

**Fishery Data Series No. 97-37**

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# **Abundance of the Chinook Salmon Escapement on the Stikine River, 1996**

(Previously published under the title *Chinook salmon research on the Stikine River, 1996*)

by

**Keith A. Pahlke**

and

**Peter Etherton**

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December 1998

Alaska Department of Fish and Game

Division of Sport Fish



## Symbols and Abbreviations

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<b>Weights and measures (metric)</b>		<b>General</b>		<b>Mathematics, statistics, fisheries</b>	
centimeter	cm	All commonly accepted abbreviations.	e.g., Mr., Mrs., a.m., p.m., etc.	alternate hypothesis	$H_A$
deciliter	dL	All commonly accepted professional titles.	e.g., Dr., Ph.D., R.N., etc.	base of natural logarithm	e
gram	g	and	&	catch per unit effort	CPUE
hectare	ha	at	@	coefficient of variation	CV
kilogram	kg	Compass directions:		common test statistics	F, t, $\chi^2$ , etc.
kilometer	km	east	E	confidence interval	C.I.
liter	L	north	N	correlation coefficient	R (multiple)
meter	m	south	S	correlation coefficient	r (simple)
metric ton	mt	west	W	covariance	cov
milliliter	ml	Copyright	©	degree (angular or temperature)	°
millimeter	mm	Corporate suffixes:		degrees of freedom	df
<b>Weights and measures (English)</b>		Company	Co.	divided by	÷ or / (in equations)
cubic feet per second	ft <sup>3</sup> /s	Corporation	Corp.	equals	=
foot	ft	Incorporated	Inc.	expected value	E
gallon	gal	Limited	Ltd.	fork length	FL
inch	in	et alii (and other people)	et al.	greater than	>
mile	mi	et cetera (and so forth)	etc.	greater than or equal to	≥
ounce	oz	exempli gratia (for example)	e.g.,	harvest per unit effort	HPUE
pound	lb	id est (that is)	i.e.,	less than	<
quart	qt	latitude or longitude	lat. or long.	less than or equal to	≤
yard	yd	monetary symbols (U.S.)	\$, ¢	logarithm (natural)	ln
Spell out acre and ton.		months (tables and figures): first three letters	Jan,...,Dec	logarithm (base 10)	log
<b>Time and temperature</b>		number (before a number)	# (e.g., #10)	logarithm (specify base)	log <sub>2</sub> , etc.
day	d	pounds (after a number)	# (e.g., 10#)	mideye-to-fork	MEF
degrees Celsius	°C	registered trademark	®	minute (angular)	'
degrees Fahrenheit	°F	trademark	™	multiplied by	x
hour (spell out for 24-hour clock)	h	United States (adjective)	U.S.	not significant	NS
minute	min	United States of America (noun)	USA	null hypothesis	$H_0$
second	s	U.S. state and District of Columbia abbreviations	use two-letter abbreviations (e.g., AK, DC)	percent	%
Spell out year, month, and week.				probability	P
<b>Physics and chemistry</b>				probability of a type I error (rejection of the null hypothesis when true)	$\alpha$
all atomic symbols				probability of a type II error (acceptance of the null hypothesis when false)	$\beta$
alternating current	AC			second (angular)	"
ampere	A			standard deviation	SD
calorie	cal			standard error	SE
direct current	DC			standard length	SL
hertz	Hz			total length	TL
horsepower	hp			variance	Var
hydrogen ion activity	pH				
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

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December 1998

Development and publication of this manuscript were partially financed by the Federal Aid in Sport Fish Restoration Act (16 U.S.C. 777-777K ) under Project F-10-11, Job No. S-1-3

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*This document should be cited as:*

*Pahlke, Keith A. and Peter Etherton. 1998. Abundance of the chinook salmon escapement on the Stikine River, 1996. Alaska Department of Fish and Game, Fishery Data Series No. 97-37, Anchorage.*

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## **PREFACE**

This report is an updated version of a report written in 1997 entitled “Chinook salmon research on the Stikine River, 1996” by Keith Pahlke and Peter Etherton. After the earlier report was published it was discovered that numerous comments by the second author had been overlooked in the final draft. The comments were significant and too numerous to be covered in an errata sheet so a revised FDS report was completed. The revised report has a different title but the same series number. Copies of the original report should be discarded and only results from this document cited.





## ABSTRACT

Abundance of chinook salmon *Oncorhynchus tshawytscha* that returned to spawn in the Stikine River in 1996 was estimated using a mark-recapture experiment. Age, sex, and length compositions for the immigration were also estimated. Drift gillnets fished near the mouth of the Stikine River, were used to capture 785 immigrant chinook salmon during May, June, and July, 1996 of which 779 fish were marked with spaghetti tags, opercle punches and axillary appendage clips. During July and August, chinook salmon were captured at spawning sites and inspected for tags. Marked fish were also recovered from Canadian commercial and aboriginal fisheries. Using a modified Petersen model ( $M = 359$ ,  $C = 2,006$ ,  $R = 47$ ) an estimated 15,052 (SE = 1,978) large chinook salmon immigrated to the Stikine River after 12 June, 1996. The estimated abundance of large chinook salmon passing Kakwan Pt. for the entire season prorated for differences in sampling effort is 31,718 chinook salmon. Inriver fisheries harvested 2,769 large fish leaving an estimated spawning escapement of 28,949. The count of large fish at the Little Tahltan River weir was 4,370, about 15% of the estimated escapement. An estimated 3% of the Kakwan Point gillnet catch was age -1.2, 65% age -1.3, 30% age -1.4, and 1% age -1.5, with 398 males and 388 females captured. An estimated 4.6% of spawning ground samples were age -1.2, 69.4% age -1.3, 24.8% age -1.4, and 0.4% age -1.5, with 492 males and 540 females sampled.

Key words: Chinook salmon, *Oncorhynchus tshawytscha*, Stikine River, Little Tahltan River, Verrett Creek, mark-recapture, escapement, abundance.

## INTRODUCTION

Many chinook salmon *Oncorhynchus tshawytscha* stocks in the Southeast Alaska region were depressed in the mid- to late 1970s, relative to historical levels of production (Kissner 1982). The Alaska Department of Fish and Game (ADF&G) developed a structured program in 1981 to rebuild Southeast chinook salmon stocks over a 15-year period (roughly three life-cycles; ADF&G 1981). In 1979, the Canadian Department of Fisheries and Oceans (DFO) initiated commercial fisheries on the transboundary Taku and Stikine Rivers. The fisheries have been structured to limit the harvest of chinook salmon to incidental catches. In 1985, the Alaskan and Canadian programs were incorporated into a comprehensive coast-wide rebuilding program under the auspices of the U.S./Canada Pacific Salmon Treaty (PST). The rebuilding program has been evaluated, in part, by monitoring trends in indices of escapement for important stocks. Eleven rivers in Southeast Alaska and Canada are surveyed annually: the Situk, Alek, Chilkat, Taku, King Salmon, Stikine, Unuk, Chickamin, Blossom, and Keta rivers, and Andrew Creek. Total escapements of chinook salmon have been estimated at six of these eleven index systems:

Situk, Chilkat, Taku, Unuk and King Salmon rivers, and Andrew Creek.

The Stikine River is a transboundary river, originating in British Columbia and flowing to the sea near Wrangell, Alaska (Figure 1). The river is thought to be one of the largest producers of chinook salmon in Northern B.C./Southwest Yukon Territory and S.E. Alaska. Chinook salmon stocks in the river appear to be responding well to the rebuilding program (Pahlke 1996). The program as originally developed was to be completed in 1996; if assessment of the stocks indicated a surplus at that time, increased harvest could be warranted.

A major program of sockeye salmon enhancement in the Stikine River has been ongoing for several years; the run timing of sockeye salmon overlaps the chinook migration, and migrating chinook salmon from the Stikine River are caught incidentally to sockeye salmon (*O. nerka*) in U.S. marine gillnet fisheries (Districts 106 and 108), and in riverine Canadian commercial and aboriginal food fisheries. An increase in the harvest rate on enhanced sockeye will likely result in increased harvest of the chinook run as well. Stikine River chinook salmon are also caught in marine recreational and commercial troll fisheries near Wrangell and Petersburg and

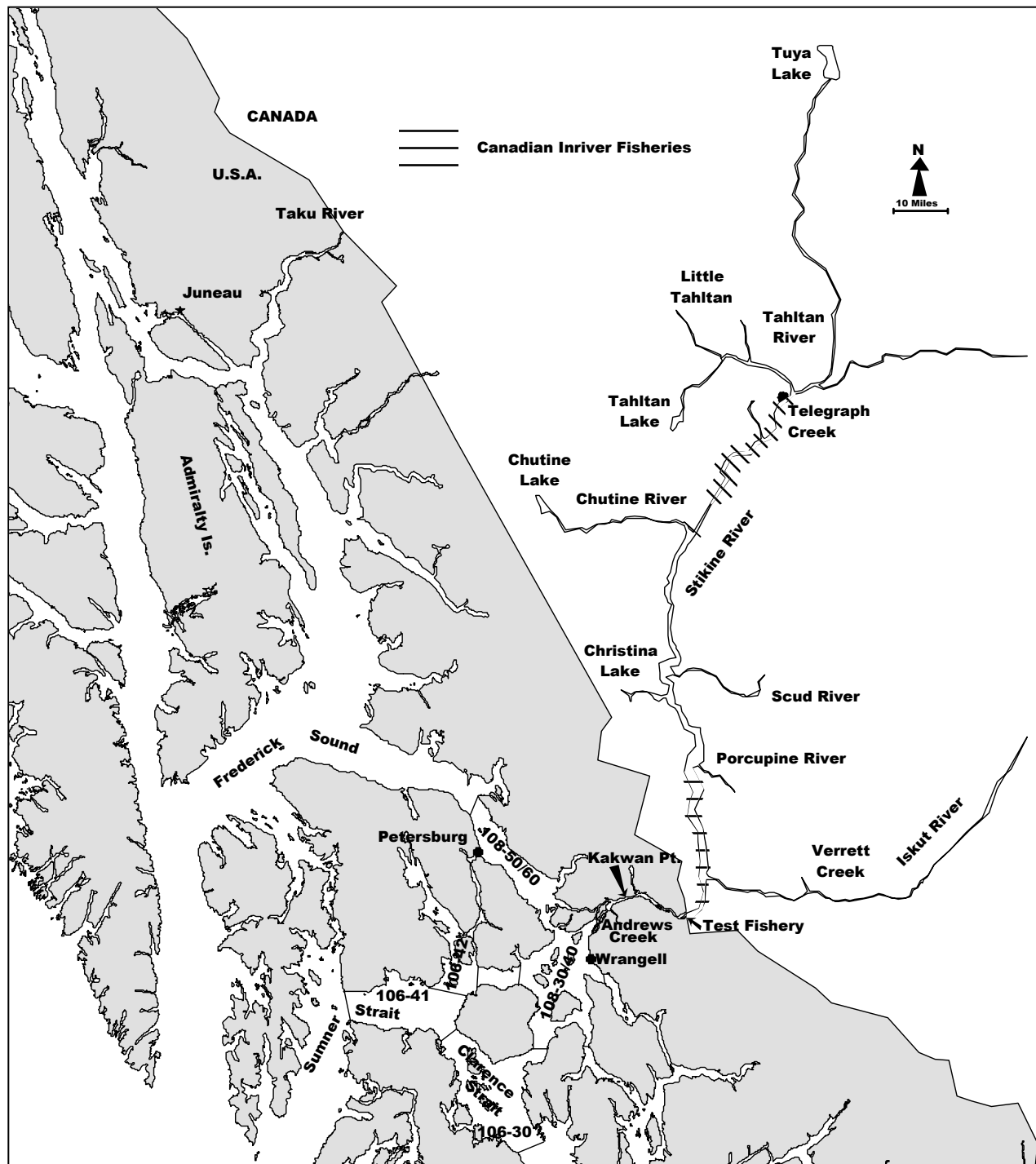


Figure 1.—Stikine River drainage, showing location of principal U.S. and Canadian fishing areas.

in recreational fisheries in Canada. Exploitation of these populations is managed jointly by the U.S. and Canada through a subcommittee of the Pacific Salmon Commission (PSC).

Chinook salmon escapement to the Stikine River has been monitored since 1975 by counting spawners at the Little Tahltan River and at the mainstem Tahltan River in Canada and Andrew Creek in the U.S. (Table 1). The escapement goal for this population was based on peak

**Table 1.—Counts of large spawning chinook salmon in tributaries of the Stikine River, 1975–1996.**  
Abbreviations: H = helicopter survey, F = foot survey, W = weir count, A = airplane survey; E = excellent visibility, N = normal visibility, P = poor visibility.

Year	Little Tahltan River		Mainstem Tahltan River	Beatty Creek	Andrew Creek	North Arm Creek	Clear Creek						
	Peak count	Weir count											
1975	700	E(H)	-	2,908	E(H)	-	260	(F)	-	-			
1976	400	N(H)	-	120	(H)	-	468	(W)	-	-			
1977	800	P(H)	-	25	(A)	-	534	(W)	-	-			
1978	632	E(H)	-	756	P(H)	-	400	(W)	24	F(E)			
1979	1,166	E(H)	-	2,118	N(H)	-	382	(W)	16	F(E)			
1980	2,137	N(H)	-	960	P(H)	122	E(H)	363	(W)	68	F(N)		
1981	3,334	E(H)	-	1,852	P(H)	558	E(H)	654	(W)	84	F(E)	4	F(P)
1982	2,830	N(H)	-	1,690	N(F)	567	E(H)	947	(W)	138	F(N)	188	F(N)
1983	594	E(H)	-	453	N(H)	83	E(H)	444	(W)	15	F(N)	-	-
1984	1,294	(H)	-	-	-	126	(H)	389	(W)	31	F(N)	-	-
1985	1,598	E(H)	3,114	1,490	N(H)	147	N(H)	319	E(F)	44	F(E)	-	-
1986	1,201	E(H)	2,891	1,400	P(H)	183	N(H)	707	N(F)	73	F(N)	45	A(E)
1987	2,706	E(H)	4,783	1,390	P(H)	312	E(H)	788	E(H)	71	F(E)	122	F(N)
1988	3,796	E(H)	7,292	4,384	N(H)	593	E(H)	564	E(F)	125	F(N)	167	F(N)
1989	2,527	E(H)	4,715	-	-	362	E(H)	530	E(F)	150	A(N)	49	H(N)
1990	1,755	E(H)	4,392	2,134	N(H)	271	E(H)	664	E(F)	83	F(N)	33	H(P)
1991	1,768	E(H)	4,506	2,445	N(H)	193	N(H)	400	N(A)	38	A(N)	46	A(N)
1992	3,607	E(H)	6,627	1,891	N(H)	362	N(H)	778	E(H)	40	F(E)	31	A(N)
1993	4,010	P(H)	11,449	2,249	P(H)	757	E(H)	1,060	E(F)	53	F(E)	-	-
1994	2,422	N(H)	6,426	-	-	184	N(H)	572	E(H)	58	F(E)	10	A(N)
1995	1,117	N(H)	3,259	696	E(H)	152	N(H)	343	N(H)	28	A(P)	1	A(E)
1996	1,920	N(H)	4,821	772	N(H)	218	N(H)	335	N(H)	35	N(F)	21	N(A)
86–95 avg.	2,491		5,634	2,074		337		641		72		56	

counts in the Little Tahltan River. Historically, total escapement to the Stikine was estimated by multiplying the Little Tahltan River count by an expansion factor (4• ) thought to represent the proportion of the escapement represented by that tributary (Pahlke 1996). The original expansion factors were based on judgment rather than empirical data, and in 1991 the Transboundary Technical Committee of the PSC decided to use only the actual counts of escapement to the Little Tahltan River to assess rebuilding (PSC 1991). Expansion factors and escapement goals will be revised when sufficient information is available.

Helicopter surveys of the Little Tahltan River have been conducted annually since 1975, and a fish counting weir has been operated at the mouth of the Little Tahltan River since 1985.

Since all fish spawning in the Little Tahltan River spawn above the weir, counts from the weir represent the escapement to that tributary.

Andrew Creek chinook salmon escapement has been surveyed annually since 1975 by foot, aerial or helicopter surveys. In addition, a weir was operated to collect hatchery brood stock from 1976 to 1984 and also provided escapement counts. North Arm Creek and Clear Creek are two small chinook systems also in the U.S. portion of the Stikine drainage which have been periodically surveyed.

Only large, (typically age-.3, -.4, and -.5) chinook salmon  $\geq 660$  mm mid-eye-to-fork length (MEF), are counted during aerial or foot surveys. No attempt is made to accurately count small (typically age-.1 and -.2) chinook salmon  $< 660$  mm (MEF) (Mecum 1990). These small chinook salmon, also called jacks, are early

maturing, precocious males that are considered to be surplus to spawning escapement needs. They are easy to separate visually from their older age counterparts under most conditions, because of their short, compact bodies and lighter color. They are however, difficult to distinguish from other smaller species such as pink *O. gorbuscha* and sockeye salmon.

In 1995, the Canadian Department of Fisheries and Oceans (DFO), in cooperation with the Tahltan First Nation (TFN), ADF&G, and the U.S. National Marine Fisheries Service (NMFS) instituted a project to determine the feasibility of a mark-recapture experiment to estimate abundance of Stikine River chinook salmon, along with a radio-tracking study to estimate distribution. The results of the feasibility project were encouraging, and in 1996 a revised, expanded study was conducted.

The objectives of the study were:

- (1) estimate the abundance of large ( $\geq 660$  mm MEF) spawning chinook in the Stikine River; and
- (2) estimate the age, sex, and length compositions of chinook salmon in the Stikine River.

Results from the study would provide a survey-to-abundance expansion factor, *i.e.*, an estimate of what fraction of total escapement is seen in the peak survey count, and at the Little Tahltan River weir. The study would also provide information on the run timing through the lower Stikine River of chinook salmon bound for the Little Tahltan River and Verrett Creek.

## STUDY AREA

The Stikine River originates in British Columbia and flows to the sea approximately 32 km south of Petersburg, Alaska (Figure 1). The drainage covers about 52,000 km<sup>2</sup>, much of which is inaccessible to anadromous fish because of natural barriers. Principal tributaries include the Tahltan, Chutine, Scud, Iskut, and Tuya rivers. The lower river and most tributaries are glacially occluded (e.g., Chutine, Scud, and Iskut rivers). Only 2% of the drainage is in Alaska (Beak Consultants Limited 1981), and the most of the

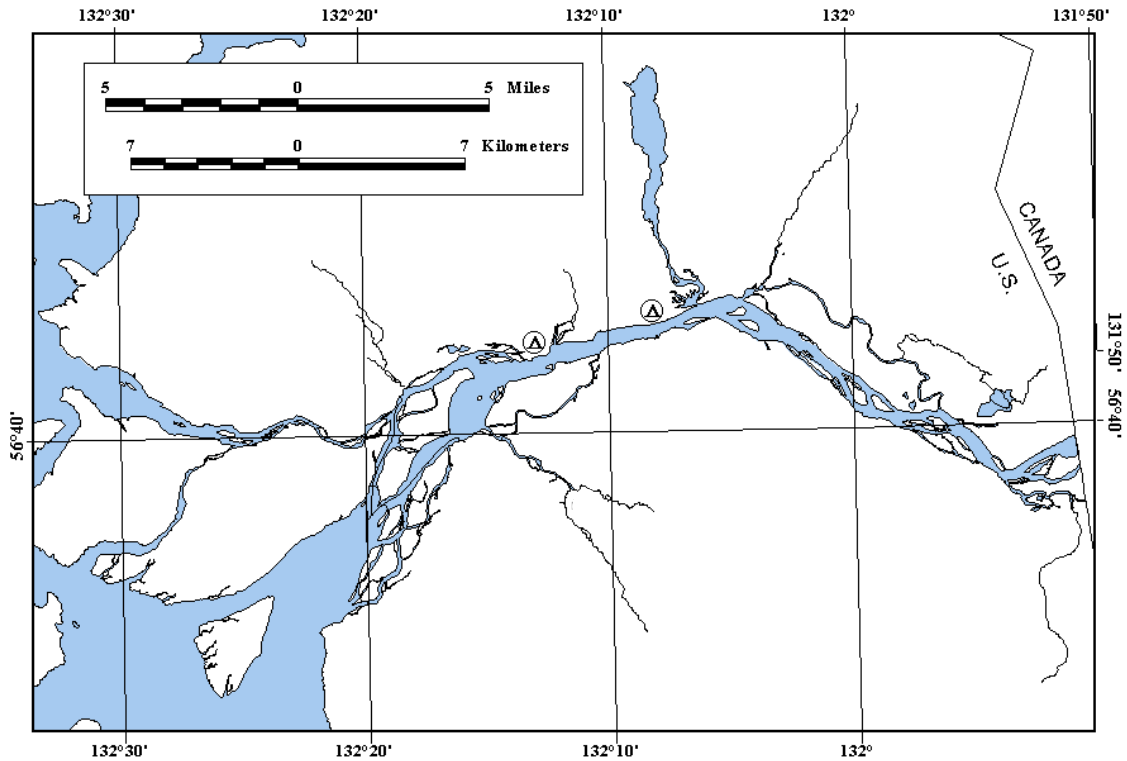
identified chinook salmon spawning areas in the watershed are located in British Columbia, Canada in the mainstem Tahltan and Little Tahltan rivers (including Beatty Creek). However, Andrew Creek, in the lower Stikine River, supports a significant run of chinook salmon. The upper drainage of the Stikine is accessible via the Telegraph Creek Road.

## METHODS

### KAKWAN POINT TAGGING

The number of chinook salmon in the Stikine River escapement was estimated from a two-event mark-recapture experiment (Seber 1982). Fish captured by gillnet in the lower river near Kakwan Point and marked were included in event 1. Kakwan Point is below all known spawning areas with the exception of Andrew and North Arm Creeks (Figure 2), and is upstream of any tidal influence. During event 2, pre- and post spawning fish were sampled at the Little Tahltan River weir. Post spawning fish were speared at Verrett Creek, and samples were collected from Canadian gillnet fisheries. Drift gillnets 120 feet long, 18 feet deep, and made of 7.25-inch stretch mesh, were fished on the lower Stikine River, between May 8 and July 8. Two nets were fished daily, unless high water or staff shortages occurred. Set nets were used briefly at the onset of the study when conditions were not conducive to drift fishing. Nets were watched continuously, and a captured fish was removed from the net as soon as it was observed. Sampling effort was held reasonably constant across the temporal span of the migration. If fishing time was lost due to entanglements, snags, cleaning the net, etc., the lost time (processing time) was added on to the end of the day to bring fishing time to 4 hours per net.

Captured chinook salmon were placed in a box filled with water, quickly untangled or cut from the net, tagged, scale sampled, and their length and sex recorded during a visual examination (as per Johnson et al. 1993). Fish were classified as "large" if their mid-eye to fork length (MEF)



**Figure 2. Location of drift gillnet site on the lower Stikine River, 1996.**

### **SPAWNING GROUND SAMPLING**

was  $\geq 660$  mm or “small” if their MEF was  $< 660$  mm (Pahlke and Bernard 1996). Fish were judged to be “bright” or “dark” based on external appearance, and the presence or absence of sea lice (*Lepeophtheirus* sp.) was noted. General health and appearance of the fish was recorded, including injuries due to handling or predators. Each fish was marked with a uniquely numbered, blue Floy tag, threaded through the musculature of the fish approximately 20mm posterior and ventral to the dorsal fin. Each fish was also marked with a ¼-inch-diameter hole in the upper (dorsal) portion of the operculum applied with a paper punch, and by amputation of the left axillary appendage (as per McPherson et al. 1996). Fish that were seriously injured were sampled for length, scales and sex but not tagged.

Chinook salmon captured upstream on or near their spawning grounds constituted event 2 in the mark-recapture experiment. Little Tahltan River flows southeast and empties into the Tahltan River approximately 30 km northwest of Telegraph Creek, B.C.. As fish accumulated below the weir across the Little Tahltan River, a portion were captured with dipnets, sampled for length, sex, scales and inspected for marks and released. Each sampled fish was marked with a hole punched in its lower opercle flap to prevent resampling. The majority of fish were passed through the weir without being individually handled. A few pickets were pulled and fish were allowed to swim upstream while an observer counted them and recorded size (large or jack), sex, and the presence of spaghetti tags. In addition, some post-spawning fish and carcasses were sampled upstream of the weir.

Verrett Creek flows south into the Iskut River approximately 60 km upstream of the confluence of the Iskut and Stikine rivers. The lower 1 km of the Creek is used by spawning chinook, sockeye,

and coho (*O. kisutch*) salmon. Daily foot surveys of the spawning area were conducted from August 4 - 14, 1996. Numbers of fish observed were recorded and carcasses and moribund chinook salmon were sampled for length, sex, scales and marks. Andrew Creek flows northwest into the Stikine River approximately 4 km below Kakwan Pt. Three foot surveys were conducted between August 8 - 19, primarily to count spawning salmon, but also to sample carcasses and moribund salmon.

### **FISHERY SAMPLING**

The lower and upper Stikine Canadian gillnet fishery, aboriginal fisheries, and the U.S. gillnet and marine recreational fisheries located near the mouth of the Stikine were sampled for sex, size and age data and inspected for tags.

### **ABUNDANCE**

The number of marked fish on the spawning grounds was estimated by subtracting the estimated number of marked fish removed by fishing (censored from the experiment) from the number of fish tagged in event 1. Handling and tagging has caused a downstream movement and/or a delay in continuing upstream migration of marked chinook salmon (Bendock and Alexandersdottir 1993, Johnson et al. 1992). This behavior puts marked fish at greater risk from commercial fisheries for sockeye salmon that begin in mid-June. Censoring marked chinook salmon killed in these fisheries avoids bias in estimates of abundance from this phenomenon. This censoring also makes estimates germane to the number of spawning fish, not to the number passing by Kakwan Point. The number of tagged salmon recovered from the Alaska gillnet fishery at the mouth of the Stikine (Dist. 108) was expanded by the fraction of the catch of chinook salmon sampled. Because of a reward (Can\$2) for each tag returned from the inriver Canadian gillnet and aboriginal fisheries, tags from all marked fish caught in these fisheries were considered recovered.

The validity of the (assumed closed-population) experiment rests on several assumptions,

including: (a) every fish has an equal probability of being marked in event 1, *or* that every fish has an equal probability of being captured in event 2, *or* that marked fish mix completely with unmarked fish; (b) *both* recruitment and “death” (emigration) do not occur between sampling events; (c) marking does not affect catchability (or mortality) of the fish; (d) fish do not lose their marks between sample events; (e) all recovered marks are reported; and (f) double sampling does not occur (Seber 1982). Assumption (a) implies that tagging must occur in proportion to abundance during immigration, or if it does not, that there is no difference in migratory timing among stocks bound for different spawning locations, since temporal mixing can not occur in the experiment. Assumption (a) also implies that sampling is not size or sex-selective. If capture on the spawning grounds was not size-selective, fish of different sizes would be captured with equal probability. The same is true for sex selective sampling on the spawning grounds. If assumption (a) was met, fish sampled in upper (Little Tahltan River) and Iskut River (Verrett Creek) spawning sites would be marked at similar rates. Assumption (b) was met because the life history of chinook salmon isolates those fish returning to the Stikine River as a “closed” population. We assumed tagged and untagged fish experience the same mortality (assumption c) due to natural causes. To minimize effects of tag loss, all marked fish received secondary (a dorsal opercle punch), and tertiary marks (the left axillary appendage was clipped). Similarly, we inspected all fish captured on the spawning grounds for marks (assumption e), and double sampling was prevented by an additional mark (ventral opercle punch) (assumption f).

### **AGE, SEX, AND LENGTH COMPOSITION OF ESCAPEMENT**

All fish captured in the Kakwan Pt gillnet and spawning ground surveys were sampled for scales to enable age determination (Olsen 1995). In addition, a portion of the Canadian gillnet harvest was sampled for length, sex and age data. Five scales were collected from the preferred area of each fish (Welanders 1940), mounted on gum cards and impressions were

made in cellulose acetate (Clutter and Whitesel 1956). Age of each fish was determined later from the pattern of circuli on images of scales magnified 70• (Olsen 1995). Kakwan Point scale samples were processed at the ADF&G scale aging lab in Douglas, all other samples were processed at the DFO lab in Nanaimo, B.C. All scales were read by one staff member of the scale aging lab, unusual or questionable scales were read again by one or more staff. Proportions by age or by sex in gillnet and spawning grounds samples were estimated by

$$\hat{p}_i = \frac{n_i}{n} \quad (1)$$

$$v[\hat{p}_i] = \frac{\hat{p}_i(1 - \hat{p}_i)}{n - 1} \quad (2)$$

where  $p_i$  = the proportion in the age, sex, or length group  $i$ ;

$n_i$  = the number in the sample of group  $i$ ;

and

$n$  = the sample size.

Estimated age composition of chinook captured in the different spawning areas was compared using a chi-square test, prior to combining these samples. Estimated age composition of the gillnet samples was compared with estimated age composition from data pooled across spawning grounds using another chi-square test. Estimates of mean length at age and their estimated variances were calculated with standard normal procedures.

## RESULTS

### KAKWAN POINT TAGGING

Seven hundred forty-two (742) large ( $\geq 660$  mm MEF) and 43 small chinook salmon were captured in the lower Stikine River between May 8 and July 8, 1996, of which 691 became the marked population for the mark-recapture experiment (Table 2, Appendices A1, A2). Twenty-three of the large chinook salmon were captured in a setnet from May 8-16, the remainder were captured in drift gillnets. Drift

gillnet effort was maintained at 4 hours per net per day, with two nets fishing, although reduced sampling effort occurred on several days (Figure 3; Appendices A2). Catch rates ranged from 0 to 5.6 fish/net/hour, peaking on June 10, when 47 large chinook were captured (Figure 4). The date of 50% cumulative catch was June 12. Five large fish were injured in the nets and were not tagged, and one adipose-clipped fish was sacrificed to recover a coded-wire tag. The sex ratio of chinook salmon caught in the gillnets was approximately equal (388 females, 397 males). In addition, 488 sockeye were captured and released (Appendix A2). The inriver Canadian commercial and test gillnet fisheries harvested 2,303 chinook salmon—including 62 tagged fish (Table 2). The aboriginal and commercial fishery near Telegraph Creek harvested 963 chinook salmon with 14 tagged fish recovered, and sport fishermen in Canada reported nine tagged fish caught, eight from the Tahltan River and one from the Craig River. No tags were recovered from a creel survey of the U.S. recreational fishery near Petersburg and Wrangell. One marked chinook was recovered in the U.S. District 108 gillnet fishery. That recovery was expanded by the fraction of the catch sampled (31.33% in 1996), resulting in an estimate of three marked fish removed by this fishery.

### SPAWNING GROUND SAMPLING

Seven hundred thirty (730) chinook salmon were examined for marks at the Little Tahltan River weir, and 17 marked fish were recovered (Table 2). One of the recovered fish had lost the numbered tag and could not be identified as to tagging date. The remaining 4,113 fish passing through the weir were not physically examined for marks; however, each fish was observed from a distance and the size category and sex of each was

**Table 2.—Numbers of chinook salmon marked on lower Stikine, removed by fisheries and inspected for marks in tributaries in 1996, by length group.**

		Length (MEF) in mm			Total	
		0-439	440-659	≥660		
<b>A. Released at Kakwan Point</b>						
	With marks	0	43	736	779	
<b>B. Removed by:</b>						
	1. Sport fisheries	0	0	9	9	
	2. U.S. gillnet <sup>a</sup>	0	3	0	3	
	3. Canadian gillnet	0	8	54	62	
	4. Aboriginal fishery	0	1	13	14	
<b>Subtotal of removals</b>		0	12	76	88	
<b>C. Estimated number of marked fish that survived to spawn</b>						
		0	31	661	691	
<b>D. Spawning ground samples</b>						
<b>Observed at:</b>		Inspected	22	451	4,370	4,843
<b>Little Tahltan weir</b>		Marked <sup>b</sup>	0	5	41	66
		Marked/unmarked	0.0000	0.0111	0.0094	0.0136
<b>E. Inspected at:</b>						
<b>1. L. Tahltan weir</b>		Inspected	2	68	660	730
		Marked	0	1	16	17
		Marked/unmarked	0.0000	0.0147	0.0242	0.0233
<b>2. Above weir</b>		Inspected	3	40	481	524
		Marked	0	0	4	4
		Marked/unmarked	0.0000	0.0000	0.0083	0.0076
<b>3. Verrett River</b>		Inspected	1	27	274	302
		Marked	0	0	8	8
		Marked/unmarked	0.0000	0.0000	0.0292	0.0265
<b>4. Canadian gillnet</b>		Inspected		297	2,006	2,303
	Lower River	Marked		8	54	62
		Marked/unmarked		0.0269	0.0269	0.0269

<sup>a</sup> Estimated by expanding 1 recovery in the U.S. gillnet fishery in District 108. In this fishery 31.33% of chinook salmon were sampled yielding estimate of 3 tagged chinook salmon.

<sup>b</sup> 46 tags observed expanded for tag loss (1 out of 17, 0.058) and by size comp plus 17 inspected.



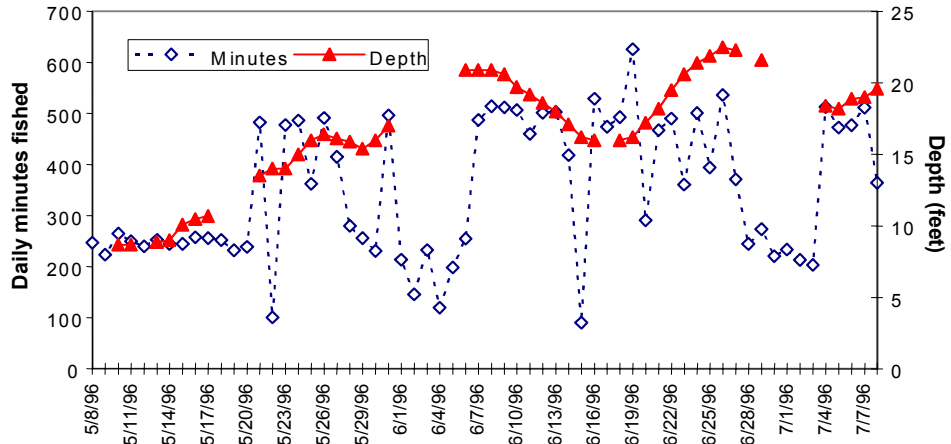


Figure 3.—Daily fishing effort (min) and river depth (ft), Stikine River near Kakwan Point, 1996.

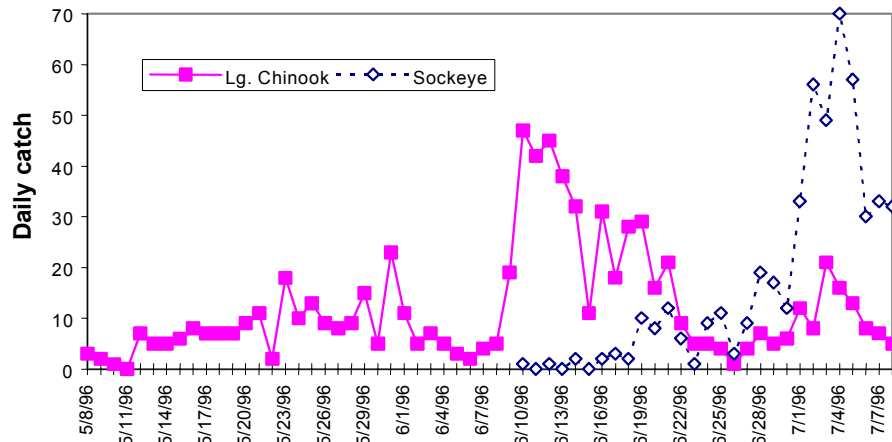


Figure 4.—Daily catch of chinook and sockeye salmon near Kakwan Point, 1996.

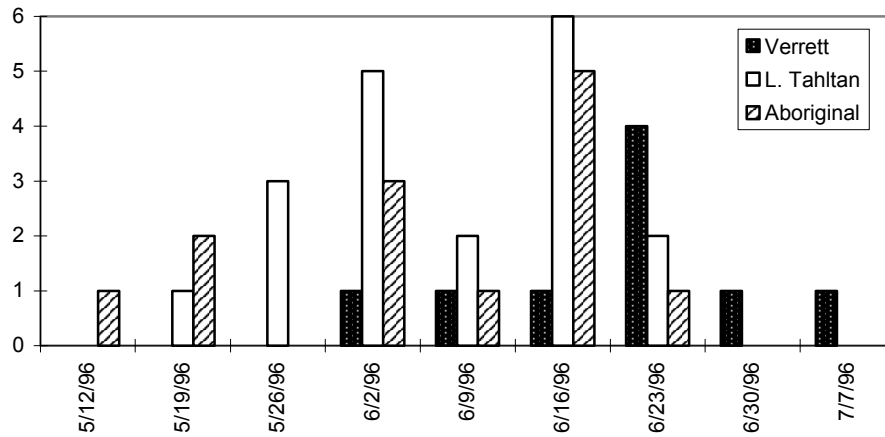


Figure 5.—Numbers of tags recovered on the spawning grounds and in the aboriginal fishery near Telegraph Creek, by week tagged, Stikine River, 1996.

estimated and the presence of 46 spaghetti tags noted. An additional 524 previously unsampled chinook were examined above the weir, and four marked fish were recovered. Marked chinook salmon bound for the Little Tahltan River passed by Kakwan Point earlier on the whole than did those fish bound for Verrett Creek (Figure 5).

At Verrett Creek, 302 spawning chinook and carcasses were examined for marks, with 8 marked fish recovered (Table 2). Three of the eight had lost their spaghetti tags. Four more marked fish were recovered in a non-random sample, and an additional two tags were found loose in the creek.

### ABUNDANCE

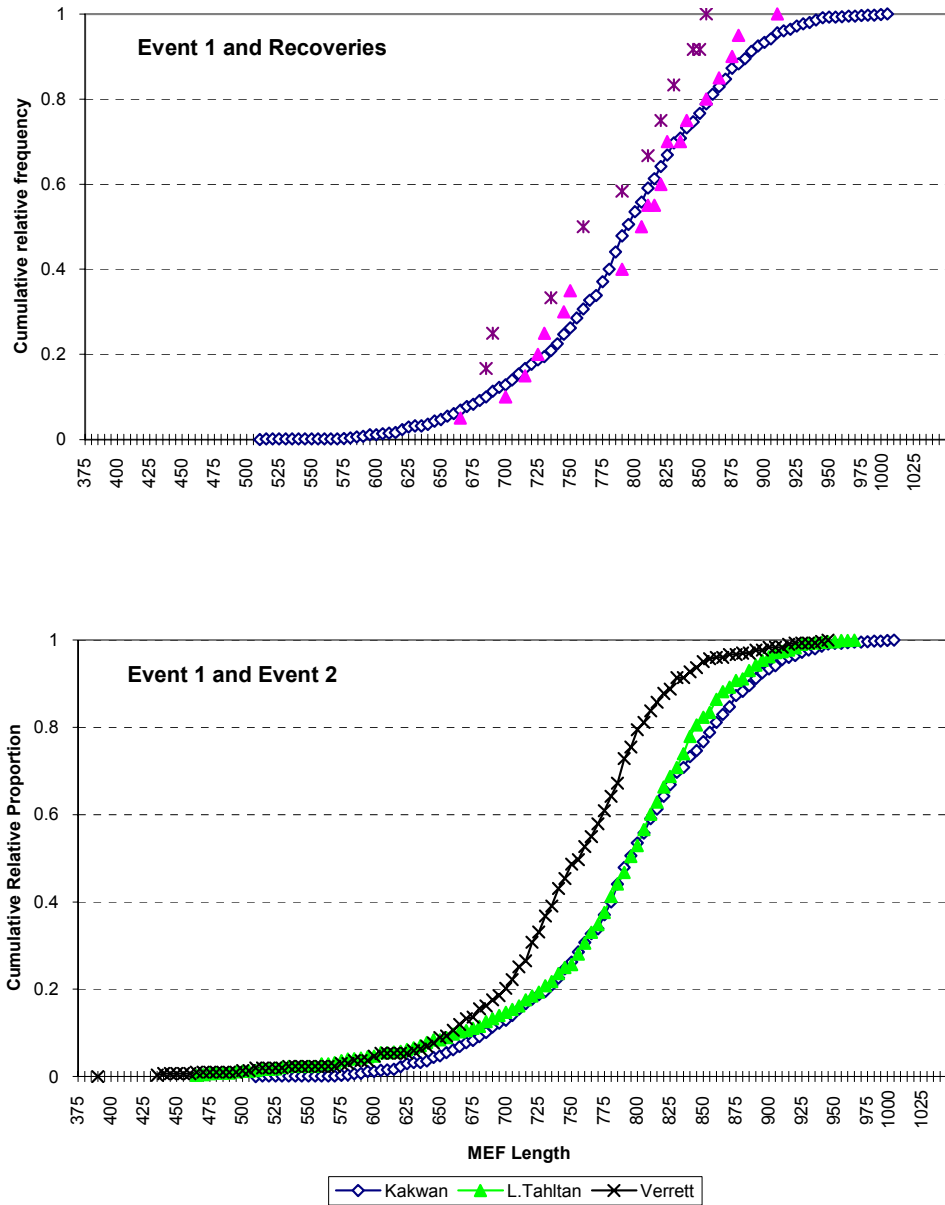
Sampling below the weir on the Little Tahltan River was demonstrably not size-selective, whereas sampling at Verrett Creek probably was. Length distributions of fish marked in event 1 (Kakwan Pt) and recovered at Little Tahltan River were not significantly different (KS tests,  $P = 0.86$ ; Figure 6a). This comparison was not significant for fish recovered at Verrett Creek ( $P = 0.59$ ); however, the cumulative distribution of recovered fish was obviously shifted left (Figure 6a). Low sample sizes probably reduced the power of this test for Verrett Creek. Length distributions of all fish sampled at the Little Tahltan weir and at Verrett Creek were significantly different, (KS test,  $P < 0.0001$ ), with Verrett Creek fish being consistently smaller. Length distributions of fish marked in event 1 and fish sampled at Little Tahltan weir were not significantly different (KS test,  $P = 0.0285$ ); however, those for event 1 and Verrett Creek were significantly different (KS test,  $P < 0.0001$ ; Fig. 6b), with Verrett Creek samples being composed of smaller fish.

There are three opportunities to estimate abundance (Table 3), and all three produce dissimilar estimates. The estimate based only on fish physically handled on the spawning grounds is 24,758 large fish, (27,454 all sizes). If fish observed passing through the weir on the Little Tahltan River are included, the estimate increases

to 43,927 large fish (47,412 all sizes). An estimate based on recoveries from the Canadian fisheries is 16,001 for fish of all sizes passing by Kakwan Point after June 12. For this last estimate, all fish marked prior to June 13 and all those marked that migrated downstream to be captured in marine fisheries were censored from the experiment. The Canadian inriver test fishery started on June 17 and the commercial fishery opened on June 23. The chinook salmon harvested in these fisheries were smaller and younger than the fish marked at Kakwan Point (Figure 7, KS test,  $P = < 0.0001$ ), as a result of the smaller mesh gillnets used in these sockeye salmon fisheries. Despite the smaller mesh gear, 62 marked fish were recovered in the inriver fisheries. Only 8 of the recovered fish were tagged prior to June 13, the approximate halfway point of the chinook migration. Both sampling events were also stratified by size and abundance estimated for each stratum. The estimates of 15,052 (SE = 1,978) large and 856 (SE = 228) small fish (<660 mm MEF) indicate that the unstratified estimate is relatively unbiased by size selective sampling (Table 3).

### AGE, SEX, AND LENGTH COMPOSITION OF ESCAPEMENT

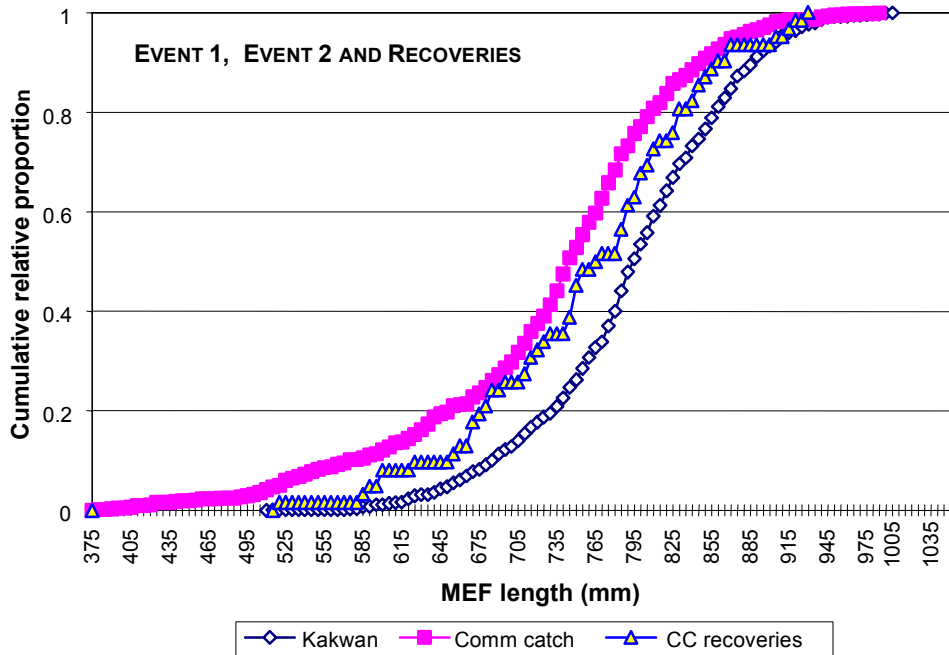
Age 1.3 chinook salmon dominated all samples, constituting an estimated 65% of fish passing by Kakwan Point, 68% on the weir across the Little Tahltan River, 72% at Verrett Creek and 61% in the Canadian gillnet fishery (Tables 4–9). Estimated age composition was not significantly different across the first three sampling locations ( $X^2 = 11.34$ ,  $df = 6$ ,  $P = 0.078$ ); however, the Canadian gillnet samples differed significantly from the Kakwan Point samples ( $X^2 = 36.7$ ,  $df = 3$ ,  $P < 0.00001$ ). Sampled populations were 50–53% males. Mean lengths were dissimilar among sampled populations, with chinook salmon from Verrett Creek being significantly smaller than fish in other sampled populations (Table 5, 8 and 10, Figure 5) This difference is consistent with difference in cumulative distribution reported in the previous section.



**Figure 6.**—Cumulative relative frequency of chinook salmon captured in event 1 (Kakwan Point gillnet) and marked chinook salmon recaptured in event 2 (spawning ground sampling, L. Tahltan and Verrett)(upper figure 6a) and cumulative relative frequency of chinook salmon capture in event 1 and all chinook salmon sampled in event 2 (lower figure 6b), Stikine River, 1996.

**Table 3.—Comparison of estimated abundances of chinook salmon, Stikine River, 1996.**  
 Confidence intervals were estimated with the percentile method on distribution of simulated estimates from bootstrapped capture histories (see Buckland and Garthwaite, 1991).

Model	Data used	M	C	R	Estimated N	SE	95% Bootstrap CI		Bias
		marked	inspected	Recaps			Lower	Upper	
A	Tahltan, Verrett, all sizes, just fish handled	691	1,032	25	27,454	5,125	20,180	41,502	0.6%
	Large fish only	661	934	24	24,758	4,699	17,874	38,590	3.9%
B	Verrett, L. Tahltan Observed, but not handled,	691	5,145	74	47,412	5,105	38,932	60,428	1.0%
	Large fish only	661	4,644	69	43,927	4,893	35,898	54,787	1.0%
C	Inriver harvest, fish tagged After June 12, all sizes	381	2,303	54	16,001 <i>33,711 Prorated to entire season</i>	1,955	12,655	20,774	1.3%
D	Inriver harvest, fish tagged After June 12, large only	359	2,006	47	15,052 <i>31,718 Prorated to entire season</i>	1,978	12,031	20,086	1.6%



**Figure 7.—Cumulative relative frequency of chinook salmon captured in event 1 (Kakwan Point gillnet) and all chinook salmon sampled in event 2 (Canadian commercial gillnet fishery) and marked chinook salmon recaptured in event 2.**

**Table 4.—Estimated age composition of chinook salmon in the Kakwan Point drift gillnet catch, by sex and age class, 1996.**

		BROOD YEAR AND AGE CLASS							TOTAL	
		1992		1991		1990		1989		
		1.2	1.3	2.2	1.4	2.3	1.5	2.4		
<b>Male</b>	Sample size	21	226	1	86	0	5	0	339	
	Percent	3.2%	34.1%	0.2%	13.0%	0.0%	0.8%	0.0%	51.1%	
	SE	0.7%	1.8%	0.2%	1.3%	0.0%	0.3%	0.0%	1.9%	
<b>Female</b>	Sample size	1	207	0	110	1	4	1	324	
	Percent	0.2%	31.2%	0.0%	16.6%	0.2%	0.6%	0.2%	48.9%	
	SE	0.2%	1.8%	0.0%	1.4%	0.2%	0.3%	0.2%	1.9%	
<b>Total</b>	Sample size	22	433	1	196	1	9	1	663	
	Percent	3.3%	65.3%	0.2%	29.6%	0.2%	1.4%	0.2%	100.0%	
	SE	0.7%	1.8%	0.2%	1.8%	0.2%	0.4%	0.2%	0.0%	

**Table 5.—Estimated length composition (MEF) of chinook salmon in the Kakwan Point drift gillnet catch, by sex and age, 1996.**

		BROOD YEAR AND AGE CLASS							TOTAL	
		1992		1991		1990		1989		
		1.2	1.3	2.2	1.4	2.3	1.5	2.4		
<b>Male</b>	Sample size	21	226	1	86	0	5	0	339	
	Average length	626	759	585	871		888			
	SD	49.6	72.5		56.6		63.7			
<b>Female</b>	Sample size	1	207	0	110	1	4	1	324	
	Average length	645	780		850	820	905	860		
	SD		45.3		45.7		32.9			
<b>Total</b>	Sample size	22	433	1	196	1	9	1	663	
	Average length	627	769	585	859	820	896	860		
	SD	48.6	61.9		51.7		50.2			

**Table 6.—Estimated age composition of chinook salmon on Stikine River spawning grounds sampled in 1996.**

		AGE CLASS							TOTAL
		1.1	1.2	1.3	2.2	1.4	2.3	1.5	
<b>Little Tahltan weir</b>									
<b>Male</b>	Sample size	1	25	185	1	34	1	0	247
	Percent	0.2%	4.8%	35.8%	0.2%	6.6%	0.2%	0.0%	47.8%
	SE	0.2%	0.9%	2.1%	0.2%	1.1%	0.2%	0.0%	2.2%
<b>Female</b>	Sample size	0	2	168	0	97	1	2	270
	Percent	0.0%	0.4%	32.5%	0.0%	18.8%	0.2%	0.4%	52.2%
	SE	0.0%	0.3%	2.1%	0.0%	1.7%	0.2%	0.3%	2.2%
<b>Total</b>	Sample size	1	27	353	1	131	2	2	517
	Percent	0.2%	5.2%	68.3%	0.2%	25.3%	0.4%	0.4%	100.0%
	SE	0.2%	1.0%	2.0%	0.2%	1.9%	0.3%	0.3%	0.0%
<b>Verrett Creek</b>									
<b>Male</b>	Sample size	0	8	98	0	16	1	0	123
	Percent	0.0%	3.3%	40.0%	0.0%	6.5%	0.4%	0.0%	50.2%
	SE	0.0%	1.1%	3.1%	0.0%	1.6%	0.4%	0.0%	3.2%
<b>Female</b>	Sample size	0	0	78	0	42	1	1	122
	Percent	0.0%	0.0%	31.8%	0.0%	17.1%	0.4%	0.4%	49.8%
	SE	0.0%	0.0%	3.0%	0.0%	2.4%	0.4%	0.4%	3.2%
<b>Total</b>	Sample size	0	8	176	0	58	2	1	245
	Percent	0.0%	3.3%	71.8%	0.0%	23.7%	0.8%	0.4%	100.0%
	SE	0.0%	1.1%	2.9%	0.0%	2.7%	0.6%	0.4%	0.0%
<b>Combined Little Tahltan weir and Verrett Creek escapement samples</b>									
<b>Male</b>	Sample size	1	33	283	1	50	2	0	370
	Percent	0.1%	4.3%	37.1%	0.1%	6.6%	0.3%	0.0%	48.6%
	SE	0.1%	0.7%	1.8%	0.1%	0.9%	0.2%	0.0%	1.8%
<b>Female</b>	Sample size	0	2	246	0	139	2	3	392
	Percent	0.0%	0.3%	32.3%	0.0%	18.2%	0.3%	0.4%	51.4%
	SE	0.0%	0.2%	1.7%	0.0%	1.4%	0.2%	0.2%	1.8%
<b>Total</b>	Sample size	1	35	529	1	189	4	3	762
	Percent	0.1%	4.6%	69.4%	0.1%	24.8%	0.5%	0.4%	100.0%
	SE	0.1%	0.8%	1.7%	0.1%	1.6%	0.3%	0.2%	

**Table 7.—Estimated age composition of pooled escapement and Kakwan Point gillnet samples.**

		AGE CLASS							TOTAL
		1.1	1.2	1.3	2.2	1.4	2.3	1.5	
<b>Male</b>	Sample size	1	54	509	2	136	2	5	709
	Percent	0.1%	3.8%	35.7%	0.1%	9.5%	0.1%	0.4%	49.8%
	SE	0.1%	0.5%	1.3%	0.1%	0.8%	0.1%	0.2%	1.3%
<b>Female</b>	Sample size	0	3	453	0	249	3	8	716
	Percent	0.0%	0.2%	31.8%	0.0%	17.5%	0.2%	0.6%	50.2%
	SE	0.0%	0.1%	1.2%	0.0%	1.0%	0.1%	0.2%	1.3%
<b>Total</b>	Sample size	1	57	962	2	385	5	13	1,425
	Percent	0.1%	4.0%	67.5%	0.1%	27.0%	0.4%	0.9%	100.0%
	SE	0.1%	0.5%	1.2%	0.1%	1.2%	0.2%	0.3%	0.0%

**Table 8.—Estimated length composition of chinook salmon on the Stikine River spawning grounds, by sex and age, 1996.**

		BROOD YEAR AND AGE CLASS								
		1993	1992	1991	1990		1989		TOTAL	
<b>Little Tahltan weir</b>		1.1	1.2	1.3	2.2	1.4	2.3	1.5		2.4
<b>Male</b>	Sample size	1	25	185	1	34	1	0	0	247
	Average length	362	569	762	695	851	642			
	SD		63.7	70.5		66.1				
<b>Female</b>	Sample size	0	2	168	0	97	1	2	0	270
	Average length		829	789		846	758	877		
	SD		75.9	36.3		40.4		13.6		
<b>Total</b>	Sample size	1	27	353	1	131	2	2	0	517
	Average length	362	588	775	695	847	700	877		
	SD		93.8	58.0		48.1	82.0	13.6		
<b>Verrett Creek</b>										
<b>Male</b>	Sample size	0	8	98	0	16	1	0	0	123
	Average length		503	718		844	745			
	SD		69.4	62.8		75.4				
<b>Female</b>	Sample size	0	0	78	0	42	1	1	0	122
	Average length			759		804	800	770		
	SD			37.9		43.7				
<b>Total</b>	Sample size	0	8	176	0	58	2	0	0	244
	Average length		503	736		815	773			
	SD		69.4	56.7		56.5	38.9			

**Table 9.—Estimated age composition of chinook salmon harvested in the Canadian gillnet fishery, by sex, 1996.**

		AGE CLASS										TOTAL
		1.1	1.2	0.3	1.3	0.4	1.4	0.5	1.5	2.3	2.4	
<b>Male</b>	Sample size	1	34	1	85	4	21	0	4	1	1	152
	Percent	0.3%	11.4%	0.3%	28.6%	1.3%	7.1%	0.0%	1.3%	0.3%	0.3%	51.2%
	SE	0.3%	1.9%	0.3%	2.6%	0.7%	1.5%	0.0%	0.7%	0.3%	0.3%	2.9%
<b>Female</b>	Sample size	0	6	4	95	2	35	0	1	1	1	145
	Percent	0.0%	2.0%	1.3%	32.0%	0.7%	11.8%	0.0%	0.3%	0.3%	0.3%	48.8%
	SE	0.0%	0.8%	0.7%	2.7%	0.5%	1.9%	0.0%	0.3%	0.3%	0.3%	2.9%
<b>Total</b>	Sample size	1	40	5	180	6	56	0	5	2	2	297
	Percent	0.3%	13.5%	1.7%	60.6%	2.0%	18.9%	0.0%	1.7%	0.7%	0.7%	100.0%
	SE	0.3%	2.0%	0.7%	2.8%	0.8%	2.3%	0.0%	0.7%	0.5%	0.5%	

**Table 10.—Estimated length composition of chinook salmon harvested in the Canadian gillnet fishery, by sex and age, 1996.**

		BROOD YEAR AND AGE CLASS										TOTAL
		1993	1992	1991		1990		1989				
		1.1	1.2	0.3	1.3	0.4	1.4	2.3	1.5	2.4		
<b>Male</b>	Sample size	1	34	1	85	4	21	1	4	1	152	
	Average length	378	520	730	728	833	825	800	882	948		
	SD		69.2		78.7	56.8	79.0		53.5			
<b>Female</b>	Sample size	0	6	4	95	2	35	1	1	1	145	
	Average length		631	723	733	811	806	743	818	840		
	SD		12.8	61.6	58.8	7.8	54.4					
<b>Total</b>	Sample size	1	40	5	180	6	56	2	5	2	297	
	Average length	378	536	724	731	826	813	800	869	894		
	SD		75.4	53.4	68.3	45.6	64.7	79.9	54.5	76.4		



## DISCUSSION

Length and sex composition data in this study indicate that size selective sampling may have occurred during gillnet fishing (Bernard and Hansen 1992). The lengths of tagged fish recovered at Verrett Creek were consistently smaller than untagged fish, indicating possible size selection during event 1, while the recoveries at Little Tahltan did not. Probable size-selective sampling at Verrett Creek failed to meaningfully bias estimates of abundance because the population in Verrett Creek is probably a minor component of the total escapement. Of 33 radio tagged chinook salmon tracked to spawning areas in 1995, two (6%) were tracked to Verrett Creek and 16 (48%) were tracked to the Tahltan or Little Tahltan rivers (John Eiler, NMFS, Auke Bay Lab, personal communication). A major radio-tracking distribution study planned for 1997 should identify all major spawning areas. When pooled, data from Little Tahltan River and Verrett Creek show no signs of size-selective sampling. Only when separated did data from Verrett Creek indicate that sampling in that stream was biased towards smaller fish. This dichotomy most likely arises because fish returning to Verrett Creek are *smaller regardless of age*. Results from statistical tests on mean length at age, age compositions, and length distributions of sampled fish are consistent with this conclusion.

Discrepancies among estimates of abundance and observed tagging rates in samples arise because of sampling problems in the Little Tahltan River and at Kakwan Point. Daily catch is dependent not only on effort but on river conditions which can change dramatically from day to day. Sampling effort was erratic at Kakwan Point, with the period between June 7–25 having the highest average daily fishing time along with the bulk of captured fish (Figure 3&4). Most of the salmon (92%) recovered in Verrett Creek were tagged in this interval; while 50% of the salmon recovered in the Little Tahltan were tagged before this period (Figure 5). Observation at the weir of fish passing by obviously boosted sample sizes, but was also less reliable than actually handling fish. The blue tag used in the study was designed to blend into the partially occluded waters of the

upper Stikine River to prevent predators from targeting on marked fish. Unfortunately, this same quality would hamper recognition at a distance by technicians as well, which may explain why the tagged rate of inspected fish at the weir was higher than the rate for observed fish. Another explanation for the difference in tagging rates between the two recovery methods may be a natural propensity for the crew to target on tagged fish while sampling. The discrepancy between tagged rates of chinook salmon inspected at the weir and those sampled upstream is likely due to low sampling effort early in the season at Kakwan Point. Carcasses are easier to capture than moribund fish, and represent fish that reached the spawning grounds earlier. If carcasses sampled in mid-August had passed Kakwan Point in May, these fish would have been tagged at a lower rate than all fish that had passed by Kakwan Point during the season. If carcasses sampled above the weir represented the earliest migrants past Kakwan Point their tagged rate would be likely lower than the rate for all chinook salmon bound for the Little Tahltan River.

Given the difficulties at Kakwan Point in 1996, the most reliable estimate of abundance is that derived from tags recovered from the Canadian commercial fishery. Sampling effort was less variable from June 12 forward. Also, the regular pattern of fishing in the commercial fishery would tend to equalize the probability that every chinook salmon passing by Kakwan Point after June 12 would be caught in event 2. Although the commercial fishery was size-selective towards smaller chinook salmon, the effect of this violation of assumption (a) on accuracy of the estimate was negligible. Unfortunately, the estimate is for only those fish passing by Kakwan Point after June 12. Although half the catch at Kakwan Point occurred before that date, sampling effort was lower before June. The timing curve of fish sampled at Kakwan Point could be prorated for differences in sampling effort to expand the estimate to cover the entire season. This prorated expansion is 16,666 fish (52.5%) passing prior to June 13, leaving a seasonal estimate of 31,718 large (33,711 all size) chinook salmon past Kakwan Point. Unfortunately, the estimated variance of 3,820,935 is a minimal variance because the

variance in the prorated expansion is not estimable. To make the estimate of abundance past Kakwan Point comparable to other estimates of spawning abundance, harvests in the commercial and aboriginal fisheries should be subtracted. The final estimate of spawning abundance is  $31,718 - 2,769 = 28,949$  large ( $33,711 - 3,266 = 30,445$  all size) chinook salmon. The count of 4,370 large fish at the Little Tahltan weir was 15.1% of the estimated spawning escapement of large chinook salmon past Kakwan Point.

## CONCLUSIONS AND RECOMMENDATIONS

This was the first attempt at estimating the total escapement of chinook salmon to the Stikine River. If spawning ground sample sizes can be increased, it appears feasible to conduct a mark-recapture experiment with acceptable results using methods developed in 1995 and 1996. Drift gillnets appear to be an effective method of capturing large chinook salmon migrating up the Stikine River. The project should be repeated to provide replicates of the 1996 study, with radio tags applied in event 1 to provide estimates of handling mortality and spawning distribution, and modifications in event 2 required to increase the sample size.

## ACKNOWLEDGMENTS

Tom Rockne, Alex Joseph, Dave Dreyer, Wayne Dennis, Gerald Quash, Martin Kienzler, Henry Vance, and Ron Hulse conducted field work and data collection. Bob Zorich coordinated the project in Petersburg. Colin Barnard operated the Little Tahltan River weir. Randy Timothy, Brian Lynch, William Bergmann, Mary Meucci, Ed Jones, Vera Goudima and others helped with many aspects of the project. Dave Bernard, Scott McPherson, Steve Elliott, and Bob Marshall provided editorial comments. Canadian and U.S. fishermen returned tags. The staff of the USFS Stikine LeConte Wilderness Area was helpful in the operation of the project.

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## **APPENDIX A**

**Appendix A1.–Fish number, date captured, length, sex, age, tag number, recovery location and comments on chinook salmon sampled and tagged near Kakwan Point, lower Stikine River, 1996.**

Fish #	Date tagged	Time caught	Loc. tagged	Scale book	Row	Length		Sex	Age	Spag tag #	Date recov	Loc. recov	Comments
						POH	MEF						
1	08-May	10:55:00	KPS	78339	1	720	820	F	R	1			silver bright
2	08-May	14:47:46	KPS	"	2	680	790	F	1.4	2			seal bit, right side; silver
3	08-May	15:14:51	KPS	"	3	760	860	F	1.4	3			silver bright
4	09-May	12:17:34	KPS	"	4	620	710	M	1.3	4			silver bright
5	09-May	14:06:44	KPS	"	5	710	810	M	1.3	5	09-Jun	TCAFF	silver bright
6	12-May	11:55:00	KPS	"	6	800	900	F	1.4	6			sea lice; prior sea scar
7	12-May	13:06:00	KPS	"	7	750	840	M	1.3	no tag			measur./scale; left side seal damage, op.
8	12-May	13:20:00	KPS	"	8	710	810	F	1.4	7			sea lice present
9	12-May	14:45:00	KPS	"	9	660	745	F	1.3	8			exc. cond.
10	12-May	15:30:00	KPS	"	10	770	785	F	R.3	9			gd. cond.
11	12-May	11:55:00	KPS	63151	1	540	620	M	1.3	10			gd. cond.
12	12-May	16:59:00	KPS	"	2	780	990	F	1.4	11			gd. cond.
13	12-May	17:01:00	KPS	"	3	735	830	F	1.4	12			sea lice present
14	13-May	09:27:00	KPS	"	4	700	800	F	1.3	13			bleeding
15	13-May	11:40:00	KPS	"	5	690	795	F	1.3	14			gd. cond.
16	14-May	09:21:00	KPS	"	6	670	770	M	1.3	15			gd. cond.
17	14-May	09:56:00	KPS	"	7	605	670	M	1.3	16	24-Jun	TCAFF	bleeding/gd. cond.
18	14-May	10:08:00	KPS	"	8	740	860	M	1.4	17			gray; slow recov.
19	14-May	11:17:00	KPS	"	9	590	665	M	1.3	18	17-Jun	LSF	gd. cond.
20	14-May	15:06:00	KPS	"	10	656	786	F	1.3	19			gd. cond.
21	15-May	10:59:00	KPS	63153	1	770	870	F	1.4	20			gd. cond.; sea lice pr.
22	15-May	12:08:00	KPS	"	2	715	800	M	1.3	21			gd. cond.
23	15-May	14:38:00	KPS	"	3	765	860	F	R.4	22			gd. cond.; sea lice pr.
24	15-May	15:08:00	KPS	"	4	735	860	M	1.3	23			gd. cond.
25	15-May	15:58:00	KPS	"	5	610	710	F	1.3	24			bleeding gill; seal scars
26	15-May	16:18:00	KPS	"	6	750	830	F	R.4	25			gd. cond.
27	16-May	11:17:00	KPS	"	7	645	740	M	R	26			sea lice pr.
28	16-May	14:32:00	KPS	"	8	745	830	F	R.4	27			scar left side; sea lice pr.
29	18-May	10:00:03	KP	63154	1	690	785	F	R	28			sea lice present; gd.cond.
30	18-May	11:17:30	KP	"	2	840	950	M	1.4	29			gd. cond.
31	18-May	11:37:10	KP	"	3	700	810	F	R	30			gd. cond.; active
32	18-May	14:32:10	KP	"	4	795	920	F	1.4	31			sea lice pr.
33	18-May	14:33:00	KP	"	5	700	790	M	1.3	32			gd. cond.
34	18-May	15:28:22	KP	"	6	530	620	M	1.2	33			gd. cond.
35	18-May	16:08:10	KP	"	7	790	850	F	R	34			gd. cond.; slow recovery
36	18-May	16:59:10	KP	"	8	660	760	F	1.3	35			gd. cond.
37	19-May	09:32:19	KP	"	9	655	760	F	1.3	36			gd. cond.
38	19-May	09:48:49	KP	"	10	700	820	M	1.3	37			sea lice pr.
39	19-May	10:38:10	KP	63155	1	685	810	F	1.3	38			gd. cond.
40	19-May	13:59:02	KP	"	2	690	825	M	1.3	39	30-Jun	LTR	sea lice pr.
41	19-May	14:16:29	KP	"	3	775	885	M	R	40			gd. cond.
42	19-May	15:39:10	KP	"	4	705	805	F	R.4	41			gd. cond.
43	19-May	16:01:54	KP	"	5	680	775	F	ILL	42			gd. cond.; silver
44	19-May	16:47:16	KP	"	6	515	590	M	1.2	43			gd. cond.
45	20-May	09:33:02	KP	"	7	600	695	M	R.3	44			silver
46	20-May	09:59:50	KP	"	8	660	760	F	1.3	45			silver; slow recovery
47	20-May	10:52:17	KP	"	9	770	880	M	1.3	46			silver
48	20-May	11:41:52	KP	"	10	490	575	M	1.2	47			new net
49	20-May	15:12:27	KP	63156	1	750	855	M	R.4	48			seal bit; dark
50	20-May	16:18:30	KP	"	2	520	610	F	1.3	50			
51	20-May	16:18:30	KP	"	3	690	730	M	1.3	51			silver
52	20-May	16:37:38	KP	"	4	705	851	F	1.3	52			silver
53	20-May	16:18:30	KP	"	5	670	765	F	1.3	53			silver
54	20-May	16:55:26	KP	"	6	790	910	M	1.5	62			
55	20-May	17:50:42	KP	"	7	650	775	M	1.3	54			silver

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Fish #	Date tagged	Time caught	Loc. tagged	Scale book	Row	Length		Sex	Age	Spag tag #	Date recov	Loc. recov	Comments
						POH	MEF						
56	21-May	12:09:32	KP	"	8	745	860	F	1.4	55			sea lice & scars
57	21-May	14:25:27	KP	"	9	745	845	M	1.4	57			scar; scale from right side
58	21-May	15:49:01	KP	"	10	690	890	F	1.3	56			sea lice pr.
59	21-May	17:16:28	KP	63157	1	760	880	F	1.4	58			sea lice pr.
60	22-May	09:49:30	KP	"	2	625	720	M	1.4	59			sea lice pr.
61	22-May	12:02:05	KP	"	3	720	820	F	1.4	61			sea lice pr.; slow recovery
62	23-May	10:23:40	KP	"	4	660	780	F	1.3	60			silver
63	23-May	12:40:28	KP	"	5	740	875	F	1.4	63			silver
64	23-May	12:54:24	KP	"	6	725	815	F	R.3	64			sea lice
65	23-May	16:36:22	KP	"	7	750	875	M	1.4	65	14-Jul	LTR	sea lice
66	25-May	09:32:40	KP	"	8	700	905	F	1.4	74			scarred back
67	25-May	10:07:34	KP	"	9	880	945	M	1.4	75			gd. cond.; silver
68	25-May	11:58:22	KP	"	10	685	786	M	1.3	76			gd. cond.; silver
69	24-May	10:05:30	KP	63158	1	710	810	M	1.4	66			gd. cond.; silver
70	24-May	10:05:30	KP	"	2	700	815	F	1.4	67			gd. cond.; silver
71	24-May	11:31:44	KP	"	3	675	765	F	1.3	68			gd. cond.; silver
72	24-May	12:12:30	KP	"	4	760	855	M	1.4	69			gd. cond.; scarred left side
73	24-May	12:51:30	KP	"	5	795	895	M	1.4	70			scarred
74	24-May	15:08:30	KP	"	6	700	880	F	1.3	71			gd. cond.
75	24-May	15:41:48	KP	"	7	765	890	F	1.4	72			gd. cond.
76	24-May	16:13:40	KP	"	8	625	710	M	1.3	73			gd. cond.
77	24-May	14:52:15	KP	"	9	825	920	M	1.4	77			gd. cond.
78	24-May	15:03:46	KP	"	10	695	800	F	1.4	78			gd. cond.; silver; sea lice pr.
79	25-May	15:21:11	KP	63159	1	630	715	M	1.3	79			gd. cond.; silver; sea lice pr.
80	25-May	15:21:11	KP	"	2	690	785	F	1.3	80			gd. cond.; silver
81	25-May	15:57:58	KP	"	3	815	940	M	1.4	81			gd. cond.; silver
82	25-May	16:36:00	KP	"	4	725	840	F	1.4	82			gd. cond.; silver
83	25-May	16:36:00	KP	"	5	655	755	F	1.3	83			gd. cond.; silver
84	25-May	17:23:32	KP	"	6	645	770	F	1.3	84			gd. cond.; silver
85	26-May	09:46:30	KP	"	7	690	820	F	2.3	85			gd. cond.; silver
86	26-May	10:29:00	KP	"	8	540	640	M	1.3	86			gd. cond.; silver
87	26-May	10:45:00	KP	"	9	670	790	F	R.3	87			gd. cond.; silver; sea lice pr.
88	26-May	12:02:41	KP	"	10	760	890	M	R.4	89a			gd. cond.; silver; bleeding left side; scale taken from right
89	26-May	15:01:10	KP	63160	1	695	795	F	R.4	89b			gd. cond.; silver; sea lice pr.
90	26-May	16:13:55	KP	"	2	700	800	F	R.4	90			gd. cond.; silver
91	27-May	09:12:34	KP	"	3	685	805	F	1.3	91			gd. cond.; silver
92	27-May	10:10:30	KP	"	4	710	835	M	1.4	92			gd. cond.; silver
93	27-May	10:52:32	KP	"	5	565	665	M	1.3	93	22-Jul	LTR	gd. cond.; silver
94	27-May	11:54:39	KP	"	6	730	825	M	R.3	94			gd. cond.; silver
95	27-May	14:43:12	KP	"	7	760	860	F	1.4	95			gd. cond.; silver
96	27-May	15:16:59	KP	"	8	710	800	F	1.3	96			gd. cond.; silver
97	31-May	09:46:18	KP	"	9	755	785	F	1.4	98			gd. cond.; silver; slow recovery
98	31-May	10:15:00	KP	"	10	675	785	M	1.3	97			gd. cond.; silver
99	31-May	11:00:32	KP	63161	1	620	695	M	1.3	99			gd. cond.; silver; bleeding
100	31-May	11:24:38	KP	"	2	695	810	M	1.4	100			gd. cond.; silver; sea lice pr.
101	31-May	12:06:35	KP	"	3	705	805	M	1.3	101			gd. cond.; silver
102	31-May	13:18:06	KP	"	4	720	825	M	1.3	102			gd. cond.; silver; bleeding
103	31-May	13:18:06	KP	"	5	705	815	M	1.3	103			dark; active
104	31-May	13:32:05	KP	"	6	690	805	F	1.4	104	13-Jul	LTR	gd. cond.; silver
105	31-May	13:52:04	KP	"	7	775	885	F	1.5	105			silver-bright
106	31-May	14:05:05	KP	"	8	755	875	M	1.4	106			silver-bright
107	31-May	15:15:00	KP	"	9	520	625	M	1.3	107			gd. cond.; silver
108	31-May	15:46:54	KP	"	10	780	875	F	R.4	108			silver-bright
109	31-May	16:42:20	KP	63162	1	755	880	F	R.4	109			dull
110	31-May	17:14:42	KP	"	2	640	715	F	1.3	110	29-Jul	LTR	gd. cond.; silver
111	31-May	17:29:10	KP	"	3	670	705	F	1.3	111			gd. cond.; silver

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Fish #	Date tagged	Time caught	Loc. tagged	Scale book	Row	Length		Sex	Age	Spag tag #	Date recov	Loc. recov	Comments
						POH	MEF						
112	31-May	18:08:10	KP	"	4	675	780	F	1.3	112			bleeding
113	01-Jun	11:01:10	KP	"	5	650	745	M	1.3	113			tag #114 damaged
114	01-Jun	11:01:10	KP	"	6	670	775	M	1.3	115			gd.cond.; silver
115	01-Jun	11:19:29	KP	"	7	675	820	M	1.4	116			gd.cond.; silver
116	01-Jun	11:30:23	KP	"	8	700	815	F	1.4	117			gd.cond.; silver
117	01-Jun	12:23:47	KP	"	9	720	725	M	1.3	118			gd.cond.; silver
118	01-Jun	12:41:23	KP	"	10	645	755	M	1.3	119			gd.cond.; silver
119	01-Jun	15:11:11	KP	63163	1	685	825	M	1.4	NO TAG			heavy bleeding
120	01-Jun	16:26:05	KP	"	2	665	765	F	1.3	120			gd.cond.; silver
121	01-Jun	16:45:53	KP	"	3	750	855	F	1.4	121			gd.cond.; silver
122	01-Jun	16:45:53	KP	"	4	725	820	M	R.4	122			dark
123	01-Jun	17:20:15	KP	"	5	750	870	F	1.4	123			gd.cond.; silver; slow recovery
124	02-Jun	10:26:10	KP	"	6	670	785	F	R.3	124			silver
125	02-Jun	11:06:40	KP	"	7	735	855	F	1.3	125			silver
126	02-Jun	13:33:15	KP	"	8	695	810	F	R	126			silver
127	02-Jun	13:44:07	KP	"	9	760	885	M	1.4	127			red
128	02-Jun	13:59:45	KP	"	10	735	840	M	1.3	128			silver; sea lice pr.
129	03-Jun	09:19:22	KP	63164	1	710	825	F	1.3	129			silver; sea lice pr.
130	03-Jun	09:28:07	KP	"	2	760	875	M	R	130			silver; sea lice pr.
131	03-Jun	10:34:57	KP	"	3	705	800	F	1.3	131			silver
132	03-Jun	11:15:45	KP	"	4	770	855	M	1.4	132			scars on left and right sides
133	03-Jun	13:41:42	KP	"	5	725	840	F	1.4	133			sea lice pr.
134	03-Jun	14:54:57	KP	"	6	720	820	M	1.4	134			silver
135	03-Jun	16:10:31	KP	"	7	595	680	M	1.3	135			silver
136	05-Jun	10:29:07	KP	"	8	805	940	F	1.5	141			silver
137	05-Jun	10:59:10	KP	"	9	709	790	M	1.4	142	06-Jul	TCAFF	silver
138	05-Jun	13:33:24	KP	"	10	710	820	M	1.4	143	27-Jun	LSF	silver
139	04-Jun	08:52:10	KP	63186	1	660	775	F	1.3	136			
140	04-Jun	09:17:40	KP	"	2	770	805	M	R.3	137	21-Jul	LTR	
141	04-Jun	10:45:16	KP	"	3	705	820	F	1.4	138			
142	04-Jun	14:04:13	KP	"	4	815	925	M	1.4	139			
143	04-Jun	14:19:17	KP	"	5	720	810	M	1.4	140			
144	07-Jun	09:46:46	KP	"	6	795	915	M	1.4	144			
145	07-Jun	11:38:42	KP	"	7	655	760	M	R.3	145			
146	07-Jun	14:27:06	KP	"	8	650	755	M	R	146			semi-bright
147	08-Jun	09:07:56	KP	"	9	625	735	M	1.3	147			bright
148	08-Jun	09:22:42	KP	"	10	730	845	F	1.4	148	06-Aug	VC	bright
149	08-Jun	10:23:30	KP	63165	1	630	745	M	R.3	149	02-Jul	LSF	semi-bright
150	08-Jun	14:06:38	KP	"	2	695	805	M	1.3	150			semi-bright
151	09-Jun	09:15:20	KP	"	3	625	720	M	1.3	151			semi-bright
152	09-Jun	09:27:35	KP	"	4	820	945	M	1.4	152			semi-bright
153	09-Jun	10:30:57	KP	"	5	580	685	M	1.3	153			bright
154	09-Jun	10:40:47	KP	"	6	725	820	M	1.3	155			bright
155	09-Jun	12:21:30	KP	"	7	690	795	M	R.3	156			semi-bright
156	09-Jun	12:21:30	KP	"	8	650	755	F	1.3	157			dark
157	09-Jun	14:09:39	KP	"	9	760	865	F	1.4	158			semi-bright
158	09-Jun	14:59:48	KP	"	10	750	860	F	1.4	159			bright; sea lice pr.
159	09-Jun	15:13:43	KP	63166	1	660	760	F	1.3	160			semi-bright; sea lice pr.
160	09-Jun	15:13:43	KP	"	2	795	930	M	1.3	161			dark
161	09-Jun	15:50:43	KP	"	3	795	925	M	1.4	162			dark
162	09-Jun	16:05:27	KP	"	4	675	780	M	R	163			bright; no scales taken
163	09-Jun	17:33:45	KP	"	5	655	765	F	1.3	164			bright
164	09-Jun	17:48:15	KP	"	6	690	790	F	1.3	165			bright
165	09-Jun	17:48:15	KP	"	7	730	850	M	1.3	166			semi-bright
166	10-Jun	09:05:27	KP	"	8	665	775	F	1.3	167			bright
167	10-Jun	09:05:27	KP	"	9	665	760	M	1.3	168			semi-bright
168	10-Jun	09:32:38	KP	"	10	670	775	F	R.4	NO TAG			bright; bleeding badly

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Fish #	Date tagged	Time caught	Loc. tagged	Scale book	Row	Length		Sex	Age	Spag tag #	Date recov	Loc. recov	Comments
						POH	MEF						
169	10-Jun	10:05:03	KP	63167	1	720	825	M	1.3	169	09-Jul	LTR	bright
170	10-Jun	10:42:48	KP	"	2	700	810	M	1.3	170			semi-bright
171	10-Jun	11:00:00	KP	"	3	740	865	F	1.4	171			bright
172	10-Jun	11:32:35	KP	"	4	645	740	F	1.3	172			bright
173	10-Jun	11:48:29	KP	"	5	805	940	M	1.4	173			semi-bright
174	10-Jun	12:04:02	KP	"	6	590	695	M	R.3	174			bright
175	10-Jun	12:44:45	KP	"	7	615	720	F	1.3	175			semi-bright
176	10-Jun	14:04:48	KP	"	8	690	790	F	1.3	176			bright
177	10-Jun	14:26:46	KP	"	9	640	740	F	1.3	177			bright
178	10-Jun	14:37:52	KP	"	10	650	755	F	1.3	178			semi-bright
179	10-Jun	14:53:23	KP	63168	1	550	645	M	1.3	179			bright
180	10-Jun	15:32:52	KP	"	2	750	900	M	1.4	180			bright
181	10-Jun	15:32:52	KP	"	3	680	775	F	1.3	181			semi-bright
182	10-Jun	15:53:19	KP	"	4	680	780	F	1.4	182			bright
183	10-Jun	15:53:19	KP	"	5	770	885	F	1.4	183			bright
184	10-Jun	16:14:46	KP	"	6	615	700	F	1.3	184			bright
185	10-Jun	16:14:46	KP	"	7	755	860	M	1.3	185			semi-bright
186	10-Jun	17:00:00	KP	"	8	670	775	F	1.3	186			bright; sea lice pr.
187	10-Jun	17:33:11	KP	"	9	770	910	F	1.4	187	19-Jul	LTR	semi-bright
188	10-Jun	17:33:11	KP	"	10	690	825	M	R.3	188			dark
189	10-Jun	18:02:41	KP	63169	1	750	855	M	1.4	189			semi-bright; seal bit
190	10-Jun	18:18:47	KP	"	2	730	855	F	R.4	190	16-Jul	LTR	bright
191	10-Jun	18:31:44	KP	"	3	735	850	M	1.4	191			bright
192	10-Jun	19:04:00	KP	"	4	625	735	F	1.3	192			bright
193	10-Jun	19:04:00	KP	"	5	650	750	F	1.3	193	02-Jul	LSF	bright; sea lice pr.
194	10-Jun	19:23:36	KP	"	6	615	715	F	R.4	194			red; sea lice pr.
195	10-Jun	19:41:37	KP	"	7	620	710	F	1.3	195			bright
196	11-Jun	09:15:22	KP	"	8	570	660	F	1.3	196			bright
197	11-Jun	09:15:22	KP	"	9	725	830	F	R.3	197			bright
198	11-Jun	09:39:05	KP	"	10	760	865	F	1.3	198			bright
199	11-Jun	09:58:08	KP	63170	1	720	825	M	1.3	199			bright; sea lice pr.
200	11-Jun	10:26:32	KP	"	2	720	840	F	1.4	200			semi-red
201	11-Jun	10:38:00	KP	"	3	755	865	M	1.3	201			bright; seal scar right side
202	11-Jun	11:38:00	KP	"	4	735	850	M	1.3	202			semi-bright; sea lice
203	11-Jun	12:02:00	KP	"	5	685	780	M	R	20			bright
204	11-Jun	12:49:00	KP	"	6	660	765	M	R.3	204	07-Jul	TCAFF	semi-bright
205	11-Jun	13:22:00	KP	"	7	550	605	M	R.3	205			bright
206	11-Jun	13:22:00	KP	"	8	785	885	M	1.3	206			bright; sea lice
207	11-Jun	15:18:00	KP	"	9	745	885	M	1.4	207			bright
208	11-Jun	15:35:00	KP	"	10	800	910	F	1.4	208			bright
209	11-Jun	17:06:00	KP	63171	1	805	905	M	1.4	209			semi-bright; sea lice pr.
210	11-Jun	17:25:00	KP	"	2	710	815	M	1.3	210			bright; sea lice
211	11-Jun	17:25:00	KP	"	3	710	810	F	1.3	211			bright; sea lice
212	11-Jun	17:44:00	KP	"	4	630	735	M	1.3	212			bright; sea lice
213	11-Jun	17:44:00	KP	"	5	665	765	F	1.3	213			bright
214	11-Jun	18:06:00	KP	"	6	665	780	F	1.3	214	28-Jun	LSF	bright
215	11-Jun	18:42:00	KP	"	7	655	755	F	1.3	215	19-Jul	TR	bright; released alive by sport fisher
216	11-Jun	19:01:00	KP	"	8	755	850	M	1.3	216			semi-bright
217	11-Jun	19:01:00	KP	"	9	775	875	M	1.4	217			scared; red/dark
218	11-Jun	19:01:00	KP	"	10	520	615	M	1.2	218			bright
219	11-Jun	19:27:00	KP	63172	1	680	780	M	1.3	219			semi-bright; sea lice
220	11-Jun	19:45:00	KP	"	2	580	680	F	1.3	220			bright
221	12-Jun	09:27:00	KP	"	3	565	660	F	1.3	221			bright
222	12-Jun	09:43:00	KP	"	4	735	840	F	1.3	222			bright
223	12-Jun	10:05:00	KP	"	5	630	725	F	1.3	223			semi-bright
224	12-Jun	10:05:00	KP	"	6	780	890	F	1.4	224			dark
225	12-Jun	10:26:00	KP	"	7	690	785	M	R.3	225			bright

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Fish #	Date tagged	Time caught	Loc. tagged	Scale book	Row	Length		Sex	Age	Spag tag #	Date recov	Loc. recov	Comments
						POH	MEF						
226	12-Jun	11:02:00	KP	"	8	795	905	M	1.4	226			bright; sea lice
227	12-Jun	11:17:00	KP	"	9	780	915	M	1.5	227			semi-bright
228	12-Jun	11:34:00	KP	"	10	745	835	F	1.4	228			semi-bright
229	12-Jun	11:51:00	KP	63173	1	770	880	F	1.4	229			bright
230	12-Jun	12:04:00	KP	"	2	760	870	M	1.3	230			semi-bright
231	12-Jun	12:04:00	KP	"	3	680	775	F	1.4	231			semi-red; scarred belly
232	12-Jun	12:24:00	KP	"	4	830	935	M	R.4	232			red belly
233	12-Jun	12:47:00	KP	"	5	730	835	F	1.3	233			bright
234	12-Jun	12:57:00	KP	"	6	580	670	F	1.3	234			bright
235	12-Jun	14:36:00	KP	"	7	630	730	M	1.3	235			dark/red
236	12-Jun	14:52:00	KP	"	8	535	630	M	1.3	236			red; sea lice
237	12-Jun	15:11:00	KP	"	9	710	815	F	R.3	237			bright
238	12-Jun	15:20:00	KP	"	10	690	775	F	1.3	238			semi-bright
239	12-Jun	15:40:00	KP	63174	1	645	745	M	1.3	239			bright
240	12-Jun	16:03:00	KP	"	2	725	830	F	1.4	240			bright; sea lice
241	12-Jun	16:18:00	KP	"	3	685	810	F	1.3	241			bright
242	12-Jun	16:39:00	KP	"	4	715	830	F	1.3	242			bright; scar on anus
243	12-Jun	17:39:00	KP	"	5	740	855	F	R.5	243			very dark
244	12-Jun	17:56:00	KP	"	6	720	825	F	1.3	244			bright; sea lice
245	12-Jun	18:34:00	KP	"	7	620	720	F	1.3	245			bright; sea lice
246	12-Jun	18:34:00	KP	"	8	675	785	M	1.3	246			semi-bright
247	13-Jun	09:45:00	KP	"	9	735	835	F	1.3	247	21-Jun	LSF	bright
248	13-Jun	09:59:00	KP	"	10	670	785	F	1.3	248			bright; sea lice
249	13-Jun	10:31:00	KP	63175	1	605	695	M	1.3	249			bright
250	13-Jun	10:46:00	KP	"	2	695	790	M	R.3	250			bright
251	13-Jun	11:02:00	KP	"	3	660	765	M	1.3	251			bright; sea lice
252	13-Jun	11:02:00	KP	"	4	640	755	F	1.4	252			bright; sea lice
253	13-Jun	11:46:00	KP	"	5	560	650	M	1.3	253			bright
254	13-Jun	12:03:00	KP	"	6	645	735	F	1.3	254			bright
255	13-Jun	12:21:00	KP	"	7	660	760	F	1.3	255			bright; sea lice
256	13-Jun	12:38:00	KP	"	8	730	830	M	1.4	256			bright; sea lice
257	13-Jun	12:50:00	KP	"	9	690	795	F	1.3	257			bright; sea lice
258	13-Jun	13:06:00	KP	"	10	660	760	F	1.3	258			bright
259	13-Jun	14:50:00	KP	78340	1	570	675	M	1.3	259	04-Jul	LSF	bright
260	13-Jun	15:42:00	KP	"	2	530	625	M	1.3	260			bright
261	13-Jun	15:59:00	KP	"	3	600	680	M	1.3	261	18-Jun	LSF	bright; sea lice
262	13-Jun	16:24:00	KP	"	4	700	800	M	1.4	262			bright
263	13-Jun	16:38:00	KP	"	5	625	725	F	1.3	263	15-Jul	LTR	bright; sea lice
264	13-Jun	17:35:00	KP	"	6	755	905	M	1.4	264	17-Jul	TCAFF	semi-bright
265	13-Jun	17:55:00	KP	"	7	710	810	F	1.4	265	25-Jun	LSF	bright
266	13-Jun	18:11:00	KP	"	8	786	880	F	R	266			bright
267	14-Jun	10:00:00	KP	"	9	725	825	F	1.4	267			bright; sea lice
268	14-Jun	10:24:00	KP	"	10	670	775	F	1.3	268			bright; sea lice
269	14-Jun	10:24:00	KP	63049	1	720	830	F	1.4	269			bright; sea lice
270	14-Jun	10:24:00	KP	"	2	785	850	M	1.4	270			dark red
271	14-Jun	10:51:00	KP	"	3	690	785	M	1.3	271			bright
272	14-Jun	11:17:00	KP	"	4	750	875	M	1.3	272			semi-bright
273	14-Jun	11:17:00	KP	"	5	590	690	M	1.3	273			bright
274	14-Jun	11:17:00	KP	"	6	605	700	M	1.3	274			bright
275	14-Jun	11:51:00	KP	"	7	610	695	M	1.3	275			semi-bright
276	14-Jun	12:17:00	KP	"	8	715	815	F	R.3	276			bright
277	14-Jun	13:17:00	KP	"	9	700	800	M	R.4	277			bright; sea lice
278	14-Jun	15:48:00	KP	"	10	740	840	F	R.4	278	23-Jun	LSF	bright
279	14-Jun	15:48:00	KP	63050	1	780	910	M	1.4	279			dark red
280	14-Jun	16:08:00	KP	"	2	590	675	M	1.3	280	week of July 14 <sup>th</sup>		bright; caught by sport fisher on Craig R.
281	14-Jun	16:49:00	KP	"	3	700	805	M	1.3	281			bright; sea lice

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Fish #	Date tagged	Time caught	Loc. tagged	Scale book	Row	Length		Sex	Age	Spag tag #	Date recov	Loc. recov	Comments
						POH	MEF						
282	14-Jun	17:05:00	KP	"	4	715	825	M	1.3	282			bright; sea lice
283	14-Jun	17:26:00	KP	"	5	720	825	M	1.4	283			old scar; dark
284	14-Jun	17:26:00	KP	"	6	725	845	F	R.4	284			red
285	14-Jun	18:10:00	KP	"	7	450	515	M	1.2	285	29-Jun	LSF	bright
286	14-Jun	18:50:00	KP	"	8	690	795	F	1.3	286			semi-bright
287	14-Jun	18:50:00	KP	"	9	640	740	F	1.3	287			bright
288	16-Jun	10:04:00	KP	"	10	700	790	F	1.3	288			silver
289	16-Jun	11:16:00	KP	63199	1	770	895	F	1.4	no tag			bleeding
290	16-Jun	13:50:00	KP	"	2	735	830	M	1.3	293			silver
291	16-Jun	13:50:00	KP	"	3	640	735	M	1.3	292			silver
292	16-Jun	14:26:00	KP	"	4	685	785	M	1.3	289			silver
293	16-Jun	14:35:00	KP	"	5	725	825	M	1.3	290	06-Jul	LSF	scarred; right and left axillary clips
294	16-Jun	14:50:00	KP	"	6	705	815	M	1.3	291			silver
295	16-Jun	15:10:00	KP	"	7	650	745	M	1.3	294			silver
296	16-Jun	15:32:00	KP	"	8	720	730	M	1.3	295			silver
297	16-Jun	16:01:00	KP	"	9	680	790	F	1.3	296			sea lice
298	16-Jun	16:49:00	KP	"	10	740	820	M	1.4	297			
299	16-Jun	17:08:00	KP	63200	1	655	755	F	1.3	298			
300	16-Jun	17:08:00	KP	"	2	625	720	M	1.3	299			seal bit
301	16-Jun	17:08:00	KP	"	3	610	765	M	1.3	300			
302	16-Jun	17:35:00	KP	"	4	670	755	F	1.3	**724			bleeding
303	17-Jun	10:20:00	KP	"	5	740	855	M	1.4	301			
304	17-Jun	10:47:00	KP	"	6	790	895	F	1.4	302			slight bleeding
305	17-Jun	13:48:00	KP	"	7	680	775	F	1.3	303			slight bleeding
306	17-Jun	14:36:00	KP	"	8	795	882	M	R.4	304			silver
307	17-Jun	15:02:00	KP	"	9	640	725	M	1.3	305			silver
308	17-Jun	16:08:00	KP	"	10	655	800	F	1.3	306			slight bleeding
309	17-Jun	18:04:00	KP	72151	1	705	790	F	1.3	307			silver-active
310	17-Jun	18:52:00	KP	"	2	650	745	M	1.3	308			
311	17-Jun	19:20:00	KP	"	3	650	750	M	1.3	309			
312	18-Jun	11:54:00	KP	"	4	765	865	F	1.4	310	21-Jun	LSF	silver
313	18-Jun	12:20:00	KP	"	5	705	820	F	1.3	311			silver
314	18-Jun	13:47:00	KP	"	6	680	785	F	1.4	312			silver
315	18-Jun	13:47:00	KP	"	7	745	895	F	1.4	313			
316	18-Jun	13:47:00	KP	"	8	735	840	F	1.4	314			
317	18-Jun	14:12:00	KP	"	9	690	805	F	1.3	315			
318	18-Jun	14:12:00	KP	"	10	505	595	M	1.2	316	21-Jun	LSF	sea lice
319	18-Jun	14:42:00	KP	17152	1	600	710	F	1.3	317			
320	18-Jun	14:42:00	KP	"	2	745	855	F	1.4	318			
321	18-Jun	14:59:00	KP	"	3	605	715	M	1.3	319			
322	18-Jun	16:11:00	KP	"	4	680	780	F	1.3	320	26-Jun	LSF	
323	18-Jun	16:48:00	KP	"	5	680	785	M	R	321			
324	18-Jun	16:48:00	KP	"	6	650	745	M	1.3	322	22-Jun	LSF	
325	18-Jun	16:48:00	KP	"	7	680	780	F	1.3	323			sea lice
326	18-Jun	17:34:00	KP	"	8	630	750	M	1.3	324			slight color
327	18-Jun	17:52:00	KP	"	9	715	810	F	R	325			
328	18-Jun	17:52:00	KP	"	10	705	800	M	1.3	326			
329	18-Jun	18:35:00	KP	72177	1	650	770	M	1.3	327			
330	18-Jun	18:35:00	KP	"	2	600	700	M	1.3	328			
331	19-Jun	09:45:00	KP	"	3	605	690	M	1.3	329			
332	19-Jun	10:07:00	KP	"	4	680	775	F	1.3	330			
333	19-Jun	11:00:00	KP	"	5	655	740	F	1.3	331			
334	19-Jun	11:34:00	KP	"	6	725	820	M	1.3	332	13-Aug	VC	slight color
335	19-Jun	12:17:00	KP	"	7	715	800	M	R.3	333			
336	19-Jun	13:01:00	KP	"	8	790	925	M	R.4	334	27-Jul	LSF	
337	19-Jun	16:16:00	KP	"	9	725	835	F	1.3	335			
338	19-Jun	17:00:00	KP	"	10	605	685	M	1.3	336			

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Fish #	Date tagged	Time caught	Loc. tagged	Scale book	Row	Length		Sex	Age	Spag tag #	Date recov	Loc. recov	Comments
						POH	MEF						
339	19-Jun	17:27:00	KP	72178	1	725	805	F	1.3	337			scar; green color
340	19-Jun	17:27:00	KP	"	2	735	845	F	1.4	338			
341	19-Jun	17:47:00	KP	"	3	645	755	F	1.3	339			
342	19-Jun	18:52:00	KP	"	4	530	605	M	1.2	340			
343	21-Jun	09:04:00	KP	72179	1	690	805	F	1.3	341			bright
344	21-Jun	09:56:00	KP	"	2	730	850	F	1.3	342			bright
345	21-Jun	10:23:00	KP	"	3	790	910	F	1.4	343			bright
346	21-Jun	10:47:00	KP	"	4	660	785	M	1.3	344			bright
347	21-Jun	11:17:00	KP	"	5	785	895	M	R.4	345			bright
348	21-Jun	11:17:00	KP	"	6	685	780	M	1.3	346			bright
349	21-Jun	11:41:00	KP	"	7	730	840	M	R.4	349	11-Aug	LTR	bright
350	21-Jun	13:27:00	KP	"	8	635	755	M	1.3	347			bleeding heavily from tail; slight bleeding from gills, stopped by time released
351	21-Jun	14:11:00	KP	"	9	705	800	M	1.3	348			bright
352	21-Jun	14:11:00	KP	"	10	700	795	F	1.3	350	09-Aug	TCAFF	bright
353	21-Jun	15:47:00	KP	72180	1	790	880	M	R.3	351			bright
354	22-Jun	09:17:40	KP	"	2	780	900	M	1.4	352	03-Jul	LSF	dark
355	22-Jun	11:04:10	KP	"	3	540	625	M	R.3	354			
356	22-Jun	11:38:56	KP	"	4	775	895	M	R	355			silver
357	22-Jun	14:34:10	KP	"	5	735	820	F	1.3	356			sea lice
358	22-Jun	15:56:17	KP	"	6	530	620	M	1.2	357			
359	22-Jun	16:32:25	KP	"	7	650	750	M	1.3	358			silver
360	23-Jun	09:05:30	KP	"	8	610	710	F	1.3	353			
361	23-Jun	10:53:25	KP	"	9	595	690	M	1.3	359			
362	23-Jun	14:37:31	KP	"	10	600	680	M	1.3	360			
363	23-Jun	15:29:07	KP	72181	1	630	730	M	1.2	361			
364	23-Jun	16:06:31	KP	"	2	675	765	F	1.3	362			sockeye?
365	24-Jun	09:33:40	KP	"	3	695	800	F	1.4	363	03-Jul	LSF	dark
366	24-Jun	10:58:50	KP	"	4	665	745	F	1.3	364			silver, seal scar; sea lice
367	24-Jun	15:38:31	KP	"	5	770	910	M	1.4	365			dark
368	25-Jun	13:29:30	KP	"	6	745	775	F	1.3	366			
369	25-Jun	14:09:31	KP	"	7	665	795	F	1.3	374	09-Jul	LSF	
370	25-Jun	17:00:51	KP	"	8	560	630	M	1.3	367			
371	26-Jun	14:02:54	KP	72182	1	615	690	M	1.3	368	08-Aug	VC	
372	27-Jun	14:50:51	KP	"	2	635	725	F	1.3	369			bright; sea lice
373	27-Jun	15:09:32	KP	"	3	675	775	F	1.3	370			dark
374	27-Jun	15:44:15	KP	"	4	760	860	M	1.3	371			bright
375	28-Jun	09:15:43	KP	"	5	680	795	M	R.3	373	02-Jul	LSF	
376	28-Jun	10:34:41	KP	"	6	670	750	M	1.3	375	09-Jul	LSF	
377	28-Jun	10:34:41	KP	"	7	685	770	F	1.4	376			
378	28-Jun	10:59:15	KP	"	8	705	800	F	R.3	377			bright
379	28-Jun	11:42:39	KP	"	9	640	740	F	1.3	378			
380	28-Jun	13:37:48	KP	"	10	670	775	F	1.3	379			bright
381	28-Jun	13:59:25	KP	72183	1	640	735	M	1.3	380			bright
382	29-Jun	13:59:25	KP	"	2	560	655	M	1.3	381	06-Jul	LSF	taken from other boat?? check records of SC crew; scar
383	29-Jun	16:19:11	KP	"	3	635	720	M	1.3	382			dark
384	30-Jun	10:21:10	KP	"	4	645	745	M	R.3	383			silver
385	30-Jun	11:55:31	KP	"	5	630	740	M	1.3	384	05-Jul	LSF	dark
386	30-Jun	13:33:29	KP	"	6	585	665	M	1.3	385			silver
387	30-Jun	15:06:29	KP	"	7	640	745	F	1.3	386			slight dark
388	30-Jun	17:33:29	KP	"	8	540	655	M	1.3	387			dark
389	30-Jun	17:33:29	KP	"	9	700	815	M	R.3	388			silver
390	30-Jun	17:33:29	KP	"	10	575	660	M	1.3	389			slight dark
391	01-Jul	09:01:58	KP	72184	1	680	795	F	1.3	390			semi-dark
392	01-Jul	09:17:39	KP	"	2	745	870	M	1.3	391			dark

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Fish #	Date tagged	Time caught	Loc. tagged	Scale book	Row	Length		Sex	Age	Spag tag #	Date recov	Loc. recov	Comments
						POH	MEF						
393	01-Jul	09:17:39	KP	"	3	755	865	F	1.4	392			dark
394	01-Jul	09:40:35	KP	"	4	695	810	F	1.3	393			dark
395	01-Jul	10:24:36	KP	"	5	730	840	M	R	394	03-Jul	LSF	scar; dark
396	01-Jul	10:56:00	KP	"	6	685	790	F	R.3	395			several scars
397	01-Jul	11:20:10	KP	"	7	620	715	M	R.3	396			dark
398	01-Jul	12:01:35	KP	"	8	720	830	M	1.3	397			silver
399	01-Jul	12:31:40	KP	"	9	615	710	M	1.3	398	03-Jul	LSF	slight dark
400	01-Jul	12:31:40	KP	"	10	680	795	F	1.3	399			slight dark
401	01-Jul	17:19:57	KP	72185	1	730	830	F	1.4	400			bright
402	01-Jul	18:18:18	KP	"	2	825	930	M	1.5	401			reddish
403	02-Jul	09:53:20	KP	"	3	710	810	F	R	406			silverish; sea lice
404	02-Jul	10:44:33	KP	"	4	680	780	F	1.3	402			
405	02-Jul	11:08:00	KP	"	5	665	760	F	1.3	403			bleeding/lethargic; blood stopped before release
406	02-Jul	11:08:00	KP	"	6	595	665	M	1.3	404	03-Jul	LSF	slightly dark
407	02-Jul	12:18:20	KP	"	7	690	790	F	1.3	405			slightly dark
408	02-Jul	13:49:22	KP	"	8	720	830	M	1.3	408			dark
409	02-Jul	14:08:16	KP	"	9	680	786	M	1.4	407			
410	02-Jul	16:33:50	KP	"	10	785	910	M	1.5	409			sea lice; silverish
411	03-Jul	09:48:30	KP	72186	1	675	775	F	R.3	410			dark
412	03-Jul	09:48:30	KP	"	2	605	695	M	1.2	411			slightly dark
413	03-Jul	10:37:40	KP	"	3	795	910	M	1.4	412			slightly dark
414	03-Jul	10:37:40	KP	"	4	725	850	M	1.3	413			slightly dark
415	03-Jul	10:37:40	KP	"	5	720	825	F	1.4	414	04-Jul	LSF	slightly dark
416	03-Jul	11:30:20	KP	"	6	820	925	M	1.4	415			silverish
417	03-Jul	11:30:20	KP	"	7	690	805	M	1.3	416	13-Jul	LSF	slightly dark
418	03-Jul	11:58:30	KP	"	8	600	690	M	1.3	417			slightly dark
419	03-Jul	14:01:50	KP	"	9	735	820	F	1.3	418			silver bright
420	03-Jul	14:21:30	KP	"	10	795	905	M	1.4	419			silver bright
421	03-Jul	14:51:18	KP	72187	1	715	825	F	1.4	420			silverish
422	03-Jul	15:35:50	KP	"	2	540	620	M	1.2	421	08-Jul	LSF	silver; sea lice
423	03-Jul	15:35:50	KP	"	3	760	860	F	1.4	422			dark; seal bit
424	03-Jul	16:44:20	KP	"	4	585	690	M	1.3	423			silverish
425	03-Jul	16:44:20	KP	"	5	720	815	F	1.3	424			silver bright
426	03-Jul	17:14:40	KP	"	6	680	785	F	1.3	425			silver
427	03-Jul	17:14:40	KP	"	7	770	890	M	1.4	**814			slightly dark; used SC's tag
428	04-Jul	09:39:24	KP	"	8	705	820	F	1.3	426			dull
429	04-Jul	10:24:40	KP	"	9	765	875	F	1.4	427			dull to dark
430	04-Jul	11:39:07	KP	"	10	665	765	F	1.3	428			silver bright
431	04-Jul	13:52:30	KP	72188	1	710	830	F	1.4	429			silver
432	04-Jul	15:09:30	KP	"	2	705	810	F	R.4	432	10-Aug	VC	dull
433	04-Jul	15:09:30	KP	"	3	710	835	F	ILL	430			dull
434	04-Jul	15:09:30	KP	"	4	no	length	F	1.4	431			dull
435	04-Jul	15:09:30	KP	"	5	750	875	M	1.3	433			dull
436	04-Jul	16:19:11	KP	"	6	775	910	M	1.4	434			dull
437	05-Jul	09:16:15	KP	"	7	670	785	F	1.3	435			dull
438	05-Jul	10:43:50	KP	"	8	800	900	M	1.4	436			dull
439	05-Jul	11:31:07	KP	"	9	655	750	F	1.3	437			silver to dull
440	05-Jul	15:53:30	KP	"	10	630	720	F	1.3	438	17-Jul	LSF	silver to dull
441	05-Jul	16:38:30	KP	72189	1	650	710	M	1.3	439			dull-reddish
442	05-Jul	17:25:00	KP	"	2	695	790	F	1.3	440			silver bright
443	06-Jul	09:31:50	KP	"	3	685	790	F	1.3	441			dull; heavy bleeding
444	06-Jul	11:10:30	KP	"	4	705	805	F	1.3	442			silver bright
445	06-Jul	14:36:10	KP	"	5	755	870	F	1.5	443			silver to dull
446	06-Jul	15:43:53	KP	"	6	730	840	M	1.3	444			dull
447	06-Jul	16:27:27	KP	"	7	670	770	F	1.3	445			dull; scarred
448	07-Jul	09:31:40	KP	"	8	575	670	F	1.3	446			dull

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Fish #	Date tagged	Time caught	Loc. tagged	Scale book	Row	Length		Sex	Age	Spag tag #	Date recov	Loc. recov	Comments
						POH	MEF						
449	07-Jul	10:58:00	KP	"	9	640	735	F	R.3	447			dull; slight bleeding
450	07-Jul	11:48:00	KP	"	10	675	815	F	1.4	448			dull
451	07-Jul	14:42:30	KP	72190	1	735	850	F	1.3	449			dull
452	07-Jul	14:50:50	KP	"	2	715	860	F	1.3	450			silverish
453	07-Jul	15:16:18	KP	"	3	630	750	F	1.3	451			silverish
454	08-Jul	13:37:38	KP	"	4	720	830	F	R.3	452			dull
455	08-Jul	14:36:20	KP	"	5	670	780	M	1.4	453			dull
456	08-Jul	15:18:20	KP	"	6	680	780	F	1.3	454			silverish
457	10-May	11:07:22	SC	63176	1	720	840	F	1.3	502			
458	11-May	12:01:40	SC	"	2	505	585	M	1.2	501			JACK
459	13-May	12:14:13	SC	"	3	680	770	F	1.3	503			bright
460	13-May	14:32:10	SC	"	4	660	770	F	1.4	504			
461	13-May	15:51:21	SC	"	5	705	820	M	1.4	505			sea lice
462	16-May	08:21:25	SC	"	6	785	890	F	1.4	507			tag #506 lost
463	16-May	08:46:08	SC	"	7	590	680	M	1.3	508			
464	16-May	09:51:30	SC	"	8	700	795	F	1.3	509			drift set
465	16-May	10:41:09	SC	"	9	630	740	F	R	510			
466	16-May	15:36:49	SC	"	10	740	850	F	1.4	511			sea lice; lower drift
467	16-May	15:53:49	SC	63177	1	765	865	M	1.4	512			
468	17-May	09:22:13	SC	"	2	575	670	M	1.4	513			dark
469	17-May	09:45:30	SC	"	3	670	755	M	1.3	514			bright; new fish
470	17-May	10:09:30	SC	"	4	655	730	M	1.3	515			bleeding slightly
471	17-May	11:36:21	SC	"	5	775	840	F	R.4	516			sea lice
472	17-May	13:45:48	SC	"	6	685	790	M	1.3	517			
473	17-May	16:39:52	SC	"	7	725	865	M	1.4	518	17-Jun	TCAFF	sea lice
474	17-May	17:04:03	SC	"	8	705	815	F	1.4	519	19-Jul	TR	
475	21-May	09:00:34	SC	"	9	765	870	M	1.4	520			semi-dark
476	21-May	09:24:54	SC	"	10	655	745	M	1.3	521			semi-dark
477	21-May	09:42:45	SC	63178	1	775	865	M	1.3	522	21-Jul	LTR	
478	21-May	10:06:19	SC	"	2	785	895	F	R.4	523			
479	21-May	11:15:57	SC	"	3	845	960	M	1.4	524			
480	21-May	14:34:56	SC	"	4	725	845	F	1.3	525			
481	21-May	14:34:57	SC	"	5	690	777	M	1.3	526			sea lice
482	23-May	08:29:27	SC	"	6	695	785	M	1.3	527			semi-dark
483	23-May	09:05:14	SC	"	7	645	735	M	R	528			
484	23-May	10:15:42	SC	"	8	775	890	M	1.3	529			had been hooked
485	23-May	10:39:18	SC	"	9	695	795	M	1.3	530			semi-dark
486	23-May	10:42:27	SC	"	10	580	645	F	1.2	531			semi-dark; sea lice
487	23-May	10:57:42	SC	63179	1	765	885	M	1.4	532			
488	23-May	11:20:14	SC	"	2	710	810	F	1.4	533			bright; no sea lice
489	23-May	11:39:18	SC	"	3	710	815	F	1.4	534			
490	23-May	11:40:01	SC	"	4	835	935	M	1.4	536			big fish; lost tag #535
491	23-May	12:07:26	SC	"	5	730	830	M	1.3	537			sea lice
492	23-May	13:48:15	SC	"	6	580	670	M	1.2	538			sea lice
493	23-May	14:25:35	SC	"	7	695	795	F	1.3	539			sea lice
494	23-May	15:04:05	SC	"	8	775	870	F	1.4	540			bright
495	23-May	15:48:15	SC	"	9	755	860	F	1.4	541			bright; no sea lice
496	24-May	13:48:13	SC	"	10	655	740	F	1.3	542			
497	24-May	16:13:25	SC	63180	1	585	660	M	R	543			
498	25-May	08:46:22	SC	"	2	610	690	M	1.3	544			sea lice
499	25-May	09:47:48	SC	"	3	660	755	M	1.3	545			
500	26-May	08:53:29	SC	"	4	695	795	M	1.3	546			
501	26-May	13:39:23	SC	"	5	720	855	F	1.3	547			
502	26-May	15:30:39	SC	"	6	690	825	M	1.4	548			dark
503	26-May	16:08:10	SC	"	7	790	930	M	1.4	549			(32) #'s wrapped in net ???
504	27-May	11:49:38	SC	"	8	625	715	M	1.3	550			exhausted fish; sea lice
505	27-May	12:05:59	SC	"	9	760	870	M	1.3	551			bright fish; sea lice

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Fish #	Date tagged	Time caught	Loc. tagged	Scale book	Row	Length		Sex	Age	Spag tag #	Date recov	Loc. recov	Comments
						POH	MEF						
506	28-May	10:52:26	SC	"	10	765	865	F	R.4	552			
507	28-May	12:25:25	SC	63181	1	725	830	F	1.3	553			
508	28-May	14:15:21	SC	"	2	820	945	F	R.5	554			
509	28-May	16:04:34	SC	"	3	560	645	M	1.3	555			old seal scars
510	28-May	16:36:43	SC	"	4	690	790	F	1.4	556			bright
511	28-May	16:57:07	SC	"	5	625	705	F	1.3	557	10-Jul	TCAFF	bright
512	28-May	17:29:31	SC	"	6	700	795	F	1.3	558			bright; sea lice
513	28-May	17:54:47	SC	"	7	640	735	F	1.3	559			bright
514	28-May	18:07:26	SC	"	8	655	750	F	1.4	560	14-Jul	LTR	bright
515	28-May	18:29:31	SC	"	9	750	840	F	1.4	561			bright; sea lice
516	29-May	08:15:32	SC	"	10	685	790	F	1.3	562			bright
517	29-May	08:54:20	SC	63182	1	790	900	F	1.4	563			
518	29-May	09:40:09	SC	"	2	785	900	M	1.4	564			bright; sea lice
519	29-May	10:01:34	SC	"	3	660	755	F	1.3	565			bright; bleeding; sea lice
520	29-May	10:17:56	SC	"	4	730	850	F	1.4	566			bright
521	29-May	10:20:13	SC	"	5	725	820	M	1.4	567			bright; sea lice; scars
522	29-May	11:16:55	SC	"	6	725	840	M	1.4	568			bright; sea lice
523	29-May	11:33:31	SC	"	7	785	905	M	1.4	569			semi-bright
524	29-May	11:49:53	SC	"	8	720	825	M	1.3	570			semi-bright; sea lice
525	29-May	13:14:39	SC	"	9	705	800	M	1.3	571			bright; sea lice
526	29-May	13:57:01	SC	"	10	685	770	M	1.3	572			bright
527	29-May	14:18:22	SC	63183		645	765	M	R	573			
528	29-May	15:31:20	SC	"	1	700	795	F	R	574			bright; sea lice
529	29-May	16:36:23	SC	"	2	585	685	M	1.3	575	06-Aug	VC	bright
530	30-May	17:03:15	SC	"	3	720	820	F	1.4	576			bright
531	30-May	10:02:23	SC	"	4	710	805	F	1.3	577			bright
532	30-May	14:30:10	SC	"	5	705	815	M	1.3	578			bright
533	30-May	15:07:31	SC	"	6	685	795	F	1.3	579			bright
534	30-May	15:41:32	SC	"	7	770	890	M	1.4	580			bright; sea lice
535	30-May	15:41:36	SC	"	8	555	650	M	1.3	581	02-Jul	TCAFF	bright
536	30-May	16:50:43	SC	"	9	695	810	M	1.3	582			bright; scars
recap	31-May	09:46:33	SC	63184		775	890	M	R		recap 529		recaptured
537	31-May	10:00:01	SC	"	1	675	750	M	R	583			
538	31-May	11:43:12	SC	"	2	635	715	F	R.3	584			semi-bright
539	31-May	11:59:01	SC	"	3	740	840	F	1.4	585			bright
540	31-May	12:10:10	SC	"	4	735	855	M	1.4	586			bright; seal scar on tail
541	31-May	12:10:10	SC	"	5	690	800	M	1.4	587			bright
542	31-May	13:23:58	SC	"	6	610	710	M	1.3	588			bright; bleeding
543	31-May	14:36:10	SC	"	7	765	865	F	1.4	589	04-Jul	TCAFF	bright
544	06-Jun	09:59:01	SC	"	8	765	875	F	1.4	590			
545	06-Jun	16:35:01	SC	"	9	865	975	F	1.4	591			
546	07-Jun	13:35:00	SC	63185	1	620	710	M	1.3	592			semi-bright
547	08-Jun	10:00:00	SC	"	2	775	875	M	1.3	593			semi-bright
548	09-Jun	09:39:58	SC	"	3	730	830	F	1.3	594			bright
549	09-Jun	12:44:54	SC	"	4	575	655	M	1.2	595			semi-bright
550	09-Jun	15:24:00	SC	"	5	710	800	F	R.3	596			semi-bright; sea lice
551	09-Jun	16:02:00	SC	"	6	545	620	M	1.3	597			very bright
552	09-Jun	17:32:00	SC	"	7	690	790	F	1.3	598			semi-bright
553	09-Jun	18:18:00	SC	"	8	680	875	M	1.3	599			semi-bright
554	10-Jun	09:47:00	SC	"	9	695	780	M	1.3	600			dark fish
555	10-Jun	10:03:00	SC	"	10	702	775	M	1.5	601			dark fish
556	10-Jun	10:16:00	SC	63187	1	617	680	F	R	602			scale card very wet
557	10-Jun	10:34:00	SC	"	2	742	827	F	R	603	20-Jul	TR	
558	10-Jun	12:19:00	SC	"	3	689	783	F	R	604			bright
559	10-Jun	13:30:00	SC	"	4	675	744	F	R	605			

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Fish #	Date tagged	Time caught	Loc. tagged	Scale book	Row	Length		Sex	Age	Spag tag #	Date recov	Loc. recov	Comments
						POH	MEF						
560	10-Jun	13:31:00	SC	"	5	804	907	F	1.4	606			semi-bright
561	10-Jun	14:00:00	SC	"	6	775	875	F	R.4	607			
562	10-Jun	14:03:00	SC	"	7	515	580	M	1.2	608	04-Jul	LSF	
563	10-Jun	15:09:00	SC	"	8	714	809	M	1.4	609			dark fish
564	10-Jun	15:39:00	SC	"	9	735	825	F	R.4	610			dark
565	10-Jun	15:40:00	SC	"	10	725	805	F	1.3	611	19-Jun	LSF	dark
566	10-Jun	16:52:00	SC	63188	1	715	820	F	1.3	612			sea lice
567	10-Jun	17:14:00	SC	"	2	650	760	M	1.3	613			semi-dark
568	10-Jun	17:46:00	SC	"	3	690	785	M	1.3	614			
569	10-Jun	18:01:00	SC	"	4	560	640	M	1.3	615			bright
570	10-Jun	18:14:00	SC	"	5	695	780	F	1.3	616			bright
571	10-Jun	18:30:00	SC	"	6	595	690	M	1.2	617			semi-dark
572	10-Jun	18:53:00	SC	"	7	685	775	F	1.3	618			bright
573	10-Jun	19:50:00	SC	"	8	545	625	M	1.2	619			semi-bright; no more fish on this card; too wet
574	11-Jun	08:48:00	SC	63189	1	730	835	F	R.3	620			
575	11-Jun	09:04:00	SC	"	2	670	770	F	1.3	621			
576	11-Jun	09:19:00	SC	"	3	880	995	M	1.4	622			
577	11-Jun	09:57:00	SC	"	4	685	780	F	1.3	623			very bright
578	11-Jun	10:13:00	SC	"	5	795	895	M	1.4	624			semi-bright; sea lice
579	11-Jun	10:50:00	SC	"	6	700	795	M	1.3	625			bright
580	11-Jun	11:47:00	SC	"	7	730	860	M	1.3	626			bright; sea lice
581	11-Jun	11:48:00	SC	"	8	675	780	M	1.3	627			semi-bright
582	11-Jun	12:31:00	SC	"	9	775	870	F	1.4	628			semi-bright
583	11-Jun	12:32:00	SC	"	10	780	890	M	1.4	629			bright
584	11-Jun	13:50:00	SC	63190	1	695	775	F	1.3	630			sea lice
585	11-Jun	14:11:00	SC	"	2	530	622	M	1.3	631			semi-bright
586	11-Jun	14:24:00	SC	"	3	690	785	M	1.4	632			bright
587	11-Jun	15:17:00	SC	"	4	760	865	F	1.4	633			dark with sea lice
588	11-Jun	16:02:00	SC	"	5	740	855	F	1.4	634			dark
589	11-Jun	16:32:00	SC	"	6	720	820	F	R.3	635			bright
590	11-Jun	16:50:00	SC	"	7	720	825	M	1.3	636			very dark
591	11-Jun	16:52:00	SC	"	8	685	785	F	1.3	637	29-Jun	LSF	semi-bright
592	11-Jun	17:04:00	SC	"	9	715	815	F	1.4	638			bright
593	11-Jun	17:41:00	SC	"	10	730	835	F	1.3	639			bright; sea lice
594	12-Jun	08:09:00	SC	63191	1	600	700	M	1.3	640	30-Jul	LTR	
595	12-Jun	09:27:00	SC	"	2	750	845	F	1.3	641			semi-dark
596	12-Jun	09:28:00	SC	"	3	720	826	F	R	642			dark
597	12-Jun	09:51:00	SC	"	4	630	720	F	1.3	643			bright
598	12-Jun	10:23:00	SC	"	5	710	810	F	1.3	644	22-Jul	LTR	bright; sea lice
599	12-Jun	10:41:00	SC	"	6	765	870	M	1.3	645	03-Jul	TCAFF	dark; sea lice
600	12-Jun	11:16:00	SC	"	7	725	820	F	1.4	646			bright
601	12-Jun	13:30:00	SC	"	8	745	850	F	1.4	647			bright
602	12-Jun	14:02:00	SC	"	9	765	875	F	1.4	648			bright; sea lice
603	12-Jun	15:25:00	SC	"	10	755	840	F	1.4	649			bright; sea lice
604	12-Jun	15:41:00	SC	63192	1	790	875	F	1.4	650			bright
605	12-Jun	16:02:00	SC	"				F	R				no measurements, tag or scales; bleeding badly
606	12-Jun	16:30:00	SC	"	2	630	715	M	R.3	651			bright
607	12-Jun	16:31:00	SC	"	3	855	965	M	1.4	652			bright; big fish
608	12-Jun	16:31:00	SC	"	4	725	830	F	1.3	653			very bright
609	12-Jun	17:00:00	SC	"	5	690	780	F	1.3	654			semi-bright
610	12-Jun	17:01:00	SC	"	6	715	820	F	1.4	655			semi-bright
611	12-Jun	17:18:00	SC	"	7	805	895	M	1.4	656			very dark
612	12-Jun	17:40:00	SC	"	8	665	755	M	R.3	657			semi-bright; sea lice
613	12-Jun	18:18:00	SC	"	9	640	750	F	1.3	658			bright

-continued-

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Fish #	Date tagged	Time caught	Loc. tagged	Scale book	Row	Length		Sex	Age	Spag tag #	Date recov	Loc. recov	Comments
						POH	MEF						
614	13-Jun	08:17:00	SC	63193	1	690	785	M	R.3	659			bright
615	13-Jun	08:27:00	SC	"	2	650	740	M	1.3	660	25-Jul	LSF	bright
616	13-Jun	09:04:00	SC	"	3	520	595	M	1.3	661			semi-bright
617	13-Jun	10:26:00	SC	"	4	695	785	F	1.3	662	04-Jul	LSF	semi-bright
618	13-Jun	11:00:00	SC	"	5	830	940	F	1.4	663			bleeding slightly
619	13-Jun	11:16:00	SC	"	6	720	840	F	1.3	664			
620	13-Jun	11:36:00	SC	"	7	755	860	F	2.4	665			badly bruised tail
621	13-Jun	11:37:00	SC	"	8	590	675	M	1.3	666	14-Jul	TCAFF	semi-bright
622	13-Jun	11:57:00	SC	"	9	690	785	F	1.3	667			bleeding
623	13-Jun	12:14:00	SC	"	10	830	930	F	1.4	668			bleeding
624	13-Jun	12:33:00	SC	63194	1	710	800	M	1.3	669	13-Jul	TCAFF	bright
625	13-Jun	14:05:00	SC	"	2	610	705	M	R	670			dark
626	13-Jun	14:06:00	SC	"	3	660	760	M	1.3	671			bright
627	13-Jun	14:22:00	SC	"	4	714	815	M	1.3	672	19-Jul	TR	bright; released alive by sport fisher
628	13-Jun	14:50:00	SC	"	5	700	790	M	1.3	673			semi-bright
629	13-Jun	15:02:00	SC	"	6	560	655	M	R.3	674			semi-bright
630	13-Jun	15:18:00	SC	"	7	690	785	F	1.3	675			bright; sea lice
631	13-Jun	15:14:00	SC	"	8	575	860	M	1.3	676			semi-bright
632	13-Jun	16:05:00	SC	"	9	650	740	M	1.3	677			bright
633	13-Jun	16:23:00	SC	"	10	780	875	M	1.3	678	19-Jul	TR	semi-dark; sea lice
634	13-Jun	17:01:00	SC	63195	1	660	760	M	1.4	679			
635	13-Jun	17:21:00	SC	"	2	705	800	M	R.3	680			bright
	14-Jun	09:07:00	SC	recapture tag #148									
636	14-Jun	09:08:00	SC	"	3	700	810	F	1.3	681			
637	14-Jun	09:24:00	SC	"	4	770	880	F	1.4	682			dark
638	14-Jun	09:49:00	SC	"	5	655	755	M	1.3	683			bright
639	14-Jun	09:50:00	SC	"	6	710	805	M	1.3	684			semi-dark
640	14-Jun	11:22:00	SC	"	7	765	875	M	1.3	685			semi-dark
641	14-Jun	11:42:00	SC	"	8	810	915	M	1.4	686	21-Jun	LSF	dark; sea lice
642	14-Jun	12:04:00	SC	"	9	585	670	M	1.3	687			
643	14-Jun	16:19:00	SC	"	10	760	868	M	1.3	688			
644	14-Jun	17:23:00	SC	63196	1	610	695	M	R.3	689			bleeding slightly
645	14-Jun	17:23:00	SC	"	2	755	850	F	1.4	690			bright
646	14-Jun	17:55:00	SC	"	3	775	885	M	R.3	691			bright
647	14-Jun	18:23:00	SC	"	4	670	765	M	R	692	03-Jul	LSF	bright
648	15-Jun	08:26:00	SC	"	5	805	890	F	1.4	693			bright
649	15-Jun	08:26:00	SC	"	6	835	940	M	1.4	694			bright; sea lice
650	15-Jun	08:54:00	SC	"	7	660	755	M	1.3	695			dark; scars
651	15-Jun	09:05:00	SC	"	8	580	660	M	R.3	696			bright; sea lice
652	15-Jun	09:25:00	SC	"	9	795	900	F	1.4	697			bright
653	15-Jun	09:49:00	SC	"	10	765	870	M	1.4	698			bright; seal scar on tail
654	15-Jun	10:15:00	SC	63197	1	765	870	M	1.3	699			bright; sea lice
655	15-Jun	10:15:00	SC	"	2	710	810	F	1.3	700			bright
656	15-Jun	10:51:00	SC	"	3	785	875	M	1.4	701			semi-bright
657	15-Jun	11:15:00	SC	"	4	825	925	F	1.4	702			bright
658	15-Jun	11:15:00	SC	"	5	755	855	M	R.3	703			bright
659	16-Jun	09:41:00	SC	"	6	720	810	F	1.3	705			bright
660	16-Jun	09:41:00	SC	"	7	655	760	M	1.3	706	03-Jul	LSF	bright
661	16-Jun	10:17:00	SC	"	8	690	790	M	1.3	704			bright
662	16-Jun	10:24:00	SC	"	9	745	840	M	1.3	707			bright; sea lice
663	16-Jun	11:08:00	SC	"	10	665	665	M	1.3	708			dark
664	16-Jun	11:34:00	SC	63198	1	655	745	F	1.3	709			bright
665	16-Jun	13:56:00	SC	"	2	830	925	F	1.5	710			bright
666	16-Jun	13:33:00	SC	"	3	655	740	M	1.3	711			bright
667	16-Jun	13:33:00	SC	"	4	515	595	M	1.2	712	04-Jul	LSF	bright
668	16-Jun	15:02:00	SC	"	5	775	885	F	1.4	713			bright; sea lice
671	16-Jun	15:53:00	SC	"	8	690	790	F	1.3	716			bright; bleeding badly

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Fish #	Date tagged	Time caught	Loc. tagged	Scale book	Row	Length		Sex	Age	Spag tag #	Date recov	Loc. recov	Comments
						POH	MEF						
669	16-Jun	15:28:00	SC	"	6	650	750	M	1.3	714			dark (little)
670	16-Jun	15:53:00	SC	"	7	745	845	F	R.3	715			bright; sea lice
672	16-Jun	16:24:00	SC	"	9	625	705	M	1.3	717			bright
673	16-Jun	16:58:00	SC	"	10	695	785	F	R.3	718			little dark
674	16-Jun	16:58:00	SC	72153		645	735	F	R	719	14-Aug	VC	bright; NO SCALES
675	16-Jun	16:58:00	SC	"		715	800	F	R	720			bright; NO SCALES
676	17-Jun	09:36:32	SC	"	3	590	670	M	1.3	721	23-Jun	LSF	bright
677	17-Jun	10:39:45	SC	"	4	655	745	M	1.3	722			bright; sea lice
678	17-Jun	10:54:18	SC	"	5	755	845	F	R.4	723			semi-bright; sea lice
679	17-Jun	14:07:47	SC	"	6	565	645	M	1.2	725	26-Jun	WR	bright; sea lice
680	17-Jun	14:47:20	SC	"	7	615	705	M	1.3	726	23-Jun	LSF	semi-bright
681	17-Jun	15:03:45	SC	"	8	630	735	M	1.3	731			semi-bright
682	17-Jun	15:59:37	SC	"	9	625	715	M	1.3	727	27-Jun	LSF	bright
683	17-Jun	15:59:37	SC	"	10	645	745	F	1.3	730			semi-dark
684	17-Jun	17:05:12	SC	72154	1	690	785	M	1.3	728			bright; sea lice
685	17-Jun	17:05:12	SC	"	2	570	655	M	1.3	729			semi-bright
686	17-Jun	17:34:21	SC	"	3	710	825	F	1.4	732			bright; sea lice
687	18-Jun	08:32:00	SC	"	4	680	760	F	1.3	733			semi-bright
688	18-Jun	10:00:00	SC	"	5	635	750	M	1.3	734			semi-bright
689	18-Jun	10:00:00	SC	"	6	560	655	M	1.3	735			semi-bright
690	18-Jun	10:32:00	SC	"	7	610	705	M	1.3	736			bleeding from gills
691	18-Jun	10:33:00	SC	"	8	775	875	M	1.3	737			semi-bright; sea lice
692	18-Jun	10:50:00	SC	"	9	660	755	M	1.3	738			semi-bright
693	18-Jun	12:05:00	SC	"	10	745	850	F	1.3	739	31-Jul	LSF	dark
694	18-Jun	12:29:00	SC	72155	1	560	640	M	R.3	740			semi-bright
695	18-Jun	15:45:00	SC	"	2	695	795	F	1.3	741			semi-bright; sea lice
696	18-Jun	16:08:00	SC	"	3	665	775	F	1.3	742			semi-bright; sea lice
697	18-Jun	16:36:00	SC	"	4	675	775	F	1.3	743			semi-bright
698	18-Jun	17:05:00	SC	"	5	790	875	F	1.3	744			dark
699	19-Jun	08:18:00	SC	72156	1	865	980	F	R.5	745			bright
700	19-Jun	08:19:00	SC	"	2	745	855	M	R	746	04-Aug	VC	dark
701	19-Jun	08:49:00	SC	"	3	630	730	F	1.3	747	21-Jul	LTR	bright; sea lice
702	19-Jun	09:41:00	SC	"	4	685	790	F	1.3	748			bright
703	19-Jun	11:07:00	SC	"	5	695	785	M	R	749			bright; sea lice
704	19-Jun	11:32:00	SC	"	6	760	860	M	1.3	750			semi-bright
705	19-Jun	11:33:00	SC	"	7	695	790	M	R.3	751			semi-bright
706	19-Jun	11:59:00	SC	"	8	820	915	M	1.4	752			semi-bright
707	19-Jun	11:53:00	SC	"	9	600	675	M	1.3	753			semi-bright
708	19-Jun	13:54:00	SC	"	10	745	855	M	1.3	754	01-Jul	LSF	bright
709	19-Jun	14:10:00	SC	72157	1	605	685	M	1.3	NO TAG			HATCHERY FISH
710	19-Jun	14:40:00	SC	"	2	675	765	F	1.3	755			semi-bright
711	19-Jun	15:03:00	SC	"	3	590	680	M	1.3	756	01-Jul	LSF	semi-bright
712	19-Jun	15:04:00	SC	"	4	665	765	M	1.3	757			semi-bright
713	19-Jun	16:09:00	SC	"	5	675	760	F	1.3	758			semi-bright
714	19-Jun	16:10:00	SC	"	6	630	710	F	1.3	759	26-Jun	LSF	semi-bright
715	19-Jun	16:35:00	SC	"	7	730	835	F	1.3	760			semi-bright
716	19-Jun	16:36:00	SC	"	8	505	585	M	2.2	761	04-Jul	LSF	semi-bright
717	19-Jun	17:05:00	SC	"	9	610	705	M	1.3	762			semi-bright
718	20-Jun	09:05:00	SC	72158	1	775	890	F	1.3	763			semi-bright
719	20-Jun	09:24:00	SC	"	2	720	795	M	1.3	764	03-Jul	LSF	semi-dark
720	20-Jun	10:10:00	SC	"	3	665	775	F	1.3	765			bright
721	20-Jun	10:37:00	SC	"	4	630	705	F	1.3	766			bright; sea lice; bleeding
722	20-Jun	11:01:00	SC	"	5	640	725	M	R.3	767	05-Jul	LSF	semi-bright
723	20-Jun	11:44:00	SC	"	6	660	765	F	1.4	768			semi-bright
724	20-Jun	12:06:00	SC	"	7	650	745	F	R	769	11-Jul	LSF	semi-dark
725	20-Jun	13:59:00	SC	"	8	660	745	F	1.3	770	30-Jun	LSF	bright; bleeding

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Fish #	Date tagged	Time caught	Loc. tagged	Scale book	Row	Length		Sex	Age	Spag tag #	Date recov	Loc. recov	Comments
						POH	MEF						
726	20-Jun	14:22:00	SC	"	9	710	790	F	1.3	771			bleeding
727	20-Jun	14:38:00	SC	"	10	565	645	M	1.3	772			bright
728	20-Jun	14:58:00	SC	72159	1	720	800	M	1.3	773	19-Jul	TR	bright; tag kept, fish released
729	20-Jun	15:44:00	SC	"	2	735	825	M	1.3	774	27-Jun	LSF	dark
730	20-Jun	16:07:00	SC	"	3	600	685	F	1.3	775	07-Aug	VC	bright
731	20-Jun	16:28:00	SC	"	4	665	775	F	1.3	776			bright; bleeding
732	20-Jun	16:46:00	SC	"	5	765	845	F	1.3	777			bright; bleeding; sea lice
733	20-Jun	17:11:00	SC	"	6	610	685	M	1.2	778			bright; sea lice
734	20-Jun	17:35:00	SC	"	7	680	805	F	1.3	779			bright; full belly
735	21-Jun	08:48:00	SC	"	8	765	860	F	1.4	780			bright
736	21-Jun	09:44:00	SC	"	9	610	690	F	1.3	781			very bright
737	21-Jun	10:02:00	SC	"	10	675	760	F	R.3	782	07-Aug	VC	bright
738	21-Jun	11:25:00	SC	72160	1	700	780	F	1.3	783			bright; sea lice
739	21-Jun	11:54:00	SC	"	2	730	810	M	1.3	784			very bright
740	21-Jun	13:42:00	SC	"	3	805	910	F	1.3	785	03-Jul	LSF	very nice
741	21-Jun	16:27:00	SC	"	4	710	805	F	1.3	786			very bright
742	21-Jun	17:10:00	SC	"	5	725	850	F	1.4	787			dark; sea lice
743	21-Jun	17:27:00	SC	"	6	715	805	F	1.3	788			dark; sea lice
744	21-Jun	17:40:00	SC	"	7	670	775	F	1.3	789			bright
745	22-Jun	09:03:00	SC	"	8	745	845	F	1.3	790	04-Jul	LSF	semi-bright
746	22-Jun	09:22:00	SC	"	9	785	870	M	1.4	791			semi-bright
747	22-Jun	11:56:00	SC	"	10	715	815	M	1.3	792			bright
748	22-Jun	13:24:00	SC	72161	1	825	945	M	1.4	793			semi-dark
749	22-Jun	13:47:00	SC	"	2	635	830	M	1.3	794			bright
750	24-Jun	08:35:00	SC	"	3	750	865	F	1.4	795			bright
751	24-Jun	10:53:00	SC	"	4	685	795	F	1.3	796	19-Jul	TR	bright; sea lice
752	25-Jun	16:42:00	SC	"	5	655	765	M	1.3	797			dark
753	25-Jun	17:10:00	SC	"	6	745	845	M	1.4	798			dark
754	27-Jun	08:40:00	SC	"	7	625	705	M	1.3	799			semi-bright
755	29-Jun	14:23:00	SC	"	8	665	780	F	1.3	800			semi-bright
756	29-Jun	15:23:00	SC	"	9	690	800	M	1.3	801			red
757	29-Jun	15:10:00	SC	"	10	610	700	M	1.3	802			bright
758	29-Jun	15:50:00	SC	72162	1	645	740	F	1.3	803			bright
759	03-Jul	14:13:00	SC	"	2	655	780	F	1.3	804	12-Jul	LSF	bright
760	03-Jul	14:39:00	SC	"	3	695	785	F	1.3	805			semi-bright
761	03-Jul	15:47:00	SC	"	4	605	690	M	1.3	806	13-Jul	LSF	semi-dark
762	03-Jul	16:51:00	SC	"	5	605	725	F	1.4	807			semi-dark
763	03-Jul	16:51:00	SC	"	6	800	895	M	1.3	808			red
764	04-Jul	10:06:00	SC	"	7	680	785	F	1.4	809			dark
765	04-Jul	10:06:00	SC	"	8	675	790	M	1.3	810			red
766	04-Jul	11:32:00	SC	"	9	745	860	F	1.4	811			semi-bright
767	04-Jul	11:59:00	SC	"	10	600	715	M	1.3	812			semi-bright
768	04-Jul	13:49:00	SC	72163	1	710	810	M	R	813			dark
769	04-Jul	13:49:00	SC	"	2	710	810	F	1.3	815			bright
770	04-Jul	14:37:00	SC	"	3	780	890	F	1.4	816			semi-bright
771	04-Jul	15:26:00	SC	"	4	565	645	M	1.2	817			bright
772	05-Jul	09:04:00	SC	"	5	680	790	F	R	818	09-Jul	LSF	semi-bright
773	05-Jul	10:55:00	SC	"	6	750	865	M	1.4	819	10-Jul	LSF	semi-bright
774	05-Jul	11:46:00	SC	"	7	730	850	F	1.3	820			semi-bright/dark
775	05-Jul	15:24:00	SC	"	8	660	760	F	1.3	821			bright
776	05-Jul	15:25:00	SC	"	9	730	830	F	1.4	822			semi-bright/dark
777	05-Jul	16:00:00	SC	"	10	575	665	M	1.3	823	09-Jul	LSF	bright
778	05-Jul	16:28:00	SC	72164	1	690	790	F	1.3	824			bright; some bleeding
779	06-Jul	11:22:00	SC	"	2	605	685	M	1.3	825			reddish
780	06-Jul	14:35:00	SC	"	3	655	785	M	1.3	826	10-Jul	LSF	reddish
784	08-Jul	10:17:00	SC	"	7	625	725	M	1.3	830			semi-bright

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Fish #	Date tagged	Time caught	Loc. tagged	Scale book	Row	Length		Sex	Age	Spag tag #	Date recov	Loc. recov	Comments
						POH	MEF						
781	06-Jul	16:01:00	SC	"	4	540	650	M	1.3	827	14-Jul	LSF	semi-bright
782	06-Jul	16:45:00	SC	"	5	710	800	F	1.3	828			darkish
783	07-Jul	15:37:00	SC	"	6	800	920	M	1.3	829			dark; seal scar
785	08-Jul	14:56:00	SC	"	8	685	785	F	1.3	831			dark

Tagging locations: KPS = Kakwan Point setnet, KP = Kakwan Point drift gillnet, SC = Shakes Slough drift gillnet

Recapture locations: LSF = Lower Stikine River commercial and test fisheries  
 LTR = Little Tahltan River chinook weir  
 VC = Verrett Cr. Carcass Recovery  
 TCAFF = Telegraph Cr. Aboriginal food fishery  
 TR = Tahltan River sports fishing area (the meat hole)

**Appendix A2.—Drift gillnet daily effort (minutes fished) and catches near Kakwan Point, Stikine River, 1996.**

Date	Minutes	Large chinook	Jacks	Sockeye	Temp	Depth	Comments
5/8/96	247	3	0				
5/9/96	224	2	0				
5/10/96	265	1	0		6	8.7	
5/11/96	250	0	1		7	8.7	
5/12/96	240	7	1				
5/13/96	253	5	0		7	8.9	
5/14/96	245	5	0		7	9.0	
5/15/96	245	6	0		9	10.1	
5/16/96	258	8	0		7.5	10.5	
5/17/96	256	7	0		7	10.7	
5/18/96	252	7	1				
5/19/96	232	7	1				
5/20/96	239	9	2				
5/21/96	482	11	0		8	13.5	lots debris
5/22/96	101	2	0		8	14.0	less debris
5/23/96	477	18	1		9	14.0	
5/24/96	486	10	0		9	15.0	lots debris
5/25/96	362	13	0		7	16.0	lots debris
5/26/96	491	9	1		8	16.4	lots debris
5/27/96	415	8	0		8	16.1	less debris
5/28/96	280	9	1		8.5	15.9	
5/29/96	256	15	0		9	15.4	
5/30/96	231	5	1		9.5	16.0	
5/31/96	496	23	1		9.5	17.0	
6/1/96	214	11	0				
6/2/96	146	5	0				
6/3/96	233	7	0				
6/4/96	120	5	0				
6/5/96	199	3	0				
6/6/96	255	2	0		9	20.9	less debris
6/7/96	487	4	0		9	20.9	
6/8/96	514	5	0		9	20.9	
6/9/96	512	19	2		8.5	20.6	
6/10/96	507	47	3	1	9	19.7	
6/11/96	460	42	3	0	9	19.2	
6/12/96	501	45	1	1	8.5	18.6	
6/13/96	503	38	4	0	8	18.0	
6/14/96	418	32	1	2	9	17.1	
6/15/96	90	11	0	0	9	16.2	
6/16/96	529	31	1	2	9	16.0	
6/17/96	474	18	2	3	8		
6/18/96	493	28	3	2	9.5	16.0	
6/19/96	626	29	2	10	9.5	16.2	
6/20/96	291	16	1	8	10	17.2	lots debris
6/21/96	467	21	0	12	12	18.2	
6/22/96	490	9	2	6	11	19.5	lots debris
6/23/96	361	5	0	1	11	20.6	high water
6/24/96	501	5	0	9	11	21.4	
6/25/96	394	4	1	11	10.5	21.9	lots debris

-continued-

Date	Minutes	Large chinook	Jacks	Sockeye	Temp	Depth	Comments
6/26/96	536	1	0	3	10.5	22.5	high water
6/27/96	371	4	0	9	10	22.3	debris
6/28/96	245	7	0	19			
6/29/96	274	5	1	17		21.6	1 chum
6/30/96	221	6	1	12			
7/1/96	234	12	0	33			
7/2/96	214	8	0	56			
7/3/96	204	21	1	49			
7/4/96	513	16	1	70		18.4	2 chum
7/5/96	473	13	0	57		18.2	
7/6/96	477	8	1	30		18.9	
7/7/96	512	7	0	33		19	
7/8/96	364	5	0	32	10.5	19.6	

**Appendix A3.–Computer files used to estimate the spawning abundance of chinook salmon in the Stikine River in 1996.**

<b>File Name</b>	<b>Description</b>
EFFORT.xls	EXCEL spreadsheet with gillnet tagging data--daily effort, catch by species, and water depth by site; gillnet charts.
CKTAG96.xls	EXCEL spreadsheet with recovery data for chinook salmon in the Stikine River in 1996. Includes recovery data by tributary (date, length (MEF), sex, age and any marks); length frequencies; length at age; age composition of gillnet and tributary samples; KS test data; charts.
STIKINE96.XLS	Chi-square tests for Stikine chinook, 1996.
TAHLTAGE.xls	EXCEL spreadsheet with spawning ground samples--site, date, sex, length (MEF), age, tag numbers and comments.
STIK96v3.doc	WORD 6.0 (Windows) file of this FDS report.