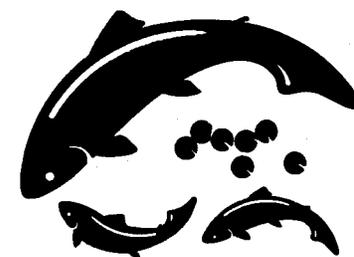


# FISHERY RESEARCH



LOWER SNAKE RIVER  
COMPENSATION PLAN  
*Hatchery Program*

## EVALUATION OF HATCHERY-WILD COMPOSITION OF IDAHO SALMON AND STEELHEAD HARVEST

October 1, 1994 to December 31, 1995



By:

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## ABSTRACT

Steelhead trout *Oncorhynchus mykiss* and chinook salmon *O. tshawytscha* fisheries in Idaho are monitored to assess hatchery contribution, distribution, and return rates. Coded wire tags (CWTs) are retrieved from fish harvested by anglers, and harvest rates are calculated by month and river section.

During the fall 1994 and spring 1995 steelhead seasons, 12,888 anglers were interviewed and 1,676 adult steelhead examined, which was 8.8% of the total steelhead harvest. We retrieved 170 CWTs from 61 different mark groups. The total estimated harvest for the 1994-95 season was 19,027 hatchery steelhead, of which an estimated 4,579 (24%) were produced by the U.S. Fish and Wildlife Service (USFWS) Lower Snake River Compensation Plan (LSRCP). An additional 2,302 LSRCP-reared fish returned to hatchery racks or to off-site release locations. However, this estimate should be considered a minimum due to tributary and mainstem strays that were not accounted for. For example, we did not estimate hatchery fall-out; steelhead which spawn and die prior to reaching the weir. These fish contribute to the fishery, but not to hatchery escapement.

The estimated minimum return of A-strain adults from 739,360 smolts released at Sawtooth Hatchery in 1992 was 1,070 (0.14%), and 81% of these were harvested. We estimated at least 412 (0.03%) B-strain adults returned after two ocean-years from 1,343,535 smolts released into the East Fork Salmon River in 1992; this group was harvested at 90%. We have accounted for 2,554 adults that returned from the 1991 release of 1,507,033 smolts into the East Fork Salmon River. Ninety-six percent were harvested.

Progeny of East Fork parents returned 1.7 times as many adults to the Idaho fishery and 4.3 times as many to the hatchery rack than progeny of Dworshak parents when released into the East Fork Salmon River.

We surveyed 23 tributaries in the upper Salmon River drainage during spring 1995 to document the occurrence and distribution of adult hatchery steelhead. Thirteen streams that contained adult spawning steelhead were electrofished. We handled 251 adult steelhead, of which 15 were of natural origin. Coded wire tags were retrieved from 38 hatchery fish.

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## INTRODUCTION

Chinook salmon *Oncorhynchus tshawytscha* and steelhead trout *O. mykiss* are raised in Idaho hatcheries to mitigate for losses caused by the construction of hydroelectric dams. Adults returning to hatcheries in the Salmon and Clearwater River basins commingle with each other and with wild stocks. In the Snake River, fish destined for Idaho also commingle with adults returning to Oregon and Washington streams.

The main purpose of this project is to determine the composition of the anadromous fish harvest in the Idaho fishery and to estimate the adult harvest contribution from juveniles produced in U.S. Fish and Wildlife Service (USFWS) Lower Snake River Compensation Plan (LSRCP) hatcheries. Contribution to the Idaho fishery is one of the measures of performance of LSRCP fish. However, there are also steelhead raised by Idaho Power Company (IPC) that are released in the Salmon River drainage. Although the harvest contribution of these fish is not included in this report, they are incorporated in the section on tributary straying. For some release groups, coded wire tagged (CWTed) fish from the IPC program provide the basis for LSRCP evaluation.

Harvest management of steelhead in Idaho is directed toward harvest of hatchery fish and protection of wild and naturally-produced fish. Currently, wild and naturally-produced stocks are below escapement goals, and protection is necessary to perpetuate these fish. Beginning in 1984, all hatchery-produced steelhead smolts released in Idaho rivers and streams had their adipose fins excised before release so that returning adults could be selectively harvested.

During the fall 1994 and spring 1995 seasons, all age groups of hatchery steelhead returning to Idaho were marked by adipose fin clips, and regulations stated that "only steelhead with a missing adipose fin (as evidenced by a healed scar) may be kept." Consequently, the harvest of any wild (unmarked) steelhead was illegal. Table 1 lists the fall and spring regulations.

Representative groups of steelhead are marked with coded wire tags (CWTs) prior to release. Anglers are interviewed and fish snouts are retrieved in all major harvest areas to recover these tags from the fishery. In addition, several tributaries were surveyed in spring 1995 for the presence of hatchery steelhead. Information is collected and used to estimate timing, straying, exploitation, harvest distribution, and relative abundance of wild and hatchery stocks. Total harvested numbers are estimated by a statewide harvest survey, and the harvest contribution for each hatchery program is derived from tag recoveries. Releasing steelhead smolts directly into the upper Salmon River is being used as a tool for spreading harvest and increasing returns. This report documents some of the behavior and distribution of these returning adults.

In recent years, harvest opportunity for chinook salmon has been limited to hatchery stocks. Harvest is allowed only when returning adult numbers exceed hatchery escapement needs. The 1995 chinook salmon return to the Snake River Basin was the lowest in recorded history. Consequently, no harvest was allowed for spring chinook salmon produced by LSRCP facilities in Idaho and this report pertains only to steelhead.

Table 1. Steelhead season dates, bag limits and special restrictions for the Clearwater, Salmon and Snake rivers, 1994-95.

River and Sections	Fall Season Dates	Bag Limits <sup>a</sup>
Snake River (01)	Sept 1 - Dec 31	2, 4, 10
Clearwater River (03) <sup>b</sup>		
Clearwater River (03 - 07) <sup>cd</sup>	Oct 15 - Dec 31	
Salmon River (10 - 20)	Sept! -Dec 31	

River and Sections	Spring Season Dates	Bag Limits <sup>a</sup>
Snake River (01)	Jan 1 - Apr 30	2, 4, 10
Clearwater River (03 - 07)		
Salmon River (10 - 14)	Jan 1 - Mar 31	
Salmon River (15 - 19)	Jan 1 - Apr 30	
Salmon River (20)		

<sup>a</sup> Bag limits denotes daily, possession and season totals.

<sup>b</sup> Section 03 includes only that portion from its mouth upstream to Memorial Bridge of Highway 12 at Lewiston.

<sup>c</sup> Section 03 includes that portion from Memorial Bridge upstream to Clear Creek.

<sup>d</sup> Catch and release fishery from September 1 through October 14.

## **OBJECTIVES**

Identify in the Idaho sport fishery the number and proportion of the steelhead harvest that is produced by LSRCP hatcheries.

Determine the escapement of LSRCP stocks in Idaho.

Document the occurrence and distribution of adult hatchery steelhead in upper Salmon River tributaries.

## **DESCRIPTION OF STUDY AREA**

There are three major river systems in Idaho where steelhead are harvested: the Snake, Clearwater, and Salmon rivers (Figure 1; Table 2). All of Idaho's steelhead harvest areas are included in this study, except the upper Snake (section 02), Oxbow (section 27), and Boise River (section 28). These three sections are excluded because no steelhead produced by the LSRCP are harvested there. Steelhead are blocked from reaching the Boise River by dams on the Snake River. However, a portion of the fish returning to Hells Canyon Dam are transplanted and released in the Boise River and Oxbow Reservoir for harvest through the IPC mitigation program.

## **METHODS**

### **Creel Survey**

Angler interviews were conducted at check stations and from jet boats and roving vehicles. Angler interview schedules and intensity were designed to observe maximum numbers of harvested fish. Techniques were tailored to sportsmen's access and harvest methods. For example, on the Clearwater River, a major portion of the fall and winter harvest was taken by boat fishermen, so survey efforts concentrated on interviewing boat anglers. In late spring, the density of boats in a small area became so high that it was prohibitive to interview anglers on the water; therefore, survey efforts were divided between major boat ramps. In the roadless area of the Salmon River, almost all of the angler access was by boat, but most of the fishing effort was from shore. Anglers were contacted by census clerks in jet boats or at check stations located at major egress points.

During angler interviews, data collection included the number of anglers and hours fished, number of fish kept or released, wild or hatchery origin of fish kept or released, fork length of fish kept, and date and river section where fish were caught. Observed fish were inspected for tags and fm clips. Snouts were removed for CWT retrieval from all fish with abnormalities of their left ventral fins, except when anglers desired to keep their fish intact.

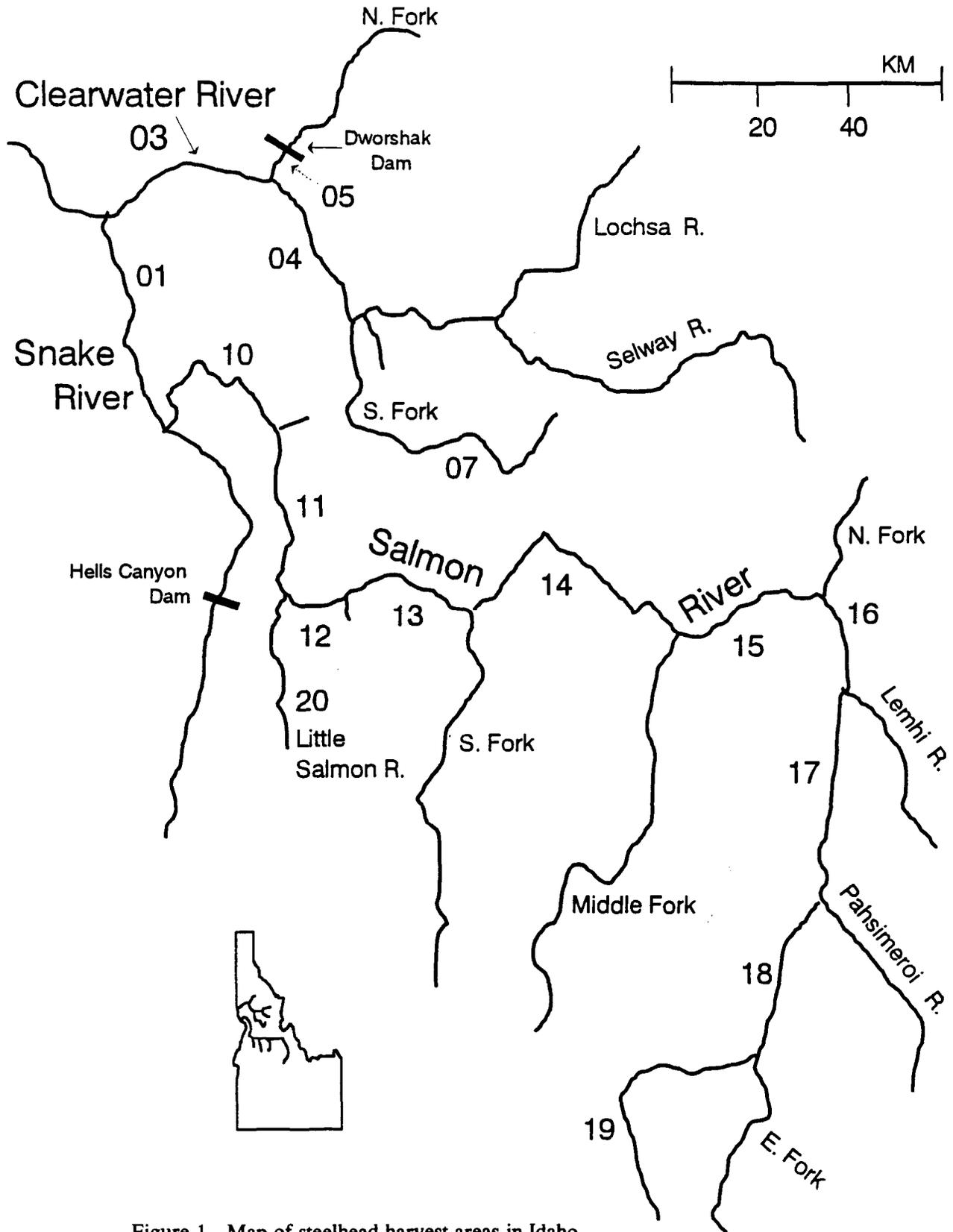


Figure 1. Map of steelhead harvest areas in Idaho.

Table 2. River location codes for Idaho's anadromous fisheries.

River Section	Location Code
Snake River, below Salmon River	01
Snake River, above Salmon River	02
Clearwater River, below Orofino Bridge	03
Clearwater River, above Orofino Bridge	04
North Fork Clearwater River	05
Middle Fork Clearwater River	06
South Fork Clearwater River	07
Selway River	08
Lochsa River	09
Salmon River, below Whitebird Creek	10
Salmon River, Whitebird Creek to Little Salmon	11
Salmon River, Little Salmon to Vinegar Creek	12
Salmon River, Vinegar Creek to South Fork	13
Salmon River, South Fork to Middle Fork	14
Salmon River, Middle Fork to North Fork	15
Salmon River, North Fork to Lemhi River	16
Salmon River, Lemhi River to Pahsimeroi River	17
Salmon River, Pahsimeroi River to East Fork	18
Salmon River, above East Fork	19
Little Salmon River	20
South Fork Salmon River	21
Middle Fork Salmon River	22
North Fork Salmon River	23
Lemhi River	24
Pahsimeroi River	25
East Fork Salmon River	26
Snake River, Oxbow	27
Boise River	28

Water conditions during the fall season are usually conducive to harvest and the interview schedule can be followed. During the spring season, high, turbid flows can reduce harvest to near zero. Anglers were not interviewed during periods of very low harvest.

## **Interview Schedule**

**Lower Snake River (01)** - by jet boat with Washington Department of Wildlife personnel and at boat ramps on alternating weekends for ten weekends during the fall season.

**Lower Clearwater and North Fork Clearwater River (03 and 05)** - by roving vehicle one day each week and by jet boat three days each week for 15 weeks in the fall and 10 weeks in the spring season. Interviews were conducted from boat ramps for the last six weeks of the spring season.

**Upper Clearwater (including the Middle Fork) and South Fork Clearwater River (04 and 07)** - by roving vehicle on the Upper Clearwater in the fall and on both rivers in the spring, two weekend days per week, for six weeks in the fall and eight weeks in the spring.

## **Salmon River**

**Section 10** - by roving vehicle two weekend days for 8 weeks in the fall and four weeks in the spring season (upper roaded portion only).

**Section 11** - by roving vehicle two weekend days for 8 weeks in the fall and four weeks in the spring season.

**Sections 12 and 13** - by a check station at the old lumber mill site near Riggins for eight weekends in the fall and four weekends in the spring season.

**Sections 14 and 15** - by a check station near North Fork for eight weekends in the fall and five weekends in the spring season.

**Section 16** - by roving vehicle for six weekends in the fall and six weekends in the spring season.

**Section 17** - by roving vehicle for six weekends in the fall and six weekends in the spring season.

**Sections 17 and 18** - by a check station near Challis for three weekends in the spring season.

**Section 18** - by roving vehicle for five weekends in the spring season.

**Section 19** - by roving vehicle for five weekends in the spring season.

**Section 20** - by roving vehicle for six weekends in the spring season.

## Data Analysis

Harvest estimates for each river section were obtained from statewide telephone survey results (Appendix A). Beginning with the fall 1990 season, that portion of the Clearwater River up to the Memorial Bridge of Highway 12 at Lewiston was designated river section 03 during the September 1 to October 15 harvest period. Previously, harvest from this section of the Clearwater River had been included with river section 01 (Ball 1992a).

The number of fish checked for marks from each river section, divided by the harvest estimate, yields the sampling rate for each river section by month. Harvested fish that were not seen during the interviews were not included when expressing the proportion of the estimated harvest that was marked.

During angler interviews, hatchery and naturally-produced proportions were recorded for fish kept and for total catch, including released fish when their origin could be determined. The harvest of hatchery fish was the product of the hatchery proportion observed in anglers' creels and the estimated monthly harvest from statewide surveys. Seasonal estimates of reported hatchery fish harvest were the summation of monthly estimates. Hatchery harvest estimates for months when harvest was low and no fish were checked were calculated using the hatchery proportion calculated from the last month that data were available. These methods were applied during winter months when fish movement was minimal and the proportion of hatchery fish in the harvest was constant. Harvest estimates of various CWT groups were calculated by dividing the number of tags recovered by the sampling rate expressed as a decimal and then rounded to whole numbers. Tag group harvest rates were calculated by dividing the estimated harvest of the group by the release group size. Harvest estimates for unmarked groups were calculated using harvest rates from representative mark groups or companion groups.

Hatchery returns were classified by strain (A or B) and ocean-age using length frequencies of previous known-age CWT returns. Marked returns to hatchery racks were subtracted from total returns by strain and ocean-age. Total harvest of unmarked groups was assumed to parallel the performance of marked hatchery rack returns. Where more than one unmarked group returned to a release site, the estimates of harvest and hatchery returns were calculated on the total of the unmarked fish and assumed to apply equally to each group.

Total returns of marked groups were the summation of harvest estimates and hatchery rack returns. However, in 1994-95, CWT recoveries of some marked groups were insufficient to produce expanded harvest estimates. Returns from off-site releases at Challis, Ellis Bridge, Lemhi, and North Fork were approximated by using the harvest rate of the comparable age groups that returned to the Pahsimeroi Hatchery. Harvest rates for releases at the Lemhi and North Fork sites were increased by 5% because the fishery at these sites was more extensive. Exploitation rates were the harvest estimates divided by the sum of the harvest estimates and the number of fish that returned to the hatchery. No attempts were made to include fish that spawn in either tributaries or in the river. Therefore, estimated exploitation rates should be considered maximum rates.

## **Tributary Straying**

Upper Salmon River tributary streams were visually checked near their mouths for the presence of adult fish in late March and through April. We identified 23 tributary streams that could have potential for steelhead spawning and attempted to ascertain when the first fish arrived. The range of examined creeks extended nearly 160 km, from Squaw Creek #1 upstream to Slate Creek (Figure 2). Initially, we walked along creeks to locate adult fish and redd sites. Once steelhead were observed, an electrofishing crew usually returned to the creek the same day or the next day. Starting at the creek's mouth, the crew would usually proceed up the tributary 0.4 to 0.8 km, shocking until the number of fish dissipated or when impassable fish barriers were encountered.

## **RESULTS**

### **Creel Survey**

During the fall 1994 and spring 1995 seasons, we interviewed 12,888 anglers that had harvested 1,833 hatchery fish (Tables 3-17). We physically examined 1,676 hatchery fish for marks, which represented 8.8% of the total steelhead harvest (Table 18). We removed 210 snouts from fish with clipped left ventral fins for CWT retrieval.

The composition of the hatchery steelhead harvest by river section and season was compiled in Table 19. All river sections were included except 02, 27, and 28 (Table 2). Total harvest for the river sections listed was 19,027 steelhead.

From anglers' creels, we recovered 170 CWTs from 61 different mark groups (Appendix B). The overall proportion of tags recovered from the number of fish checked for marks was 10.1 % (Table 18). The number of tags recovered, the estimated harvest of tag code groups by month and river section, and the total estimated harvest of tag code groups for the fall and spring seasons are also listed in Appendix B. Of the 61 mark groups that yielded CWTs, 49 were from releases in Idaho (Appendices C and D). There were 17 additional CWTs from eight tag groups that returned to hatchery racks, but were not recovered from the fishery.

Coded wire tags were also recovered from two Oregon, six Washington, and four National Marine Fisheries Service (NMFS) tag groups (Appendices B and E). Both Oregon tag groups were from releases on the Wallowa River. Four Washington tag groups were from releases in the Tucannon River, and one each from the Touchet and Walla Walla rivers. The four NMFS wire groups were from steelhead smolts tagged at Lower Granite Dam during outmigration. These fish were transported downriver to release sites at river mile 18.2 and 141 on the Columbia River below Bonneville Dam and then released.

Estimates of total returns of LSRCP-reared fish were summarized in Table 20. Returns that were verified by CWT recoveries from the LSRCP program returnings in 1994-95 were from releases in the Salmon River drainage. However, they were also recovered from the fishery in the Snake and Clearwater rivers. The first returns from releases in the South Fork Clearwater River were expected, but no CWTs

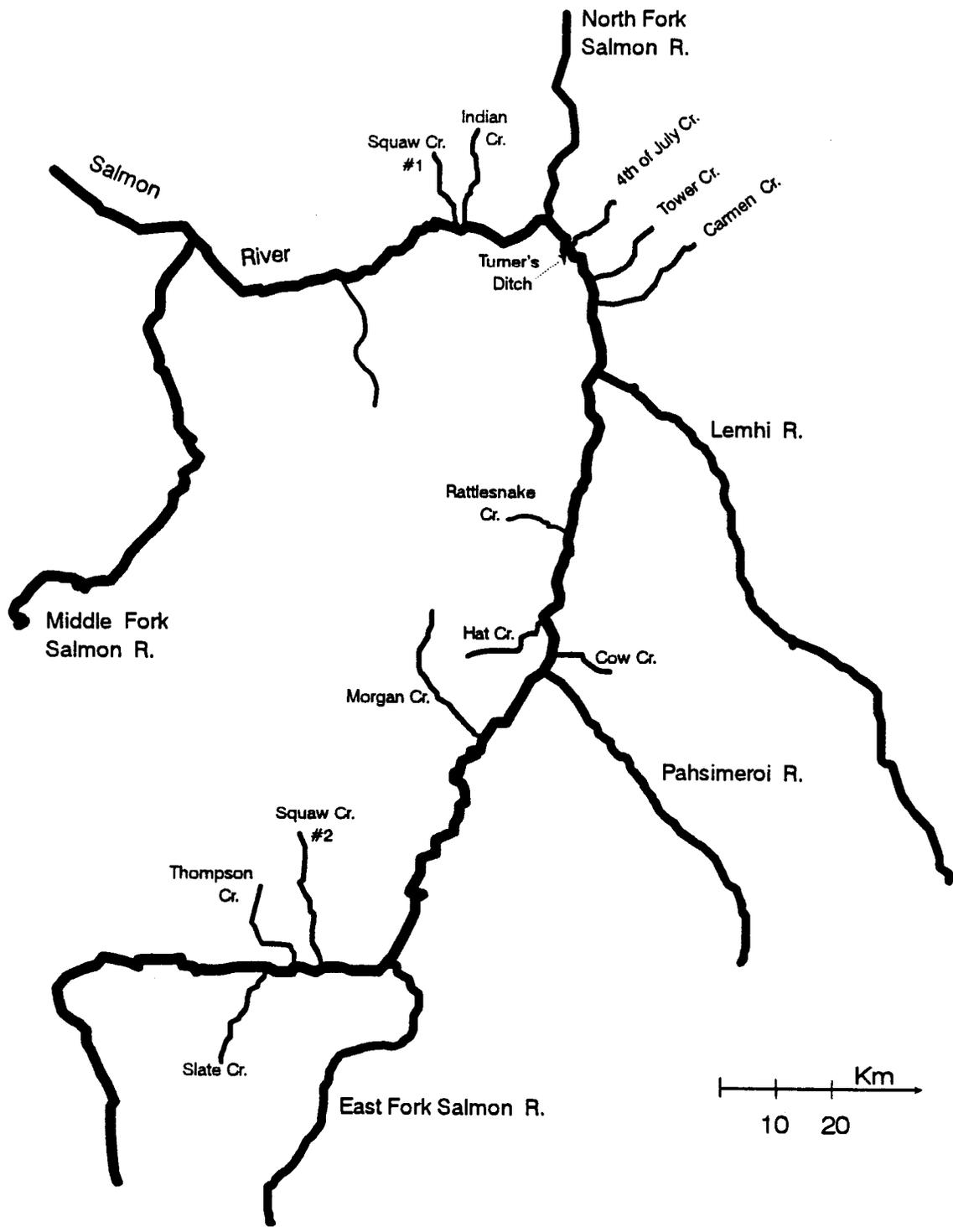


Figure 2. Map of upper Salmon River tributaries.

Table 3. Steelhead fishery interview data (unexpanded) from lower Snake River (01), September - November 1994.

Dates	No. Anglers	Total Hours Fished	Steelhead Kept		Steelhead Released		Total	Hours/Fish	Percent Hatchery
			Hatchery	Wild	Hatchery	Wild			
September	23	86	0	0	0	0	0	0	0
October	372	1,361	31	0	1	7	39	35	82
November	392	1,545	72	0	10	28	110	14	75
Total	787		103	0	<b>11</b>	35	149		
Average								20	77

Table 4. Steelhead fishery interview data (unexpanded) from lower Clearwater River (03) and North Fork Clearwater River (05), September 1994 - April 1995.

Dates	No. Anglers	Total Hours Fished	Steelhead Kept		Steelhead Released		Total	Hours/Fish	Percent Hatchery
			Hatchery	Wild	Hatchery	Wild			
September	66	344	7	0	0	4	11	31	64
October	744	2,672	68	0	36	35	139	19	75
November	526	1,808	52	0	9	27	88	21	69
December	192	668	14	0	0	6	20	33	70
Fall total	1,528	7,020	141	0	45	72	258		
Average								27	72
January	211	913	26	0	3	11	40	23	73
February	738	3,966	70	0	21	22	113	35	<b>81</b>
March	644	3,366	89	0	20	8	117	29	93
April	107	483	<b>11</b>	0	7	0	18	27	100
Spring total	1,700	8,728	196	0	51	41	288		
Average								30	86
Total	3,228	15,748	337	0	96	113	546		
Average								29	79

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Table 5. Steelhead fishery interview data (unexpanded) from upper Clearwater River and Middle Fork Clearwater rivers (04), October 1994 - April 1995.

Dates	No. Anglers	Total Hours Fished	Steelhead Kept		Steelhead Released		Total	Hours/Fish	Percent Hatchery
			Hatchery	Wild	Hatchery	Wild			
October	51	124	0	0	2	4	6	21	33
November	5	7	0	0	0	0	0	0	0
Fall total	56	131	0	0	2	4	6		
Average								22	33
February	55	160	3	0	0	0	3	53	100
March	154	362	16	0	1	7	24	15	71
April 18	42	1	0	0	0	1	42	100	
Spring total	227	564	20	0	1	7	28		
Average								20	75
Total	283	695	20	0	3	11	34		
Average								20	68

Table 6. Steelhead fishery interview data (unexpanded) from South Fork Clearwater River (07), October 1994 - April 1995.

Dates	No. Anglers	Total Hours Fished	Steelhead Kept		Steelhead Released		Total	Hours/Fish	Percent Hatchery
			Hatchery	Wild	Hatchery	Wild			
October	2	2	0	0	0	0	0	0	0
Fall total	2	2	0	0	0	0	0		
Average								0	0
February	47	118	1	0	0	0	1	118	100
March	214	570	18	0	4	2	24	24	92
April	130	440	14	0	4	2	20	22	90
Spring total	391	1,128	33	0	8	4	45		
Average								25	91
Total	393	1,130	33	0	8	4	45		
Average								25	91

Table 7. Steelhead fishery interview data (unexpanded) from Salmon River Section 10, October 1994 - February 1995.

Dates	No. Anglers	Total Hours Fished	Steelhead Kept		Steelhead Released		Total	Hours/Fish	Percent Hatchery
			Hatchery	Wild	Hatchery	Wild			
October	56	254	1	0	0	0	1	254	100
November	8	14	1	0	0	0	1	14	100
Fall total	64	268	2	0	0	0	2		
Average								134	100
February	20	49	2	0	0	0	2	25	100
Spring total	20	49	2	0	0	0	2		
Average								25	100
Total	84	317	4	0	0	0	4		
Average								79	100

Table 8. Steelhead fishery interview data (unexpanded) from Salmon River Section 11, October 1994 - March 1995.

Dates	No. Anglers	Total Hours Fished	Steelhead Kept		Steelhead Released		Total	Hours/ Fish	Percent Hatchery
			Hatchery	Wild	Hatchery	Wil			
October	224	866	37	0	5	20	62	14	68
November	216	651	44	0	1	21	66	10	68
Fall total	440	1,517	81	0	6	41	128		
Average								12	68
February	189	657	25	0	1	4	30	22	87
March	75	177	6	0	2	3	<b>11</b>	16	73
Spring total	264	834	31	0	3	7	41		
Average								20	83
Total	704	2,351	112	0	9	48	169		
Average								14	72

Table 9. Steelhead fishery interview data (unexpanded) from Salmon River Section 12, October 1994 - March 1995.

Dates	No. Anglers	Total Hours Fished	Steelhead Kept		Steelhead Released		Total	Hours/Fish	Percent Hatchery
			Hatchery	Wild	Hatchery	Wild			
October	431	1,967	83	0	15	23	121	16	81
November	350	1,373	46	0	10	10	66	21	85
Fall total	781	3,340	129	0	25	33	187		
Average								18	82
February	80	244	2	0	0	0	2	122	100
March	425	1,523	13	0	6	9	28	54	68
Spring total	505	1,767	15	0	6	9	30		
Average								59	70
Total	1,286	5,107	144	0	31	42	217		
Average								24	81

Table 10. Steelhead fishery interview data (unexpanded) from Salmon River Section 13, October 1994 - March 1995.

Dates	No. Anglers	Total Hours Fished	Steelhead Kept		Steelhead Released		Total	Hours/Fish	Percent Hatchery
			Hatchery	Wild	Hatchery	Wild			
October	44	337	13	0	3	9	25	13	64
November	51	269	16	0	0	12	28	10	57
Fall total	95	606	29	0	3	21	53		
Average								11	60
February	11	66	2	0	1	2	5	13	60
March	45	256	6	0	2	10	18	14	44
Spring total	56	322	8	0	3	12	23		
Average								14	48
Total	151	928	37	0	6	33	76		
Average								12	57

Table 11. Steelhead fishery interview data (unexpanded) from Salmon River Section 14, October 1994 - March 1995.

Dates	No. Anglers	Total Hours Fished	Steelhead Kept		Steelhead Released		Total	Hours/Fish	Percent Hatchery
			Hatchery	Wild	Hatchery	Wild			
October	164	3,256	11	0	2	58	71	46	18
November	149	1,967	33	0	8	37	78	25	53
Fall total	313	5,223	44	0	10	95	149		
Average								35	36
February	15	149	2	0	0	2	4	37	50
March	273	4,054	32	0	1	108	141	29	23
Spring total	288	4,203	34	0	1	110	145		
Average								29	24
Total	601	9,426	78	0	11	205	294		
Average								32	30

Table 12. Steelhead fishery interview data (unexpanded) from Salmon River Section 15, October 1994 - April 1995.

Dates	No. Angler	Total Hours Fished	Steelhead Kept		Steelhead Released		Total	Hours/ Fish	Percent Hatchery
			Hatchery	Wild	Hatchery	Wild			
October	305	3,635	52	0	12	10	74	49	86
November	310	3,194	50	0	8	9	67	48	87
Fall total	615	6,829	102	0	20	19	141		
Average								48	87
February	124	831	47	0	20	4	71	12	94
March	1,158	11,945	296	0	284	32	612	20	95
April 191	1,417	63	0	83	1	147	10	99	
Spring total	1,473	14,193	406	0	387	37	830		
Average								17	96
Total	2,088	21,022	508	0	407	56	971		
Average								22	94

Table 13. Steelhead fishery interview data (unexpanded) from Salmon River Section 16, October 1994 - April 1995.

Dates	No. Anglers	Total Hours Fished	Steelhead Kept		Steelhead Released		Total	Hours/ Fish	Percent Hatchery
			Hatchery	Wild	Hatchery	Wild			
October	17	126	3	0	0	1	4	32	75
November	19	102	0	0	0	1	1	102	0
Fall total	36	228	3	0	0	2	5		
Average								46	60
February	25	127	1	0	0	0	1	127	100
March	139	639	13	0	2	7	22	29	68
April	157	626	<b>11</b>	0	3	3	17	37	82
Spring total	321	1,392	25	0	5	10	40		
Average								35	75
Total	357	1,620	28	0	5	12	45		
Average								36	73

Table 14. Steelhead fishery interview data (unexpanded) from Salmon River Section 17, October 1994 - April 1995.

Dates	No. Anglers	Total Hours Fished	Steelhead Kept		Steelhead Released		Total	Hours/Fish	Percent Hatchery
			Hatchery	Wild	Hatchery	Wild			
October	1	6	0	0	0	0	0	0	0
Fall total	1	6	0	0	0	0	0		
Average								0	0
February	1	4	0	0	0	0	0	0	0
March	274	1,388	42	0	7	3	52	27	94
April	433	4,444	97	0	27	3	127	35	98
Spring total	708	5,836	139	0	34	6	179		
Average								33	97
Total	709	5,842	139	0	34	6	179		
Average								33	97

Table 15. Steelhead fishery interview data (unexpanded) from Salmon River Section 18, March - April 1995.

Dates	No. Anglers	Total Hours Fished	Steelhead Kept		Steelhead Released		Total	Hours/Fish	Percent Hatchery
			Hatchery	Wild	Hatchery	Wild			
March	57	254	3	0	0	1	4	64	75
April	465	3,107	57	0	49	13	119	26	89
Total	522	3,361	60	0	49	14	123		
Average								27	89

Table 16. Steelhead fishery interview data (unexpanded) from Salmon River Section 19, April 1995.

Dates	No. Anglers	Total Hours Fished	Steelhead Kept		Steelhead Released		Total	Hours/Fish	Percent Hatchery
			Hatchery	Wild	Hatchery	Wild			
April	497	1,989	36	0	25	3	64	31	95
Total	497	1,989	36	0	25	3	64		
Average								31	95

Table 17. Steelhead fishery interview data (unexpanded) from Salmon River Section 20, October 1994 - April 1995.

Dates	No. Anglers	Total Hours Fished	Steelhead Kept		Steelhead Released		Total	Hours/Fish	Percent Hatchery
			Hatchery	Wild	Hatchery	Wild			
October	16	35	4	0	0	0	4	9	100
November	35	72	2	0	1	0	3	24	100
Fall total	51	107	6	0	1	0	7		
Average								15	100
February	210	637	19	0	9	0	28	23	100
March	391	1,227	81	0	36	12	129	10	91
April	546	1,703	88	0	107	7	202	8	97
Spring total	1,147	3,567	188	0	152	19	359		
Average								10	95
Total	1,198	3,674	194	0	153	19	366		
Average								10	95

Table 18. Proportion of estimated harvest by river section that was examined for marks, 1994-95.

River Section	No. Fish Checked	Estimated Harvest <sup>a</sup>	Sample Rate (%)
01	96	1,639	5.9
03 & 05	307	5,219	5.9
04	20	417	4.8
07	33	318	10.4
10	3	1,384	0.2
11	93	2,091	4.4
12	138	742	18.6
13	35	251	13.9
14	74	802	9.2
15	473	2,416	19.6
16	25	135	18.5
17	129	896	14.4
18	47	652	7.2
19	33	60	55.0
20	170	2,007	8.5
Total	1,676	19,027	
Average			8.8

<sup>a</sup> Data from statewide telephone survey from Thomas J. McArthur, IDFG, (unpublished).

Table 19. Estimated number of hatchery steelhead harvested in the lower Snake, Clearwater and Salmon rivers during the 1994-95 seasons.

River and Section	Fall Season - 1994			Spring Season - 1995			Total Harvest
	Estimated Harvest <sup>s</sup>	Percent Hatchery	No. Hatchery Fish	Estimated Harvest <sup>s</sup>	Percent Hatchery	No. Hatchery Fish	No. Hatchery Fish
<u>Snake R.</u>							
01	1,457	100	1,457	182	--	182 <sup>b</sup>	1,639
<u>Clearwater R.</u>							
03 & 05	3,278	100	3,278	1,941	100	1,941	5,219
04	190	--	190 <sup>6</sup>	227	100	227	417
07	15	--	15 <sup>6</sup>	303	100	303	318
Clwtr. Total	3,482		3,482	2,471		2,471	5,953
Average		100			100		
<u>Salmon River</u>							
10	1,020	100	1,020	364	100	364	1,384
11	1,166	100	1,166	925	100	925	2,091
12	408	100	408	334	100	334	742
13	160	100	160	91	100	91	251
14	423	100	423	379	100	379	802
15	612	100	612	1,804	100	1,804	2,416
16	44	100	44	91	100	91	135
17	335	--	335 <sup>b</sup>	561	100	561	896
18	0	--	0	652	100	652	652
19	15	--	15 <sup>6</sup>	45	100	45	60
20	233	100	233	1,774	100	1,774	2,007
Salmon Total	4,415		4,415	7,020		7,020	11,435
Average		100			100		
1994-95 Total	9,354		9,354	9,673		9,673	19,027

<sup>a</sup> From statewide harvest surveys.

<sup>b</sup> Assumed to be of hatchery origin.

Table 20. Summary of 1994-95 harvest estimates and hatchery returns of steelhead produced by LSRCP hatcheries.

Release Year	Strain and Ocean-Age	No. of Fish Released	Release Site	Hatchery Rearing	Marks	Estimated Number of Fish		
						Harvest	Hatchery Return <sup>s</sup>	Total
1993	A-I	19,196	Sawtooth Hatchery	HNFH <sup>b</sup>	CWT 10/49/49'	4	5	9
1993	A-I	18,168	Sawtooth Hatchery	HNFH	CWT 10/49/50'	0	5	5
1993	A-I	17,818	Sawtooth Hatchery	HNFH	CWT 10/49/51`	12	9	21
1993	A-I	8,161	Sawtooth Hatchery	HNFH	CWT 10/50/10	12	2	14
1993	A-I	20,262	Sawtooth Hatchery	HNFH	CWT 10/50/20	23	3	26
1993	A-I	18,726	Sawtooth Hatchery	HNFH	CWT 10/50/21	23	7	30
1993	A-I	18,235	Sawtooth Hatchery	HNFH	CWT 10/50/22	40	10	50
1993	A-I	4,563	Sawtooth Hatchery	HNFH	CWT 10/50/34	14	3	17
1993	A-I	604,391	Sawtooth Hatchery	HNFH	None`	1,689	402	2,091
1993	A-I	19,924	Salmon R. @ Challis	MVFFH"	CWT 10/50/11	18	12	30
1993	A-I	240,676	Salmon R. @ Challis	MVFFH	None <sup>o</sup>	217	145	362
1993	A-I	19,778	Salmon R. @ Ellis Br.	MVFFH	CWT 10/50/14	10	8	18
1993	A-I	20,361	Salmon R. @ Ellis Br.	MVFFH	CWT 10/50/16	22	18	40
1993	A-I	226,161	Salmon R. @ Ellis Br.	MVFFH	None`	180	147	327
1993	A-I	22,106	Salmon R. @ Lemhi R.	MVFFH	CWT 10/50/12	18	12	30
1993	A-I	19,692	Salmon R. @ Lemhi R.	MVFFH	CWT 10/50/13	31	21	52
1993	A-I	21,390	Salmon R. @ Lemhi R.	MVFFH	CWT 10/50/15	11	7	18
1993	A-I	135,312	Salmon R. @ Lemhi R.	MVFFH	None <sup>o</sup>	128	86	214
1993	A-I	65,637	Salmon R. @ N. Fork	MVFFH	CWT 10/49/24	74	49	123
1993	A-I	124,863	Salmon R. @ N. Fork	MVFFH	None <sup>c</sup>	140	94	234
1993	A-I	20,045	Little Salmon R.	HNFH	CWT 10/50/17	20	20	40
1993	A-I	10,245	Little Salmon R.	HNFH	CWT 10/50/18	0	0	0
1993	A-I	19,621	Little Salmon R.	HNFH	CWT 10/50/19	0	0	0
1993	A-I	497,405	Little Salmon R.	HNFH	None	195	195	390
1993	A-I	17,142	Salmon R. @ Hammer Cr.	HNFH	CWT 10/49/46	0	0	0
1993	A-I	19,655	Salmon R. @ Hammer Cr.	HNFH	CWT 10/49/47	0	0	0
1993	A-I	16,662	Salmon R. @ Hammer Cr.	HNFH	CWT 10/49/48	0	0	0
1993	A-I	157,547	Salmon R. @ Hammer Cr.	HNFH	None	0	0	0
Subtotal		2,403,742				2,881	1,260	4,141

Table 20. Continued.

Release Year	Strain and Ocean-Age	No. of Fish Released	Release Site	Hatchery Rearing	Marks	Estimated Number of Fish		
						Harvest	Hatchery Returns <sup>s</sup>	Total
1992	A-II	53,643	Sawtooth Hatchery	HNFH	CWT 10/15/30	44	2	46
1992	A-II	45,646	Sawtooth Hatchery	HNFH	CWT 10/40/07	25	4	29
1992	A-II	17,955	Sawtooth Hatchery	HNFH	CWT 10/44/21	2	0	2
1992	A-II	18,336	Sawtooth Hatchery	HNFH	CWT 10/44/22	6	0	6
1992	A-II	19,341	Sawtooth Hatchery	HNFH	CWT 10/44/23	4	0	4
1992	A-II	467,139	Sawtooth Hatchery	HNFH	None <sup>`</sup>	224	60	284
1992	A-II	117,300	Sawtooth Hatchery	MVFNH	None	55	16	71
1992	A-II	223,406	Pahsimeroi R.	HNFH	None	169	76	245
1992	A-II	21,091	Little Salmon R.	MVFNH	CWT 10/44/15	3	3	6
1992	A-II	22,223	Little Salmon R.	MVFNH	CWT 10/44/16	45	45	90
1992	A-II	21,604	Little Salmon R.	MVFNH	CWT 10/44/17	3	3	6
1992	A-II	936,982	Little Salmon R.	MVFNH	None <sup>`</sup>	736	736	1,472
Subtotal		1,964,486				1,316	945	2,261
1993	B-I	187,100	Slate Cr.	MVFNH	None	14		14
1993	B-I	16,024	E. Fork Salmon R.	MVFNH	CWT 10/50/05	0	0	0
1993	B-I	18,924	E. Fork Salmon R.	MVFNH	CWT 10/50/07	4	0	4
1993	B-I	19,128	E. Fork Salmon R.	MVFNH	CWT 10/50/09	0	1	1
1993	B-I	87,272	E. Fork Salmon R.	MVFNH	None <sup>'</sup>	14	8	22
1993	B-I	356,052	E. Fork Salmon R.	MVFNH	None <sup>`if</sup>	26	0	26
1993	B-I	19,358	Little Salmon R.	MVFNH	CWT 10/50/04	0	0	0
1993	B-I	19,932	Little Salmon R.	MVFNH	CWT 10/50/06	11	11	22
1993	B-I	19,909	Little Salmon R.	MVFNH	CWT 10/50/08	0	0	0
1993	B-I	266,101	Little Salmon R.	MVFNH	None <sup>o</sup>	49	49	98
1993	B-I	25,673	S. Fk. Clearwater R.	CAFH <sup>g</sup>	CWT 10/29/47	0	0	0
1993	B-I	22,003	S. Fk. Clearwater R.	CAFH	CWT 10/49/37	0	0	0
1993	B-I	21,340	S. Fk. Clearwater R.	CAFH	CWT 10/49/38	0	0	0
1993	B-I	257,284	S. Fk. Clearwater R.	CAFH	None <sup>o</sup>			
Subtotal		1,336,100				120	70	190

Table 20. Continued.

Release Year	Strain and Ocean Age	No. of Fish Released	Release Site	Hatchery Rearing	Marks	Estimated Number of Fish		
						Harvest	Hatchery Return <sup>a</sup>	Total
1992	B-II	21,771	East Fork Salmon R.	MVFH	CWT 10/44/18 <sup>f</sup>	3	0	3
1992	B-II	21,568	East Fork Salmon R.	MVFH	CWT 10/44/19 <sup>f</sup>	2	1	3
1992	B-II	20,821	East Fork Salmon R.	MVFH	CWT 10/44/20 <sup>e</sup>	4	2	6
1992	B-II	63,979	East Fork Salmon R.	MVFH	None <sup>c,e</sup>	2	1	3
1992	B-II	913,061	East Fork Salmon R.	MVFH	None <sup>c,f</sup>	35	17	52
1992	B-II	302,335	East Fork Salmon R.	HNFH	None <sup>f</sup>	12	6	18
1992	B-II	18,702	Little Salmon R.	HNFH	CWT 10/44/07	0	0	0
1992	B-II	19,835	Little Salmon R.	HNFH	CWT 10/44/08	0	0	0
1992	B-II	17,847	Little Salmon R.	HNFH	CWT 10/44/09	0	0	0
1992	B-II	244,150	Little Salmon R.	HNFH	None	0	0	0
Subtotal		1,644,069				58	27	85
1991	B-III	20,498	East Fork Salmon R.	MVFH	CWT 10/43/14 <sup>f</sup>	11	0	11
1991	B-III	21,017	East Fork Salmon R.	MVFH	CWT 10/43/15 <sup>f</sup>	0	0	0
1991	B-III	20,312	East Fork Salmon R.	MVFH	CWT 10/43/16 <sup>f</sup>	0	0	0
1991	B-III	22,525	East Fork Salmon R.	MVFH	CWT 10/43/20 <sup>e</sup>	0	0	0
1991	B-III	22,483	East Fork Salmon R.	MVFH	CWT 10/43/21 <sup>e</sup>	0	0	0
1991	B-III	21,375	East Fork Salmon R.	MVFH	CWT 10/43/22 <sup>e</sup>	18	0	18
1991	B-III	267,567	East Fork Salmon R.	MVFH	None <sup>e</sup>	73	0	73
1991	B-III	570,523	East Fork Salmon R.	MVFH	None <sup>e,f</sup>	102	0	102
1991	B-III	540,733	East Fork Salmon R.	HNFH	None <sup>h</sup>			
1991	B-III	19,831	Little Salmon R.	HNFH	CWT 10/43/32	0	0	0
1991	B-III	19,813	Little Salmon R.	HNFH	CWT 10/43/39	0	0	0
1991	B-III	18,877	Little Salmon R.	HNFH	CWT 10/43/40	0	0	0
1991	B-III	398,589	Little Salmon R.	HNFH	None <sup>c</sup>	0	0	0
1991	B-III	120,323	Little Salmon R.	HNFH	None <sup>h</sup>	--	--	--
Subtotal		2,084,466				204	0	204

<sup>a</sup> Includes off-site escapement and strays to hatchery racks.

<sup>b</sup> HNFH = Hagerman National Fish Hatchery.

<sup>c</sup> Release group includes fish marked with passive integrated transponder (PIT) tags.

<sup>d</sup> MVFH = Magic Valley Fish Hatchery.

<sup>e</sup> East Fork Salmon River stock.

<sup>f</sup> Dworshak National Fish Hatchery stock.

<sup>g</sup> CAFH = Clearwater Anadromous Fish Hatchery.

<sup>h</sup> Fall release of presmolts.

were recovered. The total estimated return of adult steelhead to Idaho in 1994-95 from the LSRCP program, which includes harvest by Idaho anglers, hatchery returns, and off-site escapement, was 6,881 fish. The LSRCP contribution to Idaho's hatchery steelhead harvest (except sections 02, 27, and 28) in 1994-95 was 4,579. This number does not include an estimated harvest of 171 LSRCP-reared fish from Oregon and Washington (Appendix B). Additionally, other LSRCP-reared fish released in Idaho, but caught by Oregon and Washington anglers, were not included in this report.

The maximum exploitation rate for adult steelhead returning to Sawtooth Hatchery in 1994-95 was 81%. East Fork Salmon River returns after two ocean-years were exploited at a maximum rate of 67%. Off-site releases at Challis, Ellis Bridge, Lemhi, and North Fork were estimated to be exploited at 55-60%. In the Little Salmon River, exploitation was not quantified, but was estimated to be 50% (Table 20).

### **Tributary Straying**

We began surveying tributary streams for adult spawning steelhead on March 27. We visited most of the streams about twice each week until adult steelhead were observed. The first adults were found in Rattlesnake Creek on April 3 (Figure 2). We began electrofishing that day and continued until streams were either high, turbid, or we could not find any more adults. The last stream was electrofished on April 26. Of the 23 streams surveyed between Colson Creek and Slate Creek, we electrofished 13 different tributaries and classified 236 adult hatchery steelhead and 15 naturally-produced steelhead (Table 21). In the streams where we handled adults, we classified at least 1 and as many as 18 fish per tributary per electrofishing day. The hatchery fish were 52% female, and 98% were A-strain. Of these 232 A-strain fish, 90% were one-ocean age and 10% were two-ocean. The naturally-produced fish were 53 % female.

We recovered 38 CWTs from tributary fish (Table 22), 37 adults and 1 residualized smolt in tributaries (Table 22). Coded wire tagged fish were from releases at Sawtooth and Pahsimeroi hatcheries, as well as off-site releases in the Salmon River at Challis, Ellis Bridge, and at the mouths of the Lemhi and North Fork Salmon rivers.

While most tributary adults with CWTs were recovered downstream of their release sites, 14 (38%) were found upstream of their release locations. Thirteen of the upstream recoveries were from off-site LSRCP releases and one was released from the Pahsimeroi Hatchery (Table 22). From 65,637 smolts released with CWTs in the Salmon River at North Fork, 6 adults were recovered 8 km upstream in 4<sup>th</sup> of July Creek, and 2 more were found in Hat Creek, 91 km upriver from North Fork (Figure 2; Table 22). From the 1993 release of 63,188 smolts with CWTs at the mouth of the Lemhi River, 2 adults were located 57 km upstream in Hat Creek. Two adults with CWTs from the Salmon River release at Ellis Bridge were found in Morgan Creek, 17 km upstream of their release site. This release group also included five adults who returned to the Pahsimeroi Hatchery. The close proximity -- 2.1 km -- of Ellis Bridge to the Pahsimeroi weir has resulted in a number of CWT recoveries at the hatchery rack from this off-site release at Ellis Bridge. The 1993 release of 19,924 fish with CWTs in the Salmon River at Challis produced two adults found in Squaw Creek, 61 km upstream.

All CWT recoveries from steelhead released from hatchery racks in the upper Salmon River were recovered downstream of their release sites, except for the one fish released from the IPC program at the Pahsimeroi Hatchery. From 125,180 CWTs released at Sawtooth Hatchery in 1993, we recovered 5 tags

Table 21. Adult steelhead collected from Upper Salmon River tributaries, 1995.

Stream	Collection Date	Hatchery Fish Strain and Ocean-age			Sex		Total No. of Fish	
		A-I	A-II	B-strain	Male	Female	Hatchery	Wild/Natural
Carmen	4/6	3	1	0	3	1	4	0
	4/10	1	0	0	0	1	1	0
	4/13	2	1	0	2	1	3	0
	4/17	2	1	0	1	2	3	0
	4/20	1	0	0	1	0	1	0
Cow	4/11	1	0	0	0	1	1	0
	4/14	5	0	0	4	1	5	3
	4/18	2	0	0	1	1	2	0
	4/21	3	0	0	2	1	3	0
4th of July	4/6	8	0	0	4	4	8	0
	4/10	5	1	0	4	2	6	0
	4/13	8	0	0	3	5	8	1
	4/17	2	0	0	1	1	2	0
	4/20	3	0	0	0	3	3	0
Hat	4/4	9	0	0	5	4	9	1
	4/7	4	1	0	2	3	5	0
	4/11	16	0	0	7	9	16	1
	4/14	16	1	0	6	11	17	1
	4/18	15	1	0	9	7	16	0
	4/21	5	1	1	2	5	7	1
	4/26	11	1	0	4	8	12	3
Indian	4/5	2	0	0	1	1	2	0
	4/6	3	0	0	1	2	3	1
	4/10	1	0	0	0	1	1	0
	4/13	5	1	0	2	4	6	0
	4/17	3	0	0	2	1	3	0
	4/20	2	0	0	1	1	2	0
Morgan	4/4	6	1	0	3	4	7	0
	4/7	8	3	0	8	3	11	0
	4/11	2	1	0	1	2	3	1
	4/14	6	3	1	5	5	10	0

Table 21. Continued.

Stream	Collection Date	Hatchery Fish Strain and Ocean-age			Sex		Total No. of Fish	
		A-I	A-II	B-strain	Male	Female	Hatchery	Wild/Natural
Morgan (Cont.)	4/18	1	0	0	0	1	1	0
	4/21	1	3	1	1	4	5	0
	4/26	10	0	0	6	4	10	0
Rattlesnake	4/3	1	0	0	1	0	1	0
	4/4	1	0	0	0	1	1	0
	4/7	2	0	0	1	1	2	0
	4/14	3	0	0	2	1	3	0
	4/18	2	0	0	1	1	2	0
Slate	4/12	3	2	0	2	3	5	0
Squaw #1	4/20	2	0	0	0	2	2	0
Squaw #2	4/12	4	1	0	2	3	5	0
	4/19	8	0	0	5	3	8	2
	4/25	3	0	0	3	0	3	0
Thompson	4/19	3	0	0	1	2	3	0
	4/25	2	0	0	2	0	2	0
Tower	4/20	1	0	0	1	0	1	0
Turner's Ditch	4/6	1	0	0	0	1	1	0
Total		208	24	4	114	122	236	15
(%)		(88)	(10)	(2)	(48)	(52)	(94)	(6)

Table 22. Coded wire tag (CWT) recoveries from upper Salmon River tributaries, 1995.

Recovery Stream	CWT Datacode	Date	Recovery Release Site	Strain and Ocean-age	No. of Fish
Carmen	10/44/23	4/17	Sawtooth Hatchery	A-II	1 <sup>d</sup>
	10/50/13	4/20	Salmon R. @ Lemhi R.	A-I	1 <sup>d</sup>
	10/50/22	4/06	Sawtooth Hatchery	A-I	1 <sup>d</sup>
Cow	10/50/14	4/14	Salmon R. @ Ellis Bridge	A-I	1 <sup>d</sup>
	10/50/16	4/21	Salmon R. @ Ellis Bridge	A-I	1 <sup>d</sup>
4th of July	10/49/24	4/06	Salmon R. @ North Fork	A-I	3 <sup>d</sup>
	10/49/24	4/10	Salmon R. @ North Fork	A-I	1 <sup>d</sup>
	10/49/24	4/13	Salmon R. @ North Fork	A-I	2 <sup>d</sup>
Hat	10/43/12	4/14	Pahsimeroi Hatchery	A-I	1
	10/44/11	4/26	Pahsimeroi Hatchery	A-I	1 <sup>d</sup>
	10/44/21	4/18	Sawtooth Hatchery	A-II	1 <sup>d</sup>
	10/44/24	4/21	Pahsimeroi Hatchery	A-I	1
	10/49/24	4/11	Salmon R. @ North Fork	A-I	1 <sup>d</sup>
	10/49/24	4/17	Salmon R. @ North Fork	A-I	1 <sup>d</sup>
	10/49/51	4/07	Sawtooth Hatchery	A-I	1 <sup>d</sup>
	10/50/13	4/11	Salmon R. @ Lemhi R.	A-I	1 <sup>d</sup>
	10/50/15	4/18	Salmon R. @ Lemhi R.	A-I	1 <sup>d</sup>
	10/50/16	4/11	Salmon R. @ Ellis Bridge	A-I	1 <sup>d</sup>
	10/50/20	4/26	Sawtooth Hatchery	A-I	1 <sup>d</sup>
Indian	10/44/05	4/13	Pahsimeroi Hatchery	A-I	1
	10/49/24	4/05	Salmon R. @ North Fork	A-I	1 <sup>d</sup>
	10/49/24	4/13	Salmon R. @ North Fork	A-I	2 <sup>d</sup>
Morgan	10/15/30	4/04	Sawtooth Hatchery	A-I	1 <sup>d</sup>
	10/40/07	4/07	Sawtooth Hatchery	A-II	1 <sup>d</sup>
	10/50/16	4/26	Salmon R. @ Ellis Bridge	A-I	2 <sup>d</sup>
	23/24/45	4/11	NMFS <sup>a</sup> @ Lower Granite Dam	II <sup>b</sup>	1
	23/29/60	4/07	NMFS @ Lower Granite Dam	I <sup>b</sup>	1
Rattlesnake	10/50/16	4/14	Salmon R. @ Ellis Bridge	A-I	1 <sup>d</sup>
Slate	10/49/25	4/12	Pahsimeroi Hatchery	A-0 <sup>c</sup>	1
Squaw #2	10/49/50	4/19	Sawtooth Hatchery	A-I	1 <sup>d</sup>
	10/50/10	4/19	Sawtooth Hatchery	A-I	1 <sup>d</sup>
	10/50/11	4/19	Salmon R. @ Challis	A-I	2 <sup>d</sup>

<sup>a</sup> NMFS = National Marine Fisheries Service.

<sup>b</sup> Strain identity unknown.

<sup>c</sup> Residualized smolt released in 1995.

<sup>d</sup> Released by Lower Snake River Compensation Program.

from steelhead in tributaries and 39 fish with tags entered the trap at Sawtooth Hatchery. Two fish, released at Sawtooth in 1992 and 1993, were recovered in Carmen Creek, 210 km downstream from their release site. These two fish, marked with tag codes 10/44/23 and 10/50/22, were recovered the greatest distance away from their release site.

From the 1992 release at Sawtooth Hatchery of 155,216 fish with CWTs, four fish were recovered from tributaries and six fish returned to racks at Sawtooth and Pahsimeroi hatcheries. From 118,263 A-strain steelhead with CWTs released at the Pahsimeroi Hatchery in 1993, 3 were recovered in tributaries and 113 returned to the Pahsimeroi weir. In 1992, 126,206 steelhead with CWTs were released at the Pahsimeroi rack. A single two-ocean fish from this release was recovered from a tributary and 44 others returned to the hatchery rack.

No CWTed B-strain fish released in the East Fork Salmon River were recovered from tributaries during spring 1995.

## **DISCUSSION**

The number of adult steelhead that passed McNary Dam on the Columbia River in fall 1994 was the second lowest count of the last 12 years (Table 23). Of the 94,000 fish that passed McNary Dam, 38.1 % were not accounted for upriver at Priest Rapids and Ice Harbor dams. The 52,000 adults counted past Ice Harbor represented only 71 % of the previous year's number. This is a reflection of the poor outmigration survival in 1993.

### **Harvest of Sawtooth Hatchery Releases**

Returns of steelhead released from Sawtooth Hatchery in 1992 are now complete. From a total release of 739,360 smolts, we estimated a return of 628 adults after one ocean-year and 442 after two ocean-years. The total return of 1,070 was 0.14% of the number released, and a maximum exploitation rate of 81 % of the adult returns were harvested (Ball 1997) (Table 20).

Adult returns from the 1993 Sawtooth Hatchery releases have returned after their first ocean-year. From 729,520 smolts released, 2,263 (0.31 %) returned to the fishery and Sawtooth Hatchery (Table 20).

### **Harvest of East Fork Salmon River Releases**

We recovered two CWTs from B-strain adults that returned after three years in the ocean (Appendix B). From 1,507,033 smolts released in 1991, we estimated that 634 returned after one ocean-year, 1,716 returned after two ocean-years, and 204 after three ocean-years (Ball 1996, 1997) (Table 20). Adult returns from this 1991 release are now complete. There were 2,554 returning adults (0.17%), of which 96% were harvested. B-strain steelhead in the Clearwater drainage commonly return a portion of the adults after three ocean-years (Roseberg et al. 1991). In the upper Salmon River drainage, however,

Table 23. Difference between the number of steelhead passing McNary Dam that can be accounted for upriver at Ice Harbor and Priest Rapids dams, 1983-94<sup>a</sup>.

Fall of Year	McNary Dam	No. of Fish (000's)			Difference
		Ice Harbor Dam	Priest Rapids Dam	Ice Harbor + Priest Rapids Total	
1983	125.2	88.5	31.1	119.6	5.6 (4.5%)
1984	135.5	94.0	26.0	120.0	15.5 (11.4%)
1985	188.2	128.8	34.5	163.3	24.9 (13.2%)
1986	193.5	144.3	22.4	166.7	26.8 (13.9%)
1987	148.8	74.5	14.0	88.5	60.3 (40.5%)
1988	151.8	99.7	10.2	109.9	41.9 (27.6%)
1989	170.5	151.1	10.7	161.8	8.7 (5.1%)
1990	95.1	54.7	7.8	62.5	32.6 (34.3%)
1991	169.0	123.8	14.0	137.8	31.2 (18.5%)
1992	194.0	160.6	13.7	174.3	19.7 (10.2%)
1993	93.2	73.1	5.5	78.6	14.6 (15.7%)
1994	94.4	51.7	6.7	58.4	36.0 (38.1%)

<sup>a</sup> Totals from Army Corps of Engineers 1994 annual fish passage report.

the proportion of three-ocean returnees from East Fork B-strain releases is very small. Of the 179 known-age CWT Idaho fishery recoveries of East Fork marked fish, to date only six (3.4%) East Fork CWT fish have been recovered as three-ocean from the fishery. An additional two (1.4%) CWT fish have been recovered at the East Fork trap as three-ocean returns since steelhead with CWTs were first released there beginning in 1983.

From 1,343,535 smolts released in 1992, we estimate that 327 (0.02%) returned after one ocean-year, and 85 returned after two ocean-years (Ball 1997) (Table 20). The total return to date is 412 adults, of which 370 (90%) were harvested.

The 1993 release of 497,400 smolts into the East Fork returned an estimated 53 adults after one ocean-year. Of these one-ocean returns, 44 (83 %) were harvested.

Since 1989, smolts released into the East Fork Salmon River have been from parents that returned to the East Fork trap and from adults from Dworshak National Fish Hatchery on the Clearwater River. Each year since 1989, each of the two stocks has been marked with CWTs to evaluate their performance (Table 24).

Through the 1993 releases, from a total of 177,571 smolts released from East Fork stock with CWTs, 56 adults were harvested in Idaho and 34 returned to hatchery racks. From 247,574 smolts released with CWTs from Dworshak stock, 33 adults have been harvested in the Idaho fishery and 8 returned to hatchery racks. From comparable numbers of smolts released, the East Fork stock produced 1.6 times as much harvest as the Dworshak progeny. Tag code recoveries through 1994-95 show that 61 % of East Fork and Dworshak stock steelhead harvest occurred downriver of the Idaho harvest areas (Table 24). Downriver harvest included Oregon and Washington sport fisheries, and commercial and Indian gill net operations. These harvest areas are from the confluence of the Clearwater and Snake rivers downstream to Bonneville Dam on the lower Columbia River. Based on CWT recoveries, comparison of downriver harvest between the two stocks showed a small difference. For CWT recoveries reported to Idaho through September 1996, downriver harvest accounted for 48% of East Fork stock CWT recoveries, compared to 58% for Dworshak stock CWT recoveries. By the time these stocks returned to Idaho waters, East Fork stock fish produced 1.7 times more CWT recoveries in the fishery than Dworshak stock fish. Likewise, the East Fork stock has returned 4.3 times as many spawners to the hatchery rack as the Dworshak stock.

### **Harvest of Little Salmon River Releases**

In 1992, both A-strain and B-strain smolts were released into the Little Salmon River. Adult returns after two ocean-years are complete. Based on past performance of B-strain fish returning to the Salmon River, very few three-ocean fish are expected. From the 1,001,828 A-strain smolts released, 558 adults returned after one ocean-year, and 1,574 after two ocean-years. The total return was estimated to be 2,132 (0.21 %), which includes an escapement of 50% past the fishery. From the 300,534 B-strain smolts released in 1992, no CWTs were recovered from adults returning after one and two ocean-years. However, in 1994-95, we observed that 23 % of the fish checked in the Little Salmon River were of B-size. The estimated harvest of hatchery fish from the Little Salmon River was 2,007 (Table 19), so including

Table 24. Coded wire tag (CWT) recoveries of East Fork Salmon River steelhead releases - East Fork stock vs Dworshak stock.

Release Year, Stock, Tag Codes, and No. Of Fish Released	I-Ocean			II-Ocean			III-Ocean			Total No. CWT's
	Harvest	Rack	Returns	Harvest	Rack	Returns	Harvest	Rack	Returns	
	Downriver	ID.		Downriver	ID.		Downriver	ID.		
<u>1989</u>										
East Fork Stock: CWT 10/41/44, 10/41/45, 10/41/46 n = 44,064	5	0	4	16	12	3	0	0	0	40
Dworshak Stock: CWT 10/41/32, 10/41/33, 10/41/34 n = 43,569	0	0	1	0	6	1	0	1	0	9
<u>1990</u>										
East Fork Stock: CWT 10/42/36, 10/42/37, 10/42/38 n = 46,403	1	4	4	26	22	10	3	1	0	71
Dworshak Stock: CWT 10/42/33, 10/42/34, 10/42/35 n = 44,763	2	1	1	15	7	1	3	0	0	30
<u>1991</u>										
East Fork Stock: CWT 10/43/20, 10/43/21, 10/43/22 n = 66,383	5	1	7	23	12	3 <sup>a</sup>	3	1	0	55
Dworshak Stock: CWT 10/43/14, 10/43/15, 10/43/16 n = 61,827	1	2	2	23	12	0	3	1	0	44

Table 24. Continued.

Release Year, Stock, Tag Codes, and No. Of Fish Released	I-Ocean			II-Ocean			III Ocean			Total No. CWT's
	Harvest Downriver	Rack ID.	Returns	Harvest Downriver	Rack ID.	Returns	Harvest Downriver	Rack ID.	Returns	
1997										
East Fork Stock: CWT 10/44/20 n = 20,821	0	2	1	5	1	2				11
Dworshak Stock: CWT 10/44/18, 10/44/19 n = 43,339	0	0	0	9	2	1"				12
1993										
East Fork Stock: No CWT groups	-	-	-							--
Dworshak Stock: CWT 10/50/05, 10/50/07,10/50/09 n = 54,076	0 <sup>c</sup>	1	1							2

<sup>a</sup> Includes one stray to Pahsimeroi Hatchery.

<sup>b</sup> Includes one stray to Hells Canyon trap.

<sup>c</sup> Downriver CWT recoveries received through September 1996 at Idaho Department of Fish and Game CWT lab in Lewiston.

other river sections, the total return of two-ocean adults from this release should have been between 500-1,000 fish. Apparently, there must have been a survival problem with the CWT fish.

Including 1992, there have been four release years when both A- and B-strain steelhead were released into the Little Salmon River. In 1984, there were 96,425 A-strain and 95,624 B-strain smolts released with CWTs (Ball 1989). The estimated adult returns from these releases were 1,697 (1.76%) A-strain and 180 (0.19%) B-strain. Comparatively, the A-strain fish returned 9.3 times more adults (Ball 1989). In 1990, there were 80,465 A-strain and 392,812 B-strain smolts released, but only the B-strain group was represented by CWTs (Ball 1996). The estimated return rate of B-strain fish (0.22%) was higher than the 0.16% reported for the A-strain fish. However, the difference is a function of using the same CWTs for both strains with different returns of one- and two-ocean numbers. Adult returns from the 1991 release continued to favor A-strain releases in the Little Salmon River. From 310,000 A-strain smolts released, the total return was estimated at 1,053 (0.34%), which included an estimated 50% escapement past the fishery. The 1991 B-strain release of 577,433 produced a total estimated return of 724 (0.13 %) adults, which also includes an estimated 50% escapement past the fishery.

### **Harvest of Hammer Creek Releases**

For the first time, smolts released into the Salmon River at Hammer Creek contained three CWT mark groups in 1993. Unfortunately, from a total release of 211,006 smolts, no adult returns have been documented after one ocean-year (Table 20). The primary harvest area for adults returning from Hammer Creek releases is the bottom one-half of section 10 (Figure 1). Creel surveys in that area have been eliminated. While there may have been some adult returns, we did not detect them.

### **Harvest of Clearwater Fish Hatchery Releases**

The Clearwater Fish Hatchery, the newest LSRCP facility in Idaho, began releasing steelhead smolts in the Clearwater River drainage in 1993. Three CWT groups were included in this first release of 326,300 smolts into the South Fork Clearwater River. After one ocean-year, no CWT fish were recovered in the sport fishery or at hatchery racks at Dworshak National Fish Hatchery or Kooskia National Fish Hatchery.

### **Off-site Releases**

Off-site releases (smolt releases into the river or into tributaries without means or attempts to collect spawning adults) is a technique employed to distribute the harvest and put more hatchery fish into anglers' creels. Lower Salmon River harvest areas are corridors for all fish destined upriver. However, because these lower river sections have been unable to sustain a viable fishery after upriver fish have passed, off-site releases have been employed there.

In the upper Salmon River, from North Fork upstream, off-site releases have been used in recent years to distribute angling opportunity and harvest over more river miles. In 1988, evaluation of upper Salmon River off-site releases began with marked fish releases at Shoup Bridge, about 8 km upstream of the city of Salmon. Although there were no marked LSRCP releases in the upper Salmon River that year, estimated returns were derived from a companion group of marked fish from Niagara Springs Fish Hatchery (Ball 1992b). Beginning in 1990, the LSRCP has reared smolts for various off-site releases in the upper Salmon River at Hagerman National Fish Hatchery and Magic Valley Fish Hatchery.

Concerns of potential interactions between steelhead smolts and emergent chinook salmon were raised in 1993. Consequently, the scheduled number of smolts released into the East Fork Salmon River was reduced. Slate Creek (23.2 km upstream from the mouth of the East Fork) was stocked with 187,100 B-strain smolts, none of which were CWTed. No attempts were made to document returns since only a small proportion of the B-strain fish return after one ocean-year.

In 1993, off-site LSRCP releases were spread over 141 km of the upper Salmon River from North Fork upstream to Challis (Figure 1).

### **Hatchery Straying**

Adult steelhead returning to Idaho rivers in the fall are several months away from spawning and commonly wander into streams other than where they were released. It is not unusual for these wandering fish to spend time in one or more rivers that are not their natal or release drainage. Adults observed or harvested during the wandering phase should not be considered strays. The majority of them would eventually return to their natal stream, hatchery, or release site.

In 1995, there were 334 CWTs recovered from steelhead at hatchery weirs in Idaho, excluding Hells Canyon. Additionally, NMFS personnel marked smolts with CWTs during their downriver outmigration. These smolts originated from throughout the Snake River drainage and may be encountered as returning adults. In 1995, 27 fish tagged by NMFS returned to Idaho hatchery weirs.

Off-site releases that return to areas without spawning gravel may enter hatchery racks and are included in the number of CWTs recovered there. In 1995, there were five CWTs recovered at the Pahsimeroi Hatchery from the LSRCP off-site release at Ellis Bridge. Although technically these marked fish strayed from their release location, we are not including them in this straying evaluation between hatchery racks. The Ellis Bridge release site is located 0.7 km from the mouth of the Pahsimeroi River.

Of the 226 CWTs recovered from hatchery releases in the Salmon River drainage, only two fish (0.88%) strayed from a hatchery release site to another hatchery weir. One A-strain fish marked and released at Sawtooth Hatchery was recovered at the Pahsimeroi rack. The second stray was a B-strain fish released into the East Fork Salmon River in 1992. This fish was recovered at the Hells Canyon trap on the Snake River. This year's straying rate is slightly higher than the range of straying rates (0.2-0.6%) reported since 1985 (Ball 1986, 1988, 1989, 1990, 1992a, 1992b, 1996, 1997). There is very little variation between years and little or no change over time in the years we have been calculating straying rates between hatchery racks.

## **Tributary Straying**

Electrofishing surveys in 1995 were qualitative and should not be considered a reflection of total straying rates of either hatchery or off-site releases. Tributary surveys this year continued to assess the presence and relative distribution of adult steelhead in upper Salmon River tributaries. Since these surveys concentrated on only 23 streams where adult fish were found, the results should not be considered a reflection of total straying rates of either hatchery or off-site releases. A true quantitative analysis of straying would require weirs and very intensive electrofishing surveys over many miles of a large number of streams. In addition to fish from off-site releases found spawning in tributaries, we also found fish released from hatchery-racks that were observed spawning in the river and side streams below their release sites. This was especially evident in the upper Salmon River downstream from Sawtooth Hatchery. The amount of straying, and possibly the distribution of steelhead, could be a function of lower flows and higher water temperatures during the drought cycle which began in 1987. Off-site mainstem releases near tributaries may also increase the preponderance of returning adults to ascend the tributaries during their spawning run.

Straying of hatchery fish released from Idaho racks as documented by CWTs has been consistently low, but it is not a good quantitative indication of the number of adult steelhead straying into tributary streams (Ball 1986, 1989, 1992a, 1992b, 1996, 1997). Even without a quantitative straying analysis, it appears that a much larger proportion of adults are spawning in tributaries than stray to a hatchery rack other than where they were released.

Although we handled few naturally-produced steelhead, their time of arrival into the tributaries corresponded closely with hatchery fish. In 1995, we began stream surveys March 27, close to when we first observed adult spawners in 1993 and 1994 (Ball 1996, 1997). Since we did not find any fish until April 3, there did not appear to be very much difference between years. We also attempted to document the end of the spawning season, but high water impeded our ability to continue the surveys past April. If there were any natural fish spawning in the streams we surveyed, they could still have been spawning in May and June. As in 1993 and 1994, we observed both hatchery and natural fish entering the streams when males were ripe and females gravid. Spawning began soon after entry into the streams and the fish left when spawning was complete. Some males returned to the river and then reentered the tributary with another female. We did not attempt to document contribution of hatchery steelhead to natural production in these tributaries.

## **Sources of Error**

The primary sources of error involved in the steelhead harvest estimates have been discussed previously by Ball (1986), as well as the quality control of adipose clipping (Ball 1989).

Left ventral fin clips, which are used on steelhead to identify the presence of CWTs, may regenerate but nonetheless leave the fin deformed. Since there is a high proportion of hatchery fish with deformed fins from their life in the hatchery, we attempt to take snouts from all fish with deformed left

ventral fins. Although we take additional snouts with these methods, we should not be missing very many CWTs. Spot checks at hatcheries with portable CWT detectors have confirmed that our methods detect greater than 98 % of steelhead with CWTs.

The number of marked fish in each release group and the number of groups released each depend on many factors, but generally have been adjusted to produce adequate adult returns under average conditions. Several consecutive low water years and poor migration survival of both juveniles migrating downstream and adults returning upstream have resulted in several poor steelhead runs in the Salmon River. Consequently, the chance of recovering marked fish becomes very low and the accuracy of return information diminishes. Harvest patterns, exploitation rates, age at return, and other reasonably stable statistics have been aberrant.

It is impossible to predict when poor migration conditions will occur in order to mark more fish to compensate for poor survival. The reasoning to mark enough fish with average return expectations is still sound, but may not produce sufficient results in very low return years.

## **RECOMMENDATIONS**

Continue to include coded wire tags in each major smolt release that are representative in size, time of release, and fish health.

Continue to evaluate rate of return, contribution to the sport fishery, and distribution of adults returning from off-site releases.

Install a weir at Slate Creek to trap returning adults from the 1993 and 1994 releases to improve adult accounting and reduce tributary entry.

Formulate a marking program for PIT tag evaluation of adult returns to Lower Granite Dam to assess LSRCP contribution.

Continue to coded wire tag 60,000 fish one more year for the release in the Salmon River at Hammer Creek.

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## APPENDICES

Appendix A. Total number of steelhead by section and month harvested by resident and nonresident anglers, fall 1994' and spring 1995<sup>a</sup>.

River Section	Fall 1994 Steelhead Harvest				Total
	September	October	November	December	
Snake R.					
01	29	525	525	379	1,457
02	0	102	117	0	219
Subtotal	29	626	641	379	1,676
Clearwater R.					
03	146	1,224	1,151	699	3,220
04	0	73	73	0	146
05	0	29	15	15	58
06	0	29	15	0	44
07	0	0	15	0	15
Subtotal	146	1,355	1,268	714	3,482
Salmon R.					
10	15	408	364	233	1,020
11	73	379	568	146	1,166
12	0	233	131	44	408
13	0	73	87	0	160
14	0	204	219	0	423
15	58	321	219	15	612
16	0	15	29	0	44
17	0	87	248	0	335
18	0	0	0	0	0
19	0	15	0	0	15
20	0	117	102	15	233
Subtotal	146	1,850	1,967	452	4,415
Oxbow Res.	0	44	44	73	160
Boise R.	0	0	0	0	0
Payette R.	0	0	0	0	0
Statewide Total	321	3,876	3,919	1,617	9,732

## Appendix A. Continued.

River Section	Spring 1995 Steelhead Harvest <sup>b</sup>				Total
	January	February	March	April	
Snake R.					
01	152	15	15	0	182
02	15	0	45	61	121
Subtotal	167	15	61	61	303
Clearwater R.					
03	394	591	273	15	1,274
04	0	182	30	0	212
05	106	288	121	152	667
06	0	0	15	0	15
07	30	76	91	106	303
Subtotal	531	1,137	531	273	2,471
Salmon R.					
10	121	167	76	0	364
11	227	379	288	30	925
12	30	136	45	121	334
13	0	15	45	30	91
14	121	91	167	0	379
15	152	394	1,152	106	1,804
16	0	15	61	15	91
17	0	61	394	106	561
18	0	61	318	273	652
19	0	0	15	30	45
20	45	136	788	804	1,774
Subtotal	697	1,456	3,351	1,516	7,020
Oxbow Res.	0	0	91	0	91
Boise R.	0	0	0	0	0
Payette R.	0	0	0	0	0
Statewide Total	1,395	2,608	4,033	1,850	9,886

<sup>a</sup> Statewide harvest survey data from Thomas J. McArthur, IDFG, (unpublished).

<sup>b</sup> Statewide harvest numbers do not include steelhead harvested on Nez Perce Indian permits.

Appendix B. Coded wire tag recoveries and fin clips identified September 1994 - April 1995 harvest estimates by month and river section; and total harvest estimates for the 1994-95 season.

TAG CODE - 05/24/19

RELEASE SITE - North Fork Clearwater R.

NUMBER RELEASED - 20,645

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>				
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>		
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
<u>River Section</u>	<u>No. Tags</u>	<u>January Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>February Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>March Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>April Sample Rate</u>	<u>Est. Harv.</u>	<u>1994-95 No. Tags</u>	<u>Est. Harv.</u>
01														
03/05	1	0.052	19										1	19
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Total estimated harvest

19

Appendix B. Continued.

TAG CODE - 05/24/20

RELEASE SITE - North Fork Clearwater R.

NUMBER RELEASED - 20,705

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

50

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05				1	0.072	14	1	0.193	5				2	19
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Total estimated harvest

Appendix B. Continued.

TAG CODE - 05/24/21

RELEASE SITE - South Fork Clearwater R.

NUMBER RELEASED - 19,909

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05	1	0.052	19	1	0.072	14							2	33
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Total estimated harvest

Appendix B. Continued.

TAG CODE - 05/24/22

RELEASE SITE - South Fork Clearwater R.

NUMBER RELEASED - 20,499

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05				1	0.072	14	1	0.193	5				2	19
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Total estimated harvest

Appendix B. Continued.

TAG CODE - 05/24/23

RELEASE SITE - North Fork Clearwater R.

NUMBER RELEASED - 20,709

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05				1	0.072	14	1	0.193	5				2	19
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Total estimated harvest

19

Appendix B. Continued.

TAG CODE - 05/24/30

RELEASE SITE - Clearwater R.

NUMBER RELEASED - 20,293

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>				
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>		
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
<u>River Section</u>	<u>No. Tags</u>	<u>January Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>February Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>March Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>April Sample Rate</u>	<u>Est. Harv.</u>	<u>1994-95 No. Tags</u>	<u>Est. Harv.</u>
01														
03/05							1	0.193	5				1	5
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

54

Total estimated harvest

Appendix B. Continued.

TAG CODE - 05/26/46

RELEASE SITE - North Fork Clearwater R.

NUMBER RELEASED - 20,039

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>				
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>		
01														
03/05							2	0.042	48					
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
<u>River Section</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>1994-95</u>	
01													<u>No. Tags</u>	<u>Est. Harv.</u>
03/05	1	0.052	19	2	0.072	28	1	0.193	5	1	0.467	2	7	102
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

55

Total estimated harvest

102

Appendix B. Continued.

TAG CODE - 07/61/04

RELEASE SITE - Wallowa R. @ Big Canyon Cr.

NUMBER RELEASED - 23,277

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>				
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>		
01							1	0.124				8		
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01													1	8
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

56

Total estimated harvest

Appendix B. Continued.

TAG CODE - 07/61/05

RELEASE SITE - Wallowa R. @ Big Canyon Cr.

NUMBER RELEASED - 24.821

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01							1	0.124		8		
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01													1	8
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Total estimated harvest

8

Appendix B. Continued.

TAG CODE - 10/15/30

RELEASE SITE - Sawtooth Hatchery

NUMBER RELEASED - 53,463

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>				
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12								1	0.336	3				
13														
14								1	0.146	7				
15								1	0.205	5				
16														
17														
<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>	
01														
03/05														
04/06														
07														
10														
11														
12												1	3	
13														
14												1	7	
15								6	0.240	25		7	30	
16														
17											2	0.868	2	2
18														
19											2	1.100	2	2
20														
Total estimated harvest														44

58

Appendix B. Continued.

TAG CODE - 10/40/07

RELEASE SITE - Sawtooth Hatchery

NUMBER RELEASED - 45,646

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>				
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14							1	0.146		7				
15														
16														
17														
<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14													1	7
15				1	0.119	8	1	0.240	4				2	12
16														
17														
18										1	0.161	6	1	6
19														
20														
Total estimated harvest														25

59

Appendix B. Continued.

TAG CODE - 10/43/12

RELEASE SITE - Pahsimeroi R.

NUMBER RELEASED - 20,882

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>									
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14								1	0.146		7	
15								1	0.205		5	
16												
17												

<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14								1	0.174		6		2	13
15								1	0.240		4		2	9
16														
17											1	0.868	1	1
18											1	0.161	6	1
19														
20														

Total estimated harvest

29

Appendix B. Continued.

TAG CODE - 10/43/14

RELEASE SITE - East Fork Salmon R.

NUMBER RELEASED - 20,498

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>				
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>		
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
<u>River Section</u>	<u>No. Tags</u>	<u>January Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>February Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>March Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>April Sample Rate</u>	<u>Est. Harv.</u>	<u>1994-95</u>	
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17								1	0.094	11			1	11
18														
19														
20														
Total estimated harvest														11

Appendix B. Continued.

TAG CODE - 10/43/22

RELEASE SITE - East Fork Salmon R.

NUMBER RELEASED - 21,375

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>									
01												
03/05												
04/06												
07												
10												
11							1	0.056	18			
12												
13												
14												
15												
16												
17												

62

<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06														
07														
10														
11														
12													1	18
13														
14														
15														
16														
17														
18														
19														
20														

Total estimated harvest

18

Appendix B. Continued.

TAG CODE - 10/44/01

RELEASE SITE - Pahsimeroi R.

NUMBER RELEASED - 21,557

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14				1	0.054	19						
15												
16												
17												

3

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14													1	19
15														
16														
17							1	0.094	11				1	11
18														
19														
20														

Total estimated harvest

30

Appendix B. Continued.

TAG CODE - 10/44/02

RELEASE SITE - Pahsimeroi R.

NUMBER RELEASED - 21,533

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>				
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>		
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15				1	0.140	7								
16														
17														
<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>	
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15												1	7	
16														
17														
18														
19														
20														
Total estimated harvest													7	

Appendix B. Continued.

TAG CODE - 10/44/03

RELEASE SITE - Pahsimeroi R.

NUMBER RELEASED - 20,657

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12							1	0.336	3			
13												
14												
15												
16												
17												

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12													1	3
13														
14														
15														
16														
17														
18														
19														
20														

Total estimated harvest

3

Appendix B. Continued.

TAG CODE - 10/44/04

RELEASE SITE - Pahsimeroi R.

NUMBER RELEASED - 20,624

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

9

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17										1	0.868	1	1	1
18														
19														
20														

Total estimated harvest

1

Appendix B. Continued.

TAG CODE - 10/44/05

RELEASE SITE - Pahsimeroi R.

NUMBER RELEASED - 20,883

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>			
		<u>Sample Rate</u>	<u>Est. Harv.</u>											
01														
03/05														
04/06														
07														
10														
11				1	0.084	12								
12														
13														
14														
15														
16														
17														
<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06														
07														
10														
11													1	12
12														
13														
14														
15				2	0.119	17							2	17
16														
17										1	0.868	1	1	1
18														
19														
20														
<b>Total estimated harvest</b>													<b>30</b>	

Appendix B. Continued.

TAG CODE - 10/44/06

RELEASE SITE - Pahsimeroi R.

NUMBER RELEASED - 20,952

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>									
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14				1	0.054	19						
15												
16												
17												

68

<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15				1	0.119	8							1	19
16													1	8
17														
18														
19														
20														

Total estimated harvest

27

Appendix B. Continued.

TAG CODE - 10/44/10

RELEASE SITE - Pahsimeroi R.

NUMBER RELEASED - 19,736

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15				3	0.141	21						
16												
17												

69

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14							1	0.174	6				1	6
15							1	0.240	4				4	25
16														
17							1	0.094	11				1	11
18														
19														
20							1	0.094	11				1	11

Total estimated harvest

53

Appendix B. Continued.

TAG CODE - 10/44/11

RELEASE SITE - Pahsimeroi R.

NUMBER RELEASED - 19,418

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>					
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>			
01															
03/05															
04/06															
07															
10															
11															
12															
13															
14															
15															
16															
17															
<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>		
<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>		
01															
03/05															
04/06															
07															
10															
11															
12															
13															
14															
15								4	0.240	17		4	17		
16															
17								1	0.094	11	2	0.868	2	3	13
18															
19															
20															
Total estimated harvest															

70

Appendix B. Continued.

TAG CODE - 10/44/15

RELEASE SITE - Little Salmon R.

NUMBER RELEASED - 21,091

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>									
01												
03/05												
04/06												
07												
10												
11												
12				1	0.343	3						
13												
14												
15												
16												
17												

<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Total estimated harvest

3

Appendix B. Continued.

TAG CODE - 10/44/16

RELEASE SITE - Little Salmon R.

NUMBER RELEASED - 22,223

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>			
		<u>Sample Rate</u>	<u>Est. Harv.</u>											
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
20				1	0.034	29								
<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06														
07														
10														
11				1	0.061	16							1	16
12														
13														
14														
15														
16														
17														
18														
19														
20													1	29
Total estimated harvest														45

Appendix B. Continued.

TAG CODE - 10/44/17

RELEASE SITE - Little Salmon R.

NUMBER RELEASED - 21,604

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>			
		<u>Sample Rate</u>	<u>Est. Harv.</u>											
01														
03/05														
04/06														
07														
10														
11														
12				1	0.343	3								
13														
14														
15														
16														
17														
<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06														
07														
10														
11														
12													1	3
13														
14														
15														
16														
17														
18														
19														
20														
Total estimated harvest													1	3

Appendix B. Continued.

TAG CODE - 10/44/18

RELEASE SITE - East Fork Salmon R.

NUMBER RELEASED - 21,771

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>				
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>		
01														
03/05														
04/06														
07														
10														
11														
12								1	0.336	3				
13														
14														
15														
16														
17														
<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>	
01														
03/05														
04/06														
07														
10														
11														
12												1	3	
13														
14														
15														
16														
17														
18														
19														
20														
Total estimated harvest														

74

Appendix B. Continued.

TAG CODE - 10/44/19

RELEASE SITE - East Fork Salmon R.

NUMBER RELEASED - 21,568

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15										1	0.557	2	1	2
16														
17														
18														
19														
20														

Total estimated harvest

2

Appendix B. Continued.

TAG CODE - 10/44/20

RELEASE SITE - East Fork Salmon R.

NUMBER RELEASED - 20,821

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15									1	0.240	4		1	4
16														
17														
18														
19														
20														

Total estimated harvest

4

Appendix B. Continued.

TAG CODE - 10/44/21

RELEASE SITE - Sawtooth Hatchery

NUMBER RELEASED - 17,955

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15										1	0.557	2	1	2
16														
17														
18														
19														
20														

Total estimated harvest

2

Appendix B. Continued.

TAG CODE - 10/44/22

RELEASE SITE - Sawtooth Hatchery

NUMBER RELEASED - 18,336

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18										1	0.161	6	1	6
19														
20														

Total estimated harvest

6

Appendix B. Continued.

TAG CODE - 10/44/23

RELEASE SITE - Sawtooth Hatchery

NUMBER RELEASED - 19,341

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

79

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

1 0.240 4 1 4

Total estimated harvest

4

Appendix B. Continued.

TAG CODE - 10/44/24

RELEASE SITE - Pahsimeroi R.

NUMBER RELEASED - 19,547

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17										1	0.868	1	1	1
18														
19														
20														

Total estimated harvest

1

Appendix B. Continued.

TAG CODE - 10/44/25

RELEASE SITE - Pahsimeroi R.

NUMBER RELEASED - 19.096

<u>River Section</u>	No. Tags	<u>September</u>		No. Tags	<u>October</u>		No. Tags	<u>November</u>		No. Tags	<u>December</u>		<u>1994-95</u>	
		Sample Rate	Est. Harv.		Sample Rate	Est. Harv.		Sample Rate	Est. Harv.		Sample Rate	Est. Harv.		
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
<u>River Section</u>	No. Tags	<u>January</u> Sample Rate	Est. Harv.	No. Tags	<u>February</u> Sample Rate	Est. Harv.	No. Tags	<u>March</u> Sample Rate	Est. Harv.	No. Tags	<u>April</u> Sample Rate	Est. Harv.	No. Tags	Est. Harv.
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18										1	0.161	6	1	6
19														
20														
Total estimated harvest														6

Appendix B. Continued.

TAG CODE - 10/44/26

RELEASE SITE - Pahsimeroi R.

NUMBER RELEASED - 19,584

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>									
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15				1	0.140	7						
16												
17												

<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Total estimated harvest

7

Appendix B. Continued.

TAG CODE - 10/49/24

RELEASE SITE - Salmon R. @ North Fork

NUMBER RELEASED - 65,637

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

83

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>	
01															
03/05															
04/06															
07															
10															
11															
12															
13															
14								2	0.174	11			2	11	
15								9	0.240	38	3	0.557	5	12	43
16								3	0.213	14				3	14
17															
18											1	0.161	6	1	6
19															
20															

Total estimated harvest

74

Appendix B. Continued.

TAG CODE - 10/49/49

RELEASE SITE - Sawtooth Hatchery

NUMBER RELEASED - 19,196

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>				
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>		
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>	
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15								1	0.240	4		1	4	
16														
17														
18														
19														
20														
Total estimated harvest													4	

Appendix B. Continued.

TAG CODE - 10/49/51

RELEASE SITE - Sawtooth Hatchery

NUMBER RELEASED - 17,818

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>				
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
<u>River Section</u>	<u>No. Tags</u>	<u>January Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>February Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>March Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>April Sample Rate</u>	<u>Est. Harv.</u>	<u>1994-95 No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15							2	0.240	8	1	0.557	2	3	10
16														
17										1	0.868	1	1	1
18														
19										1	1.100	1	1	1
20														
Total estimated harvest														12

Appendix B. Continued.

TAG CODE - 10/50/06

RELEASE SITE - Little Salmon R.

NUMBER RELEASED - 19,932

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>				
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>		
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20							1	0.095	11				1	11
Total estimated harvest														11

88

Appendix B. Continued.

TAG CODE - 10/50/07

RELEASE SITE - East Fork Salmon R.

NUMBER RELEASED - 18,924

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>				
		<u>Sample Rate</u>	<u>Est. Harv.</u>		<u>Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>		
01															
03/05															
04/06															
07															
10															
11															
12															
13															
14															
15															
16															
17															
<u>River Section</u>	<u>No. Tags</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>		<u>Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>Tags</u>	<u>Est. Harv.</u>
01															
03/05															
04/06															
07															
10															
11															
12															
13															
14															
15								1	0.240	4				1	4
16															
17															
18															
19															
20															
Total estimated harvest															4

Appendix B. Continued.

TAG CODE - 10/50/10

RELEASE SITE - Sawtooth Hatchery

NUMBER RELEASED - 8,161

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>				
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>		
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15				1	0.141	7								
16														
17														
<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>	
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15												1	7	
16							1	0.213	5			1	5	
17														
18														
19														
20														
Total estimated harvest														12

88

Appendix B. Continued.

TAG CODE - 10/50/11

RELEASE SITE - Salmon R. @ Challis

NUMBER RELEASED - 19,924

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15							1	0.205	5			
16												
17												

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15							3	0.240	13				4	18
16														
17														
18														
19														
20														

Total estimated harvest

18

Appendix B. Continued.

TAG CODE - 10/50/12

RELEASE SITE - Salmon R. @ Lemhi R.

NUMBER RELEASED - 22,106

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>			
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15				1	0.141	7								
16														
17														
<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14							1	0.174	6				1	6
15													1	7
16							1	0.213	5				1	5
17														
18														
19														
20														

Total estimated harvest

Appendix B. Continued.

TAG CODE - 10/50/13

RELEASE SITE - Salmon R. @ Lemhi R.

NUMBER RELEASED - 19,692

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>									
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06														
07														
10														
11				1	0.061	16							1	16
12														
13														
14														
15								1	0.240	4			1	4
16								2	0.213	9	1	0.533	2	3
17														
18														
19														
20														

Total estimated harvest

31

Appendix b. Continued.

TAG CODE - 10/50/14

RELEASE SITE - Salmon R. @ Ellis Bridge

NUMBER RELEASED - 19,778

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14								1	0.174	6			1	6
15								1	0.240	4			1	4
16														
17														
18														
19														
20														

Total estimated harvest

10

Appendix B. Continued.

TAG CODE - 10/50/15

RELEASE SITE - Salmon R. @ Lemhi R.

NUMBER RELEASED - 21,390

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December,</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>									
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14								1	0.146		7	
15												
16												
17												

CG

<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14													1	7
15								1	0.240		4		1	4
16														
17														
18														
19														
20														

Total estimated harvest

11

Appendix B. Continued.

TAG CODE - 10/50/16

RELEASE SITE - Salmon R. @ Ellis Bridge

NUMBER RELEASED - 20,361

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15				1	0.140	7						
16												
17												

94

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15				1	0.119	8	1	0.24	4	1	0.557	2	4	21
16														
17										1	0.868	1	1	1
18														
19														
20														

Total estimated harvest

22

Appendix B. Continued.

TAG CODE - 10/50/17

RELEASE SITE - Little Salmon R.

NUMBER RELEASED - 20,045

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>				
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
<u>River Section</u>	<u>No. Tags</u>	<u>January Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>February Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>March Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>April Sample Rate</u>	<u>Est. Harv.</u>	<u>1994-95 No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20				1	0.110	9				1	0.092	11	2	20
Total estimated harvest													20	

Appendix B. Continued.

TAG CODE - 10/50/20

RELEASE SITE - Sawtooth Hatchery

NUMBER RELEASED - 20,262

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>									
01												
03/05												
04/06												
07												
10												
11												
12				2	0.343	6						
13							1	0.161	6			
14												
15												
16												
17												

<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06														
07														
10														
11														
12													2	6
13													1	6
14														
15							2	0.240	8	1	0.557	2	3	10
16														
17														
18														
19										1	1.100	1	1	1
20														

Total estimated harvest

23

Appendix B. Continued.

TAG CODE - 10/50/21

RELEASE SITE - Sawtooth Hatchery

NUMBER RELEASED - 18,726

<u>River Section</u>	No. Tags	<u>September</u>		No. Tags	<u>October</u>		No. Tags	<u>November</u>		No. Tags	<u>December</u>	
		Sample Rate	Est. Harv.		Sample Rate	Est. Harv.		Sample Rate	Est. Harv.		Sample Rate	Est. Harv.
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15							2	0.205	10			
16												
17												

<u>River Section</u>	No. Tags	<u>January</u>		No. Tags	<u>February</u>		No. Tags	<u>March</u>		No. Tags	<u>April</u>		<u>1994-95</u>	
		Sample Rate	Est. Harv.		Sample Rate	Est. Harv.		Sample Rate	Est. Harv.		Sample Rate	Est. Harv.	No. Tags	Est. Harv.
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14							1	0.174	6				1	6
15							1	0.240	4	1	0.557	2	4	16
16														
17														
18														
19										1	1.100	1	1	1
20														

Total estimated harvest

23

Appendix B. Continued.

TAG CODE - 10/50/22

RELEASE SITE - Sawtooth Hatchery

NUMBER RELEASED - 18,235

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>									
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15								3	0.205	15		
16												
17												

88

<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15								3	0.240	13			6	28
16														
17								1	0.094	11	1	0.868	1	2
18														
19														
20														

Total estimated harvest

40

Appendix B. Continued.

TAG CODE - 10/50/34

RELEASE SITE - Sawtooth Hatchery

NUMBER RELEASED - 4,563

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01							1	0.124				
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

66

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01													1	8
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18										1	0.161	6	1	6
19														
20														

Total estimated harvest

14

Appendix B. Continued.

TAG CODE - 23/24/45

RELEASE SITE - Columbia R. @ RM 141

NUMBER RELEASED - 9,199

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05												
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05														
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20										1	0.092	11	1	11

Total estimated harvest

11

Appendix B. Continued.

TAG CODE - 23/24/46

RELEASE SITE - Columbia R. @ RM 141

NUMBER RELEASED - 9,571

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>									
01												
03/05										1	0.018	56
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05	1	0.052	19										2	75
04/06														
07														
10														
11														
12														
13														
14														
15										1	0.557	2	1	2
16														
17														
18														
19														
20														

Total estimated harvest

77

101

Appendix B. Continued.

TAG CODE - 23/29/60

RELEASE SITE - Columbia R. @ Rm 18.2

NUMBER RELEASED - 9,083

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>					
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>			
01															
03/05															
04/06															
07															
10															
11															
12															
13															
14															
15															
16															
17															
<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>		
<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>		
01															
03/05															
04/06															
07															
10															
11															
12															
13															
14															
15															
16															
17										1	0.868	1	1	1	
18															
19															
20															
Total estimated harvest															1

102

Appendix B. Continued.

TAG CODE - 23/30/11

RELEASE SITE - Columbia R. @ RM 141

NUMBER RELEASED - 9,885

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01												
03/05							1	0.042	24			
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01														
03/05													1	24
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Total estimated harvest

24

103

Appendix B. Continued.

TAG CODE - 63/40/60

RELEASE SITE - Touchet R. @ Dayton

NUMBER RELEASED - 20,104

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>				
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>		
01														
03/05				1	0.053	19								
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
<u>River Section</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>1994-95</u>	
01														
03/05													1	19
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

104

Total estimated harvest

Appendix B. Continued.

TAG CODE - 63/42/63

RELEASE SITE - Curl Lake (Tucannon R.)

NUMBER RELEASED - 28,946

<u>River Section</u>	<u>September</u>			<u>October</u>			<u>November</u>			<u>December</u>		
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>
01				1	0.059	17						
03/05							1	0.042	24			
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>January</u>			<u>February</u>			<u>March</u>			<u>April</u>			<u>1994-95</u>	
	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>
01													1	17
03/05													1	24
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Total estimated harvest

Appendix B. Continued.

TAG CODE - 63/48/15

RELEASE SITE - Curl Lake (Tucannon R.)

NUMBER RELEASED - 21,916

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>									
01												
03/05				2	0.053	38						
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06													2	38
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Total estimated harvest

38

Appendix B. Continued.

TAG CODE - 63/48/16

RELEASE SITE - Curl Lake (Tucannon R.)

NUMBER RELEASED - 29,701

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>									
01												
03/05				1	0.053	19						
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06													1	19
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Total estimated harvest

19

Appendix B. Continued.

TAG CODE - 63/48/17

RELEASE SITE - Tucannon R.

NUMBER RELEASED - 29,517

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>			
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>									
01														
03/05				1	0.053	19								
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>Sample Rate</u>	<u>Est. Harv.</u>									
01														
03/05													1	19
04/06														
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Total estimated harvest

19

Appendix B. Continued.

TAG CODE - 63/59/42

RELEASE SITE - Walla Walla R.

NUMBER RELEASED - 19,323

<u>River Section</u>	<u>No. Tags</u>	<u>September</u>		<u>No. Tags</u>	<u>October</u>		<u>No. Tags</u>	<u>November</u>		<u>No. Tags</u>	<u>December</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>									
01												
03/05				1	0.053	19						
04/06												
07												
10												
11												
12												
13												
14												
15												
16												
17												

<u>River Section</u>	<u>No. Tags</u>	<u>January</u>		<u>No. Tags</u>	<u>February</u>		<u>No. Tags</u>	<u>March</u>		<u>No. Tags</u>	<u>April</u>		<u>1994-95</u>	
		<u>Sample Rate</u>	<u>Est. Harv.</u>	<u>No. Tags</u>	<u>Est. Harv.</u>									
01														
03/05														
04/06													1	19
07														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Total estimated harvest

Appendix C. Steelhead groups returning to the Salmon River, 1994-95.

Strain	Age	No. of Fish	Release Site	Hatchery Rearing	Marks
A	I	19,196	Sawtooth Hatchery	HNFH <sup>a</sup>	CWT 10/49/49 <sup>b</sup>
A	I	18,168	Sawtooth Hatchery	HNFH	CWT 10/49/50 <sup>b</sup>
A	I	17,818	Sawtooth Hatchery	HNFH	CWT 10/49/51 <sup>b</sup>
A	I	8,161	Sawtooth Hatchery	HNFH	CWT 10/50/10
A	I	20,262	Sawtooth Hatchery	HNFH	CWT 10/50/20
A	I	18,726	Sawtooth Hatchery	HNFH	CWT 10/50/21
A	I	18,235	Sawtooth Hatchery	HNFH	CWT 10/50/22
A	I	4,563	Sawtooth Hatchery	HNFH	CWT 10/50/34
A	I	604,391	Sawtooth Hatchery	HNFH	None <sup>b</sup>
A	I	19,924	Salmon R. @ Challis	MVSH <sup>c</sup>	CWT 10/50/11
A	I	240,676	Salmon R. @ Challis	MVSH	None <sup>b</sup>
A	I	20,882	Pahsimeroi R.	NSPR <sup>d</sup>	CWT 10/43/12
A	I	19,736	Pahsimeroi R.	NSPR	CWT 10/44/10
A	I	19,418	Pahsimeroi R.	NSPR	CWT 10/44/11
A	I	19,547	Pahsimeroi R.	NSPR	CWT 10/44/24
A	I	19,096	Pahsimeroi R.	NSPR	CWT 10/44/25
A	I	19,584	Pahsimeroi R.	NSPR	CWT 10/44/26
A	I	643,537	Pahsimeroi R.	NSPR	None <sup>b</sup>
A	I	19,778	Salmon R. @ Ellis Br.	MVSH	CWT 10/50/14
A	I	20,361	Salmon R. @ Ellis Br.	MVSH	CWT 10/50/16
A	I	226,161	Salmon R. @ Ellis Br.	MVSH	None <sup>b</sup>
A	I	22,106	Salmon R. @ Lemhi R.	MVSH	CWT 10/50/12
A	I	19,692	Salmon R. @ Lemhi R.	MVSH	CWT 10/50/13
A	I	21,390	Salmon R. @ Lemhi R.	MVSH	CWT 10/50/15
A	I	135,312	Salmon R. @ Lemhi R.	MVSH	None <sup>b</sup>

Appendix C. Continued.

Strain	Age	No. of Fish	Release Site	Hatchery Rearing	Marks
A	I	65,637	Salmon R. @ N. Fork	MVSH	CWT 10/49/24
A	I	124,863	Salmon R. @ N. Fork	MVSH	None <sup>b</sup>
A	I	20,045	Little Salmon R.	HNFH	CWT 10/50/17
A	I	10,245	Little Salmon R.	HNFH	CWT 10/50/18
A	I	19,621	Little Salmon R.	HNFH	CWT 10/50/19
A	I	497,405	Little Salmon R.	HNFH	None
A	I	17,142	Salmon R. @ Hammer Cr.	HNFH	CWT 10/49/46
A	I	19,655	Salmon R. @ Hammer Cr.	HNFH	CWT 10/49/47
A	I	16,662	Salmon R. @ Hammer Cr.	HNFH	CWT 10/49/48
A	I	157,547	Salmon R. @ Hammer Cr.	HNFH	None
Total		3,165,542			
A	II	53,463	Sawtooth Hatchery	HNFH	CWT 10/15/30
A	II	45,646	Sawtooth Hatchery	HNFH	CWT 10/40/07
A	II	17,955	Sawtooth Hatchery	HNFH	CWT 10/44/21
A	H	18,336	Sawtooth Hatchery	HNFH	CWT 10/44/22
A	II	19,341	Sawtooth Hatchery	HNFH	CWT 10/44/23
A	II	467,139	Sawtooth Hatchery	HNFH	None <sup>b</sup>
A	II	117,300	Sawtooth Hatchery	MVSH	None
A	II	223,406	Pahsimeroi R.	HNFH	None
A	II	21,557	Pahsimeroi R.	NSPR	CWT 10/44/01
A	II	21,533	Pahsimeroi R.	NSPR	CWT 10/44/02
A	II	20,657	Pahsimeroi R.	NSPR	CWT 10/44/03
A	II	20,624	Pahsimeroi R.	NSPR	CWT 10/44/04
A	II	20,883	Pahsimeroi R.	NSPR	CWT 10/44/05
A	II	20,952	Pahsimeroi R.	NSPR	CWT 10/44/06

## Appendix C. Continued.

Strain	Age	No. of Fish	Release Site	Hatchery Rearing	Marks
A	II	376,974	Pahsimeroi R.	NSPR	None <sup>b</sup>
A	II	21,091	Little Salmon R.	MVSH	CWT 10/44/15
A	II	22,223	Little Salmon R.	MVSH	CWT 10/44/16
A	II	21,604	Little Salmon R.	MVSH	CWT 10/44/17
A	II	936,982	Little Salmon R.	MVSH	None <sup>b</sup>
A	II	282,300	Salmon R. @ Hammer Cr.	NSPR	None
Total		2,749,966			
B	I	187,100	Slate Cr.	MVSH	None
B	I	16,024	E. Fork Salmon R.	MVSH	CWT 10/50/05
B	I	18,924	E. Fork Salmon R.	MVSH	CWT 10/50/07
B	I	19,128	E. Fork Salmon R.	MVSH	CWT 10/50/09
B	I	87,272	E. Fork Salmon R.	MVSH	None <sup>b,e</sup>
B	I	356,052	E. Fork Salmon R.	MVSH	None <sup>b,f</sup>
B	I	19,358	Little Salmon R.	MVSH	CWT 10/50/04
B	I	19,932	Little Salmon R.	MVSH	CWT 10/50/06
B	I	19,909	Little Salmon R.	MVSH	CWT 10/50/08
B	I	266,101	Little Salmon R.	MVSH	None <sup>b</sup>
Total		1,009,800			
B	II	302,335	East Fork Salmon R.	HNFH	None
B	II	21,771	East Fork Salmon R.	MVSH	CWT 10/44/18 <sup>f</sup>
B	II	21,568	East Fork Salmon R.	MVSH	CWT 10/44/19 <sup>f</sup>
B	II	20,821	East Fork Salmon R.	MVSH	CWT 10/44/20 <sup>e</sup>
B	II	63,979	East Fork Salmon R.	MVSH	None <sup>b,e</sup>
B	II	913,061	East Fork Salmon R.	MVSH	None <sup>b,f</sup>

## Appendix C. Continued.

Strain	Age	No. of Fish	Release Site	Hatchery Rearing	Marks
B	II	18,702	Little Salmon R.	HNFH	CWT 10/44/07
B	II	19,835	Little Salmon R.	HNFH	CWT 10/44/08
B	II	17,847	Little Salmon R.	HNFH	CWT 10/44/09
B	II	244,150	Little Salmon R.	HNFH	None
Total		1,644,069			
B	III	20,498	East Fork Salmon R.	MVSH	CWT 10/43/14 <sup>f</sup>
B	III	21,017	East Fork Salmon R.	MVSH	CWT 10/43/15 <sup>f</sup>
B	III	20,312	East Fork Salmon R.	MVSH	CWT 10/43/16 <sup>f</sup>
B	III	22,525	East Fork Salmon R.	MVSH	CWT 10/43/20 <sup>e</sup>
B	III	22,483	East Fork Salmon R.	MVSH	CWT 10/43/21 <sup>e</sup>
B	III	21,375	East Fork Salmon R.	MVSH	CWT 10/43/22 <sup>e</sup>
B	III	267,567	East Fork Salmon R.	MVSH	None <sup>e</sup>
B	III	570,523	East Fork Salmon R.	MVSH	None <sup>b,f</sup>
B	III	540,733	East Fork Salmon R.	HNFH	None <sup>g</sup>
B	III	19,831	Little Salmon R.	HNFH	CWT 10/43/32
B	III	19,813	Little Salmon R.	HNFH	CWT 10/43/39
B	III	18,877	Little Salmon R.	HNFH	CWT 10/43/40
B	III	398,589	Little Salmon R.	HNFH	None <sup>b</sup>
B	III	120,323	Little Salmon R.	HNFH	None <sup>g</sup>
Total		2,084,466			

<sup>a</sup> HNFH = Hagerman National Fish Hatchery.

<sup>b</sup> Release group includes fish marked with passive integrated transponder (PIT) tags.

<sup>c</sup> MVSH = Magic Valley Steelhead Hatchery.

<sup>d</sup> NSPR = Niagara Springs Fish Hatchery.

<sup>e</sup> East Fork Salmon River stock.

<sup>f</sup> Dworshak National Fish Hatchery stock.

<sup>g</sup> Fall release of subsmolts.

Appendix D. Steelhead groups returning to the Clearwater River, 1994-95.

Strain	Age	No. of Fish	Release Site	Hatchery Rearing	Marks
B	I	16,214	Clearwater R.	DNFH <sup>a</sup>	CWT 05/20/50
B	I	20,579	Clearwater R.	DNFH	CWT 05/20/51
B	I	20,779	Clearwater R.	DNFH	CWT 05/20/52
B	I	20,258	Clearwater R.	DNFH	CWT 05/21/57
B	I	20,886	Clearwater R.	DNFH	CWT 05/21/58
B	I	19,800	Clearwater R.	DNFH	CWT 05/21/59
B	I	21,144	Clearwater R.	DNFH	CWT 05/21/60
B	I	20,780	Clearwater R.	DNFH	CWT 05/21/61
B	I	1,168,550	Clearwater R.	DNFH	None
B	I	25,673	South Fork Clearwater R.	CAFH <sup>b</sup>	CWT 10/29/47
B	I	22,003	South Fork Clearwater R.	CAFH	CWT 10/49/37
B	I	21,340	South Fork Clearwater R.	CAFH	CWT 10/49/38
B	I	257,284	South Fork Clearwater R.	CAFH	None <sup>c</sup>
B	I	63,803	South Fork Clearwater R.	DNFH	CWT 05/29/37
B	I	675,826	South Fork Clearwater R.	DNFH	None
Total		2,394,919			
B	II	20,645	Clearwater R.	DNFH	CWT 05/24/19
B	II	20,705	Clearwater R.	DNFH	CWT 05/24/20
B	II	20,709	Clearwater R.	DNFH	CWT 05/24/23
B	II	20,039	Clearwater R.	DNFH	CWT 05/26/46
B	II	1,141,397	Clearwater R.	DNFH	None
B	II	349,210	Clearwater R.@ Clear Cr.	DNFH	None
B	II	19,909	South Fork Clearwater R.	DNFH	CWT 05/24/21

Appendix D. Steelhead groups returning to the Clearwater River, 1994-95.

Strain	Age	No. of Fish	Release Site	Hatchery Rearing	Marks
B	I	16,214	Clearwater R.	DNFH <sup>a</sup>	CWT 05/20/50
B	I	20,579	Clearwater R.	DNFH	CWT 05/20/51
B	I	20,779	Clearwater R.	DNFH	CWT 05/20/52
B	I	20,258	Clearwater R.	DNFH	CWT 05/21/57
B	I	20,886	Clearwater R.	DNFH	CWT 05/21/58
B	I	19,800	Clearwater R.	DNFH	CWT 05/21/59
B	I	21,144	Clearwater R.	DNFH	CWT 05/21/60
B	I	20,780	Clearwater R.	DNFH	CWT 05/21/61
B	I	1,168,550	Clearwater R.	DNFH	None
B	I	25,673	South Fork Clearwater R.	CAFH <sup>b</sup>	CWT 10/29/47
B	I	22,003	South Fork Clearwater R.	CAFH	CWT 10/49/37
B	I	21,340	South Fork Clearwater R.	CAFH	CWT 10/49/38
B	I	257,284	South Fork Clearwater R.	CAFH	None`
B		63,803	South Fork Clearwater R.	DNFH	CWT 05/29/37
B		675,826	South Fork Clearwater R.	DNFH	None
Total		2,394,919			
B		20,645	Clearwater R.	DNFH	CWT 05/24/19
B	H	20,705	Clearwater R.	DNFH	CWT 05/24/20
B	II	20,709	Clearwater R.	DNFH	CWT 05/24/23
B	II	20,039	Clearwater R.	DNFH	CWT 05/26/46
B	II	1,141,397	Clearwater R.	DNFH	None
B	II	349,210	Clearwater R.@ Clear Cr.	DNFH	None
B	II	19,909	South Fork Clearwater R.	DNFH	CWT 05/24/21

## Appendix D. Continued.

Strain	Age	No. of Fish	Release Site	Hatchery Rearing	Marks
B	II	20,499	South Fork Clearwater R.	DNFH	CWT 05/24/22
B	II	695,333	South Fork Clearwater R.	DNFH	None
Total		2,308,446			
B	III	210,874	American R.	DNFH	None
B	III	19,773	Clearwater R.	DNFH	CWT 05/24/24
B	III	20,320	Clearwater R.	DNFH	CWT 05/24/25
B	III	19,858	Clearwater R.	DNFH	CWT 05/24/26
B	III	19,515	Clearwater R.	DNFH	CWT 05/24/27
	III	20,547	Clearwater R.	DNFH	CWT 05/24/28
B	III	20,499	Clearwater R.	DNFH	CWT 05/24/29
B	III	20,293	Clearwater R.	DNFH	CWT 05/24/30
	III	1,051,698	Clearwater R.	DNFH	None
B	III	369,190	Clearwater R.@ Clear Cr.	DNFH	None
B	III	201,847	Eldorado Cr. (Lolo Cr.)	DNFH	None
B	III	213,827	Red R.	DNFH	None
B	III	467,757	South Fork Clearwater R.	DNFH	None
Total		2,655,998			

<sup>a</sup> DNFH = Dworshak National Fish Hatchery.

<sup>b</sup> CAFH = Clearwater Anadromous Fish Hatchery.

<sup>c</sup> Release group includes fish marked with passive integrated transponder (PIT) tags.

Appendix E. Miscellaneous coded wire tag steelhead groups that were recovered by Idaho anglers, 1994-95.

		No. of				
A	I	23,277	Wallowa R. @ Big Canyon Cr.	ODFW <sup>a</sup>	CWT 07/61/04	
A	I	24,821	Wallowa R. @ Big Canyon Cr.	ODFW	CWT 07/61/05	
b	I	9,083	Columbia R. @ RM 18.2	NMFS <sup>c</sup>	CWT 23/24/45	
b	I	9,885	Columbia R. @ RM 141	NMFS	CWT 23/30/11	
A	I	21,916	Curl Lake (Tucannon R.)	WDFW <sup>d</sup>	CWT 63/48/15	
A	I	29,701	Curl Lake (Tucannon R.)	WDFW	CWT 63/48/16	
A	I	29,517	Tucannon R.	WDFW	CWT 63/48/17	
A	I	19,323	Walla Walla R.	WDFW	CWT 63/59/42	
	II	9,199	Columbia R. @ RM 141	NMFS	CWT 23/24/45	
	II	9,571	Columbia R. @ RM 141	NMFS	CWT 23/24/46	
A	II	28,946	Curl Lake (Tucannon R.)	WDFW	CWT 63/42/63	
A	li	20,104	Touchet R.	WDFW	CWT 63/40/61	

<sup>a</sup> ODFW = Oregon Department of Fish and Wildlife.

<sup>b</sup> Mixed hatchery stocks released in 1993; strain unknown.

<sup>c</sup> NMFS = National Marine Fisheries Service.

<sup>d</sup> WDFW = Washington Department of Fish and Wildlife.

<sup>e</sup> Mixed hatchery stocks released in 1992; strain unknown.

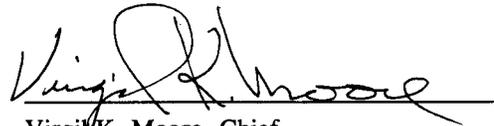
<sup>f</sup> A tag recovery from the 1991 release year; the juvenile fish held in freshwater two years before migrating to the ocean.

**Submitted by:**

Kent Ball  
Senior Fishery Research Biologist

**Approved by:**

IDAHO DEPARTMENT OF FISH AND GAME

A handwritten signature in black ink, appearing to read "Virgil K. Moore", written over a horizontal line.

Virgil K. Moore, Chief  
Bureau of Fisheries

A handwritten signature in black ink, appearing to read "Bill Hutchinson", written over a horizontal line.

Bill Hutchinson  
State Fishery Manager