Fishery Data Series No. 98-43

Dolly Varden Char and Sea-run Cutthroat Trout Populations at Auke Lake, Southeast Alaska, during 1997

by

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and

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Alaska Department of Fish and Game **Division of Sport Fish**

Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used in Division of Sport Fish Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, and Special Publications without definition. All others must be defined in the text at first mention, as well as in the titles or footnotes of tables and in figures or figure captions.

Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
metric ton	mt
milliliter	ml
millimeter	mm

Weights and measures (English)

cubic feet per second	ft^3/s
foot	ft
gallon	gal
inch	in
mile	mi
ounce	oz
pound	lb
quart	qt
yard	yd

Spell out acre and ton.

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
hour (spell out for 24-hour clock)	h
minute	min
second	s

Spell out year, month, and week.

Physics and chemistry

all atomic symbols	
alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

All commonly accepted abbreviations.	e.g., Mr., Mrs., a.m., p.m., etc.
All commonly accepted professional titles.	e.g., Dr., Ph.D., R.N., etc.
and	&
at	@
Compass directions:	
east	E
north	N
south	S
west	W
Copyright	©
Corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
et alii (and other people)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.,
id est (that is)	i.e.,
latitude or longitude	lat. or long.
monetary symbols (U.S.)	$, ¢
months (tables and figures): first three letters	Jan,...,Dec
number (before a number)	# (e.g., #10)
pounds (after a number)	# (e.g., 10#)
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S. state and District of Columbia abbreviations	use two-letter abbreviations (e.g., AK, DC)

Mathematics, statistics, fisheries

alternate hypothesis	H_A
base of natural logarithm	e
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	F, t, χ^2, etc.
confidence interval	C.I.
correlation coefficient	R (multiple)
correlation coefficient	r (simple)
covariance	cov
degree (angular or temperature)	°
degrees of freedom	df
divided by	÷ or / (in equations)
equals	=
expected value	E
fork length	FL
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$\log_2$, etc.
mideye-to-fork	MEF
minute (angular)	'
multiplied by	x
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
standard length	SL
total length	TL
variance	Var

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ABSTRACT

The Auke Creek weir, in Juneau, Alaska, was operated in 1997 to intercept and enumerate migrating Dolly Varden char *Salvelinus malma*, sea-run cutthroat *Oncorhynchus clarki* and steelhead trout *O. mykiss*, sockeye *O. nerka*, coho *O. kisutch*, pink *O. gorbuscha*, and chum *O. keta* salmon. Abundance for downstream migrant Dolly Varden from March through June was 10,506, and the upstream counts from July though early November was 5,714, or just over half the emigrating population. Estimated mean fork length of the downstream Dolly Varden was 277 mm (SE = 2.68 mm), and the mean fork length of upstream migrants was 272 mm (SD = 61.9 mm). Abundance for downstream cutthroat trout in the spring was 500, and the upstream count in the fall was 467. Mean fork length of downstream migrants was 265 mm (SD = 51.9 mm) and of upstream migrants was 271 mm (SD = 61.5 mm). In spring, 495 cutthroat trout were successfully PIT (Passive Integrated Transponder) tagged prior to release. Fall counts indicated a tag retention rate of 94.6%.

Key words: Alaska, cutthroat trout, Dolly Varden char, sea-run, weir, abundance, length, timing, PIT, VI, tag retention

INTRODUCTION

The Department of Fish and Game, Division of Sport Fish (ADF&G), the University of Alaska, Fairbanks (UAF), and the National Marine Fisheries Service (NMFS) in agreement, cooperatively fund and operate the NMFS Auke Creek weir on the outlet of Auke Lake, near Juneau, Alaska.

The weir is a two-way permanent structure with the ability to capture all immigrant and emigrant fish. It is operated from March 1 through June 30 to intercept all emigrating species—cutthroat trout *Oncorhynchus clarki*, Dolly Varden char *Salvelinus malma*, steelhead trout *O. mykiss*, and pink *O. gorbuscha*, chum *O. keta*, coho *O. kisutch*, and sockeye *O. nerka* salmon. The weir is converted to count upstream migrants starting on June 30 and is operated through November. The Auke Creek weir operations and fish counts for 1997 are reported in their entirety in the annual report for the weir (Taylor and Lum 1998).

A weir has been operated at Auke Creek since 1963. The present permanent structure was installed during the spring of 1980. It has provided consistent, long-term information on all emigrating and immigrating species counted, and it provides the most complete long-term fisheries database for several species at a single site in Southeast Alaska. The information gathered at the Auke Creek weir is important to research projects conducted by ADF&G, UAF, and NMFS. Results are used as indicators for local stocks, and help guide management decisions for the Juneau area. Studies initiated at the weir have provided important insights into life history strategies, age composition, maturity, timing, and growth of the species present in the Auke Lake system. Auke Creek weir is the only site in Southeast Alaska where long-term data collections exist for sea-run cutthroat trout. Baseline information on cutthroat trout at Auke Creek is important considering the impact directed fisheries can have on these populations (Behnke 1979; Spense 1990; Wright 1992).

The Auke Lake system is important in the life history of several natal and non-natal salmonid species. The weir enables us to enumerate the entire migration of each species as they leave or enter the system. Auke Lake supports migrating populations of steelhead and cutthroat trout, Dolly Varden, sockeye, coho, pink, and chum salmon (Table 1). The weir also captures chinook salmon *O. tshawytscha* returning to Auke Creek as part of a sport fishing enhancement program in the Juneau area.

The size of the resident (non sea-run) cutthroat trout population in the lake is unknown, but the lake has supported a sport fishery for years (Table 2). Cutthroat trout are taken through the ice during the winter and from the beach or small boats during the remainder of the year. Anecdotal historical information suggests that the cutthroat fishery in Auke Lake was more productive than at present. A strategic planning exercise identified improvement of the cutthroat trout fishery in Auke Lake as an important strategy to help satisfy the demand for cutthroat trout fisheries along the Juneau roadside (Schwan 1990).

Table 1.–Average number of fish of all migrating species counted at Auke Creek, 1980–1997.

Annual Average	Pink Salmon	Coho Salmon	Sockeye Salmon	Chum Salmon	Chinook Salmon	Dolly Varden	Cutthroat Trout	Steelhead Trout
Emigrating	111,125	6,577	17,988	4,988	—	6,382	358	*9
Immigrating	10,355	692	5,579	679	170	5,698*	467*	*3

* Not averaged across years: number from 1997 weir counts.

The purpose of this report is to summarize operations and fish counts for cutthroat trout and Dolly Varden in 1997. The objectives of this project were: (1) count all cutthroat trout and Dolly Varden emigrating from Auke Lake in 1997; (2) measure each sea-run cutthroat trout and estimate the size composition of over-wintering Dolly Varden emigrating from Auke Lake from March 1 through June 30; (3) count all cutthroat trout and Dolly Varden entering Auke Lake from June 30 through November 15; and (4) measure each cutthroat trout and Dolly Varden entering Auke Lake from June 30 through November 15.

STUDY SITE

The Auke Lake system is a mainland watershed covering 1072 ha, approximately 19 km north of Juneau, Alaska (58°23′, 134°37′), on the Juneau road system. Auke Lake has a surface area of 67 ha and is fed by five tributaries. Lake Creek is the largest tributary and drains about 648 ha. Auke Lake is 1.6 by 1.2 km and the greatest depth 31.4 m. The elevation of the lake is approximately 19.1 m. The weir is located on Auke Creek, the outlet stream, near the head of tidewater, about 400 m downstream from the lake (Figure 1).

Table 2.–Estimates of effort and catch in the Auke Lake drainage, 1990–1996. Unpublished estimates from Alan Howe (Alaska Department of Fish and Game, Anchorage, personal communication) and from the Statewide Sport Fishery Harvest Survey (Howe et al. 1997). Estimates for Auke Lake were derived from low sample sizes and are considered imprecise.

				Catch		Harvest	
Year	Anglers	Trips	Days	Cutthroat Trout	Dolly Varden	Cutthroat Trout	Dolly Varden
1990	34	34	34	17	–	17	0
1991	16	33	23	–	–	0	0
1992	75	87	75	73	–	0	0
1993	50	325	271	391	49	224	0
1994	–	–	–	–	–	–	0
1995	29	32	29	26	–	0	0
1996	59	485	485	1,070	405	0	0

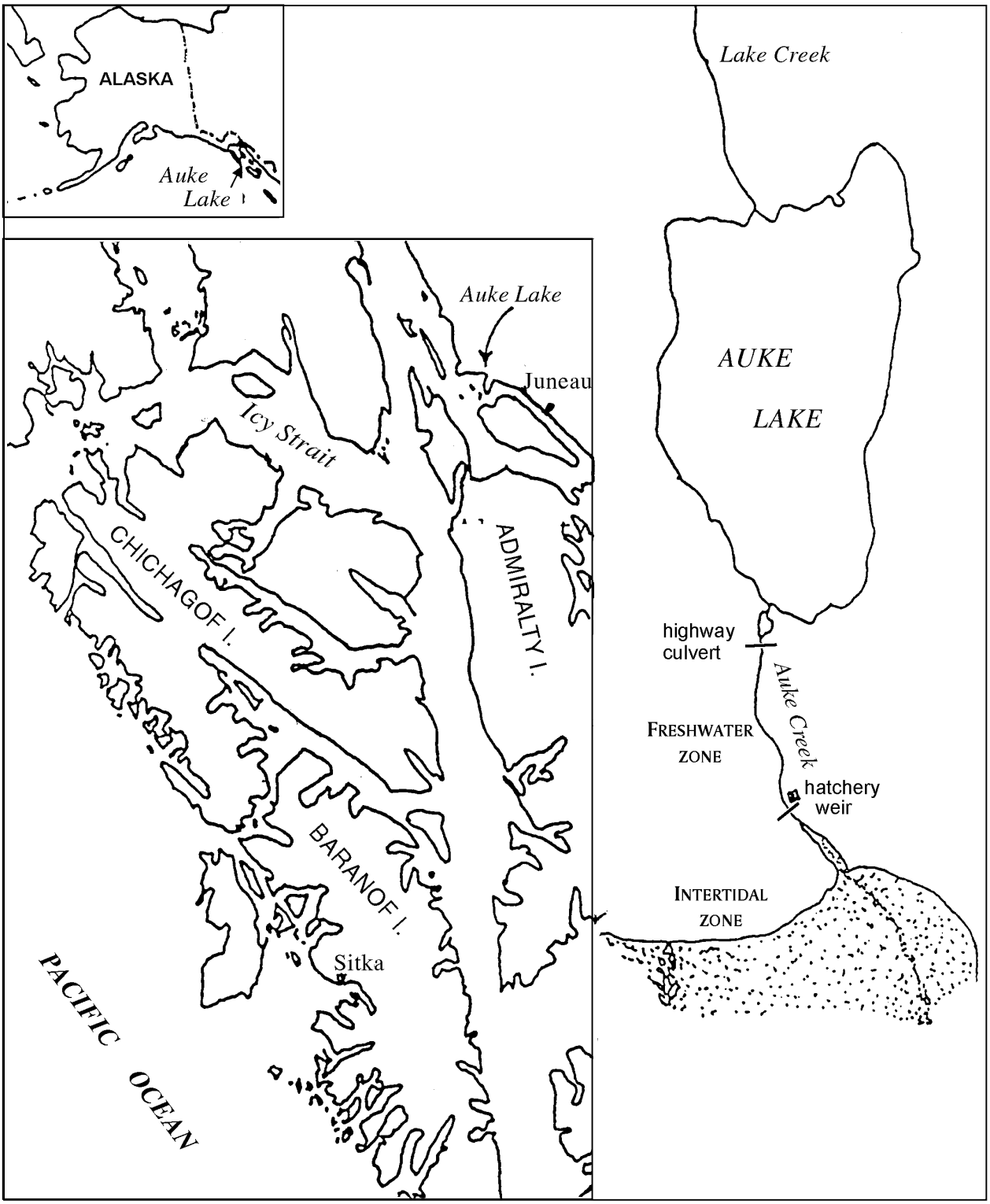

Figure 1.–The Auke Lake system in northern Southeast Alaska and location of the Auke Creek weir.

METHODS

EMIGRANT POPULATIONS

In 1997, the weir was operated from March 1 through June 30 to intercept all emigrating salmonids. During the spring emigration, Auke Creek was diverted through five inclined aluminum traps with 3-mm perforations that allowed most of the water to spill. Fish were diverted through a metal trough and collected in a fiberglass holding tank located in a pool downstream of the weir. Fish were sorted, counted, sampled, tagged, and released downstream of the weir daily.

All emigrating cutthroat trout were counted, measured to the nearest millimeter, tip of snout to fork of tail (FL), examined for external marks or tags, and, if adipose clipped, were also checked for VI (visual implant) tags. All cutthroat trout were also PIT (passive integrated transponder) tagged in muscle tissue below the dorsal fin, and adipose fin-clipped prior to release. External marks include (1) right ventral marked hatchery fish in 1981 and 1991; (2) left ventral marked hatchery fish in 1982 and 1993; (3) adipose clipped hatchery fish in 1985 and 1986; and (4) VI tagged and adipose clipped fish in 1995 and 1996 used to examine over-wintering sea-run cutthroat trout leaving Auke Lake.

Cutthroat trout mortalities were measured and sampled for scales, otoliths, and ovaries. Scales from cutthroat trout mortalities were taken from the left side of the caudal peduncle immediately above the lateral line (Brown and Bailey 1949 and 1952, Laasko and Cope 1956). Prior to taking a scale sample, each fish was wiped with the blunt side of the knife to remove excess mucus. A sample of 15–20 scales was removed from each fish and spread out on clear plastic so that no scales were overlapping. The plastic was stored inside a coin envelope inscribed with the sample number and date.

All emigrating Dolly Varden char were counted and examined for external marks. Length composition was estimated by using a sub-sampling procedure. One day per week each fish in the downstream migration was measured to the nearest 5 mm FL. Also, each of the first and the last 100 Dolly Varden migrants sampled were measured to determine if these fish were notably different than other migrants.

Average length of emigrant Dolly Varden char collected at the weir over time was estimated:

$$\bar{y} = \frac{1}{n}\left(y_1 + y_2 + \ldots + y_n\right) = \frac{1}{n}\sum_{i=1}^{n} y_i$$

where $\bar{y}$ = the sample mean or the average of the y-values in the sample; and n = number sampled for length. The standard error of $\bar{y}$ was estimated:

$$\mathrm{SE} = \sqrt{\frac{s^2}{n}} = \sqrt{\left[1 - \frac{n}{N}\right]\frac{1}{n(n-1)}\sum_{i=1}^{n}\left(y_i - \bar{y}\right)^2}$$

where s^2 is the sample variance.

Because all cutthroat trout and immigrant Dolly Varden were measured, the size composition of these groups was known.

IMMIGRANT POPULATIONS

The upstream weir was installed on June 30 and was operated through November 15 to intercept all immigrating fish. In addition to the normal weir structure, which only stops adult salmon, two traps having pickets one inch apart were placed on the upstream side of the weir to capture all immigrant Dolly Varden and trout and prevent larger fish from passing into the trout traps. Two panels, 16 x 38 inches made out of perforated aluminum, and having rectangular slots (0.5 x 4 inches), were fitted to the front of the weir panels on the upstream side to prevent the movement of smaller fish through the existing weir panels.

All immigrating species were counted and released upstream. All cutthroat trout were measured, examined for marks and a PIT tag, and released upstream from the weir. All of the Dolly Varden were measured to the nearest 5 mm FL, examined for marks, and released upstream from the weir. Cutthroat trout mortalities were sampled for length to the nearest millimeter, PIT tag, scales, otoliths, and ovaries. Cutthroat trout immigrating into the system were not PIT tagged

because handling and poor water conditions increased mortalities.

RESULTS

MIGRANT DOLLY VARDEN

The total number of Dolly Varden passed downstream through the weir in 1997 was 10,506 fish, very much like the emigration in recent years (Table 3 and Figure 2). The first Dolly Varden was captured on March 24, the daily count peaked on May 8, and the midpoint of the migration was on May 7 (Appendix A1; Figure 3). The midpoint of the emigration fell close to the average median date of May 9. The range of median dates fall between May 4 and May 25, the latest midpoint occurring in 1982 and the earliest occurring in 1988, 1992, 1994, and 1996.

The upstream weir was installed on June 30. In 1997, we attempted to obtain accurate upstream counts for all sizes of Dolly Varden. In the past, wider spacing on the weir panels allowed the smaller Dolly Varden to pass upstream without being directed through the trap. The immigration began July 9, and the last fish was captured November 7; the weir was removed on November 12. A total of 5,714 fish passed upstream through the weir (Appendix A2 and Figure 3). Included in the immigration were 60 adipose clipped and three Floy-tagged fish marked at Windfall Lake (Jones and Harding, *In prep.*) These fish immigrated between July 9 and October 27. The adipose fins of a few Dolly Varden were not completely missing, and it could not be determined if this was natural or a result of incomplete fin removal during marking at Windfall Lake.

Length distribution

The mean fork length of all emigrants in 1997 averaged 277 mm (SD = 74.7, SE(fpc) = 2.68, mm), and ranged from 65 to 465 mm (n = 2,082). The average length of emigrant Dolly Varden varied between weeks and showed a decline in average size over time

Table 3.–Annual counts of downstream migrant, wild salmonids at Auke Creek, 1980 through 1997. Hatchery-produced or lake-stocked fish of any species are not included in this table.

Year	Pink Salmon Fry	Coho Salmon Smolts	Sockeye Salmon Smolts	Chum Salmon Fry	Dolly Varden	Cutthroat Trout
1980	74,047	9,951	25,299	0	3,110	85
1981	110,552	7,140	9,183	0	6,461	157
1982	126,766	6,607	1,719	0	4,136	157
1983	164,784	6,721	3,170	0	3,718	149
1984	169,552	7,036	20,251	0	4,512	198
1985	110,001	5,601	11,747	7,198	3,052	112
1986	123,887	5,656	14,500	825	4,358	99
1987	43,502	7,181	17,598	14,039	6,443	250
1988	113,061	7,888	13,935	8,091	6,770	294
1989	116,870	6,924	11,358	13,750	7,230	259
1990	96,651	5,132	15,790	1,916	6,425	417
1991	242,772	5,722	25,939	759	5,579	237
1992	98,449	6,271	13,248	4,783	6,839	219
1993	237,073	8,103	33,616	47	5,074	174
1994	11,603	7,416	32,009	137	7,600	422
1995	88,237	4,864	17,857	5	11,732	412
1996	41,359	3,963	7,069	4,981	11,323	462
1997	31,092	6,207	13,848	8,307	10,506	418
Mean	111,125	6,577	16,008	4,988	6,382	251

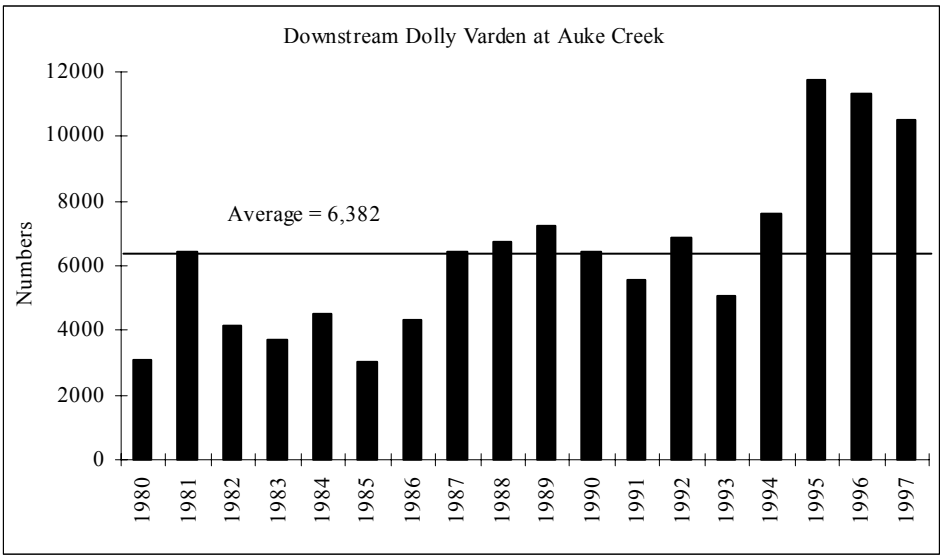

Figure 2.–Annual emigration of Dolly Varden at Auke Creek, 1980-1997.

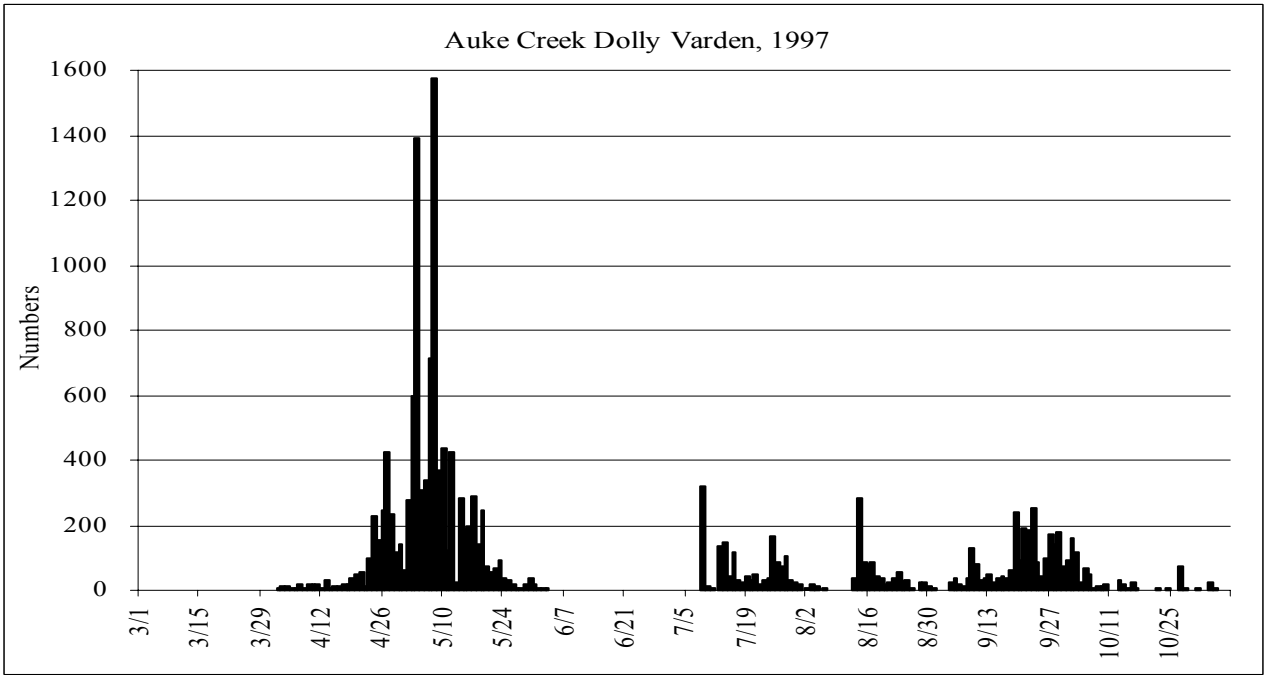

Figure 3.–The 1997 migration for Dolly Varden at Auke Creek.

(Figure 4). Change in length of emigrating Dolly Varden over time was observed by pooling length samples by migration week. Large fish emigrated earlier.

The fork length of all immigrants sampled in fall of 1997 averaged 272.2 mm (SD = 61.9 mm), and ranged from 130 to 500 mm (N = 5,714) (Figure 5). Change in length of immigrant Dolly Varden showed a complex trend over time; a small number of individual fish determined the averages in the last few weeks of the migration.

MIGRANT CUTTHROAT TROUT

A total of 500 cutthroat trout emigrated in 1997, including 418 wild fish and 82 lake-stocked fish, identified by missing ventral fins (Table 3). The annual average emigration was 251 fish, excluding lake-stocked fish. The yearly emigration has reached levels above the average since 1994, and in the last two years reached 500 fish and above, with the inclusion of hatchery fish (Figure 6). The first trout was captured April 7, and the migration continued until late June; the midpoint of the emigration occurred on May 12 (Appendix A1 and Figure 7). The midpoint of the emigration fell close to the average historical median date of May 16 (1980–1996). The range of the historical median dates is May 7 to May 31, the latest midpoint occurring in 1982 and the earliest occurring in 1996. For both Dolly Varden and cutthroat trout, 1982 is the year in which the midpoint of the migration was the latest, and it coincided with the latest date (May 14) of ice breakup on Auke Lake (Wing and Pella 1998). Water temperatures during the emigration were between 3° and 19.3°C.

All cutthroat trout were examined for adipose and ventral fin marks, and VI tags, and 212 (180 wild and 32 lake-stocked) were observed to have either an adipose clip or a VI tag that had been administered prior to 1997. Of these, 105 (49.5%) fish had lost their VI tag. Cutthroat trout were marked and tagged with VI tags in spring 1995 and 1996. Analysis from 1997 outmigrants indicated high tag loss. The 288

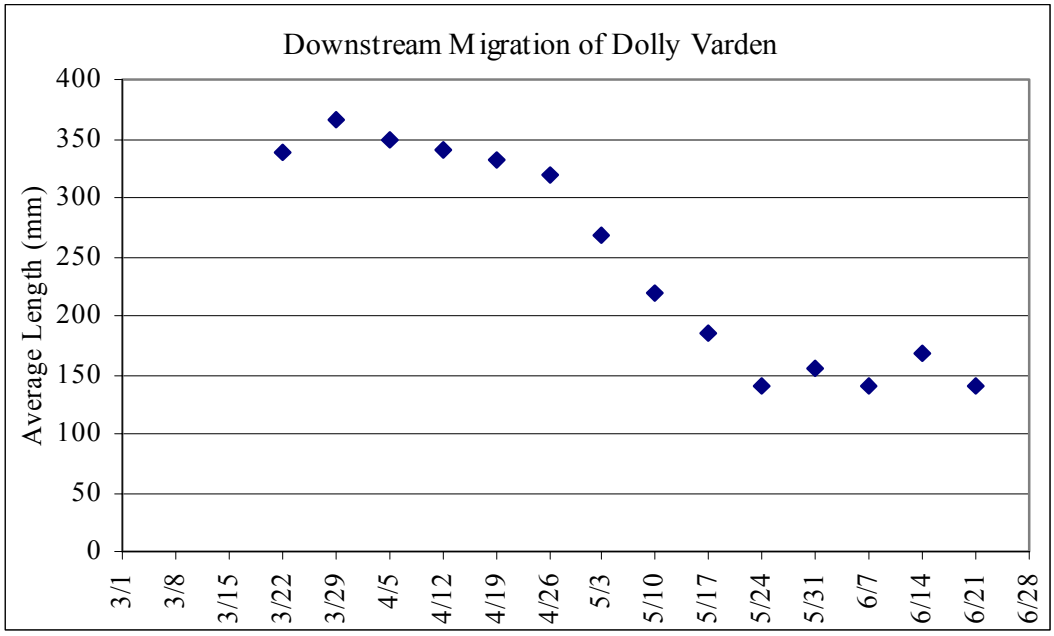

Figure 4.–Average length, by week, of Dolly Varden migrating downstream, 1997.

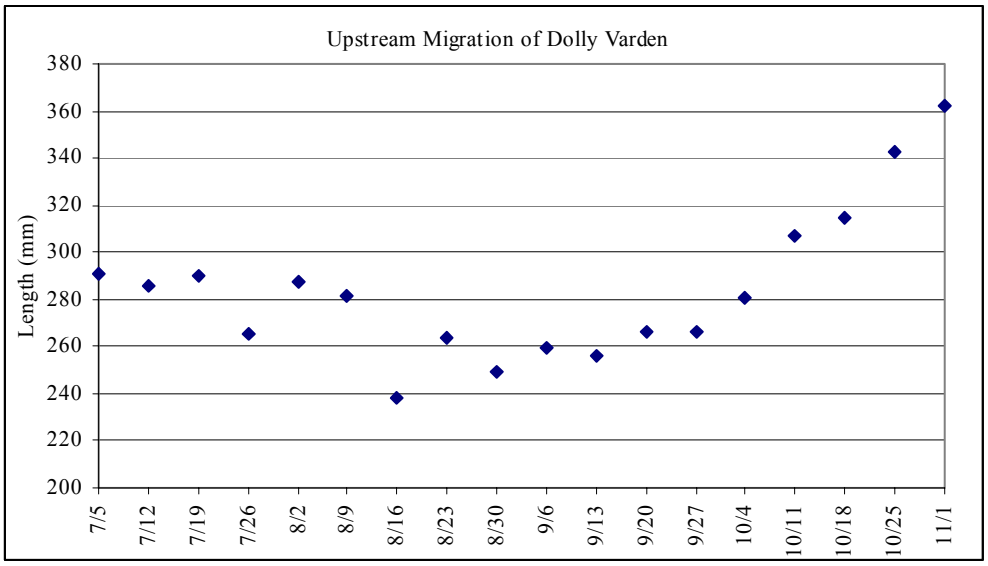

Figure 5.–Average length, by week, of Dolly Varden migrating upstream in Auke Creek, 1997.

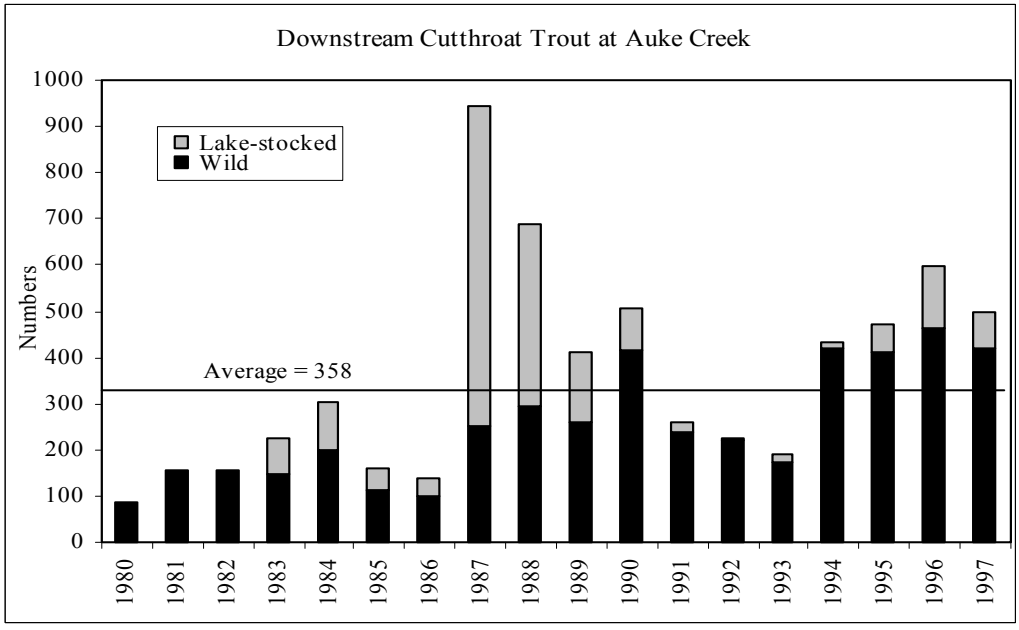

Figure 6.–Annual emigration of cutthroat trout at Auke Creek, 1980–1997.

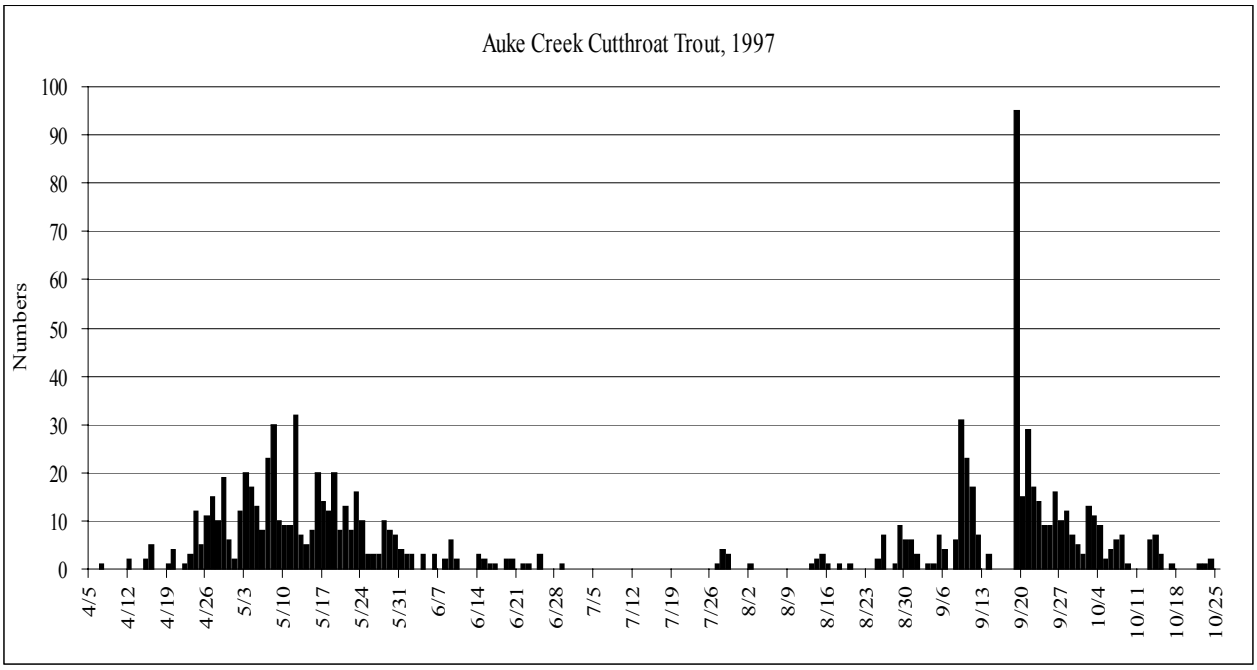

Figure 7.–The cutthroat trout migration for Auke Creek, 1997.

unmarked cutthroat trout were new emigrants, including 238 wild fish and 50 lake-stocked fish (Figure 8). Of the 500 emigrants in 1997, 495 were successfully PIT tagged prior to release; five escaped prior to tagging (Appendix A3). Obviously ripe cutthroat trout (gametes easily extruded during handling) were first observed on April 7 and the last was observed on May 21. Of the 500 emigrants, 124 (24.8%), including 31 females, were obviously ripe.

PIT tags were first used on cutthroat trout leaving Auke Lake in spring 1997. Tags were inserted in the dorsal sinus or in muscle tissue located directly below the dorsal fin (Dr. Hurshburger, University of Washington, Seattle, personal communication), and a patch of super glue was applied to the skin after tagging to prevent tag loss and infection and promote healing. Examination of the weir mortalities (20 having a PIT tag) in fall showed no scarring or cysting, good placement of the PIT tag, and no migration of the tag into the body cavity or out through the skin.

The first immigrant cutthroat trout migrated on July 27. Most of the cutthroat trout, 341 fish, migrated in September, with the midpoint of the migration on September 19 (Figure 9). Prior to receiving heavy rains and increased flow on September 19, cutthroat trout were placed back downstream to reduce mortalities caused by low stream flow and high creek temperatures. A total of 467 cutthroat trout migrated upstream. Included were 225 adipose marked cutthroat trout, 212 of which had a readable PIT tag, and one Floy tagged cutthroat trout from Windfall Lake (Appendix A4 and A5). Adipose fin-clipped fish returned with a readable PIT tag at a rate of 94.6%. Of the 12 adipose marked fish that returned without a PIT or a VI tag, one fish was verified as having been VI tagged only. The PIT tag reader failed during the later part of the fall migration and may have attributed a "false PIT tag loss," because fish returned after the reader started having problems.

Length distribution

The length of the 1997 sea-run cutthroat trout outmigrating in spring averaged 265 mm (SD = 51.9), and ranged from 130 to 459 mm. The weekly average length decreased over time (Figure 10).

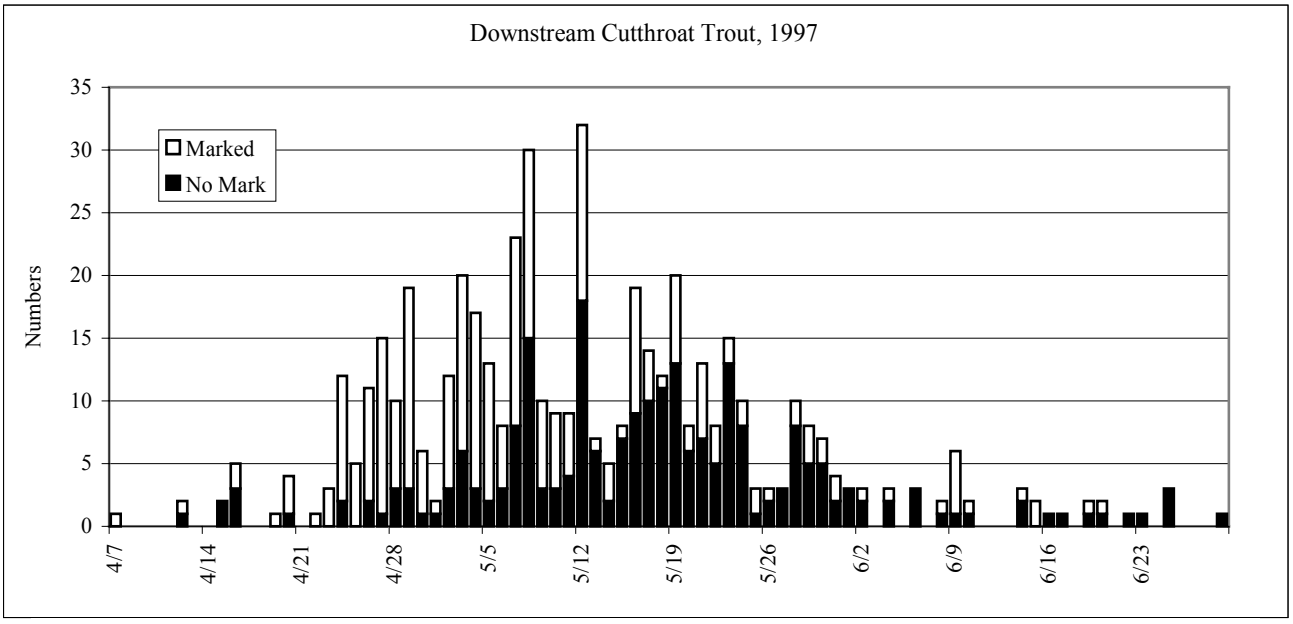

Figure 8.–Marked and unmarked cutthroat trout during downstream migration at Auke Creek, 1997.

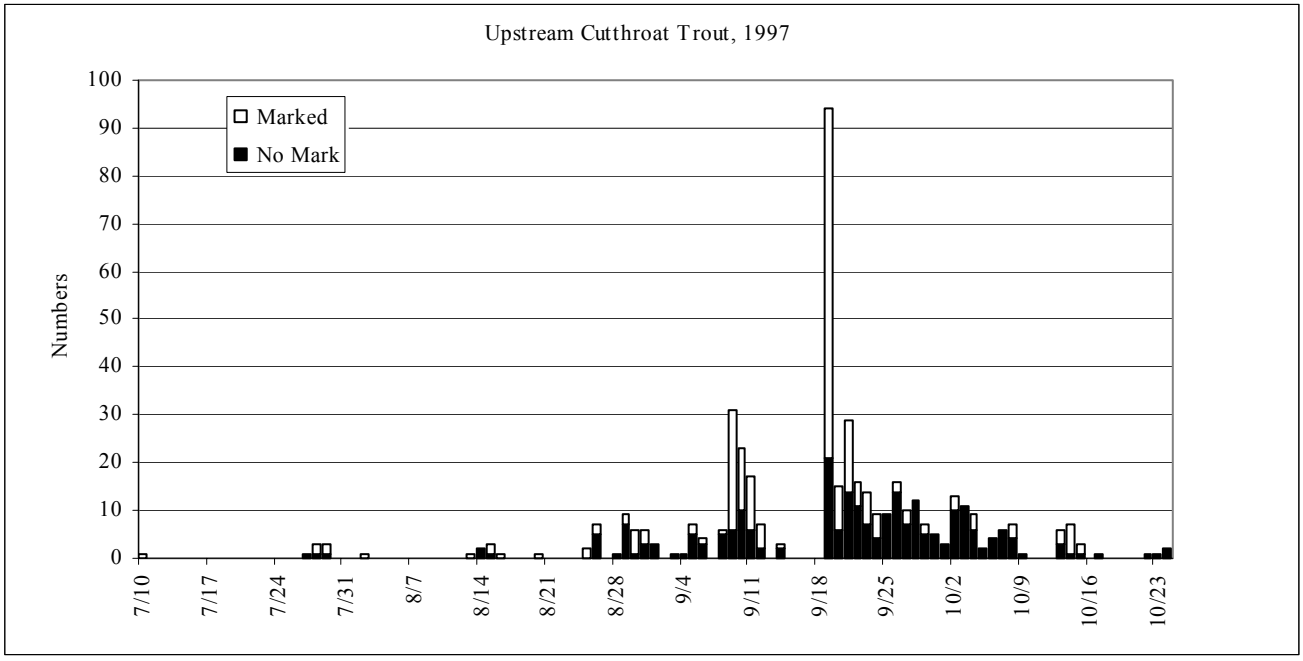

Figure 9.–Marked and unmarked cutthroat trout during upstream migration at Auke Creek, 1997.

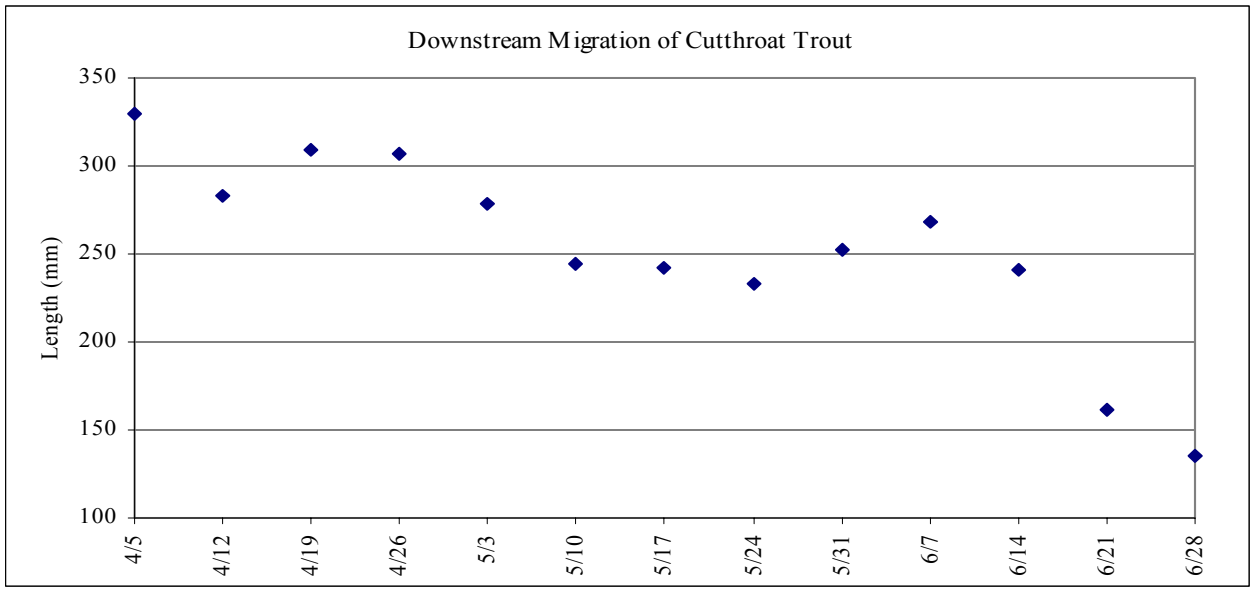

Figure 10.–Average length, by week, of cutthroat trout migrating downstream at Auke Creek, 1997.

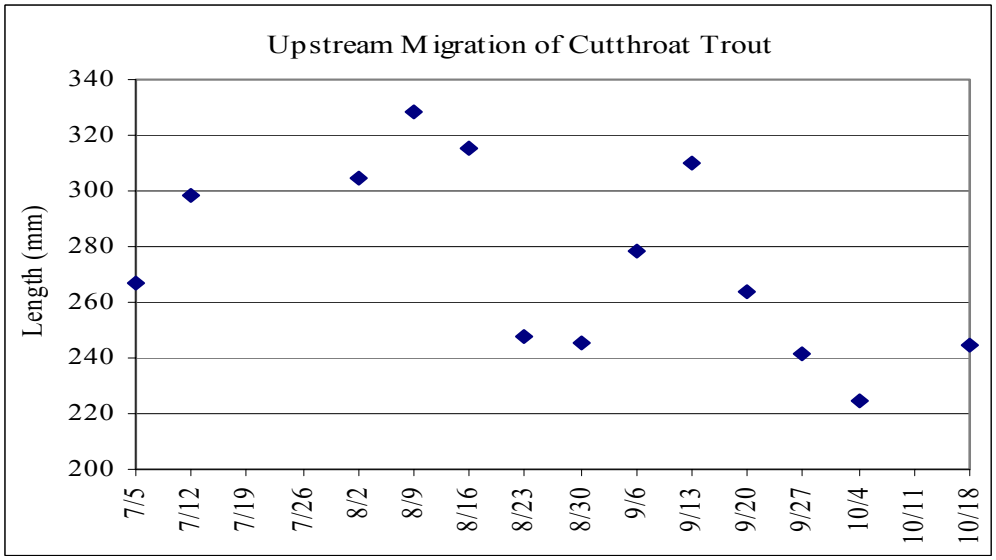

Figure 11.–Average length, by week, of cutthroat trout migrating upstream at Auke Creek, 1997.

Immigrants averaged 271.3 mm (SD = 61.6), and ranged from 142 to 490 mm (Figure 11).

Marine residence and growth

Information gathered from PIT-tagged cutthroat trout that returned to Auke Creek showed that these fish averaged 122 days, ranging from 64 days to 165 days, between the down-stream and upstream migrations. During this time, average growth was 0.48 mm per day, and the increase in length averaged 57 mm, and ranged from 0 to 140 mm (Figures 12 and 13). Comparison of length at downstream migration with the length at return showed a general increase in growth that tapers off as fish get larger in size.

OTHER MIGRANTS

Steelhead trout

Nine steelhead trout were counted in the downstream migration. These fish migrated downstream between May 11 and May 29. Steelhead length averaged 191 mm, and ranged from 161 to 220 mm. None of the PIT tagged steelhead from the spring emigration returned in the fall. Three unmarked steelhead were passed upstream between July 23 and October 16 (Appendix A2).

DISCUSSION

Both Dolly Varden and wild (non-hatchery produced) cutthroat trout numbers declined from 1996 to 1997. Both species were well above average run levels, however, and the decline was not great from a historical perspective.

ACKNOWLEDGMENTS

We would like to thank Scott McPherson and Bob Marshall for their help with the operational plan for this project. Roger Harding helped with planning and with the sampling at the weir, and Alma Seward with editorial expertise.

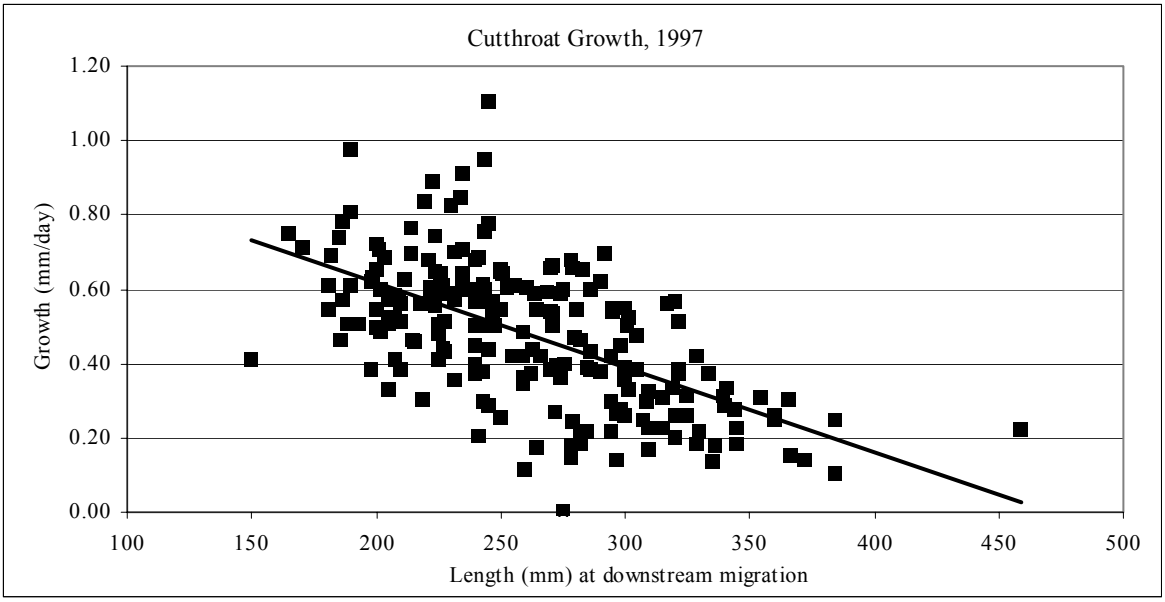

Figure 12.–Growth (mm/day) during time between down- and upstream migration with respect to the length of cutthroat trout at time of PIT tagging, Auke Creek, 1997.

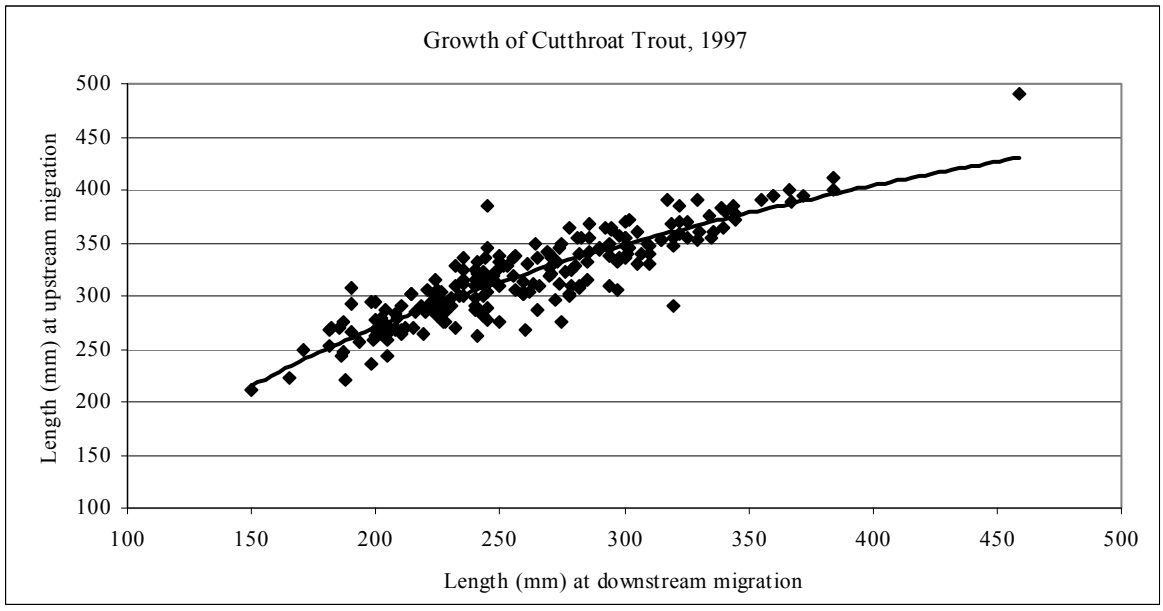

Figure 13.–Length of upstream migrants with respect to length at time of tagging in spring 1997 at Auke Creek.

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APPENDIX A

Appendix A1.–Daily counts of downstream migrant salmonids at Auke Creek, 1997.

	Daily Counts						
	Pink Salmon Fry	Coho Salmon Smolts	Sockeye Salmon Smolts	Chum Salmon Fry	Dolly Varden	Cut-throat Trout	Steel-head Trout
March 1	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0
12	1	0	0	2	0	0	0
13	0	0	0	0	0	0	0
14	0	0	0	1	0	0	0
15	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0
17	1	0	0	1	0	0	0
18	1	0	0	0	0	0	0
19	3	0	0	13	0	0	0
20	3	0	0	6	0	0	0
21	5	0	0	10	0	0	0
22	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0
24	30	0	0	46	1	0	0
25	21	0	0	32	2	0	0
26	36	0	0	41	0	0	0
27	40	0	0	38	1	0	0
28	27	0	0	29	3	0	0
29	39	0	0	17	1	0	0
30	48	0	0	29	0	0	0
31	68	0	0	49	0	0	0
April 1	159	0	0	57	2	0	0
2	344	0	0	82	4	0	0
3	237	0	0	130	10	0	0
4	249	0	0	115	12	0	0
5	458	0	0	262	7	0	0
6	551	0	0	256	7	0	0
7	610	0	0	260	18	1	0
8	948	0	0	313	9	0	0
9	719	0	0	374	20	0	0
10	632	0	0	409	20	0	0
11	793	0	0	380	18	0	0
12	883	0	0	382	5	2	0
13	1016	0	0	458	28	0	0
14	964	0	0	499	5	0	0
15	1279	0	0	560	11	2	0
16	1857	0	0	619	14	5	0
17	1902	0	0	406	16	0	0
18	2074	0	0	412	21	0	0
19	1873	0	0	329	34	1	0
20	1433	0	0	240	52	4	0

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Appendix A1.–Page 2 of 3.

	Daily Counts						
	Pink Salmon Fry	Coho Salmon Smolts	Sockeye Salmon Smolts	Chum Salmon Fry	Dolly Varden	Cut-throat Trout	Steel-head Trout
April 21	1709	0	0	211	54	0	0
22	1412	0	0	190	11	1	0
23	450	0	0	57	96	3	0
24	1730	0	0	272	228	12	0
25	1994	0	0	233	156	5	0
26	953	0	0	136	244	11	0
27	709	0	0	82	423	15	0
28	467	0	0	30	233	10	0
29	401	0	0	39	118	19	0
30	344	0	0	50	141	6	0
May 1	449	0	0	50	59	2	0
2	315	0	0	12	279	12	0
3	62	0	0	11	597	20	0
4	333	0	1	48	1392	17	0
5	247	0	0	14	307	13	0
6	48	1	0	3	339	8	0
7	21	2	0	3	712	23	0
8	39	12	0	4	1573	30	0
9	36	30	3	1	369	10	0
10	30	43	6	4	434	9	0
11	19	31	2	0	121	9	1
12	2	92	12	0	425	32	0
13	2	128	2	0	24	7	1
14	11	418	21	0	283	5	0
15	0	480	46	0	193	8	0
16	4	261	10	0	196	20	0
17	0	637	62	0	288	14	1
18	0	309	18	0	142	12	0
19	0	460	221	0	248	20	1
20	1	611	212	0	71	8	1
21	0	422	555	0	56	13	1
22	0	437	1249	0	67	8	0
23	0	345	2112	0	92	16	0
24	0	256	1932	0	35	10	1
25	0	188	2365	0	31	3	0
26	0	108	1675	0	18	3	1
27	0	109	1132	0	6	3	0
28	0	78	530	0	7	10	0
29	0	111	421	0	18	8	1
30	0	145	320	0	36	7	0
31	0	90	289	0	18	4	0
June 1	0	54	219	0	8	3	0
2	0	53	106	0	4	3	0
3	0	42	43	0	6	0	0
4	0	21	23	0	3	3	0
5	0	15	48	0	1	0	0
6	0	13	8	0	2	3	0
7	0	21	21	0	1	0	0
8	0	21	8	0	0	2	0
9	0	15	7	0	0	6	0
10	0	24	13	0	2	2	0
June 11	0	32	16	0	1	0	0
12	0	8	3	0	1	0	0
13	0	1	0	0	1	0	0

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Appendix A1.–Page 3 of 3.

	Daily Counts						
	Pink Salmon Fry	Coho Salmon Smolts	Sockeye Salmon Smolts	Chum Salmon Fry	Dolly Varden	Cut-throat Trout	Steel-head Trout
14	0	6	6	0	3	3	0
15	0	19	23	0	0	2	0
16	0	15	18	0	2	1	0
17	0	7	11	0	2	1	0
18	0	5	9	0	0	0	0
19	0	9	4	0	2	2	0
20	0	8	23	0	2	2	0
21	0	6	14	0	3	0	0
22	0	0	8	0	0	1	0
23	0	2	8	0	1	1	0
24	0	1	3	0	0	0	0
25	0	1	0	0	0	3	0
26	0	0	1	0	0	0	0
27	0	1	0	0	0	0	0
28	0	0	0	0	0	0	0
29	0	1	1	0	0	1	0
30	0	2	8	0	0	0	0
Totals	31,092	6,207	13,848	8,307	10,506	500	9

Appendix A2.–Daily counts of upstream migrant sockeye, pink, chum, coho, and chinook salmon, Dolly Varden, and cutthroat trout at Auke Creek weir, 1997. Counts do not include sockeye or coho jacks, or chinook mini-jacks.

	Daily Counts							
	Sockeye Salmon Adults	Pink Salmon Adults	Chum Salmon Adults	Coho Salmon Adults	Chinook Salmon Adults	Dolly Varden	Cut-throat Trout	Steel-head Trout
June 25	3	0	0	0	0	0	0	0
26	30	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0
30	8	0	0	0	0	0	0	0
July 1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	1347	0	0	0	0	0	0	0
8	1028	0	0	0	0	0	0	0
9	112	0	0	0	0	323	0	0
10	171	0	0	0	0	12	0	0
11	0	0	0	0	0	4	0	0
12	0	0	0	0	0	0	0	0
13	581	0	0	0	0	137	0	0
14	333	0	0	0	4	148	0	0
15	41	1	0	0	1	41	0	0
16	61	0	0	0	4	116	0	0
17	24	0	0	0	3	28	0	0
18	17	0	0	0	0	23	0	0
19	14	0	1	0	3	46	0	0
20	69	0	0	0	0	28	0	0
21	48	0	1	0	0	49	0	0
22	40	1	0	0	3	18	0	0
23	23	0	0	0	0	30	0	1
24	32	0	0	0	1	36	0	1
25	64	3	6	0	25	168	0	0
26	55	15	11	0	14	89	0	0
27	34	23	5	0	12	71	1	0
28	27	5	7	0	1	105	4	0
29	9	1	3	0	1	30	3	0
30	7	0	0	0	0	23	0	0
31	12	0	0	0	0	21	0	0
Aug. 1	21	1	1	0	0	3	0	0
2	22	0	1	0	0	4	1	0
3	25	2	2	0	0	17	0	0
4	18	2	0	0	0	10	0	0
5	22	2	0	0	0	1	0	0
6	10	3	0	0	0	5	0	0

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Appendix A2.– Page 2 of 3.

	Daily Counts							
	Sockeye Salmon Adults	Pink Salmon Adults	Chum Salmon Adults	Coho Salmon Adults	Chinook Salmon Adults	Dolly Varden	Cut-throat Trout	Steel-head Trout
Aug. 7	15	2	0	0	0	1	0	0
8	0	2	0	0	0	0	0	0
9	1	1	0	0	0	0	0	0
10	0	2	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
12	1	2	0	0	0	0	0	0
13	70	35	24	0	2	36	1	0
14	102	497	86	0	26	283	2	0
15	8	207	69	1	9	84	3	0
16	15	105	74	0	10	79	1	0
17	14	54	35	0	1	84	0	0
18	5	28	21	0	4	41	1	0
19	18	22	14	0	1	39	0	0
20	5	7	2	0	0	19	1	0
21	13	14	13	0	1	25	0	0
22	19	30	9	0	0	37	0	0
23	19	230	26	0	3	56	0	0
24	8	333	15	0	2	19	0	0
25	8	104	9	0	5	29	2	0
26	6	130	7	0	15	6	7	0
27	3	89	1	0	0	0	0	0
28	7	56	1	0	7	27	1	0
29	1	56	0	0	7	25	9	0
30	4	46	0	0	0	13	6	0
31	1	69	0	0	0	7	6	0
Sept. 1	0	10	0	0	0	3	3	0
2	1	9	0	0	0	0	0	0
3	0	9	0	0	0	0	1	0
4	2	52	0	0	1	23	1	0
5	0	15	0	0	0	38	7	0
6	1	53	0	0	0	20	4	0
7	1	9	0	0	0	11	0	0
8	0	7	0	0	0	34	6	0
9	8	287	0	0	6	129	31	0
10	1	67	0	0	6	82	23	0
11	1	35	0	0	4	31	17	0
12	1	12	0	0	0	35	7	0
13	1	9	0	0	0	48	0	0
14	0	6	0	0	1	23	3	0
15	0	3	0	7	0	36	0	0
16	2	2	0	3	0	44	0	0
17	0	0	0	4	0	39	0	0
18	0	0	0	2	0	64	0	0
19	1	6	0	64	0	237	95	0
20	0	1	0	118	0	94	15	0
21	0	0	0	57	0	191	29	0

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Appendix A2.– Page 3 of 3.

	Daily Counts							
	Sockeye Salmon Adults	Pink Salmon Adults	Chum Salmon Adults	Coho Salmon Adults	Chinook Salmon Adults	Dolly Varden	Cut-throat Trout	Steel-head Trout
Sept. 22	0	2	0	37	0	182	17	0
23	0	0	0	82	0	255	14	0
24	0	0	0	33	0	87	9	0
25	0	0	0	21	0	46	9	0
26	0	0	0	20	0	99	16	0
27	0	0	0	17	0	172	10	0
28	0	0	0	17	0	140	12	0
29	0	0	0	20	0	180	7	0
30	0	0	0	11	0	76	5	0
Oct. 1	0	0	0	10	0	93	3	0
2	0	0	0	6	0	162	13	0
3	0	0	0	14	0	116	11	0
4	0	0	0	4	0	26	9	0
5	0	0	0	3	0	67	2	0
6	0	0	0	7	0	51	4	0
7	0	0	0	10	0	9	6	0
8	0	0	0	6	0	14	7	0
9	0	0	0	5	0	13	1	0
10	0	0	0	3	0	19	0	0
11	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0
13	0	0	0	4	0	29	6	0
14	0	0	0	1	0	19	7	0
15	0	0	0	5	0	8	3	0
16	0	0	0	5	0	25	0	1
17	0	0	0	4	0	5	1	0
18	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0
20	0	0	0	4	0	2	0	0
21	0	0	0	0	0	0	0	0
22	0	0	0	2	0	8	1	0
23	0	0	0	0	0	2	1	0
24	0	0	0	0	0	8	2	0
25	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0
27	0	0	0	0	0	76	0	0
28	0	0	0	0	0	6	0	0
29	0	0	0	0	0	2	0	0
30	0	0	0	0	0	0	0	0
31	0	0	0	0	0	7	0	0
Nov. 1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0
3	0	0	0	1	0	25	0	0
4	0	0	0	0	0	4	0	0
5	0	0	0	1	0	2	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	1	0	0
Total	4,671	2,774	444	609	183	5,714	467	3

Appendix A3.–PIT tagging information from spring tagging of cutthroat trout at Auke Creek weir, 1997.

Date	Time	Water Temp.	No.	Length (mm)	PIT tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
4/7/97	815	3	1	330		M	NONE		AD	Ripe, Forgot to verify pit tag	down
4/12/97	830	4	2	255	412D5F7B19	M			NM	Ripe NM = No Mark	down
4/12/97	830	4	3	333	412D6E051A	M	AVI	YM2	AD	Ripe	down
4/15/97	830	4.6	4	275	412D76464F	M			NM		down
4/15/97	830	4.6	5	350	412D773B20	M			NM		down
4/16/97	830	3.5	6	269	412D783C05	M			LV	Ripe, not AD clipped, Scales	down
4/16/97	830	3.5	7	242	412E00453A	M			NM	Ripe	down
4/16/97	830	3.5	8	284	412D7C6345	M			NM	Ripe	down
4/16/97	830	3.5	9	290	412D5A402D	M	NONE		AD, LV	Ripe, Scales	down
4/16/97	830	3.5	10	250	412D5B7749	M			NM	Ripe	down
4/19/97	830	4.5	11	313	412D731650	M	AVI	TY0	AD	Start putting pit in tissue below dorsal fin	down
4/20/97	830	4.8	12	340	412D555E13	M	EVI	BR3	AD	Vi unreadable, removed	down
4/20/97	830	4.8	13	279	412E026C3B	M	NONE		AD	Ripe	down
4/20/97	830	4.8	14	243	412D7C3758	M			NM	Ripe	down
4/20/97	830	4.8	15	395	412D56377F	F	AVI	YC4	AD	Ripe	down
4/22/97	821	4.9	16	305	412D6F750A	M	NONE		AD	Ripe	down
4/23/97	845	5.1	17	356		F	EVI	BX3	AD	Pit tag in didn't record oops	down
4/23/97	845	5.1	18	330	412D71047D	M	EVI	U05	AD	Ripe	down
4/23/97	845	5.1	19	258	412D562416	M			LV	Ripe	down
4/24/97	930	5	20	367	412D734A0B	F	EVI	U82	AD		down
4/24/97	930	5	21	342	412D575D63	M	NONE		AD	Ripe	down
4/24/97	930	5	22	330	412D7A7F0C	M	NONE		AD	Ripe	down
4/24/97	930	5	23	286	412D652D7B	M			NM	Ripe	down
4/24/97	930	5	24	320	412D7F3026	M	NONE		AD	Ripe	down
4/24/97	930	5	25	310	412D7C3813	M	NONE		AD	Ripe	down
4/24/97	930	5	26	341	412D59326E	F	EVI	D19	AD	VI Removed to read	down
4/24/97	930	5	27	150	412D776830	M			NM	Ripe PIT place near ventral fin	down
4/24/97	930	5	28	265	412D777E60	M	NONE		AD	Ripe	down
4/24/97	930	5	29	315	412D796664	F	AVI	YD5	AD	Ripe	down
4/24/97	930	5	30	335	412D69172F	M	NONE		AD	Ripe	down
4/24/97	930	5	31	302	412D784F16	M	NONE		AD	Ripe	down
4/25/97	817	5.5	32	369	4060447C59	M	NONE		AD	Ripe	down
4/25/97	817	5.5	33	265	412D6F4C12	M			LV	Ripe Took scales	down

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Appendix A3.–Page 2 of 15.

Date	Time	Water temp.	No.	Length (mm)	PIT tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
4/25/97	817	5.5	34	285	412D5B0163	F			LV	Ripe	down
4/25/97	817	5.5	35	304	412D79116D	F	EVI	JY8	AD		down
4/25/97	817	5.5	36	327	412D700835	M	EVI	BF6	AD	Ripe Vi unreadable. Removed to read	down
4/26/97	830	5.8	37	314	412D5F1032	M	EVI	J15	AD	Ripe	down
4/26/97	830	5.8	38	391	412D644E02	M	EVI	F52	AD	Ripe Vi unreadable. Removed to read	down
4/26/97	830	5.8	39	335	412D595337	M	EVI	BE1	AD	Ripe Vi unreadable. Removed to read	down
4/26/97	830	5.8	40	300	412E025B4B	M	NONE		AD, LV		down
4/26/97	830	5.8	41	294	412D7B5D2F	M	NONE		AD	Ripe	down
4/26/97	830	5.8	42	268	412D7D0505	M	NONE		AD, LV	Ripe	down
4/26/97	830	5.8	43	286	412D6F5A42	M			LV	Ripe	down
4/26/97	830	5.8	44	265	412D656249	M	NONE		AD	Ripe	down
4/26/97	830	5.8	45	208	412D581574	M			NM	Ripe PIT placed near ventral fin	down
4/26/97	830	5.8	46	242	412D794744	M			NM	Ripe	down
4/26/97	830	5.8	47	385	412D615622	F	NONE		AD	Not Ripe	down
4/27/97	830	5.2	48	345	412D6E1E35	F	AVI	BR4	AD	Not Ripe	down
4/27/97	830	5.2	49	312	412E003A75	M	EVI	F99	AD	Ripe	down
4/27/97	830	5.2	50	366	412E006F4B	F	EVI	JW7	AD	Not Ripe	down
4/27/97	830	5.2	51	384	412E0C3672	F	EVI	S99	AD	Not Ripe Vi unreadable. Removed to read	down
4/27/97	830	5.2	52	340	412D6B2D47	M	AVI	YR9	AD	Ripe Vi unreadable. Removed to read	down
4/27/97	830	5.2	53	232	412E006A72	M			NM	Not Ripe Pit placed near ventral fin	down
4/27/97	830	5.2	54	372	412D611241	F	NONE		AD	Not Ripe	down
4/27/97	830	5.2	55	350	412E00291C	F	EVI	B76	AD	Not Ripe	down
4/27/97	830	5.2	56	310	412D7D4748	M	AVI	Y71	AD	Ripe Vi unreadable. Removed to read	down
4/27/97	830	5.2	57	344	412D637765	M	EVI	BF7	AD	Ripe Vi unreadable. Removed to read	down
4/27/97	830	5.2	58	319	412D655E68	F	EVI	JE7	AD	Not Ripe Vi unreadable. Removed to read	down
4/27/97	830	5.2	59	283	412D663009	M			LV	Ripe	down
4/27/97	830	5.2	60	345	412D681C6A	F	NONE		AD	Not Ripe	down
4/27/97	830	5.2	61	338	412D6D767A	M	EVI	HP9	AD	Ripe	down
4/27/97	830	5.2	62	302	412E01014D	M			LV	Ripe	down
4/28/97	830	5.1	63	265		M			LV	Ripe; Mort PIT removed. Reuse on 5/18	down
4/28/97	830	5.1	64	280	412D7F005B	F			NM	Not Ripe	down
4/28/97	830	5.1	65	300	412E03712E	F			LV	Ripe	down
4/28/97	830	5.1	66	329	412D721149	M	NONE		AD	Ripe	down
4/28/97	830	5.1	67	270	412D702E18	M			LV	Ripe	down

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Date	Time	Water temp.	No.	Length (mm)	PIT tag code	Sex (M/F)	Recapture tag Type	Num.	Finclip	Comments	Direction
4/28/97	830	5.1	68	410	412D7F1A57	F	EVI	SF2	AD	Ripe	down
4/28/97	830	5.1	69	360	412D6E7027	F	NONE		AD		down
4/28/97	830	5.1	70	249	412D5A310A	?			NM	Couldn't determine sex	down
4/28/97	830	5.1	71	305	412D5D7B7E	M			NM	Ripe	down
4/28/97	830	5.1	72	278	412D7C0A5A	F			LV		down
4/29/97	800	6.1	73	360	412D630F27	M			LV	Ripe	down
4/29/97	800	6.1	74	311	412D6E626D	M	EVI	F83	AD	Ripe	down
4/29/97	800	6.1	75	290	412D561914	M	AVI	YM6	AD	Ripe	down
4/29/97	800	6.1	76	344	412D7D7D47	F	EVI	D96	AD	Vi unreadable. Removed to read	down
4/29/97	800	6.1	77	325	412D5E5445	F	NONE		AD		down
4/29/97	800	6.1	78	305	412D671A6C	M	NONE		AD	Ripe	down
4/29/97	800	6.1	79	325	412D792429	F	EVI	U69	AD		down
4/29/97	800	6.1	80	305	412E076F34	F		J45	AD		down
4/29/97	800	6.1	81	370	412D711A6B	F			NM		down
4/29/97	800	6.1	82	318	412D5D1813	M	AVI	YC9	AD	Ripe	down
4/29/97	800	6.1	83	318	412D6F6574	M	AVI	FE2	AD	Ripe	down
4/29/97	800	6.1	84	306	412D734540	F	NONE		AD		down
4/29/97	800	6.1	85	265	412D604D19	M			LV	Ripe	down
4/29/97	800	6.1	86	245	412E032129	M			NM		down
4/29/97	800	6.1	87	345	412D5A194F	F	NONE		AD		down
4/29/97	800	6.1	88	243		M			LV	Ripe MORT. PIT tag removed for reuse	down
4/29/97	800	6.1	89	282	412D5A7B01	F	EVI	J21	AD		down
4/29/97	800	6.1	90	267	412E02001D	M			NM	Ripe	down
4/29/97	800	6.1	91	310	412E035C52	F	EVI	J88	AD	Vi unreadable. Removed to read	down
5/30/97	830	5.8	92	384	412D7A2F0B	F	EVI	BP8	AD		down
5/30/97	830	5.8	93	272	412D7F1728	M			LV	Ripe	down
5/30/97	830	5.8	94	305	412D7D6F0D	?	AVI	YS8	AD		down
5/30/97	830	5.8	95	355	412D63506B	F	AVI	YB7	AD	Ripe	down
5/30/97	830	5.8	96	260	412D5A0931	F			NM	Not ripe	down
5/30/97	830	5.8	97	270	412D7E3111	?			LV		down
5/1/97	833	6	98	210	412D6A2C70	M			NM	Ripe ventral placement of PIT	down
5/1/97	833	6	99	319	412D647A65	M	NONE		AD	Ripe	down
5/2/97	800	6.3	100	330	412D64063D	F	EVI	J23	AD	Last pit tag in this bag	down
5/2/97	800	6.3	101	339	412D6A1A23	M	NONE		AD	Ripe	down

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Date	Time	Water temp.	No.	Length (mm)	PIT tag code	Sex (M/F)	Recapture tag Type	Num.	Finclip	Comments	Direction
5/2/97	800	6.3	102	310	412E031F3C	?	NONE		AD, LV		down
5/2/97	800	6.3	103	307	412E333C53	F	EVI	JW8	AD	Vi unreadable. Removed to read	down
5/2/97	800	6.3	104	226	412D633A63	?			NM		down
5/2/97	800	6.3	105	223	412D6F5C6C	?			NM		down
5/2/97	800	6.3	106	285	412E090F72	M	NONE		AD		down
5/2/97	800	6.3	107	306	412D68027C	M			NM	Ripe	down
5/2/97	800	6.3	108	325	412D651774	M	EVI	F27	AD, LV	Ripe Vi unreadable. Removed to read	down
5/2/97	800	6.3	109	301	412D72406D	M	EVI	F42	AD, LV	Ripe Vi unreadable. Removed to read	down
5/2/97	800	6.3	110	314	412D7C467F	F	EVI	JB8	AD		down
5/2/97	800	6.3	111	300	412D79316E	F			LV	Ripe	down
5/3/97	820	7.6	112	309	412D6C066A	M	NONE		AD, LV	Ripe	down
5/3/97	820	7.6	113	294	412D772318	F			LV	Ripe	down
5/3/97	820	7.6	114	310	412D68292E	F	NONE		AD	Ripe	down
5/3/97	820	7.6	115	336	412D645137	F	EVI	J40	AD		down
5/3/97	820	7.6	116	302	412E082339	M	EVI	J52	AD	Ripe	down
5/3/97	820	7.6	117			?			NM	Escaped not measured or PIT tagged	down
5/3/97	820	7.6	118	247	412D6C5160	?			NM		down
5/3/97	820	7.6	119	305	412D687456	F	NONE		AD		down
5/3/97	820	7.6	120	317	412D74536F	M	AVI	YZ5	AD, LV	Ripe	down
5/3/97	820	7.6	121	301	412E03784B	F	EVI	JL1	AD		down
5/3/97	820	7.6	122	315	412D722972	F	EVI	JF8	AD	Vi unreadable. Removed to read	down
5/3/97	820	7.6	123	208	412D572018	M	NONE		AD	Ripe	down
5/3/97	820	7.6	124	410	412D717140	F			NM	Ripe	down
5/3/97	820	7.6	125	310	412D736B2B	M			LV	Ripe	down
5/3/97	820	7.6	126	290	412D741D7E	?			NM		down
5/3/97	820	7.6	127	302	**412D715B31**	F			NM	Ripe; caught Auke Bay 6/17/97 D. Weiss	down
5/3/97	820	7.6	128	340	412D665C2F	F	NONE		AD	Ripe	down
5/3/97	820	7.6	129	270	412D5B2160	M			LV		down
5/3/97	820	7.6	130	240	412D75706F	M			NM	Ripe	down
5/3/97	820	7.6	131	331	412E024147	F	AVI	YP2	AD		down
5/4/97	830	8.6	132	372	412D67747E	F	EVI	D18	AD		down
5/4/97	830	8.6	133	396	412E0B7A28	M	NONE		AD	Ripe	down
5/4/97	830	8.6	134	265	412D72763E	F			NM	Ripe	down
5/4/97	830	8.6	135	300	412D6F1049	M	NONE		AD	Not Ripe	down

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Date	Time	Water temp.	No.	Length (mm)	PIT tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
5/4/97	830	8.6	136	303	412E02655E	M			NM	Ripe	down
5/4/97	830	8.6	137	267	412D5D2606	M			LV	Ripe	down
5/4/97	830	8.6	138	332	412D661D75	F	EVI	FF0	AD		down
5/4/97	830	8.6	139	335	412D69643C	F	EVI	DK6	AD	Ripe	down
5/4/97	830	8.6	140	275	412D7D4920	M	EVI	J84	AD	Ripe Vi unreadable. Removed to read	down
5/4/97	830	8.6	141	242	412D77646C	M	NONE		AD	Ripe	down
5/4/97	830	8.6	142	313	412D720B45	M	EVI	J60	AD	Not Ripe	down
5/4/97	830	8.6	143	291	412D56365C	F	EVI	F61	AD		down
5/4/97	830	8.6	144	343	412D5C532F	M	AVI	YU1	AD	Ripe Vi unreadable. Removed to read	down
5/4/97	830	8.6	145	283	412E014A65	M			LV	Ripe	down
5/4/97	830	8.6	146	241	412E01590C	?			LV		down
5/4/97	830	8.6	147	216	412D5E2A29	?			LV	No Scales	down
5/4/97	830	8.6	148	200	412D571F2E	M			NM	Ripe	down
5/5/97	830	8.2	149	459	412D787A52	F	EVI	BM2	AD		down
5/5/97	830	8.2	150	329	412D793A3F	F	EVI	JX6	AD, LV	Vi unreadable. Removed to read no scales	down
5/5/97	830	8.2	151	300	412D765308	F	EVI	F32	AD	Vi unreadable. Removed to read	down
5/5/97	830	8.2	152	224	412D57297D	M			NM	Not Ripe	down
5/5/97	830	8.2	153	286	412D72040E	M	NONE		AD		down
5/5/97	830	8.2	154	295	412D6B720B	F	EVI	J38	AD		down
5/5/97	830	8.2	155	273	412D79604A	M			NM		down
5/5/97	830	8.2	156	302	412D752646	?	EVI	F62	AD, LV	No Scales	down
5/5/97	830	8.2	157	286	412E026A15	?			LV	No Scales	down
5/5/97	830	8.2	158	334	412D65541A	F			LV	Ripe No Scales	down
5/5/97	830	8.2	159	294	412D76022C	F	EVI	JX0	AD, LV	Ripe No Scales	down
5/5/97	830	8.2	160	252		F	AVI	YE4	AD	MORT. PIT tag removed for reuse	down
5/5/97	830	8.2	161	285	412D785439	F			LV	No Scales	down
5/6/97	830	9	162						NM	Escaped not measured or PIT tagged	down
5/6/97	830	9	163	292	412D727010	F	NONE		AD		down
5/6/97	830	9	164	275	406A113C46	F	NONE		AD		down
5/6/97	830	9	165	298	412D73383B	M	EVI	J94	AD	Ripe Vi unreadable. Removed to read	down
5/6/97	830	9	166	308	412D7A303E	M	EVI	J79	AD	Ripe	down
5/6/97	830	9	167	302	412D5A5053	F			NM	Ripe	down
5/6/97	830	9	168	254	412D716F56	F			LV	Ripe	down
5/6/97	830	9	169	171	412D7D0426	M			NM	Ripe ventral placement of PIT	down

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Date	Time	Water temp.	No.	Length (mm)	PIT tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
5/7/97	820	9.3	170	320	412D66612D	F	NONE		AD		down
5/7/97	820	9.3	171	320	412D63163C	F	EVI	J78	AD		down
5/7/97	820	9.3	172	274	412E004237	M			LV	Ripe	down
5/7/97	820	9.3	173	230	412D5D6265	?			NM		down
5/7/97	820	9.3	174	360	412D5F216C	F	EVI	FD2	AD	Ripe	down
5/7/97	820	9.3	175	282	412D5B487F	F			LV	Ripe	down
5/7/97	820	9.3	176	293	412D60701B	?	EVI	JD4	AD		down
5/7/97	820	9.3	177	300	412D674D66	?	EVI	JC2	AD	Vi unreadable. Removed to read	down
5/7/97	820	9.3	178	288	412D795A45	F			LV		down
5/7/97	820	9.3	179	225	412D7F3212	?			NM		down
5/7/97	820	9.3	180	240	412D621232	M	NONE		AD		down
5/7/97	820	9.3	181	275	412D7B0057	M			LV	Ripe	down
5/7/97	820	9.3	182	224	412E032707	?			NM		down
5/7/97	820	9.3	183	232	412D602F57	?			LV		down
5/7/97	820	9.3	184	326	412ED1640E	F	EVI	FJ1	AD		down
5/7/97	820	9.3	185	256	412D5D2B79	?			NM		down
5/7/97	820	9.3	186	253	412D734D06	?			LV		down
5/7/97	820	9.3	187	216	412D685576	?			NM		down
5/7/97	820	9.3	188	263	412D6D575A	F			NM		down
5/7/97	820	9.3	189	209	412D5F0E24	?	NONE		AD		down
5/7/97	820	9.3	190	212	412D706413	?			NM		down
5/7/97	820	9.3	191	284	412D614E1A	F			NM	Ripe	down
5/7/97	820	9.3	192	269	412E015D16	F			LV	Ripe	down
5/8/97	840	9	193	281	412E2C1B19	?	NONE		AD		down
5/8/97	840	9	194	286	412D7D2611	?	NONE		AD		down
5/8/97	840	9	195	333	412E100F5D	M			NM	Ripe	down
5/8/97	840	9	196	290	412D755D13	F			NM	Ripe	down
5/8/97	840	9	197	271	412D5A2174	?	NONE		AD		down
5/8/97	840	9	198	320	412D60785D	F	EVI	FD4	AD		down
5/8/97	840	9	199	299	412D5E593A	F	EVI	FB4	AD		down
5/8/97	840	9	200	225	412D70746D	?			LV		down
5/8/97	840	9	201	315	412E02013E	?	EVI	U49	AD		down
5/8/97	840	9	202	245	412D770622	M			LV	Ripe	down
5/8/97	840	9	203	225	412D5C0A4D	?			NM		down

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Date	Time	Water temp.	No.	Length (mm)	PIT tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
5/8/97	840	9	204	232	412D686874	?			NM		down
5/8/97	840	9	205	234	412D6D4B78	?			NM		down
5/8/97	840	9	206	209	412D671527	?			NM		down
5/8/97	840	9	207	214	412D68735B	?			NM		down
5/8/97	840	9	208	218	412E315A60	?			NM		down
5/8/97	840	9	209	240	412D7E7B1A	?	NONE		AD		down
5/8/97	840	9	210	228	412D5E293E	?			NM		down
5/8/97	840	9	211	298	412E020E75	M			NM	Ripe	down
5/8/97	840	9	212	310	412E025D65	F	NONE		AD, LV		down
5/8/97	840	9	213	294	412E017B3B	?	NONE		AD		down
5/8/97	840	9	214	310	412D5A6F65	F	NONE		AD		down
5/8/97	840	9	215	250	412D63340B	?			NM	Blood from anal port when milked	down
5/8/97	840	9	216	224	407A1B7B24	?			NM		down
5/8/97	840	9	217	332	412E033A06	M	EVI	DL5	AD, LV	Ripe	down
5/8/97	840	9	218	253	412D7B0A25	?	EVI	JH3	AD		down
5/8/97	840	9	219	224	412D780A56	?			NM		down
5/8/97	840	9	220	260	412D5F5A39	?			LV		down
5/8/97	840	9	221	223	412D5D6C0D	?			NM		down
5/8/97	840	9	222	190	412D632F24	?			NM		down
5/9/97	800	9	223	278	412D701E65	F			RV	Ripe	down
5/9/97	800	9	224	230	412D77031B	?			NM		down
5/9/97	800	9	225	196	412D7A057A	?			NM		down
5/9/97	800	9	226	297	412D7E5B19	?	NONE		AD		down
5/9/97	800	9	227	269	412D795871	?	EVI	J03	AD		down
5/9/97	800	9	228	306	412D7E0455	F			NM		down
5/9/97	800	9	229	273	412D6A510B	?	NONE		AD, LV	Crater near eye	down
5/9/97	800	9	230	311	412D6A656C	M	NONE		AD, LV	Ripe deformed dorsal fin	down
5/9/97	800	9	231	260	412D63290A	F			LV	Ripe	down
5/9/97	800	9	232	259	412E1B4572	?	EVI	FH7	AD		down
5/10/97	830	9.1	233	310	412E001709	M	NONE		AD, LV	Ripe	down
5/10/97	830	9.1	234	308	412E021A11	?	EVI	J74	AD		down
5/10/97	830	9.1	235	210	412D687F07	?			NM		down
5/10/97	830	9.1	236	188	412E001127	?			NM		down
5/10/97	830	9.1	237	191	412D7E092A	?			NM		down

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Date	Time	Water temp.	No.	Length (mm)	PIT tag code	Sex (M/F)	Recapture tag Type	Num.	Finclip	Comments	Direction
5/10/97	830	9.1	238	352	412D600405	?	NONE		AD		down
5/10/97	830	9.1	239	302	412D6D1434	?	NONE		AD		down
5/10/97	830	9.1	240	263	412D6E7D58	F			LV	Ripe	down
5/10/97	830	9.1	241	298	412D776242	?	EVI	BL3	AD, LV		down
5/11/97	800	9.5	242	308	412D7B7F18	M			NM	Ripe	down
5/11/97	800	9.5	243	275	412D593E32	M			LV	Ripe	down
5/11/97	800	9.5	244	182	412D771917	?			NM		down
5/11/97	800	9.5	245	232	412D554843	?			NM		down
5/11/97	800	9.5	246	295	412D563917	?	NONE		AD		down
5/11/97	800	9.5	247	249	412D6A0C73	M			LV	Ripe	down
5/11/97	800	9.5	248	241	412D6C2669	?			NM		down
5/11/97	800	9.5	249	238	412D7A103D	?	NONE		AD		down
5/11/97	800	9.5	250	285	412E04384D	?	EVI	JU7	AD, LV	Vi unreadable. Removed to read	down
5/12/97	835	8	251	213	MORT	F			NM	Immature Weir Mort Scales Flood	down
5/12/97	835	8	252	266	412E025C46	?	EVI	J28	AD, LV	Vi unreadable. Removed to read	down
5/12/97	835	8	253	247	412D7B244E	?			NM		down
5/12/97	835	8	254	259	412D5A0D2B	M			LV	Ripe	down
5/12/97	835	8	255	232	412D6D194B	?			NM		down
5/12/97	835	8	256	273	412E040F3D	?	NONE		AD		down
5/12/97	835	8	257	277	412E007B2F	?	EVI	J06	AD		down
5/12/97	835	8	258	181	412D782330	?			NM		down
5/12/97	835	8	259	275	412D637C34	?	NONE		AD		down
5/12/97	835	8	260	218	412D64271D	?			NM		down
5/12/97	835	8	261	245	412D584747	?			NM		down
5/12/97	835	8	262	220	412D736C26	?			NM		down
5/12/97	835	8	263	267	412D794A3B	?	NONE		AD		down
5/12/97	835	8	264	198	412D73424D	?			NM		down
5/12/97	835	8	265	225	412D612F43	?			LV		down
5/12/97	835	8	266	241	412D675902	?			NM		down
5/12/97	835	8	267	240	412D241B5D	?	NONE		AD		down
5/12/97	835	8	268	265	412D585117	?	EVI	JJ5	AD		down
5/12/97	835	8	269	200	412D672B32	?	NONE		AD		down
5/12/97	835	8	270	204	412D754854	?			NM		down
5/12/97	835	8	271	240	412D7E7746	?			NM		down

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Date	Time	Water temp.	No.	Length (mm)	PIT tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
5/12/97	835	8	272	271	412D7C702C	?	EVI	JB0	AD	Vi unreadable. Removed to read	down
5/12/97	835	8	273	219	412D6C2A35	?			NM		down
5/12/97	835	8	274	246	412D561D0E	?	EVI	JY6	AD, LV		down
5/12/97	835	8	275	202	412D5E460F	?			NM		down
5/12/97	835	8	276	198	412D796573	?			NM		down
5/12/97	835	8	277	222	412D56723F	?			LV		down
5/12/97	835	8	278	190	412D5E1C7A	?			NM		down
5/12/97	835	8	279	182	412D6F761D	?			NM		down
5/12/97	835	8	280	168	412D771E1A	?			NM		down
5/12/97	835	8	281	252	412D752A1A	F			LV	Ripe	down
5/12/97	835	8	282	255	412D590942	?			NM		down
5/13/97	830	9	283	261	MORT	F			LV	Ripe Weir Mort Scales and Otolith	down
5/13/97	830	9	284	252	412E006965	M			NM	Ripe	down
5/13/97	830	9	285	230	412D667C2C	?			NM		down
5/13/97	830	9	286	250	412D7555555	?			NM		down
5/13/97	830	9	287	200	412D7E7572	?			NM		down
5/13/97	830	9	288	211	412D67485F	M			NM	Ripe	down
5/13/97	830	9	289	205	412D7A1E55	?			NM		down
5/14/97	900	11	290	317	412E002B28	?	NONE		AD		down
5/14/97	900	11	291	345	412D66254E	F			NM	Ripe	down
5/14/97	900	11	292	295	412D5B6737	?	NONE		AD		down
5/14/97	900	11	293	235	412E001004	?			NM		down
5/14/97	900	11	294	259	412D763065	?	NONE		AD		down
5/15/97	825	11	295	245	412D5E3C79	?			NM		down
5/15/97	825	11	296	244	412D7B2812	?			NM		down
5/15/97	825	11	297	259	412E03154E	?	EVI	J08	AD		down
5/15/97	825	11	298	225	412D5B5922	?			NM		down
5/15/97	825	11	299	220	412D6F6E25	?			NM		down
5/15/97	825	11	300	194	412D6E117E	?			NM		down
5/15/97	825	11	301	193	412E030413	?			NM		down
5/15/97	825	11	302	279	412D74091A	F			NM		down
5/16/97	830	11	303		ESCAPED						down
5/16/97	830	11	304	300	412D6F127D	?	EVI	JH2	AD, LV	vi unreadable. Removed to read	down
5/16/97	830	11	305	255	412D104771	M			LV	Ripe	down

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Date	Time	Water temp.	No.	Length (mm)	PIT tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
5/16/97	830	11	306	181	412D0E386E	?			NM		down
5/16/97	830	11	307	222	412D19774F	?			NM		down
5/16/97	830	11	308	261	412D0B450D	?	NONE		AD		down
5/16/97	830	11	309	278	412D23731E	?			NM		down
5/16/97	830	11	310	206	412D085423	?			NM		down
5/16/97	830	11	311	270	412D152527	M			LV	Ripe	down
5/16/97	830	11	312	237	412C7A4349	?			NM		down
5/16/97	830	11	313	215	412D091560	?			NM		down
5/16/97	830	11	314	285	412D223373	?	NONE		AD, LV		down
5/16/97	830	11	315	205	412D19257C	?	NONE		AD, LV		down
5/16/97	830	11	316	290	412D091C08	?	NONE		AD		down
5/16/97	830	11	317	322	412D1D4C6F	?	NONE		AD		down
5/16/97	830	11	318	320	412D05384A	?	EVI	JK4	AD		down
5/16/97	830	11	319	250	412C7B627D	?			NM		down
5/16/97	830	11	320	210	412D256C40	?			NM		down
5/16/97	830	11	321	224	412C786A48	?			NM		down
5/16/97	830	11	322	200	412D201317	?	NONE		AD		down
5/17/97	830	11.2	323	241	412C77663C	?			NM		down
5/17/97	830	11.2	324	237	412D235533	?			NM		down
5/17/97	830	11.2	325	294	412D0E2C0A	?	NONE		AD		down
5/17/97	830	11.2	326	217	412D232703	?			NM		down
5/17/97	830	11.2	327	213	412D107C5D	?			NM		down
5/17/97	830	11.2	328	195	412D09510E	?			NM		down
5/17/97	830	11.2	329	296	412D250648	?	EVI	J95	AD		down
5/17/97	830	11.2	330	292	412D166137	?	NONE		AD		down
5/17/97	830	11.2	331	259	412D095F66	?	EVI	FH3	AD		down
5/17/97	830	11.2	332	190	412D01507A	?			NM		down
5/17/97	830	11.2	333	222	412D0B7B18	?			NM		down
5/17/97	830	11.2	334	240	412D032520	?			NM		down
5/17/97	830	11.2	335	186	412D185D2A	?			NM		down
5/17/97	830	11.2	336	240	412D0F7803	?			NM		down
5/18/97	830	11	337	243	412D19632B	?			NM		down
5/18/97	830	11	338	239	412D6E305E	?			NM		down
5/18/97	830	11	339	247	412D221253	?			NM		down

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Date	Time	Water temp.	No.	Length (mm)	PIT tag code	Sex (M/F)	Recapture tag Type	Num.	Finclip	Comments	Direction
5/18/97	830	11	340	315	412C7E3678	F			NM		down
5/18/97	830	11	341	282	412D225A6C	?			NM		down
5/18/97	830	11	342	240	412D080329	?	NONE		AD		down
5/18/97	830	11	343	256	412D24423F	?			NM		down
5/18/97	830	11	344	240	412D013C5C	?			NM		down
5/18/97	830	11	345	221	412D0A5B0F	?			NM		down
5/18/97	830	11	346	254	412D1E711E	?			NM		down
5/18/97	830	11	347	205	412D11337B	?			NM		down
5/18/97	830	11	348	200	412D06136B	?			NM		down
5/19/97	920	11	349	267	412D09356E	?			NM		down
5/19/97	920	11	350	279	412D23584C	?	EVI	J83	AD	Vi unreadable. Removed to read	down
5/19/97	920	11	351	240	412D052B23	?			NM		down
5/19/97	920	11	352	235	412D19403F	?			NM		down
5/19/97	920	11	353	279	412D034140	?	AVI	YP3	AD		down
5/19/97	920	11	354	247	412D231247	?			NM		down
5/19/97	920	11	355	235	412D0A234D	?			NM		down
5/19/97	920	11	356	248	412D0F2276	?			NM		down
5/19/97	920	11	357	235	412C77782A	?			NM		down
5/19/97	920	11	358	194	412C7D5B0E	?			NM		down
5/19/97	920	11	359	205	412C7B6667	?	NONE		AD		down
5/19/97	920	11	360	223	412D14154E	?			NM		down
5/19/97	920	11	361	250	412D23465A	?			NM		down
5/19/97	920	11	362	280	412C7D1D59	?	AVI	YA9	AD		down
5/19/97	920	11	363	322	412D0A0059	?	NONE		AD, LV		down
5/19/97	920	11	364	275	412D015C26	?	NONE		AD		down
5/19/97	920	11	365	226	412D101461	?			NM		down
5/19/97	920	11	366	243	412D060121	?	NONE		AD		down
5/19/97	920	11	367	215	412D157637	?			NM		down
5/19/97	920	11	368	215	412D105315	?			NM		down
5/20/97	830	12.2	369	270	412D211971	?			NM	Caught 6/22/97 Peterson Cr. P. Larson Jr.	down
5/20/97	830	12.2	370	261	412D0A081F	?	NONE	AD			down
5/20/97	830	12.2	371	271	412C7D6022	?	EVI	Y41	AD	Vi unreadable. Removed to read	down
5/20/97	830	12.2	372	255	412C795D2C	?			NM		down
5/20/97	830	12.2	373	208	412C7C2661	?			NM		down

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Date	Time	Water temp.	No.	Length (mm)	PIT tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
5/20/97	830	12.2	374	247	412D192271	?			NM		down
5/20/97	830	12.2	375	270	412C7B7048	?			NM		down
5/20/97	830	12.2	376	263	412C7E3E3E	?			NM		down
5/21/97	840	13	377	231	412D061771	?			NM		down
5/21/97	840	13	378	262	40797D2771	?	NONE		AD		down
5/21/97	840	13	379	294	412C7D5348	?	EVI	JK9	AD	Vi unreadable. Removed to read	down
5/21/97	840	13	380	245	412D1C5F12	?			NM		down
5/21/97	840	13	381	214	412C784617	?			NM		down
5/21/97	840	13	382	245	412D09644A	?	AVI	YW3	AD		down
5/21/97	840	13	383	210	412C780C1C	?			NM		down
5/21/97	840	13	384	220	412D093B06	F			LV	Ripe	down
5/21/97	840	13	385	227	412D122255	?			NM		down
5/21/97	840	13	386	205	412D013700	?			NM		down
5/21/97	840	13	387	259	412C7B4573	?	NONE		AD		down
5/21/97	840	13	388	264	412D1D280F	?			NM		down
5/21/97	840	13	389	259	412D0E5448	F			LV	Ripe	down
5/22/97	900	14.5	390	283	412D0C0C6E	?			NM		down
5/22/97	900	14.5	391	254	412C7B6B18	?	NONE		AD		down
5/22/97	900	14.5	392	220	412D200E16	?			NM		down
5/22/97	900	14.5	393	274	412C7B1457	?			NM		down
5/22/97	900	14.5	394	250	412D0C4746	?			NM		down
5/22/97	900	14.5	395	190	412C7C1874	?			NM		down
5/22/97	900	14.5	396	230	412D003A66	?	NONE		AD		down
5/22/97	900	14.5	397	305	412D09710D	M	EVI	F51	AD	Ripe; Vi unreadable. Removed to read	down
5/23/97	900	15	398	327	412D22676E	?	NONE		AD		down
5/23/97	900	15	399	259	412D0D3D24	?			NM		down
5/23/97	900	15	400	226	412C775475	?			NM		down
5/23/97	900	15	401	223	412D24400B	?			NM		down
5/23/97	900	15	402	235	412D0B4E5C	?			NM		down
5/23/97	900	15	403	208	412D0E567C	?			NM		down
5/23/97	900	15	404	227	412D0B016E	?	NONE		AD		down
5/23/97	900	15	405	198	412C7D6F69	?			NM		down
5/23/97	900	15	406	233	412D0A0E31	?			NM		down
5/23/97	900	15	407	235	412C7D2D24	?			NM		down

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Date	Time	Water temp.	No.	Length (mm)	PIT tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
5/23/97	900	15	408	216	412D0C404B	?			NM		down
5/23/97	900	15	409	217	412D255C3D	?			NM		down
5/23/97	900	15	410	215	412D1B7940	?			NM		down
5/23/97	900	15	411	181	412D19057F	?			NM		down
5/23/97	900	15	412	171	412D065126	?			NM		down
5/23/97	900	15	413		ESCAPED						down
5/24/97	820	15.7	414	244	412D156144	?			NM		down
5/24/97	820	15.7	415	249	412D0C104C	?			NM		down
5/24/97	820	15.7	416	244	412D003E7C	?	NONE		AD		down
5/24/97	820	15.7	417	258	412D1C0C02	?			NM		down
5/24/97	820	15.7	418	223	412D096816	?			NM		down
5/24/97	820	15.7	419	251	412C7E021F	?	NONE		AD		down
5/24/97	820	15.7	420		ESCAPED	?			NM		down
5/24/97	820	15.7	421	188	412D0E645D	?			NM		down
5/24/97	820	15.7	422	227	412D127252	?			NM		down
5/24/97	820	15.7	423	218	412D113476	?			NM		down
5/25/97	835	16.6	424	258	412C7E1813	?	NONE		AD		down
5/25/97	835	16.6	425	215	412D143A06	?	NONE		AD		down
5/25/97	835	16.6	426	195	412C7B0207	?			NM		down
5/26/97	815	16.1	427	285	412D23177E	?			NM		down
5/26/97	815	16.1	428	266	412C794E45	?			NM		down
5/26/97	815	16.1	429	325	412D1F710A	?	EVI	JH8	AD		down
5/27/97	830	16.1	430	187	412C7F445C	?			NM		down
5/27/97	830	16.1	431	199	412C7E0E43	?			NM		down
5/27/97	830	16.1	432	202	412C78074D	?			NM		down
5/28/97	800	16	433	232	412D133625	?			NM		down
5/28/97	800	16	434	245	412C7D7268	?	NONE		AD		down
5/28/97	800	16	435	230	412D0E1B7A	?			NM		down
5/28/97	800	16	436	250	412D001223	?	EVI	J12	AD		down
5/28/97	800	16	437	215	412C770D17	?			NM		down
5/28/97	800	16	438	185	412D123526	?			NM		down
5/28/97	800	16	439	231	412D037A6C	?			NM		down
5/28/97	800	16	440	187	412C7B392B	?			NM		down
5/28/97	800	16	441	230	412D055D09	?			NM		down

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Date	Time	Water temp.	No.	Length (mm)	PIT tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
5/28/97	800	16	442	168	412D206313	?			NM		down
5/29/97	837	16.1	443	276	412D214409	?	EVI	JE5	AD, LV		down
5/29/97	837	16.1	444	222	412D13300B	?			NM		down
5/29/97	837	16.1	445	283	412D200C22	?			NM		down
5/29/97	837	16.1	446	212	412D085617	?			NM		down
5/29/97	837	16.1	447	185	412D050245	?			NM		down
5/29/97	837	16.1	448	308	412D200369	?	NONE		AD		down
5/29/97	837	16.1	449	290	412D186D57	?	NONE		AD		down
5/29/97	837	16.1	450	172	412D124E73	?			NM		down
5/30/97	850	16.1	451	366	412D1A2C6A	?	NONE		AD		down
5/30/97	850	16.1	452	225	412C7C1E5A	?			NM		down
5/30/97	850	16.1	453	228	412D177773	?	NONE		AD		down
5/30/97	850	16.1	454	228	412D1E3802	?			NM		down
5/30/97	850	16.1	455	200	412D1C372E	?			NM		down
5/30/97	850	16.1	456	204	412D045824	?			NM		down
5/30/97	850	16.1	457	201	412D136B5D	?			NM		down
5/31/97	830	16.1	458	334	412C792679	?	AVI	YZ4	AD, LV	Vi unreadable. Removed to read	down
5/31/97	830	16.1	459	318	412D0A151E	?	EVI	JC5	AD		down
5/31/97	830	16.1	460	240	412D1A3666	?			NM		down
5/31/97	830	16.1	461	257	412D0D7101	?			NM		down
6/1/97	815	15.2	462	227	412C78303D	?			NM		down
6/1/97	815	15.2	463	199	412D037D61	?			NM	Blue Dot	down
6/1/97	815	15.2	464	230	412C7B5C68	?			NM		down
6/2/97	830	14.2	465	241	412D072853	?			NM		down
6/2/97	830	14.2	466	245	412D1E4A32	?			NM		down
6/2/97	830	14.2	467	293	412D24696D	?	NONE		AD		down
6/4/97	830	16.8	468	336	412D155400	?	NONE		AD		down
6/4/97	830	16.8	469	196	412D164134	?			NM		down
6/4/97	830	16.8	470	174	412D066541	?			NM		down
6/6/97	837	16.5	471	297	412D252C39	M			NM	Spent	down
6/6/97	837	16.5	472	298	412D165473	?			NM		down
6/6/97	837	16.5	473	143	412C7E2D57	?			NM		down
6/8/97	828	15.8	474	205	412D1F2C72	?			NM		down
6/8/97	828	15.8	475	238	412D1B1348	?	NONE		AD		down

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Date	Time	Water temp.	No.	Length (mm)	PIT tag code	Sex (M/F)	Recapture tag Type	Num.	Finclip	Comments	Direction
6/9/97	910	15.8	476	272	412D0C0206	?	NONE		AD		down
6/9/97	910	15.8	477	212	412D243702	?			NM		down
6/9/97	910	15.8	478	274	412D247242	?	AVI	YP5	AD		down
6/9/97	910	15.8	479	330	412D17215A	?	EVI	BC3	AD, LV	Spent?	down
6/9/97	910	15.8	480	280	412D0D5C7D	?	EVI	BE3	AD		down
6/9/97	910	15.8	481	370	412D0D4566	M	EVI	FJ8	AD	Spent?	down
6/10/97	750	15.8	482	245	412D1D5F06	?	NONE		AD		down
6/10/97	750	15.8	483	259	412D012838	?			NM		down
6/14/97	840	15.2	484	217	412D091D2B	?			NM		down
6/14/97	840	15.2	485	197	412D061545	?			NM		down
6/14/97	840	15.2	486	263	412D0D334C	?	NONE		AD, LV		down
6/15/97	819	15	487	320	412D0C0D4D	?	NONE		AD, LV		down
6/15/97	819	15	488	300	412D0F6118	?	EVI	F25	AD		down
6/16/97	820	15	489	165	412D036E08	?			NM		down
6/17/97	815	16	490	210	MORT	?			NM	Dead in trap, scales and otolith taken	down
6/19/97	820	14.2	491	322	412C7D460F	?	EVI	JK6	AD, LV		down
6/19/97	820	14.2	492	184	412D232537	?			NM	Blue Dot	down
6/20/97	835	15	493	297	412C79056D	?	NONE		AD		down
6/20/97	835	15	494	181	412D0E0930	?			NM		down
6/22/97	900	16.2	495	251	412D0C4E23	?			NM		down
6/23/97	820	16.8	496	141	412C7C1C6E	?			NM		down
6/25/97	940	18.4	497	134	412C7C4322	?			NM		down
6/25/97	940	18.4	498	130	412D1A1C17	?			NM		down
6/25/97	940	18.4	499	151	412C7A0942	?			NM		down
6/29/97	816	19	500	135	412D1B5C7A	?			NM		down
6/30/97	800	19.3								Upstream weir installed, No Cuts today	

Appendix A4.–PIT tagging information from fall immigration of cutthroat trout at Auke Creek weir, 1997.

Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
7/10/97	750	18	1	267	412D5F5A39	?			AD,LV	In basket on top of trap	Up
7/14/97	828	16.1	2	255	412D0E5448	?			AD,LV		Down
7/14/97	838	16.1	3	275	412D593E32	?			LV		Down
7/14/97	849	16.1	4	175		?			NM		Down
7/14/97	907	16.1	5	330	412D09710D	?			AD		Down
7/14/97	925	16.1	6	250	412C7B6667	?			AD		Down
7/15/97	837	16.3	7	245	412D581574	?			AD		Down
7/16/97	832	16.9	8	345							Down
7/16/97	842	16.9	9	300	412D5B0163	?			AD,LV		Down
7/16/97	846	16.9	10	320					LV		Down
7/16/97	901	16.9	11	205							Down
7/16/97	903	16.9	12	310	412D772318	?			AD,LV		Down
7/16/97	908	16.9	13	385	412D3D1813	?			AD		Down
7/16/97	916	16.9	14	295	412D763065	?			AD		Down
7/16/97	925	16.9	15	340	412C7E3678	?			AD		Down
7/17/97	900	16.8	16	295	412D24423F	?			AD		Down
7/18/97	840	16.5	17	235	412D6A2C70	?			AD		Down
7/18/97	840	16.5	18	260	412D6F4C12	?			AD,LV		Down
7/18/97	840	16.5	19	295	412E01014D	?			AD,LV		Down
7/19/97	1053	16	20	340	412D72406D	?			AD,LV		Down
7/20/97	1054	15.8	21	360	412D72040E	?			AD		Down
7/20/97	1109	15.8	22	365	412D665C2F	?			AD		Down
7/21/97	810	15.5	23	290	412D77031B	?			AD		Down
7/21/97	821	15.5	24	320	412D186057	?			AD		Down
7/21/97	830	15.5	25	220	412D0E6A5D	?			AD		Down
7/21/97	835	15.5	26	280	412D612F43	?			AD,LV		Down
7/23/97	821	15.2	27	165							Down
7/23/97	830	15.2	28	190						STEELHEAD	Up
7/24/97	1006	15	29	295	412D5A5053	?			AD		Down
7/24/97	1006	15	30	360	412D6D1434	?			AD		Down
7/24/97	1006	15	31	330	412D585117	?			AD		Down
7/24/97	1006	15	32	190						STEELHEAD	Up
7/25/97	1030	14.8	33	320							Down

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Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Num.	Finclip	Comments	Direction
7/25/97	1030	14.8	34	295	412E01014D	?			AD,LV		Down
7/25/97	1030	14.8	35	300	412D6D4B78	?			AD		Down
7/25/97	1030	14.8	36	310	412E001004	?			AD		Down
7/25/97	1030	14.8	37	335	412E026A15	?			AD,LV		Down
7/25/97	1030	14.8	38	320	412D7C702C	?			AD		Down
7/25/97	1030	14.8	39	300	412D5B0163	?			AD,LV		Down
7/25/97	1030	14.8	40	295	412D5B487F	?			AD,LV		Down
7/26/97	830	15.3	41	185							Down
7/26/97	830	15.3	42	265	412D127252	?			AD		Down
7/26/97	830	15.3	43	330	412E043840	?			AD,LV		Down
7/26/97	830	15.3	44	310	412D7E3111	?			AD,LV		Down
7/26/97	830	15.3	45	220	412D0E6A5D	?			AD		Down
7/27/97	1734	15.8	46	330	412D585117	?			AD		Down
7/27/97	1734	15.8	47	155							Up
7/28/97	1103	16.3	48	325	412D23584C	?			AD		Up
7/28/97	1103	16.3	49	295		?	FLOY	2336		Windfall Fish	Up
7/28/97	1103	16.3	50	320					LV		Up
7/28/97	1103	16.3	51	320							Up
7/29/97	800	16.5	52	365	412D665C2F				AD		Up
7/29/97	800	16.5	53	285	412D736C26				AD		Up
7/29/97	800	16.5	54	325					NM	Main Trap Mort	Up
7/30/97	800	16.6	55	310					NM	Silvery looking	Down
7/30/97	800	16.6	56	305			VIE	F82	AD,LV	No PIT Tag	Down
7/31/97	800	16.6	57	260					NM		Down
8/2/97	845	17.3	58	305	412D252C39				AD		Up
8/3/97	900	17.7	59	290	412E01014D				AD	Spent Looking	Down
8/13/97	845	16.7	60	275					AD		Down
8/13/97	845	16.7	61	290	412D64271D				AD		Down
8/13/97	845	16.7	62	345	412D091C08				AD		Up
8/14/97	1300	15.8	63	309					NM	Mort	Up
8/14/97	1300	15.8	64	261					NM	Mort	Up
8/15/97	1300	17.0	65	379	412D59326E	F			AD	Trap Mort	Up
8/15/97	1300	17.0	66	378		F			NM	Trap Mort	Up
8/15/97	1400	18.0	67	301	412D14154E	F			AD	Trap Mort	Up

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Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
8/16/97	900	16.9	68	295	412D5A5053	F			AD	Main Trap Mort	Up
8/18/97	900	16.6	69							Escape	Up
8/20/97	930	17.3	70	336	412D7B2812	F			AD	Killed by Roger "Cutthroat" Harding	Up
8/25/97	1400	16.5	71	348	412E035C52	F			AD	Main Trap Mort	Up
8/25/97	1400	16.5	72	310	412E025C46				AD,LV	From DV Trap	Up
8/26/97	940	16.5	73	142					NM		Up
8/26/97	940	16.5	74	182					NM		Up
8/26/97	940	16.5	75	186					NM		Up
8/26/97	940	16.5	76	218					NM		Up
8/26/97	940	16.5	77	218					NM		Up
8/26/97	940	16.5	78	287	412D56723F				AD,LV	(Mort on 9/2/97)	Up
8/26/97	940	16.5	79	340	412C7B7D48				AD	(Mort on 9/4/97)	Up
8/28/97	900	16.1	80	325					NM		Up
8/29/97	1015	15.8	81	176					NM		Up
8/29/97	1015	15.8	82	184					NM		Up
8/29/97	1015	15.8	83	192					NM		Up
8/29/97	1015	15.8	84	203					NM		Up
8/29/97	1015	15.8	85	205					NM		Up
8/29/97	1015	15.8	86	214					NM		Up
8/29/97	1015	15.8	87	258	412C7E0E43				AD		Up
8/29/97	1015	15.8	88	317	412D003E7C				AD		Up
8/29/97	1015	15.8	89	395					NM		Up
8/30/97	730	15.5	90	213					NM		Up
8/30/97	730	15.5	91	270	412D085617				AD		Up
8/30/97	730	15.5	92	296	412C77782A				AD	(Mort on 9/4/97)	
8/30/97	730	15.5	93	301	412D68735B				AD		Up
8/30/97	730	15.5	94	303	412D633A63				AD		Up
8/30/97	730	15.5	95	365	412D166737				AD		Up
8/31/97	944	15.3	96	197					NM		Up
8/31/97	944	15.3	97	222	412D036E08				AD		Up
8/31/97	944	15.3	98	210					NM		Up
8/31/97	944	15.3	99	236	412C7D6F69				AD		Up
8/31/97	944	15.3	100	240					NM		Up
8/31/97	944	15.3	101	312	412D6E7D58				AD,LV		Up

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Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
9/1/97	900	14.9	102	202					NM		Up
9/1/97	900	14.9	103	220					NM		Up
9/1/97	900	14.9	104	190					NM		Up
9/3/97	900	14.5	105	220					NM		Up
9/4/97	900	14.3	106	230					NM		Up
9/5/97	900	15.1	107	192					NM		Up
9/5/97	900	15.1	108	200					NM		Up
9/5/97	900	15.1	109	237					NM		Up
9/5/97	900	15.1	110	270	412D136B5D				AD		Up
9/5/97	900	15.1	111	286					NM		Up
9/5/97	900	15.1	112	265	412C780C1C				AD		Up
9/5/97	900	15.1	113	260					NM		Up
9/6/97	900	15.2	114	315					AD	No VI, No PIT	Up
9/6/97	900	15.2	115	262					NM		Up
9/6/97	900	15.2	116	231					NM		Up
9/6/97	900	15.2	117	182					NM		Up
9/8/97	900	15.5	118	165					NM		Up
9/8/97	900	15.5	119	185					NM		Up
9/8/97	900	15.5	120	196					NM		Up
9/8/97	900	15.5	121	196					NM		Up
9/8/97	900	15.5	122	222					NM		Up
9/8/97	900	15.5	123	276	412D001223		EVI	J12	AD		Up
9/9/97	900	15.7	124	180					NM		Up
9/9/97	900	15.7	125	181					NM		Up
9/9/97	900	15.7	126	191					NM		Up
9/9/97	900	15.7	127	220					NM		Up
9/9/97	900	15.7	128	187					NM		Up
9/9/97	900	15.7	129	243	412D19257C				AD,LV		Up
9/9/97	900	15.7	130	247	412C7F445C				AD		Up
9/9/97	900	15.7	131	265	412D7A1E55				AD		Up
9/9/97	900	15.7	132	269	412D133625				AD		Up
9/9/97	900	15.7	133	286	412D7E7B1A				AD		Up
9/9/97	900	15.7	134	280	412D5F0E24				AD		Up
9/9/97	900	15.7	135	283	412D572018				AD		Up

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Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
9/9/97	900	15.7	136	287	412D72763E				AD		Up
9/9/97	900	15.7	137	286	412D754854				AD		Up
9/9/97	900	15.7	138	290	412D621232				AD		Up
9/9/97	900	15.7	139	297	412D0C0206				AD		Up
9/9/97	900	15.7	140	294	412D19774F				AD		Up
9/9/97	900	15.7	141	296	412D74103D				AD		Up
9/9/97	900	15.7	142	303	40797D2771				AD		Up
9/9/97	900	15.7	143	309	412D0F7803				AD		Up
9/9/97	900	15.7	144	308	412D5B487F				AD		Up
9/9/97	900	15.7	145	310	412D0C4746				AD		Up
9/9/97	900	15.7	146	315	412D6C5160				AD		Up
9/9/97	900	15.7	147	316	407A1B7B24				AD		Up
9/9/97	900	15.7	148	328	412D7B0A25		EVI	JH3	AD		Up
9/9/97	900	15.7	149	331	412D0B450D				AD		Up
9/9/97	900	15.7	150	332	412E04384D				AD,LV		Up
9/9/97	900	15.7	151	335					NM		Up
9/9/97	900	15.7	152	342	412D795871		EVI	UNREAD	AD		Up
9/9/97	900	15.7	153	350	412D7B0057				AD		Up
9/9/97	900	15.7	154	353	412D793A3F				AD		Up
9/10/97	900	15.5	155	182					NM		Up
9/10/97	900	15.5	156	198					NM		Up
9/10/97	900	15.5	157	207					NM		Up
9/10/97	900	15.5	158	232					NM		Up
9/10/97	900	15.5	159	249	412D065126				AD		Up
9/10/97	900	15.5	160	251					NM		Up
9/10/97	900	15.5	161	268	412D771917				AD		Up
9/10/97	900	15.5	162	272	412D177773				AD		Up
9/10/97	900	15.5	163	275	412D127252				AD		Up
9/10/97	900	15.5	164	280					NM		Up
9/10/97	900	15.5	165	284					NM		Up
9/10/97	900	15.5	166	294					NM		Up
9/10/97	900	15.5	167	298	412D57297D				AD		Up
9/10/97	900	15.5	168	295	412D780A56				AD		Up
9/10/97	900	15.5	169	302	412D763065				AD		Up

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Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
9/10/97	900	15.5	170	304					NM		Up
9/10/97	900	15.5	171	306					NM		Up
9/10/97	900	15.5	172	308	412D080329				AD		Up
9/10/97	900	15.5	173	313	412C7B4573				AD		Up
9/10/97	900	15.5	174	320	412C77663C				AD		Up
9/10/97	900	15.5	175	331	412E025D65				AD		Up
9/10/97	900	15.5	176	345	412E082339		EVI	UNREAD	AD		Up
9/10/97	900	15.5	177	355	412D0C0C6E				AD		Up
9/11/97	900	15.2	178	182					NM		Up
9/11/97	900	15.2	179	225					NM		Up
9/11/97	900	15.2	180	239					NM		Up
9/11/97	900	15.2	181	255					NM		Up
9/11/97	900	15.2	182	255					NM		Up
9/11/97	900	15.2	183	259	412D1F2C72				AD		Up
9/11/97	900	15.2	184	260					NM		Up
9/11/97	900	15.2	185	278	412D06136B				AD		Up
9/11/97	900	15.2	186	292	412D632F24				AD		Up
9/11/97	900	15.2	187	305	412D24423F				AD		Up
9/11/97	900	15.2	188	310	412D156144				AD		Up
9/11/97	900	15.2	189	316	412D675902				AD		Up
9/11/97	900	15.2	190	319	412D5F7B19				AD		Up
9/11/97	900	15.2	191	326	412D7E3111				AD,LV		Up
9/11/97	900	15.2	192	336	412D0B4E5C				AD,LV		Up
9/11/97	900	15.2	193	335	412E03712E				AD,LV		Up
9/11/97	900	15.2	194	340	412E333C53				AD		Up
9/11/97	900	15.2	1		412D6A1A23				AD		Down
9/11/97	900	15.2	2		412E01640E				AD		Down
9/11/97	900	15.2	3		412D6E051A				AD		Down
9/11/97	900	15.2	4		412D23731E				AD		Down
9/12/97	900	14.9	195	204					NM		Up
9/12/97	900	14.9	196	284					AD	No PIT, No VI	Up
9/12/97	900	14.9	197	302					NM		Up
9/12/97	900	14.9	198	301	412C786A48				AD		Up
9/12/97	900	14.9	199	315	412D5B0163				AD,LV		Up

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Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
9/12/97	900	14.9	200	363	412D563917				AD	Mort in trout trap	Up
9/12/97	900	14.9	201	394	412D6E7027				AD		Up
9/12/97	900	14.9	5		412D7342AD				AD		Down
9/12/97	900	14.9	6		412D6D1434				AD		Down
9/12/97	900	14.9	7		412D701E65				AD		Down
9/12/97	900	14.9	8		412E2C1B19				AD		Down
9/12/97	900	14.9	9		412C7A4349				AD		Down
9/13/97	900	14.8	10		412D672B32				AD		Down
9/13/97	900	14.8	11		412D7E5B19				AD		Down
9/13/97	900	14.8	12		412D085423				AD		Down
9/13/97	900	14.8	13		412E025B4B				AD		Down
9/13/97	900	14.8	14		412C7C1874				AD	Fungus on body	Down
9/13/97	900	14.8	15		412D5E5445				AD		Down
9/13/97	900	14.8	16		412D13300B				AD		Down
9/13/97	900	14.8	17		412C7B1457				AD		Down
9/13/97	900	14.8	18		412D595337				AD		Down
9/13/97	900	14.8	19		412C7B392B				AD		Down
9/13/97	900	14.8	20		412D602F57				AD		Down
9/13/97	900	14.8	21		412D64271D				AD		Down
9/13/97	900	14.8	22		412D223373				AD		Down
9/14/97	900	14.6	202	224					NM		Up
9/14/97	900	14.6	203	230					NM		Up
9/14/97	900	14.6	204	377	412D6E1E35		AVI	BR4	AD		Up
9/14/97	900	14.6	23		412E030413				AD		Down
9/14/97	900	14.6	24		412D0E5448				AD		Down
9/14/97	900	14.6	25		412D185D2A				AD		Down
9/14/97	900	14.6	26		412D581574				AD		Down
9/14/97	900	14.6	27		412D1E3802				AD		Down
9/14/97	900	14.6	28		412D013C5C				AD		Down
9/14/97	900	14.6	29		412D7C702C				AD		Down
9/14/97	900	14.6	30		412E01590C				AD		Down
9/14/97	900	14.6	31		412D637C34				AD		Down
9/14/97	900	14.6	32		412E001004				AD		Down
9/15/97	900	14.4	33		412D0A5B0F				AD		Down

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Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
9/15/97	900	14.4	34		412D066541				AD		Down
9/15/97	900	14.4	35		412D0A234D				AD		Down
9/15/97	900	14.4	36		412D66254E				AD		Down
9/15/97	900	14.4	37		412D0F2276				AD		Down
9/15/97	900	14.4	38		412D6F5A42				AD		Down
9/15/97	900	14.4	39		412D5A19AF				AD		Down
9/15/97	900	14.4	40		412D192271				AD		Down
9/15/97	900	14.4	41		412D5F216C				AD		Down
9/15/97	900	14.4	42		412D7F3212				AD		Down
9/15/97	900	14.4	43						AD	NO PIT, NO VI	Down
9/15/97	900	14.4	44						NM	10 NO MARKS DOWN STREAM	Down
9/19/97	900	13.8	205	204					NM		Up
9/19/97	900	13.8	206	223					NM		Up
9/19/97	900	13.8	207						AD	ESCAPE	Up
9/19/97	900	13.8	208	244	412D185D2A				AD		Up
9/19/97	900	13.8	209	250					NM		Up
9/19/97	900	13.8	210	255					NM		Up
9/19/97	900	13.8	211	260					NM		Up
9/19/97	900	13.8	212	268	412D571F2E				AD		Up
9/19/97	900	13.8	213	268	412D581574				AD		Up
9/19/97	900	13.8	214	289	412D1D5FO6				AD		Up
9/19/97	900	13.8	215	304	412D5A0D2B				AD,LV		Up
9/19/97	900	13.8	216	310	412D74091A				AD		Up
9/19/97	900	13.8	217	315	412D192271				AD		Up
9/19/97	900	13.8	218	328	412D0D5C7D				AD		Up
9/19/97	900	13.8	219	332	412C7B627D				AD		Up
9/19/97	900	13.8	220	335	412E020E75				AD		Up
9/19/97	900	13.8	221	337	412D7B5D2F				AD		Up
9/19/97	900	13.8	222	355	412D1F710A		EVI	JH8	AD		Up
9/19/97	900	13.8	223	350					NM		Up
9/19/97	900	13.8	224	355	412D595337				AD		Up
9/19/97	900	13.8	225	360	412D671A6C				AD		Up
9/19/97	900	13.8	226	350	412D6C066A				AD,LV		Up
9/19/97	900	13.8	227	389	412D734A0B				AD		Up

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Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
9/19/97	900	13.8	228	324	412D013C5C				AD		Up
9/19/97	900	13.8	229	346	412D584747				AD		Up
9/19/97	900	13.8	230	371	412D6D1434				AD		Up
9/19/97	900	13.8	231	216					NM		Up
9/19/97	900	13.8	232	332	412D7E5B19				AD		Up
9/19/97	900	13.8	233	263	412D072853				AD		Up
9/19/97	900	13.8	234	385	412D5E3C79				AD		Up
9/19/97	900	13.8	235	336	412C7D6022				AD		Up
9/19/97	900	13.8	236	338	412D5A2174				AD		Up
9/19/97	900	13.8	237	276	412C7B392B				AD		Up
9/19/97	900	13.8	238	309					NM		Up
9/19/97	900	13.8	239	309	412D602F57				AD		Up
9/19/97	900	13.8	240	371	412D5A194F				AD		Up
9/19/97	900	13.8	241	368	412D72040E				AD		Up
9/19/97	900	13.8	242	240					NM		Up
9/19/97	900	13.8	243	342	412D6F5A42				AD,LV		Up
9/19/97	900	13.8	244	196					NM		Up
9/19/97	900	13.8	245	294	412D672B32				AD		Up
9/19/97	900	13.8	246	385	412D0A0059				AD,LV		Up
9/19/97	900	13.8	247	412	412D7A2F0B		EVI	BP8	AD		Up
9/19/97	900	13.8	248	264	412D6A2C70				AD		Up
9/19/97	900	13.8	249	230					NM		Up
9/19/97	900	13.8	250	280	412D5E460F				AD		Up
9/19/97	900	13.8	251	270	412D0E567C				AD		Up
9/19/97	900	13.8	252	269	412D143A06				AD		Up
9/19/97	900	13.8	253	305	412D0A5B0F				AD		Up
9/19/97	900	13.8	254	307	412C7C1874				AD		Up
9/19/97	900	13.8	255	329	412D637634				AD		Up
9/19/97	900	13.8	256	288	412D13300B				AD		Up
9/19/97	900	13.8	257	291	412D64271D				AD		Up
9/19/97	900	13.8	258	325	412E001004				AD		Up
9/19/97	900	13.8	259	286	412D5B5922				AD		Up
9/19/97	900	13.8	260	285	412D1E3802				AD		Up
9/19/97	900	13.8	261	375	412C792679				AD,LV		Up

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Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
9/19/97	900	13.8	262	400	412D1A2C6A				AD		Up
9/19/97	900	13.8	263	357	412D776242		EVI	UNREAD	AD,LV		Up
9/19/97	900	13.8	264	361	412D645137		EVI	J40	AD		Up
9/19/97	900	13.8	265	350	412E017B3B				AD		Up
9/19/97	900	13.8	266	318	412D152527				AD,LV		Up
9/19/97	900	13.8	267	384	412D637765				AD		Up
9/19/97	900	13.8	268	395	412D5F216C				AD		Up
9/19/97	900	13.8	269	370	412D5E5445				AD		Up
9/19/97	900	13.8	270	311	412D247242				AD		Up
9/19/97	900	13.8	271	210					NM		Up
9/19/97	900	13.8	272	285	412D685576				AD	Hook wound lower jaw	Up
9/19/97	900	13.8	273	369	412D6F127D				AD,LV		Up
9/19/97	900	13.8	274	347	412D60785D		EVI	UNREAD	AD		Up
9/19/97	900	13.8	275	355	412E025BAB				AD,LV		Up
9/19/97	900	13.8	276	348	412D674D66				AD		Up
9/19/97	900	13.8	277	353	412C7E3678				AD		Up
9/19/97	900	13.8	278	369	412D1D4C6F				AD		Up
9/19/97	900	13.8	279	292					NM		Up
9/19/97	900	13.8	280	257	412E030413				AD		Up
9/19/97	900	13.8	281	300	412D7C3758				AD		Up
9/19/97	900	13.8	282	339					NM		Up
9/19/97	900	13.8	283	306					NM		Up
9/19/97	900	13.8	284	354	412E2C1B19				AD		Up
9/19/97	900	13.8	285	311	412D0A234D				AD		Up
9/19/97	900	13.8	286	244					NM		Up
9/19/97	900	13.8	287	266	412D01507A				AD		Up
9/19/97	900	13.8	288	267					NM		Up
9/19/97	900	13.8	289	364	412D5B6737				AD		Up
9/19/97	900	13.8	290	338	412D5D2B79				AD		Up
9/19/97	900	13.8	291	267	412D7D0426				AD		Up
9/19/97	900	13.8	292	253					NM		Up
9/19/97	900	13.8	293	223					NM		Up
9/19/97	900	13.8	294	235					NM		Up
9/19/97	900	13.8	295	298	412D241B5D				AD		Up

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Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
9/19/97	900	13.8	296	210					NM		Up
9/19/97	900	13.8	297	345	412C7D5348				AD		Up
9/19/97	900	13.8	298	383	412D6A1A23				AD		Up
9/19/97	900	13.8	299	336	412D585117		EVI	JJ5	AD		Up
9/20/97	800	13.5	300	340	412D225A6C				AD		Up
9/20/97	800	13.5	301	355	412D63163C				AD		Up
9/20/97	800	13.5	302	210					NM		Up
9/20/97	800	13.5	303	205					NM		Up
9/20/97	800	13.5	304	345	412C7B1457				AD		Up
9/20/97	800	13.5	305	190					NM		Up
9/20/97	800	13.5	306	305	412D7F3212				AD		Up
9/20/97	800	13.5	307	260					NM		Up
9/20/97	800	13.5	308	360	412D64063D				AD		Up
9/20/97	800	13.5	309	340	412E001709				AD,LV		Up
9/20/97	800	13.5	310	190					NM		Up
9/20/97	800	13.5	311	235					NM		Up
9/20/97	800	13.5	312	390	412D721149				AD		Up
9/20/97	800	13.5	313	270	412D123526				AD		Up
9/20/97	800	13.5	314	305					AD	No PIT, No VI	Up
9/21/97	800	13	315	183					NM		Up
9/21/97	800	13	316	302	412D012838				AD		Up
9/21/97	800	13	317	174					NM		Up
9/21/97	800	13	318	303	412C7D7268				AD		Up
9/21/97	800	13	319	289					NM		Up
9/21/97	800	13	320	358	412C7D460F		EVI	UNREAD	AD,LV		Up
9/21/97	800	13	321	343	412D741D7E				AD		Up
9/21/97	800	13	322	218					NM		Up
9/21/97	800	13	323	328	412C7E021F				AD		Up
9/21/97	800	13	324	217					NM		Up
9/21/97	800	13	325	211	412D776830				AD		Up
9/21/97	800	13	326	224					NM		Up
9/21/97	800	13	327	226					NM		Up
9/21/97	800	13	328	295	412C78303D				AD		Up
9/21/97	800	13	329	390	412D63506B		AVI	YB7	AD		Up

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Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
9/21/97	800	13	330	302	412D701E65				ADRV		Up
9/21/97	800	13	331	371	412D6E051A		AVI	YM2	AD	PIT tag read SP1998	Up
9/21/97	800	13	332	262	412D1C372E				AD		Up
9/21/97	800	13	333	225					NM		Up
9/21/97	800	13	334	223					NM		Up
9/21/97	800	13	335	182					NM		Up
9/21/97	800	13	336	239					NM		Up
9/21/97	800	13	337	188					NM		Up
9/21/97	800	13	338	335	412D590942				AD		Up
9/21/97	800	13	339	192					NM		Up
9/21/97	800	13	340	322	412D214409				AD,LV		Up
9/21/97	800	13	341	211					NM		Up
9/21/97	800	13	342	390	412E002B2B				AD		Up
9/21/97	800	13	343	365	412D23731E				AD		Up
9/22/97	800	12.4	344	258					NM		Up
9/22/97	800	12.4	345	186					NM		Up
9/22/97	800	12.4	346	231					NM		Up
9/22/97	800	12.4	347	166					NM		Up
9/22/97	800	12.4	348	203					NM		Up
9/22/97	800	12.4	349	188					NM		Up
9/22/97	800	12.4	350	394		M	EVI	FJ8	AD		Up
9/22/97	800	12.4	351	196					NM		Up
9/22/97	800	12.4	352	253	412D782330				AD		Up
9/22/97	800	12.4	353	234					NM		Up
9/22/97	800	12.4	354	219					AD	No PIT, No VI	Up
9/22/97	800	12.4	355	490	412D787A52		EVI	BM2	AD		Up
9/22/97	800	12.4	356						AD	ESCAPE	Up
9/22/97	800	12.4	357	283					NM		Up
9/22/97	800	12.4	358	368	412D655E68				AD		Up
9/22/97	800	12.4	359	223					NM		Up
9/22/97	800	12.4	360	174					NM		Up
9/23/97	800	12.4	361	299	412D0E1B7A				AD		Up
9/23/97	800	12.4	362	256					NM		Up
9/23/97	800	12.4	363	225					NM		Up

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Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
9/23/97	800	12.4	364	301	412C784617				AD		Up
9/23/97	800	12.4	365	216					NM		Up
9/23/97	800	12.4	366	357					NM		Up
9/23/97	800	12.4	367	294					NM		Up
9/23/97	800	12.4	368	319	412D231247				AD		Up
9/23/97	800	12.4	369	309	412D5A7B01				AD		Up
9/23/97	800	12.4	370	216					NM		Up
9/23/97	800	12.4	371	271	412C7B6667				AD		Up
9/23/97	800	12.4	372	334					NM		Up
9/23/97	800	12.4	373	355	412D6F1049				AD		Up
9/23/97	800	12.4	374	277	412D1E4A32				AD		Up
9/24/97	800	12.6	375	199					AD	No Tags	Up
9/24/97	800	12.6	376	228					NM		Up
9/24/97	800	12.6	377	329	412D686874				AD		Up
9/24/97	800	12.6	378	286					AD	PIT Tag read and then lost	Up
9/24/97	800	12.6	379	198					NM		Up
9/24/97	800	12.6	380	194					NM		Up
9/24/97	800	12.6	381	202					NM		Up
9/24/97	800	12.6	382	281	412D19632B				AD		Up
9/24/97	800	12.6	383	282	412D70746D				AD		Up
9/25/97	800	12.2	384	211					NM		Up
9/25/97	800	12.2	385	224					NM		Up
9/25/97	800	12.2	386	176					NM		Up
9/25/97	800	12.2	387	184					NM		Up
9/25/97	800	12.2	388	192					NM		Up
9/25/97	800	12.2	389	235					NM		Up
9/25/97	800	12.2	390	187					NM		Up
9/25/97	800	12.2	391	228					NM		Up
9/25/97	800	12.2	392	218					NM		Up
9/26/97	800	12	393	223					NM		Up
9/26/97	800	12	394	230					NM		Up
9/26/97	800	12	395	240					NM		Up
9/26/97	800	12	396	323	412D060121				AD		Up
9/26/97	800	12	397	243					NM		Up

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Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
9/26/97	800	12	398	203					NM		Up
9/26/97	800	12	399	272					NM		Up
9/26/97	800	12	400	395					NM		Up
9/26/97	800	12	401	245					NM		Up
9/26/97	800	12	402	211					NM		Up
9/26/97	800	12	403	210					NM		Up
9/26/97	800	12	404	338	412D755555				AD		Up
9/26/97	800	12	405	212					NM		Up
9/26/97	800	12	406	246					NM		Up
9/26/97	800	12	407	281					NM		Up
9/26/97	800	12	408	275					NM		Up
9/27/97	800	12	409	313					NM		Up
9/27/97	800	12	410	247					NM		Up
9/27/97	800	12	411	372			EVI	?73	AD	F73 1st return FA97,new PIT SP98	Up
9/27/97	800	12	412	206					NM		Up
9/27/97	800	12	413	337	412C7B6B18				AD		Up
9/27/97	800	12	414	262					NM		Up
9/27/97	800	12	415	191					NM		Up
9/27/97	800	12	416	300	412D7C0A5A				AD,LV		Up
9/27/97	800	12	417	250					NM		Up
9/27/97	800	12	418	195					NM		Up
9/28/97	800	11.9	419	208					NM		Up
9/28/97	800	11.9	420	244					NM		Up
9/28/97	800	11.9	421	196					NM		Up
9/28/97	800	11.9	422	229					NM		Up
9/28/97	800	11.9	423	244					NM		Up
9/28/97	800	11.9	424	214					NM		Up
9/28/97	800	11.9	425	194					NM		Up
9/28/97	800	11.9	426	223					NM		Up
9/28/97	800	11.9	427	242					NM		Up
9/28/97	800	11.9	428	222					NM		Up
9/28/97	800	11.9	429	206					NM		Up
9/28/97	800	11.9	430	238					NM		Up
9/29/97	900	11.7	431	229					NM		Up

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Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
9/29/97	900	11.7	432	220					NM		Up
9/29/97	900	11.7	433	236					NM		Up
9/29/97	900	11.7	434	203					NM		Up
9/29/97	900	11.7	435	283					NM		Up
9/29/97	900	11.7	436	327			EVI	DS0	AD		Up
9/29/97	900	11.7	437	400	412E0C3672				AD		Up
9/30/97	900	11.7	438	275					NM		Up
9/30/97	900	11.7	439	171					NM		Up
9/30/97	900	11.7	440	227					NM		Up
9/30/97	900	11.7	441	225					NM		Up
9/30/97	900	11.7	442	225					NM		Up
10/1/97	900	11.6	443	207					NM		Up
10/1/97	900	11.6	444	213					NM		Up
10/1/97	900	11.6	445	253					NM		Up
10/2/97	900	10	446	316	412D19403F				AD		Up
10/2/97	900	10	447	316	412D75706F				AD		Up
10/2/97	900	10	448	233					NM		Up
10/2/97	900	10	449	231					NM		Up
10/2/97	900	10	450	211					NM		Up
10/2/97	900	10	451	318					AD	NO PIT, NO VI TAG	Up
10/2/97	900	10	452	246					NM		Up
10/2/97	900	10	453	212					NM		Up
10/2/97	900	10	454	208					NM		Up
10/2/97	900	10	455	236					NM		Up
10/2/97	900	10	456	217					NM		Up
10/2/97	900	10	457	220					NM		Up
10/2/97	900	10	458	195					NM		Up
10/3/97	900	10.5	459	235					NM		Up
10/3/97	900	10.5	460	234					NM		Up
10/3/97	900	10.5	461	200					NM		Up
10/3/97	900	10.5	462	237					NM		Up
10/3/97	900	10.5	463	206					NM		Up
10/3/97	900	10.5	464	219					NM		Up
10/3/97	900	10.5	465	234					NM		Up

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Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
10/3/97	900	10.5	466	276					NM		Up
10/3/97	900	10.5	467	230					NM		Up
10/3/97	900	10.5	468	272					NM		Up
10/3/97	900	10.5	469	191					NM		Up
10/4/97	800	10.7	470	218					NM		Up
10/4/97	800	10.7	471	184					NM		Up
10/4/97	800	10.7	472	217					NM		Up
10/4/97	800	10.7	473	185					NM		Up
10/4/97	800	10.7	474	176					NM		Up
10/4/97	800	10.7	475	193					NM		Up
10/4/97	800	10.7	476	285	412D685576				AD		Up
10/4/97	800	10.7	477	264					AD	PIT reader acting up, No VI	Up
10/4/97	800	10.7	478	265	412C78074D				AD		Up
10/5/97	800	10.5	479	217					NM		Up
10/5/97	800	10.5	480	235					NM		Up
10/6/97	800	10.3	481	195					NM		Up
10/6/97	800	10.3	482	226					NM		Up
10/6/97	800	10.3	483	240					NM		Up
10/6/97	800	10.3	484	234					NM		Up
10/7/97	645	10.1	485	191					NM		Up
10/7/97	645	10.1	486	227					NM		Up
10/7/97	645	10.1	487	164					NM		Up
10/7/97	645	10.1	488	209					NM		Up
10/7/97	645	10.1	489	222					NM		Up
10/7/97	645	10.1	490	228					NM		Up
10/8/97	800	10	491	211					NM		Up
10/8/97	800	10	492	212					NM		Up
10/8/97	800	10	493	192					NM		Up
10/8/97	800	10	494	193					NM		Up
10/8/97	800	10	495	290					AD	No PIT, No VI (Reader problem)	Up
10/8/97	800	10	496	291	412D256C40				AD		Up
10/8/97	800	10	497	333	412D6A510B				ADLV	No VI	Up
10/9/97	900	9.4	498	209					NM		Up
10/13/97	900	8.2	499	355	412E026A15				ADLV		Up

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Date	Time	Water temp.	No.	Length (mm)	Pit tag code	Sex (M/F)	Recapture tag Type	Recapture tag Num.	Finclip	Comments	Direction
10/13/97	900	8.2	500	236					NM		Up
10/13/97	900	8.2	501	268	412D19057F				AD		Up
10/13/97	900	8.2	502	209					NM		Up
10/13/97	900	8.2	503	265	412D6C2A35				AD		Up
10/13/97	900	8.2	504	203					NM		Up
10/14/97	900	8	505	294	412D73424D				AD		Up
10/14/97	900	8	506	246					NM		Up
10/14/97	900	8	507	322	412D0F2276				AD		Up
10/14/97	900	8	508	350	412D1D280F				AD		Up
10/14/97	900	8	509	395	412D67747E		EVI	O18	AD		Up
10/14/97	900	8	510	400					AD	No PIT, No VI	Up
10/14/97	900	8	511	333	412E01590C				ADLV		Up
10/15/97	900	8.2	512	175					NM		Up
10/15/97	900	8.2	513	304	412D612F43				ADLV		Up
10/15/97	900	8.2	514	352	412D722972				AD		Up
10/16/97	900	8.2	515	207					NM	STEELHEAD	Up
10/17/97	900	8.1	516	200					NM		Up
10/22/97	800	7.7	517	212					NM		Up
10/23/97	800	7.7	518	228					NM		Up
10/24/97	900	7.7	519	222					NM		Up
10/24/97	900	7.7	520	315					NM		Up

Appendix A5.–List of computer data files for studies at Auke Creek weir in 1997.

Data File	Description
pit97.xls	Excel file of PIT tagging information from spring tagging and fall recoveries of cutthroat trout at Auke Creek weir, 1997.
cutfaln9.xls	Excel file of length information for upstream cutthroat trout, 1997, by migration week.
cutgrw.xls	Excel file of recovered tagged fish with lengths and growth information.
cutmrk97.xls	Excel file of spring and fall marking and tagging summary for cutthroat trout at Auke Creek, 1997.
down1997.xls	Excel file of the counts of downstream migrant salmonids at Auke Creek, 1997.
up1997.xls	Excel file of the counts of upstream migrant salmonids at Auke Creek, 1997.
dv97.xls	Excel file of the lengths of marked and unmarked Dolly Varden moving upstream at Auke Creek, 1997.
STHD97.xls	Excel file of the counts and lengths of steelhead moving downstream at Auke Creek, 1997.