	Std Err	Mean	Std Err	CPUE	Sample Size	Mean	Std Err	Mean	Std Err	CPUE
24-May	*	22	8.261	0.76101	0.09091	0.06273	0.01100	0	0.000	0.00000	0.00000	0.00000	0.00000
25-May	*	23	1.420	0.18165	0.04348	0.04348	0.03063	2	2.000	0.00000	0.00000	0.00000	0.00000
26-May	*	38	2.919	0.31320	0.05263	0.03671	0.01803	2	3.000	0.00000	0.00000	0.00000	0.00000
27-May		12	2.088	0.71730	0.25000	0.13056	0.11971	5	4.050	2.02083	0.20000	0.20000	0.04938
28-May		10	1.116	0.25606	0.10000	0.10000	0.08961	0	0.000	0.00000	0.00000	0.00000	0.00000
29-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
30-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
31-May	*	108	3.326	0.23240	0.16667	0.03603	0.05011	7	8.401	2.32335	0.57143	0.20203	0.06802
01-Jun	*	32	4.305	0.49312	0.03125	0.03125	0.00726	7	3.571	0.50508	0.14286	0.14286	0.04000
02-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
03-Jun		11	1.938	0.15822	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
04-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
05-Jun		51	2.856	0.15090	0.33333	0.06667	0.11669	3	1.000	0.00000	0.66667	0.33333	0.66667
06-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
07-Jun	*	116	6.389	0.44144	0.10345	0.02840	0.01619	0	0.000	0.00000	0.00000	0.00000	0.00000
08-Jun	*	181	3.177	0.15440	0.12707	0.02603	0.04000	4	4.000	0.00000	0.00000	0.00000	0.00000
09-Jun		74	4.831	0.33829	0.28378	0.05937	0.05874	2	5.000	0.00000	0.00000	0.00000	0.00000
10-Jun		40	4.566	0.47204	0.35000	0.07638	0.07665	8	7.000	1.66905	0.37500	0.18298	0.05357
11-Jun		53	2.978	0.31980	0.24528	0.05967	0.08237	0	0.000	0.00000	0.00000	0.00000	0.00000
12-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	22	4.682	0.29341	0.77273	0.13046	0.16505
13-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
14-Jun	*	61	3.914	0.43929	0.11475	0.04115	0.02932	9	7.333	0.52705	0.33333	0.16667	0.04545
15-Jun	*	23	3.959	0.62917	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
16-Jun		44	3.244	0.34133	0.06818	0.03844	0.02102	0	0.000	0.00000	0.00000	0.00000	0.00000
17-Jun		21	1.143	0.07825	0.09524	0.06564	0.08333	0	0.000	0.00000	0.00000	0.00000	0.00000
18-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
19-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
20-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
21-Jun	*	9	0.870	0.22195	0.11111	0.11111	0.12771	0	0.000	0.00000	0.00000	0.00000	0.00000
22-Jun	*	18	1.347	0.24847	0.05556	0.05556	0.04124	4	4.000	0.00000	0.50000	0.28868	0.12500
23-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
24-Jun		19	1.236	0.10318	0.26316	0.10379	0.21286	0	0.000	0.00000	0.00000	0.00000	0.00000
25-Jun		5	7.000	0.00000	0.00000	0.00000	0.00000	3	11.000	0.00000	0.33333	0.33333	0.03030
26-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
27-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
28-Jun	*	4	2.500	0.28868	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
29-Jun	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
30-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
01-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
02-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
03-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
04-Jul	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
05-Jul	*	3	1.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
06-Jul	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000

Appendix A Table 10. Angler interviews for all fish caught in the downstream location of the Alexander Creek chinook salmon sport fishery, 1986.

		Incomplete Anglers						Complete Anglers					
			Effort		Chinook Catch				Effort		Chinook Catch		
Date	Wknd-Hol (*)	Sample Size	Mean	Std Err	Mean	Std Err	CPUE	Sample Size	Mean	Std Err	Mean	Std Err	CPUE
24-May	*	22	8.261	0.76101	0.13636	0.07489	0.01651	0	0.000	0.00000	0.00000	0.00000	0.00000
25-May	*	23	1.420	0.18165	0.08696	0.06007	0.06126	0	0.000	0.00000	0.00000	0.00000	0.00000
26-May	*	38	2.919	0.31320	0.23684	0.12183	0.08114	2	2.000	0.00000	0.00000	0.00000	0.00000
27-May		12	2.088	0.71730	0.33333	0.18803	0.15962	2	3.000	0.00000	0.00000	0.00000	0.00000
28-May		10	1.116	0.25606	0.10000	0.10000	0.08961	5	4.050	2.02083	0.40000	0.24495	0.09877
29-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
30-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
31-May	*	108	3.326	0.23240	0.38889	0.09471	0.11692	7	8.401	2.32335	0.57143	0.20203	0.06802
01-Jun	*	32	4.305	0.49312	0.03125	0.03125	0.00726	7	3.571	0.50508	0.14286	0.14286	0.04000
02-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
03-Jun		11	1.938	0.15822	0.18182	0.12197	0.09381	0	0.000	0.00000	0.00000	0.00000	0.00000
04-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
05-Jun		51	2.856	0.15090	0.41176	0.06960	0.14415	3	1.000	0.00000	0.66667	0.33333	0.66667
06-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
07-Jun	*	116	6.389	0.44144	0.14655	0.03921	0.02294	0	0.000	0.00000	0.00000	0.00000	0.00000
08-Jun	*	181	3.177	0.15440	0.16022	0.03151	0.05044	4	4.000	0.00000	0.00000	0.00000	0.00000
09-Jun		74	4.831	0.33829	0.54054	0.11251	0.11188	2	5.000	0.00000	1.00000	0.00000	0.20000
10-Jun		40	4.566	0.47204	0.40000	0.07845	0.08759	8	7.000	1.66905	0.37500	0.18298	0.05357
11-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
12-Jun		53	2.978	0.31980	0.50943	0.13636	0.17108	22	4.682	0.29341	2.68182	0.78234	0.57282
13-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
14-Jun	*	61	3.914	0.43929	0.14754	0.05141	0.03770	9	7.333	0.52705	0.33333	0.16667	0.04545
15-Jun	*	23	3.959	0.62917	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
16-Jun		44	3.244	0.34133	0.06818	0.03844	0.02102	0	0.000	0.00000	0.00000	0.00000	0.00000
17-Jun		21	1.143	0.07825	0.09524	0.06564	0.08333	0	0.000	0.00000	0.00000	0.00000	0.00000
18-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
19-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
20-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
21-Jun	*	9	0.870	0.22195	0.11111	0.12771	0.12771	0	0.000	0.00000	0.00000	0.00000	0.00000
22-Jun	*	18	1.347	0.24847	0.05556	0.04124	0.04124	4	4.000	0.00000	0.50000	0.28868	0.12500
23-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
24-Jun		19	1.236	0.10318	0.42105	0.13925	0.34057	0	0.000	0.00000	0.00000	0.00000	0.00000
25-Jun		5	7.000	0.00000	0.00000	0.00000	0.00000	3	11.000	0.00000	0.33333	0.33333	0.03030
26-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
27-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
28-Jun	*	4	2.500	0.28868	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
29-Jun	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
30-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
01-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
02-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
03-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
04-Jul	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
05-Jul	*	3	1.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
06-Jul	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000

Appendix A Table 11. Angler interviews for harvested fish in the upstream location of the Alexander Creek chinook salmon sport fishery, 1986.

		Incomplete Anglers						Complete Anglers					
			Effort		Chinook Harvest				Effort		Chinook Harvest		
Date	Wknd-Hol (*)	Sample Size	Mean	Std Err	Mean	Std Err	CPUE	Sample Size	Mean	Std Err	Mean	Std Err	CPUE
24-May	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
25-May	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
26-May	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
27-May		2	2.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
28-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
29-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
30-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
31-May	*	26	6.763	1.20098	0.23077	0.08427	0.03412	0	0.000	0.00000	0.00000	0.00000	0.00000
01-Jun	*	7	6.143	1.02768	0.00000	0.00000	0.00000	8	4.438	0.45745	0.00000	0.00000	0.00000
02-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
03-Jun		9	8.694	1.07834	0.11111	0.11111	0.01278	0	0.000	0.00000	0.00000	0.00000	0.00000
04-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
05-Jun		4	0.875	0.07217	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
06-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
07-Jun	*	38	5.101	0.51897	0.39474	0.08036	0.07739	9	4.444	0.72860	0.22222	0.14699	0.05000
08-Jun	*	70	2.872	0.27358	0.28571	0.05807	0.09950	0	0.000	0.00000	0.00000	0.00000	0.00000
09-Jun		41	2.914	0.26391	0.31707	0.08144	0.10880	3	2.000	0.00000	0.66667	0.33333	0.33333
10-Jun		42	2.976	0.29260	0.42857	0.08447	0.14401	8	4.125	0.44068	0.75000	0.25000	0.18182
11-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
12-Jun		48	5.896	0.51763	0.39583	0.07133	0.06714	10	3.900	0.27689	0.20000	0.13333	0.05128
13-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
14-Jun	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
15-Jun	*	94	3.941	0.24944	0.22340	0.04576	0.05668	53	5.849	0.58364	0.26415	0.06114	0.04516
16-Jun		95	4.129	0.29814	0.17895	0.04227	0.04334	20	3.300	0.39802	0.05000	0.05000	0.01515
17-Jun		69	2.151	0.22522	0.27536	0.06154	0.12802	8	6.500	0.77919	0.12500	0.12500	0.01923
18-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
19-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
20-Jun		11	1.516	0.45048	0.36364	0.15212	0.23981	34	5.206	0.65411	0.17647	0.07865	0.03390
21-Jun	*	31	2.306	0.26404	0.45161	0.09086	0.19580	26	4.346	0.24771	0.65385	0.11014	0.15044
22-Jun	*	34	3.279	0.24363	0.26471	0.07680	0.08072	82	5.527	0.27798	0.42683	0.06264	0.07722
23-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
24-Jun		15	0.599	0.08405	0.26667	0.15327	0.44494	19	5.526	0.84507	0.31579	0.10956	0.05714
25-Jun		35	4.697	0.50612	0.51429	0.12550	0.10949	41	5.293	0.46361	0.26829	0.07006	0.05069
26-Jun		33	2.515	0.18398	0.03030	0.03030	0.01205	5	8.000	0.00000	0.60000	0.24495	0.07500
27-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
28-Jun	*	38	1.408	0.14188	0.18421	0.06373	0.13084	24	2.958	0.53747	0.20833	0.10389	0.07042
29-Jun	*	48	2.198	0.22340	0.22917	0.07437	0.10427	11	3.545	0.41261	0.54545	0.15746	0.15385
30-Jun		24	2.010	0.23577	0.45833	0.12007	0.22798	19	3.579	0.49154	0.05263	0.05263	0.01471
01-Jul		13	3.135	0.41275	0.53846	0.14391	0.17178	4	2.000	0.00000	0.50000	0.28868	0.25000
02-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
03-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
04-Jul	*	11	1.409	0.06098	0.09091	0.09091	0.06452	9	3.333	0.28868	0.55556	0.17568	0.16667
05-Jul	*	56	3.232	0.23710	0.23214	0.06237	0.07182	34	3.333	0.30782	0.52941	0.11357	0.15883
06-Jul	*	2	0.500	0.00000	0.00000	0.00000	0.00000	6	2.000	0.00000	0.16667	0.16667	0.08333

Appendix A Table 12. Angler interviews for all fish caught in the upstream location of the Alexander Creek chinook salmon sport fishery, 1986.

		Incomplete Anglers						Complete Anglers					
			Effort		Chinook Catch				Effort		Chinook Catch		
Date	Wknd-Hol (*)	Sample Size	Mean	Std Err	Mean	Std Err	CPUE	Sample Size	Mean	Std Err	Mean	Std Err	CPUE
24-May	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
25-May	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
26-May	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
27-May		2	2.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
28-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
29-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
30-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
31-May	*	26	6.763	1.20098	0.23077	0.08427	0.03412	0	0.000	0.00000	0.00000	0.00000	0.00000
01-Jun	*	7	6.143	1.02768	0.00000	0.00000	0.00000	8	4.438	0.45745	0.37500	0.26305	0.08451
02-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
03-Jun		9	8.694	1.07834	0.66667	0.23570	0.07668	0	0.000	0.00000	0.00000	0.00000	0.00000
04-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
05-Jun		4	0.875	0.07217	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
06-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
07-Jun	*	38	5.101	0.51897	1.39474	0.38192	0.27344	9	4.444	0.72860	0.33333	0.16667	0.07500
08-Jun	*	70	2.872	0.27358	0.62857	0.13214	0.21889	0	0.000	0.00000	0.00000	0.00000	0.00000
09-Jun		41	2.914	0.26391	0.43902	0.11608	0.15065	3	2.000	0.00000	2.00000	1.15470	1.00000
10-Jun		42	2.976	0.29260	0.73810	0.12779	0.24802	8	4.125	0.44068	1.25000	0.52610	0.30303
11-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
12-Jun		48	5.896	0.51763	1.29167	0.30358	0.21908	10	3.900	0.27689	0.20000	0.13333	0.05128
13-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
14-Jun	*	0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
15-Jun	*	94	3.941	0.24944	0.56383	0.09019	0.14305	53	5.849	0.58364	0.67925	0.12856	0.11613
16-Jun		95	4.129	0.29814	0.28421	0.07124	0.06884	20	3.300	0.39802	0.30000	0.20647	0.09091
17-Jun		69	2.151	0.22522	0.43478	0.11210	0.20214	8	6.500	0.77919	0.50000	0.18898	0.07692
18-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
19-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
20-Jun		11	1.516	0.45048	0.45455	0.20730	0.29976	34	5.206	0.65411	0.20588	0.08208	0.03955
21-Jun	*	31	2.306	0.26404	0.54839	0.12127	0.23776	26	4.346	0.24771	0.92308	0.19941	0.21239
22-Jun	*	34	3.279	0.24363	0.61765	0.11953	0.18834	82	5.527	0.27798	1.73171	0.19327	0.31329
23-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
24-Jun		15	0.599	0.08405	0.40000	0.16330	0.66741	19	5.526	0.84507	0.68421	0.23009	0.12381
25-Jun		35	4.697	0.50612	1.57143	0.51578	0.33455	41	5.293	0.46361	0.65854	0.16605	0.12442
26-Jun		33	2.515	0.18398	0.18182	0.12654	0.07229	5	8.000	0.00000	0.60000	0.24495	0.07500
27-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
28-Jun	*	38	1.408	0.14188	0.23684	0.09567	0.16822	24	2.958	0.53747	0.45833	0.26223	0.15493
29-Jun	*	48	2.198	0.22340	0.37500	0.10579	0.17062	11	3.545	0.41261	1.45455	0.52853	0.41026
30-Jun		24	2.010	0.23577	0.58333	0.15830	0.29016	19	3.579	0.49154	0.26316	0.26316	0.07353
01-Jul		13	3.135	0.41275	0.84615	0.22206	0.26994	4	2.000	0.00000	2.00000	0.40825	1.00000
02-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
03-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
04-Jul	*	11	1.409	0.06098	0.36364	0.20328	0.25806	9	3.333	0.28868	2.44444	0.62608	0.73333
05-Jul	*	56	3.232	0.23710	0.62500	0.16028	0.19336	34	3.333	0.30782	1.32353	0.34744	0.39707
06-Jul	*	2	0.500	0.00000	0.00000	0.00000	0.00000	6	2.000	0.00000	0.16667	0.16667	0.08333

Appendix A Table 13. Effort (hours) in the Alexander Creek chinook salmon sport fishery, 1986.

Location	Time Frame	Strata	Number Counts	Number Days Possible	Number Days Sampled	Counts Mean	Counts Std Err	Effort Total	Effort Std Err
Downstream	Wknd-Hol	5/24-5/26	9	3	3	51.3	20.8	2,772.0	1,123.6
	Wkday	5/27-5/30	6	4	2	7.8	2.0	564.0	143.8
	Wknd-Hol	5/31-6/01	6	2	3	42.7	12.7	1,536.0	457.7
	Wkday	6/02-6/06	9	5	3	19.9	9.6	1,790.0	865.9
	Wknd-Hol	6/07-6/08	6	2	3	68.8	8.9	2,478.0	319.2
	Wkday	6/09-6/13	8	5	3	37.0	8.3	3,330.0	743.1
	Wknd-Hol	6/14-6/15	5	2	3	34.8	2.9	1,245.0	102.8
	Wkday	6/16-6/20	9	5	3	20.0	4.2	1,800.0	372.8
	Wknd-Hol	6/21-6/22	6	2	3	4.8	2.5	174.0	89.6
	Wkday	6/23-6/27	9	5	3	4.0	1.7	360.0	154.1
	Wknd-Hol	6/28-6/29	6	2	3	1.0	0.8	36.0	30.6
	Wkday	6/30-7/03	6	4	2	0.0	0.0	0.0	0.0
	Wknd-Hol	7/04-7/06	9	3	3	0.1	0.0	6.0	6.0
	Total		94	44	37			16,091.0	1,754.6
Upstream	Wknd-Hol	5/24-5/26	3	3	3	0.0	0.0	0.0	0.0
	Wkday	5/27-5/30	2	4	2	0.0	0.0	0.0	0.0
	Wknd-Hol	5/31-6/01	2	2	2	5.5	0.6	198.0	18.0
	Wkday	6/02-6/06	3	5	3	0.0	0.0	0.0	0.0
	Wknd-Hol	6/07-6/08	2	2	2	38.0	1.0	1,368.0	36.0
	Wkday	6/09-6/13	3	5	3	21.3	1.5	1,920.0	130.1
	Wknd-Hol	6/14-6/15	2	2	2	38.0	11.0	1,368.0	396.0
	Wkday	6/16-6/20	3	5	3	19.7	12.9	1,770.0	1,162.3
	Wknd-Hol	6/21-6/22	2	2	2	54.5	17.5	1,962.0	630.0
	Wkday	6/23-6/27	3	5	3	31.3	6.9	2,820.0	619.9
	Wknd-Hol	6/28-6/29	2	2	2	27.5	8.5	990.0	306.0
	Wkday	6/30-7/03	3	4	3	12.0	3.5	864.0	252.9
	Wknd-Hol	7/04-7/06	3	3	3	14.7	8.7	792.0	468.0
	Total		33	44	33			14,052.0	1,638.4

Appendix A Table 14. Harvest rates (per hour) in the Alexander Creek chinook salmon sport fishery, 1986.

Location	Time Frame	Strata	Number Intv's	Number Days Possible	Number Days Sampled	Effort Mean	Effort Std Err	Chinook Harvest Mean	Chinook Harvest Std Err	Chinook Harvest Eff Corr	Chinook Harvest CPUE	Chinook Harvest Std.Err
Downstream[1]	Wknd-Hol	5/24-5/26	83	3	3	3.9195	2.81E-01	0.0602	2.82E-02	0.1214	0.0154	7.85E-04
	Wkday	5/27-5/30	22	4	2	1.6464	4.38E-01	0.1818	7.88E-02	0.5856	0.1104	8.28E-03
	Wknd-Hol	5/31-6/01	140	2	2	3.5499	2.73E-01	0.1357	2.39E-02	0.2888	0.0382	5.50E-04
	Wkday	6/02-6/06	62	5	2	2.6935	4.29E-01	0.2742	1.55E-01	0.4373	0.1018	6.67E-03
	Wknd-Hol	6/07-6/08	297	2	2	4.4312	2.34E-01	0.1178	1.93E-02	0.1653	0.0266	2.52E-04
	Wkday	6/09-6/13	167	5	3	4.1796	4.05E-01	0.2874	3.52E-02	0.3173	0.0688	6.91E-04
	Wknd-Hol	6/14-6/15	84	2	2	3.9260	3.84E-01	0.0833	2.06E-02	0.0461	0.0212	6.05E-04
	Wkday	6/16-6/20	65	5	2	2.5654	8.70E-01	0.0769	2.65E-02	0.0323	0.0300	1.77E-03
	Wknd-Hol	6/21-6/22	27	2	2	1.1881	1.66E-01	0.0741	6.21E-02	0.1692	0.0623	9.92E-03
	Wkday	6/23-6/27	24	5	2	2.4371	2.58E+00	0.2083	1.22E-01	(0.2566)	0.0855	2.33E-02
	Wknd-Hol	6/28-6/29	4	2	1	2.5000	2.04E-01	0.0000	0.00E+00	0.0000	0.0000	0.00E+00
	Wkday	6/30-7/03	0	0	0	0.0000	0.00E+00	0.0000	0.00E+00	0.0000	0.0000	0.00E+00
	Wknd-Hol	7/04-7/06	3	3	1	1.0000	0.00E+00	0.0000	0.00E+00	0.0000	0.0000	0.00E+00
Upstream[2]	Wknd-Hol	5/24-5/26	0	0	0	0.0000	0.00E+00	0.0000	0.00E+00	0.0000	0.0000	0.00E+00
	Wkday	5/27-5/30	2	4	1	2.0000	0.00E+00	0.0000	0.00E+00	0.0000	0.0000	0.00E+00
	Wknd-Hol	5/31-6/01	33	2	2	6.6312	7.90E-01	0.1818	4.21E-02	0.2045	0.0274	1.14E-03
	Wkday	6/02-6/06	13	5	2	6.2885	3.26E+00	0.0769	5.80E-02	0.2428	0.0122	2.73E-03
	Wknd-Hol	6/07-6/08	108	2	2	3.6559	2.93E-01	0.3241	4.96E-02	0.1348	0.0886	1.39E-03
	Wkday	6/09-6/13	21	5	3	3.7143	4.77E-01	0.4762	1.59E-01	0.3395	0.1282	8.79E-03
	Wknd-Hol	6/14-6/15	53	2	1	5.8491	4.13E-01	0.2642	4.32E-02	0.4079	0.0452	9.27E-04
	Wkday	6/16-6/20	62	5	3	4.7581	6.61E-01	0.1290	4.68E-02	0.0057	0.0271	1.33E-03
	Wknd-Hol	6/21-6/22	108	2	2	5.2431	1.86E-01	0.4814	6.33E-02	0.0517	0.0918	1.19E-03
	Wkday	6/23-6/27	65	5	3	5.5692	6.79E-01	0.3077	1.05E-01	0.1244	0.0522	2.37E-03
	Wknd-Hol	6/28-6/29	35	2	2	3.1429	3.39E-01	0.3143	9.43E-02	0.5159	0.1000	4.42E-03
	Wkday	6/30-7/03	23	4	2	3.3043	6.89E-01	0.1304	2.15E-01	0.2005	0.0395	1.34E-02
	Wknd-Hol	7/04-7/06	49	3	3	3.1700	1.41E-01	0.4898	8.92E-02	0.5395	0.1545	3.59E-03

[1] In the downstream location harvest rate data were computed from incomplete angler interviews for strata: 5/24-7/6.

[2] In the upstream location harvest rate data were computed from incompleted angler interviews for strata: 5/24-6/8 and from completed angler interviews for strata: 6/9-7/6.

Appendix A Table 15. Angler counts in the Lake Creek chinook salmon fishery, 1986.

Date	Wknd-Hol (*)	Counts by Period[1] A	B	C	D	E	F
31-May	*		0		0	0	
01-Jun	*	0	0				0
02-Jun							
03-Jun		0				6	10
04-Jun							
05-Jun			23	27		9	
06-Jun			18	20	21		
07-Jun	*	16		17		19	
08-Jun	*				31	16	4
09-Jun		13	12	11			
10-Jun					24	29	31
11-Jun							
12-Jun							
13-Jun		22				49	43
14-Jun	*			83		80	69
15-Jun	*	48			60		76
16-Jun		37	117	99			
17-Jun							
18-Jun			87	78	103		
19-Jun		27	60	82			
20-Jun							
21-Jun	*		89			97	123
22-Jun	*		83	102			65
23-Jun							
24-Jun		35		74			49
25-Jun							
26-Jun		5		88	76		
27-Jun			30	129	99		
28-Jun	*		89	68			92
29-Jun	*	66	71			67	
30-Jun		36	79				24
01-Jul		19		59	37		
02-Jul							
03-Jul							
04-Jul	*		26		62	41	
05-Jul	*		36	51	43		
06-Jul	*		23	46		32	

[1] Period A: 0500 to 0759 hrs. Period D: 1400 to 1659 hrs.
Period B: 0800 to 1059 hrs. Period C: 1700 to 1959 hrs.
Period C: 1100 to 1359 hrs. Period E: 2000 to 2300 hrs.

Appendix A Table 16. Angler interviews for harvested fish in Lake Creek chinook salmon sport fishery, 1986.

		Incomplete Anglers						Complete Anglers					
			Effort		Chinook Harvest				Effort		Chinook Harvest		
Date	Wknd-Hol (*)	Sample Size	Mean	Std Err	Mean	Std Err	CPUE	Sample Size	Mean	Std Err	Mean	Std Err	CPUE
31-May	*	2	1.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
01-Jun	*	2	1.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
02-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
03-Jun		8	1.490	0.78893	0.37500	0.18298	0.25168	0	0.000	0.00000	0.00000	0.00000	0.00000
04-Jun		11	1.545	0.22818	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
05-Jun		10	2.530	0.84512	0.40000	0.22111	0.15810	25	4.840	2.05806	0.32000	0.09522	0.06612
06-Jun		38	2.978	0.53815	0.28947	0.07456	0.09721	31	2.258	0.17332	0.19355	0.11749	0.08571
07-Jun	*	32	4.755	0.44400	0.18750	0.07010	0.03943	23	3.217	0.49685	0.26087	0.09362	0.08108
08-Jun	*	47	2.207	0.24666	0.29787	0.06743	0.13494	19	3.697	0.59407	0.26316	0.10379	0.07117
09-Jun		52	3.803	0.39291	0.23077	0.05900	0.06068	24	5.208	0.72539	0.37500	0.11753	0.07200
10-Jun		37	2.703	0.26009	0.32432	0.08711	0.12000	22	2.261	0.16156	0.31818	0.12108	0.14070
11-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
12-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
13-Jun		108	2.502	0.18777	0.31481	0.04679	0.12581	0	0.000	0.00000	0.00000	0.00000	0.00000
14-Jun	*	126	3.633	0.31539	0.15873	0.03268	0.04369	16	4.313	0.57350	0.43750	0.12809	0.10145
15-Jun	*	103	3.019	0.21033	0.17476	0.03760	0.05789	14	3.286	0.28571	0.50000	0.13868	0.15217
16-Jun		136	2.897	0.14966	0.12500	0.02846	0.04315	8	3.500	0.56695	0.25000	0.16366	0.07143
17-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
18-Jun		173	4.143	0.22771	0.13873	0.02636	0.03348	3	7.333	1.33333	0.00000	0.00000	0.00000
19-Jun		128	3.391	0.35875	0.21094	0.03620	0.06221	29	4.776	0.38490	0.62069	0.09170	0.12996
20-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
21-Jun	*	237	4.285	0.16978	0.27004	0.03011	0.06302	11	4.773	0.40656	0.09091	0.09091	0.01905
22-Jun	*	116	3.256	0.18447	0.19828	0.03718	0.06089	11	5.909	0.45636	0.36364	0.15212	0.06154
23-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
24-Jun		37	2.353	0.20577	0.40541	0.08183	0.17231	6	1.417	0.35158	0.50000	0.22361	0.35294
25-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
26-Jun		141	3.144	0.21672	0.29078	0.03838	0.09250	12	2.858	0.68562	0.41667	0.14865	0.14577
27-Jun		137	2.924	0.15924	0.29197	0.03899	0.09984	10	3.550	0.42295	0.70000	0.21344	0.19718
28-Jun	*	133	4.477	0.25666	0.22556	0.03638	0.05038	4	4.000	0.00000	0.00000	0.00000	0.00000
29-Jun	*	124	3.108	0.18470	0.20161	0.03618	0.06487	3	6.167	2.83333	1.00000	0.00000	0.16216
30-Jun		61	2.186	0.14752	0.21311	0.06235	0.09750	0	0.000	0.00000	0.00000	0.00000	0.00000
01-Jul		66	3.485	0.23775	0.15152	0.04447	0.04348	12	3.667	0.22473	0.58333	0.14865	0.15909
02-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
03-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
04-Jul	*	67	3.388	0.27847	0.13433	0.04197	0.03965	6	3.500	0.50000	0.00000	0.00000	0.00000
05-Jul	*	107	2.726	0.19729	0.13084	0.03275	0.04800	0	0.000	0.00000	0.00000	0.00000	0.00000
06-Jul	*	20	2.983	0.34003	0.05000	0.05000	0.01676	4	6.750	1.97379	1.00000	0.40825	0.14815

Appendix A Table 17. Angler interviews for all fish caught in Lake Creek salmon sport fishery, 1986.

		Incomplete Anglers						Complete Anglers					
			Effort		Chinook Catch				Effort		Chinook Catch		
Date	Wknd-Hol (*)	Sample Size	Mean	Std Err	Mean	Std Err	CPUE	Sample Size	Mean	Std Err	Mean	Std Err	CPUE
31-May	*	2	1.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
01-Jun	*	2	1.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
02-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
03-Jun		8	1.490	0.78893	0.62500	0.26305	0.41946	0	0.000	0.00000	0.00000	0.00000	0.00000
04-Jun		11	1.545	0.22818	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
05-Jun		10	2.530	0.84512	1.00000	0.78881	0.39526	25	4.840	2.05806	0.56000	0.15362	0.11570
06-Jun		38	2.978	0.53815	0.42105	0.12298	0.14139	31	2.258	0.17332	0.29032	0.12438	0.12857
07-Jun	*	32	4.755	0.44400	0.31250	0.11392	0.06572	23	3.217	0.49685	0.52174	0.18724	0.16216
08-Jun	*	47	2.207	0.24666	0.31915	0.07516	0.14458	19	3.697	0.59407	0.26316	0.10379	0.07117
09-Jun		52	3.803	0.39291	0.38462	0.11037	0.10114	24	5.208	0.72539	0.45833	0.15902	0.08800
10-Jun		37	2.703	0.26009	0.72973	0.25306	0.27000	22	2.261	0.16156	0.54545	0.15746	0.24121
11-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
12-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
13-Jun		108	2.502	0.18777	0.38889	0.05556	0.15541	0	0.000	0.00000	0.00000	0.00000	0.00000
14-Jun	*	126	3.633	0.31539	0.33333	0.10328	0.09175	16	4.313	0.57350	0.93750	0.37046	0.21739
15-Jun	*	103	3.019	0.21033	0.40777	0.12374	0.13507	14	3.286	0.28571	0.50000	0.13868	0.15217
16-Jun		136	2.897	0.14966	0.17647	0.03598	0.06092	8	3.500	0.56695	0.25000	0.16366	0.07143
17-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
18-Jun		173	4.143	0.22771	0.15607	0.02886	0.03767	3	7.333	1.33333	0.00000	0.00000	0.00000
19-Jun		128	3.391	0.35875	0.23438	0.04638	0.06912	29	4.776	0.38490	0.68966	0.11212	0.14440
20-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
21-Jun	*	237	4.285	0.16978	0.32068	0.03725	0.07484	11	4.773	0.40656	0.09091	0.09091	0.01905
22-Jun	*	116	3.256	0.18447	0.25862	0.04083	0.07942	11	5.909	0.45636	0.36364	0.15212	0.06154
23-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
24-Jun		37	2.353	0.20577	0.43243	0.08257	0.18380	6	1.417	0.35158	0.50000	0.22361	0.35294
25-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
26-Jun		141	3.144	0.21672	0.32624	0.04329	0.10378	12	2.858	0.68562	0.41667	0.14865	0.14577
27-Jun		137	2.924	0.15924	0.53285	0.09035	0.18221	10	3.550	0.42295	1.80000	1.04137	0.50704
28-Jun	*	133	4.477	0.25666	0.33083	0.07602	0.07389	4	4.000	0.00000	0.00000	0.00000	0.00000
29-Jun	*	124	3.108	0.18470	0.28226	0.04058	0.09082	3	6.167	2.83333	3.00000	1.15470	0.48649
30-Jun		61	2.186	0.14752	0.21311	0.06235	0.09750	0	0.000	0.00000	0.00000	0.00000	0.00000
01-Jul		66	3.485	0.23775	0.40909	0.10573	0.11739	12	3.667	0.22473	0.58333	0.14865	0.15909
02-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
03-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
04-Jul	*	67	3.388	0.27847	0.13433	0.04197	0.03965	6	3.500	0.50000	0.00000	0.00000	0.00000
05-Jul	*	107	2.726	0.19729	0.16822	0.04500	0.06172	0	0.000	0.00000	0.00000	0.00000	0.00000
06-Jul	*	20	2.983	0.34003	0.05000	0.05000	0.01676	4	6.750	1.97379	1.00000	0.40825	0.14815

Appendix A Table 18. Effort (hours) in the Lake Creek chinook salmon sport fishery, 1986.

Location	Time Frame	Strata	Number Counts	Number Days Possible	Number Days Sampled	Counts Mean	Counts Std Err	Effort Total	Effort Std Err
Lake Creek	Wknd-Hol	5/24-5/26	0	0	0	0.0	0.0	0.0	0.0
	Wkday	5/27-5/30	0	0	0	0.0	0.0	0.0	0.0
	Wknd-Hol	5/31-6/01	6	2	2	0.0	0.0	0.0	0.0
	Wkday	6/02-6/06	9	5	3	14.9	3.4	1,340.0	308.3
	Wknd-Hol	6/07-6/08	6	2	2	17.2	3.9	618.0	141.5
	Wkday	6/09-6/13	9	5	3	26.0	5.3	2340	473.8
	Wknd-Hol	6/14-6/15	6	2	2	69.3	4.6	2,496.0	164.9
	Wkday	6/16-6/20	9	5	3	76.7	10.1	6,900.0	908.6
	Wknd-Hol	6/21-6/22	6	2	2	93.2	7.4	3,354.0	266.7
	Wkday	6/23-6/27	9	5	3	65.0	12.5	5,850.0	1,121.2
	Wknd-Hol	6/28-6/29	6	2	2	75.5	3.9	2,718.0	138.7
	Wkday	6/30-7/03	6	4	2	42.3	7.7	3,048.0	555.7
	Wknd-Hol	7/04-7/06	9	3	3	40	4.4	2,160.0	236.5
	Total		81	37	27			30,824.0	1,704.2

Appendix A Table 19. Harvest rates (per hour) in the Lake Creek chinook salmon sport fishery, 1986.

Location	Time Frame	Strata	Number Intv's	Number Days Possible	Number Days Sampled	Effort Mean	Effort Std Err	Chinook Harvest Mean	Chinook Harvest Std Err	Chinook Harvest Eff Corr	Chinook Harvest CPUE	Chinook Harvest Std.Err
Lake Creek[1]	Wknd-Hol	5/24-5/26	0	0	0	0.0000	0.00E+00	0.0000	0.00E+00	0.0000	0.0000	0.00E+00
	Wkday	5/27-5/30	0	0	0	0.0000	0.00E+00	0.0000	0.00E+00	0.0000	0.0000	0.00E+00
	Wknd-Hol	5/31-6/01	0	0	0	0.0000	0.00E+00	0.0000	0.00E+00	0.0000	0.0000	0.00E+00
	Wkday	6/02-6/06	56	5	2	3.4107	1.20E+00	0.2500	6.87E-02	0.2219	0.0733	3.91E-03
	Wknd-Hol	6/07-6/08	42	2	2	3.4345	3.87E-01	0.2619	6.99E-02	0.1720	0.0763	3.19E-03
	Wkday	6/09-6/13	46	5	2	3.7989	1.17E+00	0.3478	5.77E-02	0.0882	0.0916	4.53E-03
	Wknd-Hol	6/14-6/15	30	2	2	3.8333	3.20E-01	0.4667	9.44E-02	0.3569	0.1217	4.21E-03
	Wkday	6/16-6/20	40	5	3	4.7125	8.40E-01	0.5000	1.55E-01	0.4519	0.1061	4.69E-03
	Wknd-Hol	6/21-6/22	22	2	2	5.3409	3.06E-01	0.2273	8.86E-02	0.3881	0.0426	3.37E-03
	Wkday	6/23-6/27	28	5	3	2.7964	4.65E-01	0.5357	1.03E-01	0.2972	0.1916	7.75E-03
	Wknd-Hol	6/28-6/29	257	2	2	3.8164	1.58E-01	0.2140	2.57E-02	0.1405	0.0561	4.24E-04
	Wkday	6/30-7/03	127	4	2	2.8609	4.70E-01	0.1811	3.48E-02	0.0624	0.0633	1.37E-03
	Wknd-Hol	7/04-7/06	194	3	3	2.9810	1.61E-01	0.1237	2.44E-01	0.1333	0.0415	7.22E-04

[1] Harvest rate data were computed for completed angler interviews for strata: 6/2-6/27 and from incompleted angler interviews for strata : 6/28-7/6.

Appendix A Table 20. Total effort and harvest of chinook salmon in the Deshka River, Alexander Creek and Lake Creek sport fishery by location, 1986.

Location		Effort Total	Effort Rel Pre[1]	Harvest	95% CI	Rel Pre[1]
Deshka River	Downstream	39,582.0	10.0%	2,098	1,852 - 2,344	11.7%
	Upstream	15,420.0	22.1%	821	645 - 997	21.4%
	Total Fishery	55,002.0	9.5%	2,919	2,617 - 2,959	10.3%
Alexander Creek	Downstream	16,091.0	21.4%	763	550 - 976	28.0%
	Upstream	14,052.0	22.9%	1,064	843 - 1,285	20.8%
	Total Fishery	30,143.0	15.6%	1,827	1,520 - 2,134	16.8%
Lake Creek		30,824.0	10.8%	3,094	2,601 - 3,587	15.9%

[1] =0.05

Appendix A Table 21. Harvest and effort summary, Talkeetna River chinook salmon, 1986.

Date	Weekend/ Weekday	Anglers Interv'd	Hours Interv'd	Hours Fished	Total Harvest	Total Catch	Anglers Missed
6/14	We	19	20.0	79	1	1	0
6/15	We	92	20.0	395	0	0	0
6/16	Wd	18	8.0	91	2	2	0
6/17	Wd	0	0	0	0	0	0
6/18	Wd	14	6.0	111	2	2	2
6/19	Wd	34	8.0	149	3	4	0
6/20	Wd	23	8.0	182	8	8	0
6/21	We	96	20.0	533	12	12	0
6/22	We	230	20.0	1,303	32	40	0
6/23	Wd	16	7.5	129	1	1	0
6/24	Wd	14	8.0	48	7	7	0
6/25	Wd	57	7.5	347	16	20	0
6/26	Wd	37	8.0	193	18	28	0
6/27	Wd	0	0	0	0	0	0
6/28	We	261	20.0	1,522	105	147	9
6/29	We	448	20.0	2,695	192	237	39
6/30	Wd	20	3.5	131	10	12	0
7/01	Wd	47	4.0	251	33	33	0
7/02	Wd	0	0	0	0	0	0
7/03	Wd	40	4.0	283	9	15	0
7/04	We/Hol	196	20.0	1,532	62	75	6
7/05	We	340	20.0	2,358	77	85	0
7/06	We	267	20.0	2,191	95	129	7
Total		2269	253	14,524	685	858	63

Appendix A Table 22. Harvest and effort summary, Birch Creek chinook salmon, 1986.

Date	Weekend/ Weekday	Anglers Interv'd	Hours Interv'd	Hours Fished	Total Harvest	Total Catch	Anglers Missed
6/14	We	0	0.0	0	0	0	0
6/15	We	0	0.0	0	0	0	0
6/21	We	55	12.0	31	23	23	2
6/22	We	58	12.0	170	4	4	0
6/28	We	60	12.0	161	5	5	0
6/29	We	9	12.0	32	0	0	0
7/05	We	0	0.0	0	0	0	0
7/06	We	0	0.0	0	0	0	0
Total		182	48	394	32	32	2

Appendix A Table 23. Estimated effort, harvest, and catch, Birch Creek chinook salmon, 1986.

Time Frame	Strata	Total Hrs pos	Hours Interv'd	Hours Fished	Anglers Interv'd	Obs'd Harvest	Obs'd Catch	Anglers Missed	Est. Effort[1]	Est. Harvest	Est. Catch
We	6-14/15	48	0.0	0.0	0	0	0	0	0.0	0	0
We	6-21/22	48	24.0	201.0	113	27	27	2	409.1	55	55
We	6-28/29	48	24.0	193.0	69	5	9	0	386.0	10	18
We	7-05/06	48	0.0	0.0	0	0	0	0	0.0	0	0

[1] Angler-hours.

Appendix A Table 24. Harvest and effort summary, Sunshine Creek chinook salmon, 1986.

Date	Weekend/ Weekday	Anglers Interv'd	Hours Interv'd	Hours Fished	Total Harvest	Total Catch	Anglers Missed
6/14	We	0	0.0	0	0	0	0
6/15	We	0	0.0	0	0	0	0
6/21	We	117	11.5	368	38	38	7
6/22	We	78	12.0	199	0	0	0
6/28	We	75	11.5	208	1	1	4
6/29	We	25	11.5	67	0	0	0
7/05	We	0	0.0	0	0	0	0
7/06	We	0	0.0	0	0	0	0
Total		295	46.5	842	39	39	11

Appendix A Table 25. Estimated effort, harvest, and catch, Sunshine Creek chinook salmon, 1986.

Time Frame	Strata	Total Hrs pos	Hours Interv'd	Hours Fished	Anglers Interv'd	Obs'd Harvest	Obs'd Catch	Anglers Missed	Est. Effort[1]	Est. Harvest	Est. Catch
We	6-14/15	48	0.0	0.0	0	0	0	0	0.0	0	0
We	6-21/22	48	23.5	567.0	195	38	38	7	1,199.7	80	80
We	6-28/29	48	23.0	275.0	100	1	1	4	596.9	2	2
We	7-05/06	48	0.0	0.0	0	0	0	0	0.0	0	0

[1] Angler-hours

Appendix A Table 26. Harvest and effort summary, Montana Creek chinook salmon, 1986.

Date	Weekend/ Weekday	Anglers Interv'd	Hours Interv'd	Hours Fished	Total Harvest	Total Catch	Anglers Missed
6/14	We	0	0.0	0	0	0	0
6/15	We	0	0.0	0	0	0	0
6/21	We	697	24.0	2,055	45	66	35
6/22	We	491	24.0	1,378	51	53	16
6/28	We	938	24.0	3,313	379	503	36
6/29	We	942	24.0	3,778	138	182	58
7/05	We	1,084	24.0	4,254	558	642	71
7/06	We	1,013	24.0	3,835	215	259	63
Total		5,165	144	18,613	1,386	1,705	279

Appendix A Table 27. Estimated effort, harvest, and catch, Montana Creek chinook salmon, 1986.

Time Frame	Strata	Total Hrs pos	Hours Interv'd	Hours Fished	Anglers Interv'd	Obs'd Harvest	Obs'd Catch	Anglers Missed	Est. Effort[1]	Est. Harvest	Est. Catch
We	6-14/15	48	0.0	0.0	0	0	0	0	0.0	0	0
We	6-21/22	48	48.0	3,433.0	1,188	96	119	51	3,580.4	100	124
We	6-28/29	48	48.0	7,091.0	1,880	517	685	94	7,445.6	543	719
We	7-05/06	48	48.0	8,089.0	2,097	773	901	134	8,605.9	822	959

[1] Angler-hours

Appendix A Table 28. Harvest and effort summary, Goose Creek chinook salmon, 1986.

Date	Weekend/ Weekday	Anglers Interv'd	Hours Interv'd	Hours Fished	Total Harvest	Total Catch	Anglers Missed
6/14	We	30	11.5	83	0	0	0
6/15	We	19	11.5	51	2	2	0
6/21	We	35	12.0	84	1	1	0
6/22	We	26	12.0	74	2	2	0
6/28	We	32	12.0	91	6	6	0
6/29	We	40	12.0	115	16	16	0
7/05	We	0	0.0	0	0	0	0
7/06	We	0	0.0	0	0	0	0
7/05	We[1]	107	12.0	438	37	104	0
7/06	We[1]	60	12.0	329	22	24	0
Total		349	95	1,265	86	155	0

[1] Highway bridge

ppAppendix A Table 29. Estimated effort, harvest, and catch, Goose Creek chinook salmon, 1986.

Time Frame	Strata	Total Hrs pos	Hours Interv'd	Hours Fished	Anglers Interv'd	Obs'd Harvest	Obs'd Catch	Anglers Missed	Est. Effort[1]	Est. Harvest	Est. Catch
We	6-14/15	48	23.0	134.0	49	2	2	0	279.7	4	4
We	6-21/22	48	24.0	158.0	61	3	3	0	316.0	6	6
We	6-28/29	48	24.0	206.0	72	22	22	0	412.0	44	44
We	7-05/06	48	0.0	0.0	0	0	0	0	0.0	0	0
We	7-05/06[2]	48	24.0	767.0	167	59	128	0	1,534.0	118	256

[1] Angler-hours

[2] Highway bridge

Appendix A Table 30. Harvest and effort summary, Sheep Creek chinook salmon, 1986.

Date	Weekend/ Weekday	Anglers Interv'd	Hours Interv'd	Hours Fished	Total Harvest	Total Catch	Anglers Missed
6/14	We	133	24.0	403	35	39	16
6/15	We	229	23.0	870	48	48	30
6/21	We	588	24.0	2,207	125	156	103
6/22	We	840	24.0	2,776	173	182	81
6/28	We	638	24.0	2,597	212	228	103
6/29	We	689	23.5	3,254	168	193	125
7/05	We	521	24.0	2,601	103	113	43
7/06	We	369	24.0	1,537	37	44	71
7/05	We[1]	93	12.0	232	4	4	14
7/06	We[1]	58	11.5	221	7	7	28
Total		4,158	214	16,698	912	1014	614

[1] Highway bridge

Appendix A Table 31. Estimated effort, harvest, and catch, Sheep Creek chinook salmon, 1986.

Time Frame	Strata	Total Hrs pos	Hours Interv'd	Hours Fished	Anglers Interv'd	Obs'd Harvest	Obs'd Catch	Anglers Missed	Est. Effort[1]	Est. Harvest	Est. Catch
We	6-14/15	48	47.0	1,273.0	362	83	87	46	1,465.3	96	100
We	6-21/22	48	48.0	4,983.0	1,428	298	338	184	5,625.1	336	382
We	6-28/29	48	47.5	5,851.0	1,327	380	421	228	6,928.5	450	499
We	7-05/06	48	48.0	4,138.0	890	140	157	114	4,668.0	158	177
We	7-05/06[2]	48	23.5	453.0	151	11	11	42	1,182.6	29	29

[1] Angler-hours

[2] Highway bridge

Appendix A Table 32. Harvest and effort summary, Little Willow Creek chinook salmon, 1986.

Date	Weekend/ Weekday	Anglers Interv'd	Hours Interv'd	Hours Fished	Total Harvest	Total Catch	Anglers Missed
6/14	We	9	12.0	11	0	2	0
6/15	We	5	12.0	12	1	1	30
6/21	We	56	23.0	189	41	111	4
6/22	We	36	24.0	194	21	41	23
6/28	We	37	20.5	160	31	48	16
6/29	We	68	24.0	344	34	99	15
7/05	We	13	12.0	44	5	5	10
7/06	We	19	12.0	45	6	45	0
7/05	We[1]	148	12.0	656	71	139	0
7/06	We[1]	118	12.0	834	46	47	0
Total		509	163.5	2,489	256	538	98

[1] Highway bridge

Appendix A Table 33. Estimated effort, harvest, and catch, Little Willow Creek chinook salmon, 1986.

Time Frame	Strata	Total Hrs pos	Hours Interv'd	Hours Fished	Anglers Interv'd	Obs'd Harvest	Obs'd Catch	Anglers Missed	Est. Effort[1]	Est. Harvest	Est. Catch
We	6-14/15	48	24.0	23.0	14	1	3	30	144.6	6	19
We	6-21/22	48	47.0	383.0	92	62	152	27	505.9	82	201
We	6-28/29	48	44.5	504.0	105	65	147	31	704.1	91	205
We	7-05/06	48	24.0	89.0	32	11	50	10	233.6	29	131
We	7-05/06[2]	48	24.0	1,490.0	266	117	186	0	2,980.0	234	372

[1] Angler hours

[2] Highway bridge

Appendix A Table 34. Harvest and effort summary, Willow Creek chinook salmon, 1986.

Date	Weekend/ Weekday	Anglers Interv'd	Hours Interv'd	Hours Fished	Total Harvest	Total Catch	Anglers Missed
6/14	We	51	12.0	148	19	43	57
6/15	We	43	12.0	197	17	22	38
6/21	We	118	24.0	620	20	24	60
6/22	We	207	24.0	1,033	93	104	54
6/28	We	93	24.0	454	53	68	37
6/29	We	197	23.5	1,019	138	177	45
7/05	We	134	24.0	926	55	89	38
7/06	We	192	24.0	1,054	58	74	44
Total		1,035	167.5	5,451	453	601	373

Appendix A Table 35. Estimated effort, harvest, and catch, Willow Creek chinook salmon, 1986.

Time Frame	Strata	Total Hrs pos	Hours Interv'd	Hours Fished	Anglers Interv'd	Obs'd Harvest	Obs'd Catch	Anglers Missed	Est. Effort[1]	Est. Harvest	Est. Catch
We	6-14/15	48	24.0	345.0	94	36	65	95	1,387.3	145	261
We	6-21/22	48	48.0	1,653.0	325	113	128	114	2,232.8	153	173
We	6-28/29	48	47.5	1,473.0	290	191	245	82	1,909.4	248	318
We	7-05/06	48	48.0	1,980.0	326	113	163	82	2,478.0	141	204

[1] Angler-hours

Appendix A Table 36. Estimated king salmon harvest and angler effort of shore and boat anglers, Willow Creek Parks Highway bridge, 5 and 6 July 1986.

Counted Shore Anglers	Date	Anglers Counted	Number of Counts	Mean anglers Per count	Total Hrs pos	Est total Effort (hrs)
	7-5/6	1,315	16	82.2	48	3945

Interv'd Shore Anglers	Date	Obs'd Harvest	Interv'd Effort	Catch /hour	Est total Effort (hrs)	Est Harvest
	7-5/6	44	526.8	0.08	3945	330

Interv'd Boat Anglers	Date	Hours Interv'd	Total Hrs pos	Obs'd Harvest	Interv'd Effort	Est. Harvest	Est. Effort	Catch /hour
	7-5/6	24	48	13	118.5	26	237	0.11
				Total estimated harvest		356		
				Total estimated effort (hrs)			4182	

APPENDIX B

Creel census data for the 1986 Little Susitna River chinook salmon sport fishery.

Appendix B Table 1. Harvest and effort summary, Burma Road chinook salmon boat anglers, Little Susitna River, 1986.

Date	Weekend/ Weekday	Anglers Interv'd	Hours Interv'd	Hours Fished	Total Harvest	Total Catch	Anglers Missed
5/24	We	19	16.3	56	0	0	0
5/25	We	59	16.5	331	2	3	0
5/26	We/Hol	66	16.0	489	1	1	0
5/27	Wd	0	7.5	0	0	0	0
5/28	Wd	0	0	0	0	0	0
5/29	Wd	40	7.5	217	0	0	0
5/30	Wd	26	8.0	136	0	0	0
5/31	We	65	16.3	288	0	0	0
6/01	We	144	16.0	809	2	2	0
6/02	Wd	23	8.0	80	4	4	0
6/03	Wd	8	8.0	45	1	1	0
6/04	Wd	31	7.5	185	12	12	0
6/05	Wd	76	8.0	419	24	24	0
6/06	Wd	41	7.5	253	10	10	0
6/07	We	132	16.5	567	13	13	0
6/08	We	226	16.5	1,305	13	13	0
6/09	Wd	16	7.3	98	1	1	0
6/10	Wd	46	8.0	192	7	7	0
6/11	Wd	86	7.3	447	12	12	0
6/12	Wd	28	8.0	156	6	6	0
6/13	Wd	60	7.5	356	3	4	0
6/14	We	135	16.5	837	8	8	0
6/15	We	361	16.0	2,081	30	32	0
6/16	Wd	63	7.5	287	3	3	0
6/17	Wd	27	7.5	89	0	0	0
6/18	Wd	50	7.5	306	2	2	0
6/19	Wd	20	8.0	86	8	8	0
6/20	Wd	23	8.0	76	1	1	0
6/21	We	65	16.5	339	18	19	0
6/22	We	168	16.5	682	30	34	0
6/23	Wd	4	7.5	26	0	18	0
6/24	Wd	64	8.0	193	34	52	0
6/25	Wd	20	8.0	115	4	4	0
6/26	Wd	16	8.0	56	6	6	0
6/27	Wd	58	7.0	354	27	38	0
6/28	We	46	16.5	264	7	28	0
6/29	We	178	16.5	1,007	33	53	0
6/30	Wd	17	7.5	81	3	19	0
7/01	Wd	6	7.3	33	0	0	0
7/02	Wd	0	0	0	0	0	0
7/03	Wd	31	8.0	134	5	11	0
7/04	We/Hol	34	16.5	132	10	10	0
7/05	We	47	16.5	105	4	4	0
7/06	We	62	16.5	240	10	45	0
Total		2,687	461.8	13,951	354	508	0

Appendix B Table 2. Harvest and effort summary, Burma Road chinook salmon shore anglers, Little Susitna River, 1986.

Date	Weekend/ Weekday	Anglers Interv'd	Hours Interv'd	Hours Fished	Total Harvest	Total Catch	Anglers Missed
5/24	We	47	16.3	117	0	0	0
5/25	We	90	16.5	237	0	0	0
5/26	We/Hol	36	16.0	87	1	1	0
5/27	Wd	11	7.5	29	0	0	0
5/28	Wd	0	0	0	0	0	0
5/29	Wd	24	7.5	65	0	0	0
5/30	Wd	20	8.0	70	0	0	0
5/31	We	123	16.3	409	1	1	0
6/01	We	145	16.0	411	1	1	0
6/02	Wd	42	8.0	104	1	3	0
6/03	Wd	24	8.0	110	1	1	0
6/04	Wd	51	7.5	182	4	4	0
6/05	Wd	88	8.0	252	2	2	0
6/06	Wd	81	7.5	262	1	2	0
6/07	We	268	16.5	1,030	7	7	3
6/08	We	197	16.5	585	9	9	0
6/09	Wd	34	7.3	167	6	6	0
6/10	Wd	130	8.0	490	1	2	0
6/11	Wd	113	7.3	362	4	4	1
6/12	Wd	54	8.0	206	4	4	0
6/13	Wd	89	7.5	392	5	9	0
6/14	We	231	16.5	930	7	7	12
6/15	We	251	16.0	945	6	6	6
6/16	Wd	100	7.5	281	0	0	0
6/17	Wd	30	7.5	86	0	0	0
6/18	Wd	59	7.5	184	0	0	0
6/19	Wd	44	8.0	126	0	0	0
6/20	Wd	41	8.0	125	2	2	0
6/21	We	101	16.5	268	2	2	0
6/22	We	104	16.5	297	1	1	3
6/23	Wd	8	7.5	34	2	2	0
6/24	Wd	37	8.0	142	9	10	0
6/25	Wd	66	8.0	237	4	4	2
6/26	Wd	65	8.0	244	5	5	0
6/27	Wd	28	7.0	81	1	1	0
6/28	We	91	16.5	297	5	5	0
6/29	We	89	16.5	364	6	16	0
6/30	Wd	31	7.5	131	2	2	0
7/01	Wd	18	7.3	62	4	4	0
7/02	Wd	0	0	0	0	0	0
7/03	Wd	23	8.0	62	0	0	0
7/04	We/Hol	35	16.5	77	1	1	0
7/05	We	26	16.5	68	0	0	0
7/06	We	25	16.5	87	0	0	0
Total		3,170	461.8	10,695	105	124	27

Appendix B Table 3. Harvest and effort summary, Miller's Landing chinook salmon boat anglers, Little Susitna River, 1986.

Date	Weekend/ Weekday	Anglers Interv'd	Hours Interv'd	Hours Fished	Total Harvest	Total Catch	Anglers Missed
6/14	We	2	8.0	17	0	0	0
6/15	We	3	7.0	14	0	0	0
6/16	Wd	0	3.5	0	0	0	0
6/17	Wd	0	3.5	0	0	0	0
6/18	Wd	2	4.0	10	0	0	0
6/19	Wd	18	7.0	54	0	0	0
6/20	Wd	8	3.5	31	0	0	0
6/21	We	39	7.5	138	3	3	1
6/22	We	60	7.0	256	4	4	0
6/23	Wd	0	3.5	0	0	0	0
6/24	Wd	20	3.5	175	0	0	0
6/25	Wd	18	3.5	141	0	0	0
6/26	Wd	9	3.5	51	0	0	0
6/27	Wd	16	7.5	57	7	7	6
6/28	We	37	7.0	164	5	5	0
6/29	We	9	7.0	52	2	2	0
6/30	Wd	0	3.5	0	0	0	0
7/01	Wd	10	3.5	49	1	1	0
7/02	Wd	2	3.5	6	1	1	0
7/03	Wd	0	3.5	0	0	0	0
7/04	We/Hol	24	7.0	122	6	7	0
7/05	We	34	7.0	155	2	2	0
7/06	We	7	7.0	20	0	3	0
Total		318	121.5	1,510	31	35	7

Appendix B Table 4. Estimated effort, harvest, and catch, Little Susitna River chinook salmon anglers, 1986.

	Time Frame	Strata	Total Hrs pos	Hours Interv'd	Hours Fished	Anglers Interv'd	Obs'd Harvest	Obs'd Catch	Anglers Missed	Est. Effort[1]	Est. Harvest	Est. Catch
Burma Road	We/hol	5/24-26	60	48.8	875.1	144.0	4.0	0.0	0	1,077.0	5	0
Boat Ang	Wd	5/27-30	80	23.0	353.2	66.0	0.0	0.0	0	1,228.7	0	0
	We	5/31-6/01	40	32.3	1,096.8	209.0	2.0	2.0	0	1,360.4	2	2
	Wd	6/02-06	100	39.0	981.1	179.0	51.0	51.0	0	2,515.6	131	131
	We	6/07-08	40	33.0	1,872.6	358.0	26.0	26.0	0	2,269.8	32	32
	Wd	6/09-13	100	38.0	1,248.2	236.0	29.0	30.0	0	3,284.7	76	79
	We	6-14/15	40	32.5	2,918.4	496.0	38.0	40.0	0	3,591.9	47	49
	Wd	6-16/20	100	38.5	842.7	183.0	14.0	14.0	0	2,188.7	36	36
	We	6-21/22	40	33.0	1,021.7	233.0	48.0	53.0	0	1,238.5	58	64
	Wd	6-23/27	100	38.5	744.2	162.0	71.0	118.0	0	1,933.0	184	306
	We	6-28/29	40	33.0	1,271.5	224.0	40.0	81.0	0	1,541.2	48	98
	Wd	6-30/7-03	80	22.8	248.5	54.0	8.0	30.0	0	873.9	28	105
	We/hol	7-04/06	60	49.5	477.1	143.0	24.0	59.0	0	578.3	29	72
Burma Road	We/hol	5/24-26	60	32.3	203.6	83.0	1.0	1.0	0	378.7	2	2
Shore Ang	Wd	5/28-30	80	23.0	164.2	55.0	0.0	0.0	0	571.2	0	0
	We	5/31-6/01	40	32.3	820.4	268.0	2.0	2.0	0	1,017.5	2	2
	Wd	6/02-06	10	39.0	909.3	286.0	9.0	12.0	0	233.2	2	3
	We	6/07-08	40	33.0	1,615.6	465.0	16.0	16.0	3	1,970.9	20	20
	Wd	6/09-13	100	38.0	1,618.2	420.0	20.0	25.0	1	4,268.6	53	66
	We	6-14/15	40	32.5	1,874.5	482.0	13.0	13.0	18	2,393.3	17	17
	Wd	6-16/20	100	38.5	801.8	274.0	2.0	2.0	0	2,082.6	5	5
	We	6-21/22	40	33.0	565.5	205.0	3.0	3.0	3	695.5	4	4
	Wd	6-23/27	100	38.5	737.3	204.0	21.0	22.0	2	1,934.0	55	58
	We	6-28/29	40	33.0	660.5	180.0	11.0	21.0	0	800.6	13	25
	Wd	6-30/7-03	80	22.8	254.5	72.0	6.0	6.0	0	895.0	21	21
	We/hol	7-04/06	60	49.5	231.7	86.0	1.0	1.0	0	280.9	1	1
Mil's Lndg	We	6-14/15	40	15.0	31.0	5	0	0	0	82.7	0	0
	Wd	6-16/20	100	21.5	94.2	127	0	0	0	438.0	0	0
	We	6-21/22	40	14.5	393.5	38	7	7	1	1,114.2	20	20
	Wd	6-23/27	100	21.5	423.5	81	7	7	6	2,115.7	35	35
	We	6-28/29	40	14.0	215.7	26	7	7	0	616.2	20	20
	Wd	6-30/7-03	80	14.0	55.0	58	2	2	0	314.3	11	11
	We/hol	7-04/06	60	21.0	297.3	65	8	12	0	849.5	23	34

[1] Angler-hours

Appendix B Table 5. Angler counts in the Little Susitna River Burma Road chinook salmon fishery, 1986.

Date	Wknd-Hol (*)	Counts by Period[1] A	B	C	D	E
24-May	*		4			
25-May	*		0			
26-May	*			0		
27-May		0				
28-May						
29-May			0			
30-May						
31-May	*				0	
01-Jun	*		1			
02-Jun						
03-Jun						
04-Jun			0			
05-Jun					0	
06-Jun		0				
07-Jun	*			6		
08-Jun	*					0
09-Jun		2				
10-Jun						
11-Jun		2				
12-Jun						
13-Jun			4			
14-Jun	*			9		
15-Jun	*					4
16-Jun					6	
17-Jun			5			
18-Jun					0	
19-Jun						
20-Jun						
21-Jun	*					4
22-Jun	*	0				
23-Jun			0			
24-Jun						
25-Jun						
26-Jun				0		
27-Jun				0		
28-Jun	*		4			
29-Jun	*				3	
30-Jun				3		
01-Jul						
02-Jul						
03-Jul						0
04-Jul	*					0
05-Jul	*		0			
06-Jul	*					0

[1]

Period	Hours	Period	Hours
A	0400-0800	D	1601-2000
B	0801-1200	E	2001-2400
C	1201-1600		

Appendix B Table 6. Angler interviews for fish harvested and caught by shore anglers in the Little Susitna River, Burma Road chinook salmon sport fishery, 1986.

			Effort		Chinook Harvest			Chinook Catch		
Date	Wknd-Hol (*)	Sample Size	Mean	Std Err	Mean	Std Err	CPUE	Mean	Std Err	CPUE
24-May	*	47	2.489	0.25458	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
25-May	*	90	2.638	0.20717	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
26-May	*	36	2.405	0.27418	0.02778	0.02778	0.01155	0.02778	0.02778	0.01155
27-May		11	2.636	0.38193	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
28-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
29-May		24	2.729	0.37588	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
30-May		20	3.487	0.41138	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
31-May	*	123	3.329	0.23052	0.00813	0.00813	0.00244	0.00813	0.00813	0.00244
01-Jun	*	145	2.834	0.15932	0.00690	0.00690	0.00243	0.00690	0.00690	0.00243
02-Jun		42	2.470	0.17713	0.02381	0.02381	0.00964	0.07143	0.05272	0.02892
03-Jun		24	4.573	0.39799	0.04167	0.04167	0.00911	0.04167	0.04167	0.00911
04-Jun		51	3.559	0.40708	0.07843	0.03802	0.02204	0.07843	0.03802	0.02204
05-Jun		88	2.866	0.24210	0.02273	0.01598	0.00793	0.02273	0.01598	0.00793
06-Jun		81	3.236	0.19571	0.01235	0.01235	0.00382	0.02469	0.01735	0.00763
07-Jun	*	268	3.845	0.16369	0.02612	0.00976	0.00679	0.02612	0.00976	0.00679
08-Jun	*	197	2.970	0.15465	0.04569	0.01491	0.01538	0.04569	0.01491	0.01538
09-Jun		34	4.926	0.46015	0.17647	0.06636	0.03582	0.17647	0.06636	0.03582
10-Jun		130	3.769	0.23631	0.00769	0.00769	0.00204	0.01538	0.01084	0.00408
11-Jun		113	3.207	0.17936	0.03540	0.01746	0.01104	0.03540	0.01746	0.01104
12-Jun		54	3.822	0.24372	0.07407	0.03597	0.01938	0.07407	0.03597	0.01938
13-Jun		89	4.419	0.48747	0.05511	0.03263	0.26640	0.09858	0.05363	0.02425
14-Jun	*	231	4.026	0.17407	0.03030	0.01130	0.00753	0.03030	0.01130	0.00753
15-Jun	*	251	3.763	0.14084	0.02390	0.00966	0.00635	0.02390	0.00966	0.00635
16-Jun		100	2.807	0.16368	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
17-Jun		30	2.867	0.26363	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
18-Jun		59	3.124	0.27740	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
19-Jun		44	2.858	0.24860	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
20-Jun		41	3.049	0.21513	0.04878	0.03406	0.01600	0.04878	0.03406	0.01600
21-Jun	*	101	2.655	0.16422	0.01980	0.01393	0.00746	0.01980	0.01393	0.00746
22-Jun	*	104	2.859	0.17616	0.00962	0.00962	0.00336	0.00962	0.00962	0.00336
23-Jun		8	4.188	1.02616	0.25000	0.16366	0.05970	0.25000	0.16366	0.05970
24-Jun		37	3.831	0.45665	0.24324	0.07151	0.06349	0.27027	0.08355	0.07055
25-Jun		66	3.591	0.33181	0.06061	0.02960	0.01688	0.06061	0.02960	0.01688
26-Jun		65	3.759	0.27895	0.07692	0.03331	0.02046	0.07692	0.03331	0.02046
27-Jun		28	2.884	0.46797	0.03571	0.03571	0.01238	0.03571	0.03571	0.01238
28-Jun	*	91	3.261	0.24720	0.05495	0.02402	0.01685	0.05495	0.02402	0.01685
29-Jun	*	89	4.087	0.30653	0.06742	0.02673	0.01649	0.17978	0.08834	0.04399
30-Jun		31	4.210	0.31518	0.06452	0.04485	0.01533	0.06452	0.04485	0.01533
01-Jul		18	3.444	0.47294	0.22222	0.10083	0.06452	0.22222	0.10083	0.06452
02-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
03-Jul		23	2.696	0.31551	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
04-Jul	*	35	2.207	0.31796	0.02857	0.02857	0.01294	0.02857	0.02857	0.01294
05-Jul	*	26	2.615	0.44748	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
06-Jul	*	25	3.460	0.42222	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Appendix B Table 7. Angler counts in the Little Susitna River, Parks Highway chinook salmon fishery, 1986.

Date	Wknd-Hol (*)	Counts by Period[1] A	B	C	D	E
14-Jun	*	1			3	
15-Jun	*		4	15		4
16-Jun			7			
17-Jun			4			6
18-Jun				6		3
19-Jun		2		8		
20-Jun						15
21-Jun	*		20	28	13	
22-Jun	*	4	27	19		
23-Jun		0				
24-Jun				13	11	
25-Jun				18		15
26-Jun						7
27-Jun		8	14	9		
28-Jun	*			15	13	24
29-Jun	*	0		21		15
30-Jun		0				
01-Jul				12		
02-Jul		13	29			
03-Jul			10			
04-Jul	*		18			26
05-Jul	*		19	11		24
06-Jul	*	5	9			13

[1]

Period	Hours
A	0400-0800
B	0801-1200
C	1201-1600
D	1601-2000
E	2001-2400

Appendix B Table 8. Angler interviews for fish harvested and caught by shore anglers in the Little Susitna River, Parks Highway chinook salmon sport fishery, 1986.

Date	Wknd-Hol (*)	Sample Size	Effort		Chinook Harvest			Chinook Catch		
			Mean	Std Err	Mean	Std Err	CPUE	Mean	Std Err	CPUE
14-Jun	*	5	0.432	0.08139	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
15-Jun	*	17	0.878	0.17117	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
16-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
17-Jun		15	2.111	0.22719	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
18-Jun		18	2.556	0.25530	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
19-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
20-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
21-Jun	*	13	1.322	0.27259	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
22-Jun	*	9	1.167	0.20412	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
23-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
24-Jun		18	1.569	0.30572	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
25-Jun		19	1.592	0.19138	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
26-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
27-Jun		6	2.167	0.10541	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
28-Jun	*	20	1.591	0.24215	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
29-Jun	*	26	1.080	0.21051	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
30-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
01-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
02-Jul		22	3.068	0.63922	0.00000	0.00000	0.00000	0.04545	0.04545	0.01481
03-Jul		0	0.000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
04-Jul	*	29	1.417	0.21591	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
05-Jul	*	21	1.623	0.28760	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
06-Jul	*	6	1.167	0.16667	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Appendix B Table 9. Effort (hours) in the Little Susitna River, Burma Road shore angler count chinook salmon sport fishery, 1986.

Time Frame	Strata	Number Counts	Number Days Possible	Number Days Sampled	Counts		Effort	
					Mean	Std Err	Total	Std Err
Wknd-Hol	5/24-5/26	3	3	3	1.3	1.3	80.0	80.0
Wkday	5/27-5/30	2	4	2	0.0	0.0	0.0	0.0
Wknd-Hol	5/31-6/01	2	2	2	0.5	0.5	20.0	20.0
Wkday	6/02-6/06	3	5	3	0.0	0.0	0.0	0.0
Wknd-Hol	6/07-6/08	2	2	2	3.0	3.0	120.0	120.0
Wkday	6/09-6/13	3	5	3	2.7	0.6	266.7	66.7
Wknd-Hol	6/14-6/15	2	2	2	6.5	2.5	260.0	100.0
Wkday	6/16-6/20	3	5	3	3.7	1.8	366.7	185.6
Wknd-Hol	6/21-6/22	2	2	2	2.0	2.0	80.0	80.0
Wkday	6/23-6/27	3	5	3	0.0	0.0	0.0	0.0
Wknd-Hol	6/28-6/29	2	2	2	3.5	0.5	140.0	20.0
Wkday	6/30-7/03	2	4	2	1.5	1.5	120.0	120.0
Wknd-Hol	7/04-7/06	3	3	3	0.0	0.0	0.0	0.0
Total		32	44	32			1,453.4	302.1

Appendix B Table 10. Harvest rates (per hour) in the Little Susitna River, Burma Road shore angler count chinook salmon sport fishery, 1986.

Time Frame	Strata	Number Intv's	Number Days Possible	Number Days Sampled	Effort Mean	Effort Std Err	Chinook Harvest Mean	Chinook Harvest Std Err	Chinook Harvest Eff Corr	Chinook Harvest CPUE	Chinook Harvest Std.Err
Wknd-Hol	5/24-5/26	173	3	3	2.5491	1.42E-01	0.0058	9.20E-03	(0.0645)	0.0023	2.77E-04
Wkday	5/27-5/30	55	4	3	2.9864	2.37E-01	0.0000	0.00E+00	0.0000	0.0000	0.00E+00
Wknd-Hol	5/31-6/01	268	2	2	3.0613	1.40E-01	0.0075	5.20E-03	0.0009	0.0024	1.07E-04
Wkday	6/02-6/06	286	5	5	3.1795	1.35E-01	0.0315	1.28E-02	(0.0350)	0.0099	2.42E-04
Wknd-Hol	6/07-6/08	465	2	2	3.4745	1.13E-01	0.0344	8.80E-03	0.0548	0.0099	1.19E-04
Wkday	6/09-6/13	420	5	5	3.8532	1.38E-01	0.0476	1.63E-02	0.0809	0.0124	2.06E-04
Wknd-Hol	6/14-6/15	482	2	2	3.8886	1.12E-01	0.0270	7.40E-03	0.1258	0.0069	8.64E-05
Wkday	6/16-6/20	274	5	5	2.9264	1.06E-01	0.0073	6.70E-03	0.0164	0.0025	1.41E-04
Wknd-Hol	6/21-6/22	205	2	2	2.7585	1.20E-01	0.0146	8.40E-03	0.0525	0.0053	2.14E-04
Wkday	6/23-6/27	204	5	5	3.6144	2.58E-01	0.1029	3.74E-02	0.1010	0.0285	7.26E-04
Wknd-Hol	6/28-6/29	180	2	2	3.6694	1.97E-01	0.0611	1.79E-02	0.2022	0.0167	3.58E-04
Wkday	6/30-7/03	72	4	3	3.5347	2.90E-01	0.0833	4.60E-02	0.2960	0.0236	1.48E-03
Wknd-Hol	7/04-7/06	86	3	3	2.6948	2.31E-01	0.0116	9.50E-03	0.0673	0.0043	3.80E-04

Appendix B Table 11. Total effort and harvest of chinook salmon in the Little Susitna River, Burma Road shore angler count sport fishery over time, 1986.

Time Frame	Strata	Effort Total	Effort Rel Pre[1]	Chinook Harvest Rate Mean	Chinook Harvest Rate Rel Pre[1]	Chinook Harvest Total	Chinook Harvest Std Err	Chinook Harvest Rel Pre[1]
Wknd-Hol	5/24-5/26	80.0	196.0%	0.0023	23.6%	0	0.2	NA[2]
Wkday	5/27-5/30	0.0	NA[2]	0.0000	NA[2]	0	0.0	NA[2]
Wknd-Hol	5/31-6/01	20.0	196.0%	0.0024	8.7%	0	0.0	NA[2]
Wkday	6/02-6/06	0.0	NA[2]	0.0099	4.8%	0	0.0	NA[2]
Wknd-Hol	6/07-6/08	120.0	196.0%	0.0099	2.4%	1	1.2	232.8%
Wkday	6/09-6/13	266.7	49.0%	0.0124	3.3%	3	0.8	54.1%
Wknd-Hol	6/14-6/15	260.0	75.4%	0.0069	2.5%	2	0.7	67.7%
Wkday	6/16-6/20	366.7	99.2%	0.0025	11.0%	1	0.5	91.4%
Wknd-Hol	6/21-6/22	80.0	196.0%	0.0053	7.9%	0	0.4	NA[2]
Wkday	6/23-6/27	0.0	NA[2]	0.0285	5.0%	0	0.0	NA[2]
Wknd-Hol	6/28-6/29	140.0	28.0%	0.0167	4.2%	2	0.3	33.1%
Wkday	6/30-7/03	120.0	196.0%	0.0236	12.3%	3	2.8	185.0%
Wknd-Hol	7/04-7/06	0.0	NA[2]	0.0043	17.3%	0	0.0	NA[2]
	Total	1,453	40.7%			12	3.3	54.5%

1 = 0.05

2 Not possible to compute estimate.

Appendix B Table 12. Effort (hours) in the Little Susitna River, Parks Highway shore angler count chinook salmon sport fishery, 1986.

Time Frame	Strata	Number Counts	Number Days Possible	Number Days Sampled	Counts Mean	Counts Std Err	Effort Total	Effort Std Err	Effort Rel Pre[1]
Wknd-Hol	6/14-6/15	5	2	2	5.4	2.5	216.0	98.5	89.4 %
Wkday	6/16-6/20	8	5	5	6.4	1.4	637.5	142.6	43.8 %
Wknd-Hol	6/21-6/22	6	2	2	18.5	3.7	740.0	147.1	39.8 %
Wkday	6/23-6/27	9	5	5	10.6	1.8	1,055.6	177.3	32.9 %
Wknd-Hol	6/28-6/29	6	2	2	14.7	3.4	586.7	135.7	45.3 %
Wkday	6/30-7/03	5	4	4	12.8	4.7	1,024.0	373.0	71.4 %
Wknd-Hol	7/04-7/06	8	3	3	15.6	2.6	937.5	156.3	32.7 %
Total		47	23	23			5,197.3	514.8	19.4 %

[1] = 0.05

Appendix B Table 13. Total effort and harvest of chinook salmon in the Little Susitna River, Burma Road shore and Parks Highway angler count chinook salmon sport fishery, 1986.

Total Effort[1]	Rel Pre[2]	Harvest	95% CI	Rel Pre[2]
6,650.7	17.6 %	12	5 - 19	11.7 %

[1] Hours

[2] =0.05

APPENDIX C

Creel census data for the 1986 Theodore River chinook salmon sport fishery.

Appendix C Table 1. Angler interviews for harvested fish in the Theodore River chinook salmon sport fishery, 1986.

		Incomplete Anglers						Complete Anglers					
			Effort		Chinook Harvest				Effort		Chinook Harvest		
Date	Wknd-Hol (*)	Sample Size	Mean	Std Err	Mean	Std Err	CPUE	Sample Size	Mean	Std Err	Mean	Std Err	CPUE
24-May		3	1.000	0.28868	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
25-May		17	1.147	0.12693	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
26-May		3	0.500	0.00000	0.00000	0.00000	0.00000	2	0.420	0.00000	0.00000	0.00000	0.00000
27-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
28-May		4	1.188	0.37326	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
29-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
30-May		6	5.217	1.03293	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
31-May	*	8	2.969	0.53959	0.12500	0.12500	0.04211	0	0.000	0.00000	0.00000	0.00000	0.00000
01-Jun	*	14	3.714	1.01596	0.50000	0.13868	0.13462	9	2.491	0.44606	0.22222	0.14699	0.08921
02-Jun		12	3.337	0.69419	0.00000	0.00000	0.00000	12	3.125	0.48899	0.83333	0.16667	0.26667
03-Jun		16	1.849	0.66432	0.12500	0.08539	0.06761	5	3.400	0.73144	0.60000	0.40000	0.17647
04-Jun		10	0.850	0.21794	0.00000	0.00000	0.00000	11	3.591	0.70572	0.18182	0.12197	0.05063
05-Jun		12	2.284	0.31839	0.08333	0.08333	0.03648	12	4.208	0.32832	0.41667	0.14865	0.09901
06-Jun		5	2.200	0.48990	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
07-Jun	*	51	1.790	0.21625	0.13725	0.05615	0.07667	27	3.944	0.39412	0.33333	0.10675	0.08451
08-Jun	*	28	4.511	0.69490	0.14286	0.08474	0.03167	58	6.991	0.47558	0.36207	0.06366	0.05179
09-Jun		14	3.351	1.06923	0.42857	0.17271	0.12790	3	7.000	0.00000	0.00000	0.00000	0.00000
10-Jun		12	1.958	0.59008	0.41667	0.14865	0.21277	13	5.331	1.10786	0.61538	0.14044	0.11544
11-Jun		25	2.082	0.44341	0.12000	0.06633	0.05765	3	4.667	0.66667	0.66667	0.33333	0.14286
12-Jun		39	2.124	0.41967	0.17949	0.08108	0.08452	20	7.000	0.78052	0.75000	0.12301	0.10714
13-Jun		16	1.664	0.26635	0.00000	0.00000	0.00000	15	2.483	0.38612	0.13333	0.09085	0.05369
14-Jun	*	70	6.261	0.45563	0.44286	0.10502	0.07074	34	8.074	0.72335	0.76471	0.11985	0.09472
15-Jun	*	17	6.029	1.29770	0.23529	0.10605	0.03902	49	7.714	0.42233	0.40816	0.08708	0.05291
16-Jun		33	1.419	0.19817	0.15152	0.07689	0.10677	14	3.500	0.79490	0.07143	0.07143	0.02041
17-Jun		39	3.158	0.75080	0.35897	0.13491	0.11365	12	6.000	0.94548	0.58333	0.22891	0.09722
18-Jun		41	5.613	0.62559	0.26829	0.11057	0.04780	21	4.333	0.76012	0.28571	0.10102	0.06593
19-Jun		32	5.672	0.80243	0.31250	0.12245	0.05510	20	8.500	0.70897	0.90000	0.17622	0.10588
20-Jun		44	4.732	0.80318	0.22727	0.09680	0.04802	16	6.925	0.86759	0.50000	0.15811	0.07220
21-Jun	*	60	5.532	0.65011	0.30000	0.07990	0.05423	9	8.953	1.50903	0.22222	0.14699	0.02482
22-Jun	*	43	5.517	0.55950	0.32558	0.10376	0.05901	15	5.833	1.16871	0.93333	0.22817	0.16000
23-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
24-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
25-Jun		2	10.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000

Appendix C Table 2. Angler interviews for all fish caught in the Theodore River chinook salmon sport fishery, 1986.

		Incomplete Anglers						Complete Anglers					
			Effort		Chinook Catch				Effort		Chinook Catch		
Date	Wknd-Hol (*)	Sample Size	Mean	Std Err	Mean	Std Err	CPUE	Sample Size	Mean	Std Err	Mean	Std Err	CPUE
24-May		3	1.000	0.28868	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
25-May		17	1.147	0.12693	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
26-May		3	0.500	0.00000	0.00000	0.00000	0.00000	2	0.420	0.00000	0.00000	0.00000	0.00000
27-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
28-May		4	1.188	0.37326	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
29-May		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
30-May		6	5.217	1.03293	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
31-May	*	8	2.969	0.53959	0.12500	0.12500	0.04211	0	0.000	0.00000	0.00000	0.00000	0.00000
01-Jun	*	14	3.714	1.01596	0.50000	0.13868	0.13462	9	2.491	0.44606	0.22222	0.14699	0.08921
02-Jun		12	3.337	0.69419	0.00000	0.00000	0.00000	12	3.125	0.48899	1.33333	0.37605	0.42667
03-Jun		16	1.849	0.66432	0.12500	0.08539	0.06761	5	3.400	0.73144	2.80000	1.01980	0.82353
04-Jun		10	0.850	0.21794	0.00000	0.00000	0.00000	11	3.591	0.70572	1.72727	0.92531	0.48101
05-Jun		12	2.284	0.31839	0.08333	0.08333	0.03648	12	4.208	0.32832	1.33333	0.48200	0.31683
06-Jun		5	2.200	0.48990	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
07-Jun	*	51	1.790	0.21625	0.13725	0.05615	0.07667	27	3.944	0.39412	0.81481	0.21375	0.20657
08-Jun	*	28	4.511	0.69490	0.14286	0.08474	0.03167	58	6.991	0.47558	0.43103	0.08199	0.06165
09-Jun		14	3.351	1.06923	0.42857	0.17271	0.12790	3	7.000	0.00000	0.00000	0.00000	0.00000
10-Jun		12	1.958	0.59008	0.41667	0.14865	0.21277	13	5.331	1.10786	1.00000	0.29957	0.18759
11-Jun		25	2.082	0.44341	0.12000	0.06633	0.05765	3	4.667	0.66667	0.66667	0.33333	0.14286
12-Jun		39	2.124	0.41967	0.17949	0.08108	0.08452	20	7.000	0.78052	1.55000	0.32016	0.22143
13-Jun		16	1.664	0.26635	0.00000	0.00000	0.00000	15	2.483	0.38612	0.13333	0.09085	0.05369
14-Jun	*	70	6.261	0.45563	0.44286	0.10502	0.07074	34	8.074	0.72335	1.32353	0.24517	0.16393
15-Jun	*	17	6.029	1.29770	0.23529	0.10605	0.03902	49	7.714	0.42233	0.48980	0.11340	0.06349
16-Jun		33	1.419	0.19817	0.15152	0.07689	0.10677	14	3.500	0.79490	0.14286	0.09705	0.04082
17-Jun		39	3.158	0.75080	0.35897	0.13491	0.11365	12	6.000	0.94548	0.66667	0.25624	0.11111
18-Jun		41	5.613	0.62559	0.26829	0.11057	0.04780	21	4.333	0.76012	0.38095	0.12866	0.08791
19-Jun		32	5.672	0.80243	0.31250	0.12245	0.05510	20	8.500	0.70897	0.90000	0.17622	0.10588
20-Jun		44	4.732	0.80318	0.22727	0.09680	0.04802	16	6.925	0.86759	0.93750	0.32234	0.13538
21-Jun	*	60	5.532	0.65011	0.30000	0.07990	0.05423	9	8.953	1.50903	0.22222	0.14699	0.02482
22-Jun	*	43	5.517	0.55950	0.32558	0.10376	0.05901	15	5.833	1.16871	1.40000	0.38791	0.24000
23-Jun		2	10.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
24-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000
25-Jun		0	0.000	0.00000	0.00000	0.00000	0.00000	0	0.000	0.00000	0.00000	0.00000	0.00000

APPENDIX D

Age and length data for the 1986 northern Cook Inlet chinook salmon commercial and sport fisheries.

Appendix D Table 1. Northern Cook Inlet chinook salmon lengths[1] by sex and age class from the sport fishery, 1986.

			Age Class							
Fishery	Sex		1.5	2.4	1.4	2.3	1.3	2.2	1.2	2.1
SUSITNA RIVER										
Alexander Creek										
Downstream	Male	Mean	0	0	1,080	0	758	0	564	0
		Std Error	0	0	0	0	4	0	2	0
		Sample Size	0	0	1	0	20	0	32	0
	Female	Mean	0	0	886	0	784	0	0	0
		Std Error	0	0	3	0	2	0	0	0
		Sample Size	0	0	17	0	28	0	0	0
Upstream	Male	Mean	0	0	911	0	754	0	588	0
		Std Error	0	0	9	0	3	0	3	0
		Sample Size	0	0	10	0	38	0	34	0
	Female	Mean	0	0	868	0	794	0	0	0
		Std Error	0	0	1	0	0	0	0	0
		Sample Size	0	0	23	0	33	0	0	0
Deshka River										
Downstream	Male	Mean	0	0	953	0	787	0	555	0
		Std Error	0	0	2	0	2	0	2	0
		Sample Size	0	0	12	0	46	0	74	0
	Female	Mean	0	0	822	0	799	0	0	0
		Std Error	0	0	2	0	1	0	0	0
		Sample Size	0	0	30	0	46	0	0	0
Upstream	Male	Mean	0	0	929	0	753	0	570	0
		Std Error	0	0	2	0	3	0	1	0
		Sample Size	0	0	32	0	29	0	53	0
	Female	Mean	0	0	885	0	792	0	0	0
		Std Error	0	0	2	0	2	0	0	0
		Sample Size	0	0	29	0	31	0	0	0
Lake Creek	Male	Mean	0	0	999	0	797	0	602	0
		Std Error	0	0	1	0	2	0	1	0
		Sample Size	0	0	49	0	39	0	36	0
	Female	Mean	990	0	957	0	842	0	0	0
		Std Error	0	0	1	0	1	0	0	0
		Sample Size	1	0	69	0	38	0	0	0

-Continued-

Appendix D Table 1. Northern Cook Inlet chinook salmon lengths[1] by sex and age class from the sport fishery, 1986 (continued).

Fishery	Sex		Age Class 1.5	2.4	1.4	2.3	1.3	2.2	1.2	2.1
SUSITNA RIVER										
Talkeetna River	Male	Mean	0	0	950	0	831	0	635	0
		Std Error	0	0	16	0	7	0	5	0
		Sample Size	0	0	5	0	6	0	11	0
	Female	Mean	0	0	888	0	845	0	0	0
		Std Error	0	0	12	0	7	0	0	0
		Sample Size	0	0	6	0	8	0	0	0
Birch Creek	Male	Mean	0	0	895	0	755	0	652	0
		Std Error	0	0	0	0	0	0	3	0
		Sample Size	0	0	1	0	1	0	7	
	Female	Mean	0	0	936	0	832	0	0	0
		Std Error	0	0	10	0	13	0	0	0
		Sample Size	0	0	4	0	6	0	0	0
Sunshine Creek	Male	Mean	0	0	0	0	818	0	635	0
		Std Error	0	0	0	0	13	0	5	0
		Sample Size	0	0	0	0	5	0	11	0
	Female	Mean	0	0	935	0	842	0	0	0
		Std Error	0	0	15	0	12	0	0	0
		Sample Size	0	0	2	0	2	0	0	0
Montana Creek	Male	Mean	1,030	0	981	0	816	665	595	0
		Std Error	0	0	6	0	8	25	2	0
		Sample Size	1	0	28	0	17	2	33	0
	Female	Mean	975	0	955	0	857	0	0	0
		Std Error	0	0	2	0	3	0	0	0
		Sample Size	1	0	18	0	5	0	0	0
Goose Creek	Male	Mean	0	0	910	0	841	0	578	0
		Std Error	0	0	0	0	19	0	16	
		Sample Size	0	0	1	0	4	0	5	0
	Female	Mean	0	0	906	0	843	0	0	0
		Std Error	0	0	26	0	6	0	0	0
		Sample Size	0	0	4	0	4	0	0	0

-Continued-

Appendix D Table 1. Northern Cook Inlet chinook salmon lengths[1] by sex and age class from the sport fishery, 1986 (continued).

Fishery	Sex		Age Class 1.5	2.4	1.4	2.3	1.3	2.2	1.2	2.1
SUSITNA RIVER										
Sheep Creek	Male	Mean	1,085	0	993	0	830	635	621	0
		Std Error	25	0	3	0	6	0	2	0
		Sample Size	2	0	22	0	15	1	34	0
	Female	Mean	1,023	985	921	830	837	0	0	0
		Std Error	3	0	2	0	4	0	0	0
		Sample Size	2	1	21	1	11	0	0	0
Little Willow Creek	Male	Mean	0	0	951	0	854	0	607	0
		Std Error	0	0	10	0	2	0	6	0
		Sample Size	0	0	8	0	13	0	10	0
	Female	Mean	1,020	890	966	900	852	0	0	0
		Std Error	0	0	2	0	4	0	0	0
		Sample Size	1	1	17	1	13	0	0	0
Willow Creek	Male	Mean	1,005	1,080	1,027	0	841	0	642	0
		Std Error	15	0	7	0	4	0	3	0
		Sample Size	2	1	17	0	22	0	22	0
	Female	Mean	1,010	0	955	0	861	0	0	0
		Std Error	0	0	1	0	2	0	0	0
		Sample Size	1	0	49	0	33	0	0	0
LITTLE SUSITNA RIVER										
Burma Road	Male	Mean	1,080	0	958	0	828	0	599	0
		Std Error	0	0	5	0	2	0	1	0
		Sample Size	1	0	34	0	49	0	58	0
	Female	Mean	0	0	920	0	828	0	0	0
		Std Error	0	0	2	0	1	0	0	0
		Sample Size	0	0	26	0	39	0	0	0
Parks Highway	Male	Mean	0	0	954	0	838	0	592	0
		Std Error	0	0	6	0	13	0	12	0
		Sample Size	0	0	7	0	2	0	3	0
	Female	Mean	0	0	890	0	840	0	0	0
		Std Error	0	0	2	0	4	0	0	0
		Sample Size	0	0	17	0	13	0	0	0

-Continued-

Appendix D Table 1. Northern Cook Inlet chinook salmon lengths[1] by sex and age class from the sport fishery, 1986 (continued).

Fishery	Sex		Age Class 1.5	2.4	1.4	2.3	1.3	2.2	1.2	2.1
WEST COOK INLET										
Theodore River	Male	Mean	0	0	970	0	771	620	594	0
		Std Error	0	0	6	0	3	0	4	0
		Sample Size	0	0	14	0	35	1	18	0
	Female	Mean	0	0	913	0	822	0	0	0
		Std Error	0	0	1	0	2	0	0	0
		Sample Size	0	0	28	0	22	0	0	0

[1] Mid-eye-to-fork length in mm.

Appendix D Table 2. Northern Cook Inlet chinook salmon sex and age class from the sport fishery, 1986.

Fishery	Sex		Age Class 1.5	2.4	1.4	2.3	1.3	2.2	1.2	2.1	Total
SUSITNA RIVER											
Alexander Creek											
Downstream	Male	Percent	0.00	0.00	1.02	0.00	20.41	0.00	32.65	0.00	54.08
		Sample Size	0	0	1	0	20	0	32	0	53
	Female	Percent	0.00	0.00	17.35	0.00	28.57	0.00	0.00	0.00	45.92
		Sample Size	0	0	17	0	28	0	0	0	45
	Combined	Percent	0.00	0.00	18.37	0.00	48.98	0.00	32.65	0.00	100.00
		Standard Err	0.00	0.00	0.04	0.00	0.05	0.00	0.05	0.00	
		Sample Size	0	0	18	0	48	0	32	0	98
Upstream	Male	Percent	0.00	0.00	7.25	0.00	27.54	0.00	24.64	0.00	59.42
		Sample Size	0	0	10	0	38	0	34	0	82
	Female	Percent	0.00	0.00	16.67	0.00	23.91	0.00	0.00	0.00	40.58
		Sample Size	0	0	23	0	33	0	0	0	56
	Combined	Percent	0.00	0.00	23.91	0.00	51.45	0.00	24.64	0.00	100.00
		Standard Err	0.00	0.00	0.04	0.00	0.04	0.00	0.04	0.00	
		Sample Size	0	0	33	0	71	0	34	0	138
Deshka River											
Downstream	Male	Percent	0.00	0.00	5.77	0.00	22.12	0.00	35.58	0.00	63.46
		Sample Size	0	0	12	0	46	0	74	0	132
	Female	Percent	0.00	0.00	14.42	0.00	22.12	0.00	0.00	0.00	36.54
		Sample Size	0	0	30	0	46	0	0	0	76
	Combined	Percent	0.00	0.00	20.19	0.00	44.23	0.00	35.58	0.00	100.00
		Standard Err	0.00	0.00	0.03	0.00	0.03	0.00	0.03	0.00	0.00
		Sample Size	0	0	42	0	92	0	74	0	208
Upstream	Male	Percent	0.00	0.00	18.39	0.00	16.67	0.00	30.46	0.00	65.52
		Sample Size	0	0	32	0	29	0	53	0	114
	Female	Percent	0.00	0.00	16.67	0.00	17.82	0.00	0.00	0.00	34.48
		Sample Size	0	0	29	0	31	0	0	0	60
	Combined	Percent	0.00	0.00	35.06	0.00	34.48	0.00	30.46	0.00	100.00
		Standard Err	0.00	0.00	0.04	0.00	0.04	0.00	0.03	0.00	0.00
		Sample Size	0	0	61	0	60	0	53	0	174

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Appendix D Table 2. Northern Cook Inlet chinook salmon sex and age class from the sport fishery, 1986 (continued).

Fishery	Sex		Age Class 1.5	2.4	1.4	2.3	1.3	2.2	1.2	2.1	Total
SUSITNA RIVER											
Lake Creek											
	Male	Percent	0.00	0.00	21.12	0.00	16.81	0.00	15.52	0.00	53.45
		Sample Size	0	0	49	0	39	0	36	0	124
	Female	Percent	0.43	0.00	29.74	0.00	16.38	0.00	0.00	0.00	46.55
		Sample Size	1	0	69	0	38	0	0	0	108
	Combined	Percent	0.43	0.00	50.86	0.00	33.19	0.00	15.52	0.00	100.00
		Standard Err	0.00	0.00	0.03	0.00	0.03	0.00	0.02	0.00	
		Sample Size	1	0	118	0	77	0	36	0	232
Talkeetna River	Male	Percent	0.00	0.00	13.89	0.00	16.67	0.00	30.56	0.00	61.11
		Sample Size	0	0	5	0	6	0	11	0	22
	Female	Percent	0.00	0.00	16.67	0.00	22.22	0.00	0.00	0.00	38.89
		Sample Size	0	0	6	0	8	0	0	0	14
	Combined	Percent	0.00	0.00	30.56	0.00	38.89	0.00	30.56	0.00	100.00
		Standard Err	0.00	0.00	0.08	0.00	0.08	0.00	0.08	0.00	
		Sample Size	0	0	11	0	14	0	11	0	36
Birch Creek	Male	Percent	0.00	0.00	5.26	0.00	5.26	0.00	36.84	0.00	47.37
		Sample Size	0	0	1	0	1	0	7	0	9
	Female	Percent	0.00	0.00	21.05	0.00	31.58	0.00	0.00	0.00	52.63
		Sample Size	0	0	4	0	6	0	0	0	10
	Combined	Percent	0.00	0.00	26.32	0.00	36.84	0.00	36.84	0.00	100.00
		Standard Err	0.00	0.00	0.10	0.00	0.11	0.00	0.11	0.00	
		Sample Size	0	0	5	0	7	0	7	0	19
Sunshine Creek	Male	Percent	0.00	0.00	0.00	0.00	25.00	0.00	55.00	0.00	80.00
		Sample Size	0	0	0	0	5	0	11	0	16
	Female	Percent	0.00	0.00	10.00	0.00	10.00	0.00	0.00	0.00	20.00
		Sample Size	0	0	2	0	2	0	0	0	4
	Combined	Percent	0.00	0.00	10.00	0.00	35.00	0.00	55.00	0.00	100.00
		Standard Err	0.00	0.00	0.07	0.00	0.11	0.00	0.11	0.00	
		Sample Size	0	0	2	0	7	0	11	0	20

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Appendix D Table 2. Northern Cook Inlet chinook salmon sex and age class from the sport fishery, 1986 (continued).

			Age Class								
Fishery	Sex		1.5	2.4	1.4	2.3	1.3	2.2	1.2	2.1	Total
SUSITNA RIVER											
Montana Creek	Male	Percent	1.22	0.00	12.20	0.00	14.63	2.44	40.24	0.00	70.73
		Sample Size	1	0	10	0	12	2	33	0	58
	Female	Percent	1.22	0.00	21.95	0.00	6.10	0.00	0.00	0.00	29.27
		Sample Size	1	0	18	0	5	0	0	0	24
	Combined	Percent	2.44	0.00	34.15	0.00	20.73	2.44	40.24	0.00	100.00
		Standard Err	0.02	0.00	0.05	0.00	0.05	0.02	0.05	0.00	
		Sample Size	2	0	28	0	17	2	33	0	82
Goose Creek	Male	Percent	0.00	0.00	5.56	0.00	22.22	0.00	27.78	0.00	55.56
		Sample Size	0	0	1	0	4	0	5	0	10
	Female	Percent	0.00	0.00	22.22	0.00	22.22	0.00	0.00	0.00	44.44
		Sample Size	0	0	4	0	4	0	0	0	8
	Combined	Percent	0.00	0.00	27.78	0.00	44.44	0.00	27.78	0.00	100.00
		Standard Err	0.00	0.00	0.11	0.00	0.12	0.00	0.11	0.00	
		Sample Size	0	0	5	0	8	0	5	0	18
Sheep Creek	Male	Percent	1.82	0.00	20.00	0.00	13.64	0.91	30.91	0.00	67.27
		Sample Size	2	0	22	0	15	1	34	0	74
	Female	Percent	1.82	0.91	19.09	0.91	10.00	0.00	0.00	0.00	32.73
		Sample Size	2	1	21	1	11	0	0	0	36
	Combined	Percent	3.64	0.91	39.09	0.91	23.64	0.91	30.91	0.00	100.00
		Standard Err	0.02	0.01	0.05	0.01	0.04	0.01	0.04	0.00	
		Sample Size	4	1	43	1	26	1	34	0	110
Little Willow Creek	Male	Percent	0.00	0.00	12.50	0.00	20.31	0.00	15.63	0.00	48.44
		Sample Size	0	0	8	0	13	0	10	0	31
	Female	Percent	1.56	1.56	26.56	1.56	20.31	0.00	0.00	0.00	51.56
		Sample Size	1	1	17	1	13	0	0	0	33
	Combined	Percent	1.56	1.56	39.06	1.56	40.63	0.00	15.63	0.00	100.00
		Standard Err	0.02	0.02	0.06	0.02	0.06	0.00	0.05	0.00	
		Sample Size	1	1	25	1	26	0	10	0	64

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Appendix D Table 2. Northern Cook Inlet chinook salmon sex and age class from the sport fishery, 1986 (continued).

Fishery	Sex		Age Class 1.5	2.4	1.4	2.3	1.3	2.2	1.2	2.1	Total
SUSITNA RIVER											
Willow Creek	Male	Percent	1.36	0.68	11.56	0.00	14.97	0.00	14.97	0.00	43.54
		Sample Size	2	1	17	0	22	0	22	0	64
	Female	Percent	0.68	0.00	33.33	0.00	22.45	0.00	0.00	0.00	56.46
		Sample Size	1	0	49	0	33	0	0	0	83
	Combined	Percent	2.04	0.68	44.90	0.00	37.41	0.00	14.97	0.00	100.00
		Standard Err	0.01	0.01	0.04	0.00	0.04	0.00	0.03	0.00	
		Sample Size	3	1	66	0	55	0	22	0	147
LITTLE SUSITNA RIVER											
Burma Road	Male	Percent	0.48	0.00	16.43	0.00	23.67	0.00	28.02	0.00	68.60
		Sample Size	1	0	34	0	49	0	58	0	142
	Female	Percent	0.00	0.00	12.56	0.00	18.84	0.00	0.00	0.00	31.40
		Sample Size	0	0	26	0	39	0	0	0	65
	Combined	Percent	0.48	0.00	28.99	0.00	42.51	0.00	28.02	0.00	100.00
		Standard Err	0.00	0.00	0.03	0.00	0.03	0.00	0.03	0.00	
		Sample Size	1	0	60	0	88	0	58	0	207
Parks Highway	Male	Percent	0.00	0.00	30.43	0.00	8.70	0.00	13.04	0.00	52.17
		Sample Size	0	0	7	0	2	0	3	0	12
	Female	Percent	0.00	0.00	17.39	0.00	30.43	0.00	0.00	0.00	47.83
		Sample Size	0	0	4	0	7	0	0	0	11
	Combined	Percent	0.00	0.00	47.83	0.00	39.13	0.00	13.04	0.00	100.00
		Standard Err	0.00	0.00	0.11	0.00	0.10	0.00	0.07	0.00	
		Sample Size	0	0	11	0	9	0	3	0	23
WEST COOK INLET											
Theodore River	Male	Percent	0.00	0.00	11.86	0.00	29.66	0.85	15.25	0.00	57.63
		Sample Size	0	0	14	0	35	1	18	0	68
	Female	Percent	0.00	0.00	23.73	0.00	18.64	0.00	0.00	0.00	42.37
		Sample Size	0	0	28	0	22	0	0	0	50
	Combined	Percent	0.00	0.00	35.59	0.00	48.31	0.85	15.25	0.00	100.00
		Standard Err	0.00	0.00	0.04	0.00	0.05	0.01	0.03	0.00	
		Sample Size	0	0	42	0	57	1	18	0	118

Appendix D Table 3. Northern Cook Inlet chinook salmon lengths[1] by sex and age class from the commercial fishery on 2 and 9 June 1986.

		Age Class							
	Sex	1.5	2.4	1.4	2.3	1.3	2.2	1.2	2.1
Male	Mean	1062	1000	982	819	833	620	532	0
	Std Error	22	34	8	28	8	19	5	0
	Sample Size	3	4	90	6	178	7	193	0
Female	Mean	948	931	938	859	837	630	677	0
	Std Error	23	13	5	30	4	10	11	0
	Sample Size	4	7	141	5	216	2	30	0
Combined	Mean	997	956	955	829	835	622	627	0
	Std Error	27	17	4	21	4	15	4	0
	Sample Size	7	11	231	12	396	9	226	0

[1] Mid-eye-to-fork-of-tail in mm.

Appendix D Table 4. Northern Cook Inlet chinook salmon age class composition from the commercial fishery on 2 and 9 June 1986.

Area	Period		Age Class 1.5	2.4	1.4	2.3	1.3	2.2	1.2	2.1	Total
WEST SIDE											
	6/02	Percent	0	2	33	3	44	2	16	0	100
		Sample Size	0	5	74	6	98	4	35	0	222
	6/09	Percent	1	1	24	1	45	0	28	0	100
		Sample Size	4	6	109	6	206	1	134	0	466
	Total	Percent	1	2	26	2	44	1	24	0	100
		Sample Size	4	11	183	12	304	7	169	0	690
EAST SIDE											
	6/02	Percent	0	0	17	0	34	4	45	0	100
		Sample Size	0	0	12	0	23	3	31	0	69
	6/09	Percent	3	0	26	0	51	1	19	0	100
		Sample Size	2	0	36	0	69	1	26	0	134
	Total	Percent	3	0	23	0	44	2	28	0	100
		Sample Size	2	0	48	0	92	4	57	0	203
Cumulative Total		Percent	1	1	26	1	45	1	25	0	100
		Sample Size	7	11	231	12	396	9	226	0	892