

ANNUAL STOCK ASSESSMENT -
CODED WIRE TAG PROGRAM
(ODFW)

2005 Annual Report

Prepared by
Mark A. Lewis
William M. Murray

Oregon Department of Fish and Wildlife

Prepared For
Jamie Swan, Technical Representative
U.S. Department of Energy
Org. Environment, Fish & Wildlife
KEWB-4
Bonneville Power Administration
P. O. Box 3621
Portland, OR 97208-3621
Project Number: 1982-013-02
Contract Number: 21237 (formerly 4345)
Contract Number: 52300-301000-00

May 2006

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY.....	1
INTRODUCTION.....	3
METHODS AND MATERIALS.....	3
RESULTS.....	4
DISCUSSION.....	6
Big Creek Hatchery.....	13
Klaskanine Hatchery.....	14
Clatsop Economic Development Commission (CEDC).....	14
Gnat Creek Hatchery.....	15
Eagle Creek National Fish Hatchery.....	15
Clackamas Hatchery.....	16
Marion Forks Hatchery.....	17
South Santiam Hatchery.....	17
Stayton Rearing Pond.....	18
Roaring River Hatchery.....	18
McKenzie Hatchery.....	19
Leaburg Hatchery.....	19
Willamette Hatchery.....	20
Sandy Hatchery.....	20
Cascade Hatchery.....	20
Bonneville Hatchery.....	21
Oxbow Hatchery.....	22
Round Butte Hatchery.....	22
Oak Springs Hatchery.....	23
Wizard Falls Hatchery.....	23
Fall River Hatchery.....	24
Umatilla Hatchery.....	24
Irrigon Hatchery.....	25
Lookingglass Hatchery.....	25
Wallowa Hatchery.....	26
REFERENCES.....	27
APPENDIX.....	28

SUMMARY

This annual report is in fulfillment of contract obligations with Bonneville Power Administration (BPA) which is the funding source for the Oregon Department of Fish and Wildlife (ODFW) project "Annual Stock Assessment - Coded Wire Tag Program (ODFW)". Results for the 2005 contract period are as follows:

Objective 1 - In 2005 over 1 million juvenile salmon were coded-wire by this program (Table 1). This accounted for about 25% of the fish ODFW coded-wire tagged in 2005 for release in the Columbia Basin.

Objective 2 - In 2005 ODFW recovered and processed over 62,000 snouts collected from coded-wire tagged fish (Table 2). In addition, during 2005 we verified over 8,000 coded-wire tags recovered and returned to ODFW by other agencies.

Objective 3 - The survival data summarized below includes results for coded-wire groups funded by this program as well as coded-wire groups funded from other sources.

Fall Chinook

There are three stocks of hatchery fall chinook released by ODFW in the Columbia Basin; Tule, Upriver Bright, and Rogue River. Historically ODFW released tule stock fall chinook from Big Creek, Bonneville, CEDC, Klaskanine, and Stayton Pond hatcheries. Between the 1987 and 1995 brood years all but the Big Creek Hatchery releases were discontinued. The 10 year average survival of Big Creek Hatchery tule stock fall chinook was less than 0.3% (Table 3). Ocean recoveries were primarily in West Coast Vancouver Island and Washington coastal fisheries (Table 9). Freshwater recoveries were mainly at hatcheries, and secondarily in fisheries and on spawning grounds (Table 10).

The 10 year average survival of up-river bright stock fall chinook ranged from 0.10% for Umatilla Hatchery to 0.53% for Bonneville Hatchery fish released in the Umatilla River (Table 3). Survival of all three up-river bright programs has been low, but shows improvement since the 1997 brood year (Table 3). Ocean catch of up-river bright fall chinook was mainly in Alaska through West Coast Vancouver Island fisheries (Table 9). Freshwater recoveries were mainly at hatcheries, with harvest accounting for less than ½ of the total number of freshwater recoveries (Table 10). Percent of harvest above Bonneville Dam was higher for fish released above Bonneville Dam (Table 10).

The 10 year average survival of Rogue River stock fall chinook ranged from 0.7% to 1.0% for the three programs (Table 3). Survivals were low during the mid-1990's, but have improved since the 1997 brood year (Table 3). These fish were caught primarily in Oregon, and secondarily in California and Washington ocean fisheries (Table 9). However, freshwater recoveries were very different for the three groups. Fish released in Big Creek were recovered mainly at the hatchery (Table 10). Fish released in Youngs Bay and Klaskanine River are recovered mainly in gillnet fisheries (Table 10).

Spring Chinook

A variety of stocks of spring chinook are released by ODFW hatcheries in the Columbia Basin. However, the programs can be grouped by release area; lower river terminal areas, Willamette Basin, and above Bonneville Dam. Willamette Basin spring chinook stocks are released at four sites in the lower Columbia River to provide terminal fishery opportunities. The 10 year average survival of these groups ranged from 0.03% to 0.64% (Table 5). Ocean catch was mainly in Alaska and West Coast Vancouver Island fisheries (Table 9). Freshwater recoveries were mainly in lower river gillnet fisheries (Table 10).

The 10 year average survival of hatchery spring chinook released in the Willamette Basin ranged from 0.46% for McKenzie Hatchery to 0.61% for Molalla River releases (Table 4). Percent survival was generally below 0.5% through the 1995 brood, and was generally above 0.50% for the 1996 to 1999 brood years (Table 4). Ocean catch is mainly in Alaska, and secondarily in North Central British Columbia fisheries (Table 9). Freshwater recoveries are predominately at the hatchery and in sport fisheries, with harvest accounting for 30% to 50% of the total freshwater recoveries (Table 10). Freshwater harvest of Molalla River releases is over 70% of the total freshwater recoveries (Table 10), due to the lack of a terminal recovery site in the Molalla River.

The 10 year average survival of hatchery spring chinook released above Bonneville Dam ranged from 0.12% for fish released in Lookingglass Creek to 0.74% for fish released in the Deschutes River (Table 6). Survivals for these programs generally improved starting with the 1995 brood year. This is one year earlier than for the Willamette Basin spring chinook programs, which have shown improved survivals starting with the 1996 brood year. Very few of the spring chinook smolts released above Bonneville Dam, are recovered in ocean fisheries (Table 9). Freshwater recoveries were primarily at hatcheries (Table 10). However, for fish released in the Deschutes River 36% of the total freshwater recoveries were in sport and gillnet fisheries (Table 10). Fish released in the Umatilla and Imnaha Rivers had substantial recoveries on natural spawning grounds (Table 10).

Steelhead

The 10 year average survival of ODFW hatchery steelhead ranged from 0.32% for winter steelhead released in the East Fork Hood River to 0.51% for summer steelhead released in Big Canyon Creek on the Wallowa River (Table 7). Ocean recoveries of ODFW Columbia Basin hatchery steelhead are rare (Table 9). The 7 estimated ocean recoveries of steelhead tagcodes covered in this report were in British Columbia (5) and Oregon (2) fisheries. Freshwater recoveries were primarily at hatcheries and fish traps, and secondarily in sport fisheries and gillnet fisheries above Bonneville Dam (Table 10).

Coho

Releases of coho salmon from ODFW hatcheries in the Columbia basin can be divided into three groups by release location; above Bonneville Dam, at hatcheries below Bonneville Dam, and terminal areas in the Columbia Estuary. Average percent survival for the last 10 years ranged from 0.20% to 0.38% for releases above Bonneville Dam, from 1.49% to 2.17% for lower river hatchery releases, and from 1.35% to 2.65% for releases in terminal areas (Table 8).

Ocean recoveries of coho released in all three areas occurred primarily in Oregon and Washington Coastal fisheries, with smaller catches in West Coast Vancouver Island and California fisheries (Table 9). Although ocean recovery patterns are very similar, freshwater recovery patterns are very different for the three release areas. Coho released in estuary terminal areas are mainly recovered in lower river gillnet and sport fisheries, with very few hatchery recoveries (Table 10). Releases at hatcheries below Bonneville Dam are mostly recovered at hatcheries, but freshwater harvest accounts for 20% to 40% of the total freshwater recoveries (Table 10). Freshwater harvest of coho released above Bonneville Dam is lower than that of coho released below the dam, but the coho released above Bonneville Dam contribute to gillnet fisheries above the dam (Table 10). Coho released above Bonneville Dam also have fewer recoveries at hatcheries and fish traps than coho released at lower river hatcheries. However, this may be at least partly a reflection of differences in sampling locations and techniques rather than differences in survival.

INTRODUCTION

In September 1989 the Oregon Department of Fish and Wildlife received a contract from the Bonneville Power Administration to begin a project of annually coded-wire tagging production groups of anadromous salmonids not currently tagged. Some groups of hatchery production fish were already being tagged by other programs. The Bonneville Power Administration contract consisted of coded-wire tagging the remaining untagged production groups for the future data base. This project began in 1990 to coded-wire tag groups of juvenile anadromous salmon produced at Oregon hatcheries. During 2005 this contract funded approximately 26% of ODFW's Columbia Basin coded-wire tagging.

Tagging will enable evaluation of survival and contribution rates. As the fish mature and are captured in various fisheries or return to release / recapture facilities, they are sampled to recover coded-wire tags. All recoveries of coded-wire tagged fish are reported to the Pacific States Marine Fisheries Commission (PSMFC). Release and recovery information is stored along with sampling and mark/unmarked release ratios. This information is then used to estimate survival rates and catch contribution rates for each production lot of fish reared and released at each hatchery. This data is used to evaluate effectiveness of each hatchery as well as various rearing and release practices. Evaluation of the various hatchery and natural production projects will be needed to measure the effectiveness of any mitigation program and to help direct future efforts in maintaining or enhancing fish runs in the Columbia Basin. This information is also used by salmon harvest managers in developing scenarios that will allow harvest of excess hatchery fish while protecting threatened and endangered natural stocks.

The vision of the Fish and Wildlife Plan (NPPC 2000) is of a Columbia River ecosystem "...that sustains an abundant, productive, and diverse community of fish and wildlife, mitigating across the basin for adverse effects to fish and wildlife caused by the development and operation of the hydro system and providing the benefits from fish and wildlife valued by the people of the region." The Fish and Wildlife Plan is primarily a habitat-based program that focuses on protecting and rebuilding healthy, naturally producing fish and wildlife populations in the Columbia River basin. Although focused on natural production, the Fish and Wildlife Plan acknowledges a role for artificial production of fish "...to replace capacity, bolster productivity, and alleviate harvest pressure on weak, naturally spawning resident and anadromous fish populations." The coded-wire tag program is a critical component of the post-release monitoring of artificial production programs. The coded-wire tag project provides data that can be used to assist in addressing some of the basin wide artificial production strategies identified by the Fish and Wildlife Plan, including: using an experimental, adaptive management design; aggressively evaluate risks and benefits; monitor impacts to wild populations (straying and mixed stock fisheries); and reporting on results in relation to the artificial production programs objectives. The coded-wire tag project also assists in the monitoring of in river and ocean fisheries to "...routinely estimate stock composition and age specific abundance, escapement, catch, and age distribution." (NPPC 2000, Basin wide Strategies D. 5. Harvest Monitoring), and can assist in providing information for subbasin assessments, such as "...mainstem survival rates, ocean and in river harvest rates, effects of interactions with fish from other subbasins, and ocean conditions." (NPPC 2000, Subbasins A. 3. Subbasin Assessment)

METHODS AND MATERIALS

The adipose fin clip + coded-wire tag (Jefferts et.al. 1963) was chose as the method of marking because its use is well established in the region, there is a region wide sampling program for this mark, and there is an established regional

data reporting, storage, and access system. In 1989 a committee of agency and tribal scientists recommended the number of fish tagged per group for this project be based on producing a minimum of 30 actual tag recoveries per group. Based on historic levels of survival, harvest, and sampling, the following levels of tagging should meet that goal; tag 25,000 for groups with expected survivals of 0.5% or higher, and tag 50,000 for groups with expected survivals of 0.5% or lower. Some groups of 30,000 are used for Willamette Basin spring chinook to maintain equal sample size with ongoing ODFW research projects funding other tagging at those hatcheries. These levels of tagging generally agree with Reisenbichler and Hartmann (1978) who recommended tagging 25,000 fish per group for estimation of fish contribution. However, the increasing complexity of fisheries management regimes requires much higher levels of tagging (Hankin and Mohr 1990).

Objective 1. Insure all ODFW Columbia Basin hatchery coho and chinook production releases have a representative CWT group included in the release. Specific tasks and methods follow:

- a) Determine groups to tag and number of fish to tag. This is a three step process. First, all production releases are identified, based on program intent (ongoing regular smolt production), number of fish released (50,000 or more), and fish of an acceptable size (at least 2.0 gm/fish). Second, groups with adequate tagging funded by other sources are eliminated from the list. Finally, the number of fish to tag is determined based on the expected survival, generally 25,000 to 50,000 per group.
- b) The identified groups of fish are tagged based on the manufactures recommendations and standard techniques for coded-wire tagging (Jenkinson and Bilton 1981).
- c) Pre-release checks of 500 fish per group (PSC 1995) are made at least 4 weeks after tagging (Blankenship 1981).
- d) All release information is reported to the Pacific States Marine Fisheries Commission and is available on their on-line computer database.

Objective 2. Recover coded-wire tags from snouts of fish tagged under Objective 1. Specific tasks and methods follow:

- a) Snouts collected from marked fish sampled in fisheries, hatcheries, and other recovery areas are frozen and transported to the ODFW Fish Identification head lab in Clackamas, Oregon.
- b) Tags are recovered, read and stored using standard techniques. ODFW tags recovered by other agencies are sent to the Clackams lab for verification.
- c) All recovery information is reported to the Pacific States Marine Fisheries Commission and is available on their on-line computer database.

Objective 3. Prepare annual report. Specific tasks and methods follow:

- a) Compile release and recovery information from all CWT groups released in the Columbia Basin by ODFW.
- b) Calculate total percent survival [(total estimated recoveries/number of tagged fish released)*100] and percent survival by area [(total estimated recoveries in each area/number of tagged fish released)*100] for each CWT group. Calculate 10 year averages of the above information by hatchery program (species/stock/release location).
- c) Compile and submit report to BPA by 90 days after end of contract. Report published by BPA.

RESULTS

Objective 1. We completed coded-wire tagging and ad-clipping (Ad+CWT) a total of over 1.0 million juvenile 2004 brood spring chinook, fall chinook, and coho salmon (Table 1). The total represents 24 different tag groups. Operational costs for this tagging totaled about \$119,000 (without administrative overhead),

or an average of \$112 per thousand fish tagged, ranging from \$72/1,000 to \$158/1,000.

Table 1. Fish tagged and respective estimated operational costs. (January 1, 2005 to December 31, 2005).

Obj	Act	Period	Location	Brood	Sp.	CWT'd	Grps	\$/K	Tot. \$
1	1	April, 05	Bonneville	2004	CHF	113,555	2	\$92	\$10,396
1	2	April, 05	Big Creek	2004	CHF	226,294	1	\$136	\$30,716
1	3	April, 05	Bonneville	2004	CHS	55,087	2	\$108	\$5,959
1	4	May, 05	CEDC	2004	CHS	27,882	1	\$158	\$4,394
1	5	June-July, 05	Willamette	2004	CHS	129,449	4	\$133	\$17,266
1	6	May, 05	Willamette	2004	CHS	55,554	1	\$133	\$7,410
1	7	Aug., 05	Marion Forks	2004	CHS	30,174	1	\$122	\$3,691
1	8	June-July, 05	McKenzie	2004	CHS	63,070	2	\$109	\$6,889
1	9	Aug., 05	South Santiam	2004	CHS	53,641	1	n.a.	n.a.
1	10	June, 05	Big Creek	2004	Coho	58,701	2	\$127	\$7,463
1	11	Aug.-Sept., 05	Oxbow	2004	Coho	82,477	3	\$72	\$5,919
1	12	Aug., 05	Cascade	2004	Coho	56,033	2	\$130	\$7,285
1	13	Aug., 05	Bonneville	2004	Coho	27,263	1	\$111	\$3,018
1	14	Nov., 05	Sandy/CEDC	2004	Coho	81,288	1	\$102	\$8,260
			TOTALS			1,060,468	24	\$112	\$118,664

Objective 2. During 2005 we processed a total of 62,534 tags at the Clackamas laboratory. These consisted of fish from sport, commercial, tribal, hatchery, spawning ground surveys, and miscellaneous other fisheries (Table 2). During 2005 we verified 8,693 ODFW coded-wire tags recovered and returned to ODFW by other agencies.

Table 2. CWT's processed at Clackamas. (Jan. 2005 to Dec. 2005)

Fishery	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	2005 Total
River Sport	0	94	839	121	42	228	0	0	313	203	532	1	2,373
Hatchery	2,954	5,516	7,264	606	524	778	516	0	9,022	1,429	3,743	2,851	35,203
Spawning	0	0	2,214	141	51	390	0	0	0	63	96	25	2,980
Treaty Gillnet	464	0	2,804	0	0	0	0	0	0	0	0	919	4,187
Non-Treaty Gillnet	3,228	2,844	0	0	0	0	0	0	0	0	0	0	6,072
Youngs Bay Gillnet	778	0	0	0	0	0	793	0	0	0	0	109	1,680
Terminal Gillnet	0	0	936	0	0	0	838	0	0	0	0	1,009	2,783
Ocean Sport/Troll	210	0	0	0	0	0	2,081	0	0	1,862	1,145	377	5,675
Estuary Sport	0	238	396	0	0	0	0	0	0	0	0	292	926
Whiting By-Catch	425	0	0	0	0	0	0	0	0	0	0	131	556
River Seine	0	0	0	12	0	0	0	0	0	0	0	0	12
Ceremonial/Subsist	0	0	35	0	0	0	0	0	0	50	0	2	87
Totals	8,059	8,692	14,488	880	617	1,396	4,228	0	9,335	3,607	5,516	5,716	62,534
Verifications	0	97	852	0	0	2,268	0	1,577	0	0	0	3,899	8,693

Objective 3. A summary of available coded-wire tag release and recovery information for each group of Ad+CWT tagged fish released from Oregon Department

of Fish and Wildlife hatcheries in the Columbia Basin is presented in Appendix A. This includes Ad+CWT tagged fish funded by this contract as well as Ad+CWT tagged fish funded from other sources. Data in Appendix A covers the last 10 brood years with complete recovery data. Recovery data is available through the 2004 return year. This equates to complete recovery data for the 1990 - 1999 brood years for chinook salmon, 1991 - 2000 brood years for steelhead, and 1992 - 2001 brood years for coho salmon.

DISCUSSION

The following discussion section consists of two parts: 1) Tables of percent survival data for all programs (total survival, survival to ocean fishery areas, and survival to freshwater recovery areas); 2) Discussions of results for each individual ODFW Columbia Basin hatchery.

The following estimates of percent survival are based on releases of Ad+CWT marked hatchery juveniles and their subsequent recovery as adults, in ocean and freshwater fisheries, at hatcheries or fish traps, and on spawning grounds. This includes Ad+CWT tagged fish funded by this contract and fish funded from other sources. Percent survival is calculated as (total estimated recoveries/number of tagged fish released)*100. The estimated brood year percent survival is the percent survival of the Ad+CWT group representing that brood year. When more than one Ad+CWT group is available for a brood year the brood year percent survival is calculated as the weighted average of the Ad+CWT groups. Percent survival estimates are weighted by the total number of fish, both marked and unmarked, associated with each Ad+CWT group.

Table 3. Estimated 1990 through 1999 brood year percent survival for ODFW hatchery fall chinook programs in the Columbia Basin. Programs are identified by hatchery, stock, and release site. URB = Upriver Bright Stock.

Brood Year	CEDC Rogue Youngs Bay	Klaskanine Rogue Klaskanine	Big Cr Rogue Big Cr	Big Cr Tules Big Cr	Bonneville URB Tanner Cr	Bonneville URB Umatilla R	Umatilla URB Umatilla R
1990			0.78	0.09	0.29	0.02	
1991	0.15		0.51	0.17	0.06	0.04	0.00
1992			1.56	0.08	0.36	0.26	0.06
1993	1.18		0.61	0.28	0.51	0.18	0.08
1994	0.19		0.32	0.07	0.05	0.20	0.00
1995	0.22	0.20	0.18	0.03	0.21		0.13
1996	0.08	0.39		0.20	0.02	0.15	0.04
1997	0.29	0.42		0.08	0.28	0.11	0.05
1998	2.34	0.70		0.62	0.67	2.51	0.36
1999	1.68	3.39		1.05	0.52	1.26	0.15
Avg.	0.77	1.02	0.66	0.27	0.30	0.53	0.10
<i>Min.</i>	<i>0.08</i>	<i>0.20</i>	<i>0.18</i>	<i>0.03</i>	<i>0.02</i>	<i>0.02</i>	<i>0.00</i>
<i>Max.</i>	<i>2.34</i>	<i>3.39</i>	<i>1.56</i>	<i>1.05</i>	<i>0.67</i>	<i>2.51</i>	<i>0.36</i>

In using the recovery data in this report several cautions need to be kept in mind. (1) The estimated survivals are minimum survivals. Some CWT fish are caught or escape to areas that are not sampled, or are not sampled in a way that allows for estimation of the total number of CWT fish in that area. (2) Spawning ground recoveries of Ad+CWT fish are generally not expanded. Only the number of observed recoveries is available. (3) Most freshwater fisheries outside of the Columbia River system are not sampled. (4) The reduced salmon fishing seasons of the recent years have the potential to bias survival estimates. Reduced harvest should result in increased escapement. However, not

all escapement areas are sampled, or sampled equally. Some hatchery traps include a barrier across the stream while others rely on fish swimming in without any barrier. Also, some groups of fish are/were released in off-site areas without adult recapture facilities (i.e. coho salmon reared at Big Creek Hatchery and released in the Tualatin River).

Table 4. Estimated 1990 through 1999 brood year percent survival for ODFW spring chinook programs (hatchery/stock/release site) in the Willamette Basin.

Brood Year	Clackamas Clackamas Sandy	Clackamas Clackamas Clackamas	Willamette S Santiam Molalla R	Marion Forks N Santiam N Santiam	McKenzie McKenzie McKenzie	S Santiam S Santiam S Santiam	Willamette M Fk Will. M Fk Will.
1990		0.46		0.17	0.11	0.42	0.44
1991	0.08	0.22		0.36	0.22	0.35	0.41
1992	0.05	0.26		0.15	0.18	0.18	0.34
1993	0.13	0.44		0.25	0.19	0.30	0.51
1994	0.26	0.46		0.29	0.23	0.35	0.51
1995	0.12	0.44	0.04	0.39	0.31	0.56	0.24
1996	0.37	0.47	0.48	0.73	0.61	0.45	0.74
1997	0.19	0.58	0.53	0.80	0.62	0.56	0.94
1998	1.18	2.01	1.49	2.10	1.45	1.27	1.27
1999	0.78	0.66	0.50	0.74	0.68	0.61	0.51
Avg.	0.35	0.60	0.61	0.60	0.46	0.51	0.59
<i>Min.</i>	<i>0.05</i>	<i>0.22</i>	<i>0.04</i>	<i>0.15</i>	<i>0.11</i>	<i>0.18</i>	<i>0.24</i>
<i>Max.</i>	<i>1.18</i>	<i>2.01</i>	<i>1.49</i>	<i>2.10</i>	<i>1.45</i>	<i>1.27</i>	<i>1.27</i>

Table 5. Estimated 1990 through 1999 brood year percent survival for Willamette stock spring chinook released in terminal fishery areas. Various = Different Willamette Basin spring chinook stocks used in different years.

Brood Year	CEDC Various Blind Slough	CEDC Various Tongue Point	CEDC Various Youngs Bay	CEDC Various SF Klaskanine
1990			0.15	0.02
1991			0.00	0.02
1992			0.36	0.03
1993			0.75	0.07
1994	0.12	0.07	0.16	0.02
1995	0.26	0.22	0.10	0.04
1996	0.22	0.76	1.51	
1997	0.49	0.94	1.16	
1998	1.33	1.20	0.91	
1999	1.36		1.24	
Avg.	0.63	0.64	0.63	0.03
<i>Min.</i>	<i>0.12</i>	<i>0.07</i>	<i>0.00</i>	<i>0.02</i>
<i>Max.</i>	<i>1.36</i>	<i>1.20</i>	<i>1.51</i>	<i>0.07</i>

Table 6. Estimated 1990 through 1999 brood year percent survival for ODFW spring chinook programs in the Columbia Basin above Bonneville Dam. Programs are identified by hatchery, stock, and release site.

Brood Year	Round Butte Deschutes Deschutes R	Round Butte Deschutes W F Hood R	Umatilla Carson Umatilla R	Lookingglass Rapid River Lookingglass Cr	Lookingglass Imnaha Imnaha R
1990	0.29			0.04	0.02
1991	0.32	0.00	0.00	0.03	0.01
1992	0.47		0.01	0.09	0.01
1993	0.10		0.08	0.09	0.08
1994	0.08	0.01	0.00	0.05	0.02
1995	0.30	0.03	0.64	0.33	0.35
1996	0.18	0.00	0.26	0.26	0.43
1997	0.95	0.39	0.20	0.26	0.37
1998	3.13	1.19	0.45	0.06	0.65
1999	1.59	0.03	0.27	0.02	0.21
Avg.	0.74	0.24	0.21	0.12	0.22
<i>Min.</i>	<i>0.08</i>	<i>0.00</i>	<i>0.00</i>	<i>0.02</i>	<i>0.01</i>
<i>Max.</i>	<i>3.13</i>	<i>1.19</i>	<i>0.64</i>	<i>0.33</i>	<i>0.65</i>

Table 7. Estimated 1991 through 2000 brood year percent survival for ODFW steelhead programs in the Columbia Basin. Programs are identified by hatchery, race (summer vs. winter), stock, and release site.

Brood Year	Umatilla Summer Umatilla Umatilla R	Irrigon Summer Imnaha Little Sheep Cr	Irrigon Summer Wallowa Big Canyon Cr	Irrigon Summer Wallowa Spring Cr	Oak Springs Winter Hood R E Fk Hood R
1991	0.08	0.01	0.10	0.08	
1992	0.39	0.23	0.35	0.27	
1993	0.37	0.22	0.79	0.74	0.36
1994	0.98	0.46	0.61	0.44	0.38
1995	0.36	0.35	0.67	0.57	0.08
1996	0.26	0.26	0.30	0.26	
1997	0.36	0.40	0.44	0.43	
1998	0.27	0.45	0.58	0.46	
1999	0.45	0.60	1.06	1.02	0.47
2000	0.07	0.39	0.23	0.27	
Avg.	0.36	0.34	0.51	0.45	0.32
<i>Min.</i>	<i>0.07</i>	<i>0.01</i>	<i>0.10</i>	<i>0.08</i>	<i>0.08</i>
<i>Max.</i>	<i>0.98</i>	<i>0.60</i>	<i>1.06</i>	<i>1.02</i>	<i>0.47</i>

Table 8. Estimated 1992 through 2001 brood year percent survival for ODFW coho programs in the Columbia Basin. Programs are identified by hatchery, stock, and release site.

Brood Year	CEDC Tanner Cr Youngs Bay	CEDC Clackamas R Youngs Bay	CEDC Klaskanine R SF Klaskanine R	CEDC Tanner Cr Blind Sl.	CEDC Tanner Cr Tongue Pt.	Big Cr Big Cr Big Cr	Bonneville Tanner Cr Tanner Cr	Sandy Sandy R Sandy R	Cascade Tanner Cr Umatilla R	Cascade Tanner Cr Yakima R
1992	1.32	0.58	0.62			0.73	0.42	0.45	0.24	0.13
1993	0.69	0.27	0.97	1.95	3.09	0.77	0.86	0.33	0.06	0.09
1994	0.45	1.44	0.50	1.30	0.90	0.91	1.41	0.32	0.05	0.08
1995	1.46		1.73	0.07	0.53	0.56	0.51	0.68	0.40	0.21
1996	1.20	1.88	1.08	1.76	4.34	0.52	0.62	0.47	0.25	0.19
1997	0.85	2.86	0.50	1.98	1.60	1.56	1.52	1.94	0.24	0.48
1998	1.92	2.22	4.57	2.32	3.61	4.04	5.89	3.52	1.15	
1999	0.95	3.78	3.00	0.01	1.21	3.73	2.65	1.74	0.19	
2000	4.18	8.57	7.81	2.71	3.57	4.24	5.31	2.67	0.66	
2001	0.72	2.21	1.23	0.03	1.52	1.23	2.49	2.82	0.60	
Avg.	1.37	2.65	2.20	1.35	2.26	1.83	2.17	1.49	0.38	0.20
<i>Min.</i>	<i>0.45</i>	<i>0.27</i>	<i>0.50</i>	<i>0.01</i>	<i>0.53</i>	<i>0.52</i>	<i>0.42</i>	<i>0.32</i>	<i>0.05</i>	<i>0.08</i>
<i>Max.</i>	<i>4.18</i>	<i>8.57</i>	<i>7.81</i>	<i>2.71</i>	<i>4.34</i>	<i>4.24</i>	<i>5.89</i>	<i>3.52</i>	<i>1.15</i>	<i>0.48</i>

Table 9. Average percent survival to ocean recovery area for ODFW hatchery programs in the Columbia Basin. Data are for the last ten completed brood years, chinook 1990-1999, steelhead 1991-2000, and coho 1992-2001. AK = Alaska, NCBC = North Central British Columbia, WCVI = West Coast Vancouver Island, GST = Georgia Strait, PS = Puget Sound, WA = Washington Coast, CA = California.

Stock Group	AK	NCBC	WCVI	GST	PS	WA	Oregon Ocean Catch Area ^a					CA
							1&2	3	4	5	6&7	
FALL CHINOOK SALMON												
CEDC (Rogue) ^b	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.08	0.03	0.00	0.03
Klaskanine (Rogue) ^b	0.00	0.00	0.01	0.00	0.00	0.05	0.01	0.05	0.09	0.08	0.00	0.04
Big Cr (Rogue) ^b	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.14	0.02	0.00	0.03
Big Cr (Tule)	0.00	0.00	0.05	0.00	0.00	0.03	0.01	0.00	0.01	0.00	0.00	0.00
Bonneville (URB)	0.06	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bonn. (Umatilla) ^b	0.05	0.02	0.04	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00
Umatilla (URB) ^b	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPRING CHINOOK SALMON												
CEDC (Youngs Bay)	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CEDC (SF Klask.) ^b	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CEDC (Blind Sl.) ^b	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CEDC (Tongue Pt.) ^b	0.03	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Clackamas	0.04	0.01	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Molalla River ^b	0.10	0.02	0.05	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00
Marion Forks	0.08	0.01	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
McKenzie	0.03	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
South Santiam	0.05	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Willamette	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sandy River ^b	0.11	0.02	0.05	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.00
W Fk Hood River ^b	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Round Butte	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Umatilla ^b	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lookingglass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Imnaha River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COHO SALMON												
CEDC (YB Clak Stk) ^b	0.00	0.00	0.00	0.00	0.00	0.11	0.05	0.02	0.04	0.03	0.00	0.00
CEDC (TB Tanr Stk)	0.00	0.00	0.00	0.00	0.00	0.09	0.02	0.01	0.02	0.02	0.00	0.00
CEDC (SF Klask.)	0.00	0.00	0.00	0.00	0.00	0.16	0.04	0.02	0.05	0.04	0.00	0.01
CEDC (Blind Sl) ^b	0.00	0.00	0.00	0.00	0.00	0.04	0.02	0.01	0.02	0.01	0.00	0.00
CEDC (Tongue Pt) ^b	0.00	0.00	0.02	0.00	0.01	0.11	0.04	0.02	0.05	0.03	0.00	0.00
Big Creek	0.00	0.00	0.01	0.00	0.00	0.09	0.04	0.01	0.06	0.03	0.00	0.00
Sandy	0.00	0.01	0.01	0.00	0.00	0.16	0.07	0.02	0.06	0.05	0.00	0.00
Bonneville	0.00	0.00	0.00	0.00	0.00	0.14	0.06	0.02	0.06	0.04	0.00	0.00
Umatilla River	0.00	0.00	0.00	0.00	0.00	0.04	0.01	0.01	0.01	0.02	0.00	0.00
Yakima River ^b	0.00	0.00	0.00	0.00	0.00	0.04	0.01	0.00	0.01	0.01	0.00	0.00
SUMMER STEELHEAD												
Umatilla River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Little Sheep Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Big Canyon Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Spring Creek	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

a = Oregon ocean areas displayed in Figure 1.

b = Does not include data from all ten years.

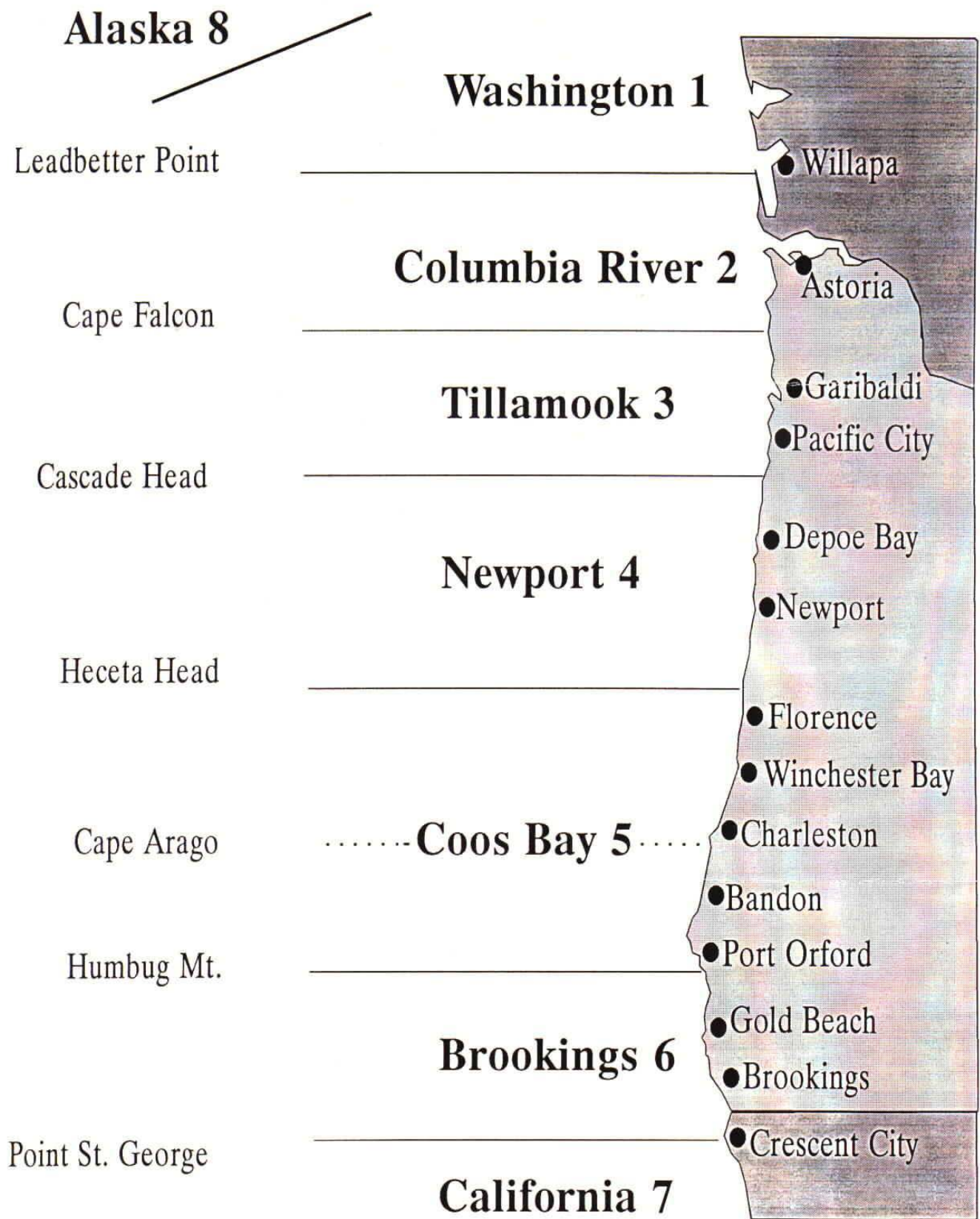


Figure 1. Catch areas for Oregon ocean salmon fisheries.

Table 10. Average percent survival to freshwater recovery area for ODFW hatchery programs in the Columbia Basin. Data are for the last ten completed brood years, chinook 1990-1999, steelhead 1991-2000, and coho 1992-2001. Gillnet above and below are in relation to Bonneville Dam. Tribal is tribal subsistence and ceremonial. SGS is spawning ground survey. Other is miscellaneous recoveries, mostly seine.

Stock Group	Sport	Gillnet Below	Gillnet Above	Tribal	Hatchery	SGS	Other
FALL CHINOOK SALMON							
CEDC (Rogue) ^a	0.06	0.49	0.00	0.00	0.02	0.01	0.00
Klakanine (Rogue) ^a	0.09	0.42	0.00	0.00	0.15	0.02	0.00
Big Cr (Rogue) ^a	0.04	0.03	0.00	0.00	0.34	0.03	0.00
Big Cr (Tule)	0.01	0.02	0.00	0.00	0.10	0.03	0.00
Bonneville (URB)	0.01	0.04	0.02	0.00	0.11	0.02	0.00
Bonn. (Umatilla) ^a	0.04	0.02	0.05	0.00	0.25	0.02	0.00
Umatilla (URB) ^a	0.01	0.01	0.01	0.00	0.03	0.01	0.00
SPRING CHINOOK SALMON							
CEDC (Youngs Bay)	0.01	0.55	0.00	0.00	0.03	0.00	0.01
CEDC (SF Klaskanine) ^a	0.00	0.02	0.00	0.00	0.01	0.00	0.00
CEDC (Blind Sl.) ^a	0.04	0.49	0.00	0.00	0.04	0.00	0.00
CEDC (Tongue Pt.) ^a	0.04	0.43	0.00	0.00	0.13	0.01	0.00
Clackamas	0.17	0.02	0.00	0.00	0.33	0.00	0.00
Molalla River ^a	0.22	0.08	0.00	0.00	0.06	0.05	0.00
Marion Forks	0.16	0.06	0.00	0.00	0.24	0.03	0.00
McKenzie	0.09	0.03	0.00	0.00	0.29	0.01	0.00
South Santiam	0.17	0.06	0.00	0.00	0.19	0.02	0.00
Willamette	0.13	0.03	0.00	0.00	0.37	0.00	0.00
Sandy River ^a	0.05	0.03	0.00	0.00	0.07	0.00	0.00
W Fk Hood River ^a	0.05	0.01	0.03	0.00	0.14	0.00	0.00
Round Butte	0.16	0.03	0.01	0.01	0.53	0.00	0.00
Umatilla ^a	0.03	0.01	0.01	0.00	0.09	0.06	0.00
Lookingglass	0.02	0.00	0.00	0.00	0.09	0.01	0.00
Imnaha River	0.02	0.00	0.01	0.00	0.12	0.06	0.00
COHO SALMON							
CEDC (YB-Clack. Stk) ^a	0.17	2.22	0.00	0.00	0.02	0.00	0.00
CEDC (YB-Tanner Stk)	0.09	1.10	0.00	0.00	0.01	0.00	0.00
CEDC (SF Klask.)	0.14	1.46	0.00	0.00	0.28	0.01	0.00
CEDC (Blind Sl) ^a	0.08	1.15	0.00	0.00	0.01	0.00	0.01
CEDC (Tongue Pt) ^a	0.21	1.71	0.00	0.00	0.06	0.00	0.01
Big Creek	0.13	0.52	0.00	0.00	0.93	0.01	0.00
Sandy	0.17	0.16	0.00	0.00	0.79	0.00	0.00
Bonneville	0.24	0.11	0.00	0.00	1.48	0.01	0.00
Umatilla River	0.09	0.03	0.02	0.00	0.15	0.00	0.00
Yakima River ^a	0.06	0.02	0.03	0.00	0.02	0.00	0.00
SUMMER STEELHEAD							
Umatilla River	0.10	0.00	0.03	0.00	0.22	0.00	0.00
Little Sheep Creek	0.13	0.00	0.03	0.00	0.18	0.00	0.00
Big Canyon Creek	0.23	0.00	0.05	0.00	0.24	0.00	0.00
Spring Creek	0.18	0.00	0.06	0.00	0.22	0.00	0.00

^a = Does not include data from all ten years.

Big Creek Hatchery

Big Creek Hatchery is located 2 miles south of Knappa off Highway 30 near the mouth of the Columbia River. The hatchery, originally built in 1939-41, rears and releases tule and Rogue fall chinook, coho salmon, and winter steelhead. The winter steelhead have not been marked with coded-wire tags for evaluation.

Tule stock fall chinook 1990 to 1999 broods percent survival averaged 0.27%, and ranged from 0.03% to 1.05% (Table 3). Survival had been consistently low until the 1998 brood year (Figure 2). Ocean catch was primarily in West Coast Vancouver Island and Washington Coastal fisheries (Table 9). Freshwater recoveries were mainly at hatcheries, with freshwater sport and lower river gillnet catch composing about 20% of the total freshwater recoveries (Table 10).

Experimental releases of Rogue River stock fall chinook at Big Creek began in 1983. Good survival and contribution rates to Oregon fisheries resulted in expansion of the program. Rogue River stock fall chinook, 1990 to 1995 broods, percent survival averaged 0.66%, and ranged from 0.18% to 1.56% (Table 3). Survival generally declined over those brood years (Figure 2). Ocean catch was mainly in Oregon fisheries, with smaller contributions to California and Washington Coast fisheries (Table 9). Freshwater recoveries were mainly at hatcheries, with freshwater sport and lower river gillnet catch composing 16% of the total freshwater recoveries (Table 10). Beginning with the 1995 brood the release site was switched to Klaskanine Hatchery, to reduce straying.

The 1992 to 2001 brood Big Creek stock coho released in Big Creek survived at an average rate of 1.83%, and ranged from 0.52% to 4.24% (Table 8). Coho survival was generally low for the 1992 to 1996 broods, but has increased since the 1996 brood (Figure 2). Ocean catch was mainly in Oregon and Washington coastal fisheries (Table 9). Freshwater recoveries were mainly at hatcheries, with freshwater sport and lower river gillnet catch composing 41% of the total freshwater recoveries (Table 10). Results for the same coho stock was released in the Tualatin River are reported in Appendix Table A. Releases in the Tualatin River were discontinued after the 1996 brood.

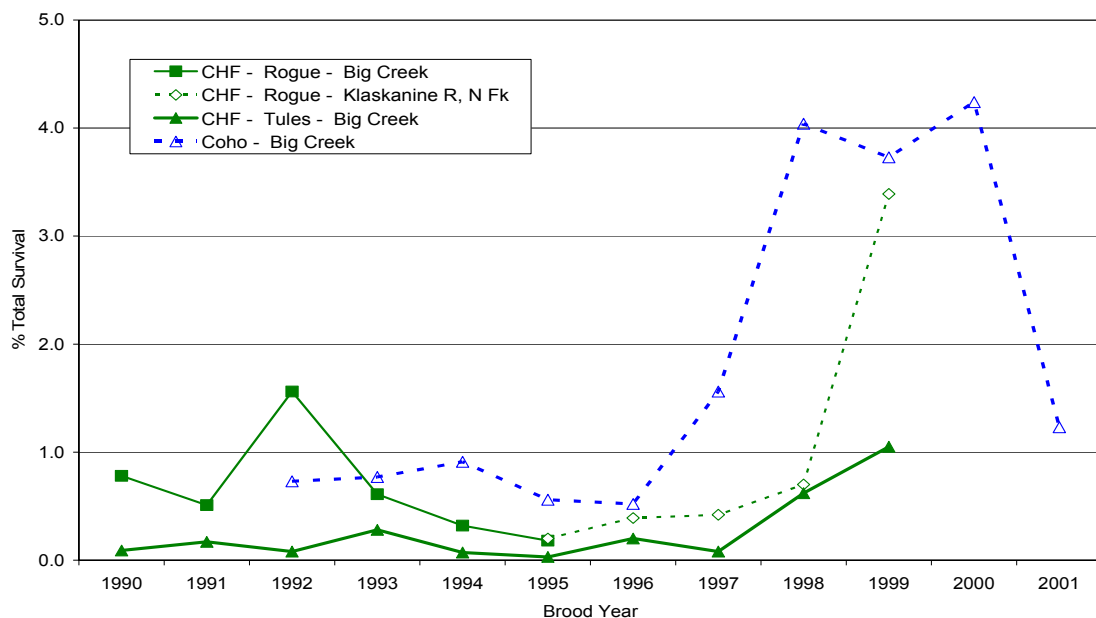


Figure 2. Percent survival by brood year for Big Creek Hatchery programs.

Klaskanine Hatchery

Klaskanine Hatchery is located 21 miles southeast of Astoria, Oregon on Highway 202 adjacent to the Klaskanine River. The hatchery, originally built in 1913, was expanded and remodeled in 1953. Budget cuts have reduced hatchery staffing to 1 person and eliminated all rearing programs. Historically, the hatchery reared tule fall chinook, coho and winter steelhead. Presently, the hatchery serves as an acclimation and adult recapture facility for Rogue stock fall chinook and Big Creek stock winter steelhead. The winter steelhead have not been marked with coded-wire tags for evaluation.

Rogue Stock fall chinook releases began with the 1995 brood. Average survival for the 1995 to 1999 brood years was 1.02%, which is comparable to the same stock released in other lower Columbia River areas (Table 3). Ocean catch was primarily in Oregon fisheries, with smaller contributions to California and Washington Coastal fisheries (Table 9). Freshwater recoveries were primarily in lower river gillnet fisheries (Table 10).

The tule fall chinook program was discontinued after the 1988 brood year, and the coho program was discontinued after the 1994 brood year. Release and recovery data for Klaskanine Hatchery 1992 to 1994 brood coho is reported the Appendix.

Clatsop Economic Development Commission (CEDC)

CEDC operates freshwater ponds and estuary net pens in Youngs Bay and adjacent areas near Astoria, Oregon. Their programs include releases of coho, fall chinook, and spring chinook salmon in cooperation with ODFW hatcheries.

Tule fall chinook production was discontinued after the 1987 brood year. Experimental releases of Rogue stock fall chinook in Blind Slough and Tongue Point were begun with the 1995 brood year. Upriver Bright stock fall chinook were released in Youngs Bay (1994 & 1997 broods) and at Tongue Point (1995 & 1996 broods). Release and recovery data for CWT groups associated with these programs is reported in Appendix Table A.

Rogue River stock fall chinook released in Youngs Bay/South Fork Klaskanine River (1990 to 1999 broods) survived at an average rate of 0.77% and ranged from 0.08% to 2.34% (Table 3). Survival was generally low through the 1997 brood, but has increased substantially since then (Figure 3). Ocean catch was primarily in Oregon fisheries, with smaller contributions to California and Washington Coastal fisheries (Table 9). Freshwater recoveries were primarily in lower river gillnet fisheries (Table 10).

Release of Willamette Basin spring chinook by CEDC began with the 1988 brood. A variety of different Willamette Basin stocks have been used over the years. The original releases were in Youngs Bay and South Fork Klaskanine River. The program was expanded to Blind Slough and Tongue Point beginning with the 1994 brood year. Releases in South Fork Klaskanine River were discontinued after the 1995 brood year. Spring chinook released in terminal areas (1990 to 1999 broods) had similar average survivals; Blind Slough 0.63%, Tongue Point 0.64%, and Youngs Bay 0.63% (Table 4). Survival of spring chinook released in the estuary terminal areas has generally increased since the 1994 brood year (Figure 3). The very few spring chinook released by CEDC, that are recovered in the ocean, are caught primarily in Alaskan and Canadian ocean fisheries (Table 9). Freshwater recoveries are primarily in lower river gillnet fisheries, with a small number recovered at hatcheries and in freshwater fisheries (Table 10).

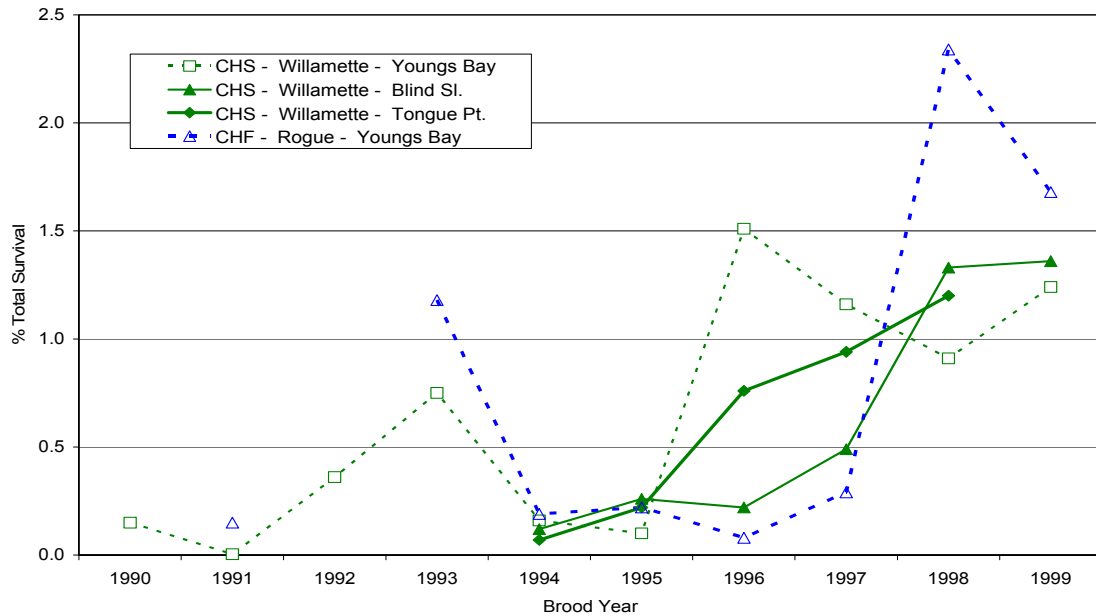


Figure 3. Percent survival by brood year for CEDC chinook programs.

Releases of coho salmon in Columbia Estuary terminal areas use a variety of stocks and release locations (Appendix Table A). Using data for five of the longer-term CEDC coho stock/release site data sets (brood years 1992 through 2001) 10 year average survival ranged from 1.35% to 2.65% (Table 8). Survival has been highly variable for these programs over the last 10 brood years (Figure 4). Survival of coho released by CEDC is generally higher than that seen for the same stocks released from ODFW lower Columbia hatcheries (Table 8). Ocean catch of CEDC coho is very similar to that of coho salmon from ODFW lower Columbia hatcheries, mainly in Oregon and Washington coastal fisheries (Table 9). Percent survival to freshwater sport fisheries is very similar for CEDC and other ODFW Columbia Basin coho programs (Table 10). However, coho released by CEDC have much higher recoveries in gillnet fisheries and much lower recoveries at hatcheries than the same stocks released from ODFW Columbia Basin hatcheries (Table 10).

Gnat Creek Hatchery

Gnat Creek Hatchery is located east of Knappa off Highway 30 on Gnat Creek a tributary to the Lower Columbia River. Gnat Creek Hatchery released summer and winter steelhead and cutthroat trout, none of which were coded-wire tagged for evaluation. Due to budget cuts the hatchery was switched in 1996 to rearing Willamette Basin stock spring chinook for acclimation and release in lower Columbia River net pens in cooperation with CEDC. For discussion of these programs see the CEDC section above.

Eagle Creek National Fish Hatchery

Eagle Creek National Fish Hatchery (NFH) is located on Eagle Creek a tributary of the Clackamas River southeast of Portland. Eagle Creek NFH presently rears and releases coho salmon in Eagle Creek. Additional coho are reared for ODFW, and are transported to the CEDC net pens for acclimation in Youngs Bay near Astoria. For results of the Youngs Bay releases see the CEDC section above.

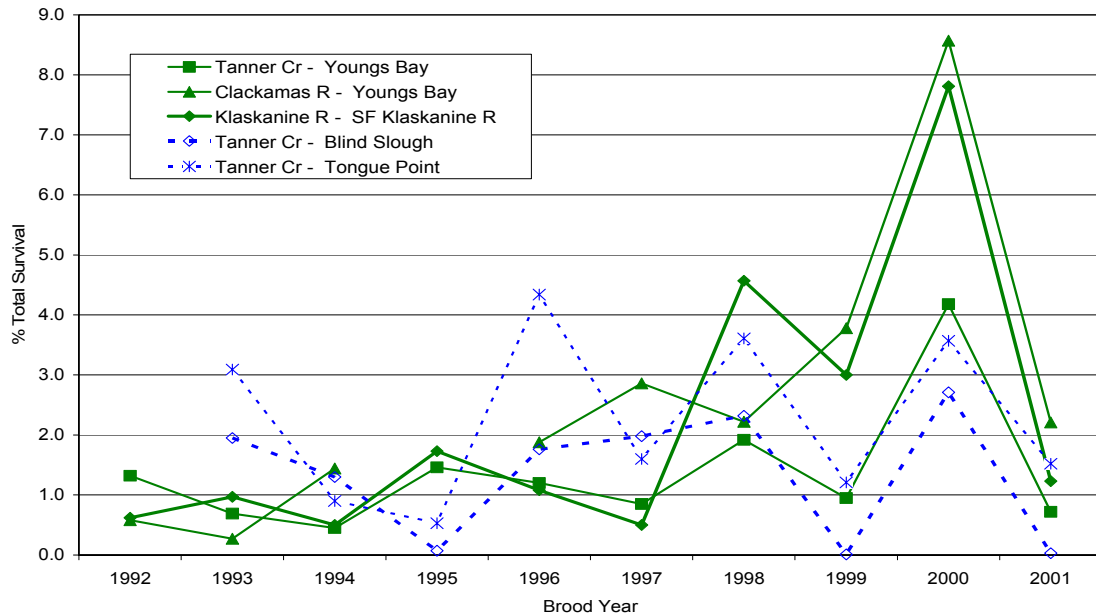


Figure 4. Percent survival by brood year for CEDC coho programs.

Clackamas Hatchery

Clackamas Hatchery is located on the Clackamas River 4 miles west of Estacada near McIver Park. Clackamas Hatchery rears and releases spring chinook salmon, summer and winter steelhead. Due to water quality and quantity limits, eggs collected at Clackamas Hatchery are sent to other hatcheries for incubation and early rearing. Steelhead eggs go to Irrigon and Oak Springs hatcheries. Spring chinook eggs go to Willamette and Oxbow for incubation and then to Marion forks for rearing. Juveniles are then returned to Clackamas Hatchery for final rearing and release. None of the Clackamas Hatchery summer and winter steelhead releases have been marked with coded-wire tags for evaluation.

The 1990 to 1999 brood Clackamas River stock spring chinook released in the Clackamas River survived at an average rate of 0.60% and ranged from 0.22% to 2.01% (Table 4). The same stock released in the Sandy River (1991 to 1999 broods) survived at an average rate of 0.35% and ranged from 0.05% to 1.18% (Table 4). For the 1990 to 1997 brood years Clackamas Hatchery spring chinook survival was fairly consistent at about 0.5% (Figure 5). However, survival jumped to almost 2.0% in 1998 (Figure 5), the second highest for any 1998 brood Willamette Basin spring chinook program. The same stock of hatchery spring chinook released in the Sandy River showed a similar pattern in survival but the absolute values were lower (Figure 5). This is most likely the result of much lower levels of sampling for CWT spring chinook in the Sandy Basin.

Ocean recoveries of the two groups were fairly similar, predominately in Alaskan and Canadian (West Coast Vancouver Island and North Central British Columbia) fisheries (Table 9). Freshwater recoveries are mainly at hatcheries and fish traps, with freshwater sport and lower river gillnet fisheries accounting for 37% to 52% of the total freshwater recoveries for the Clackamas River and Sandy River release groups, respectively (Table 10).

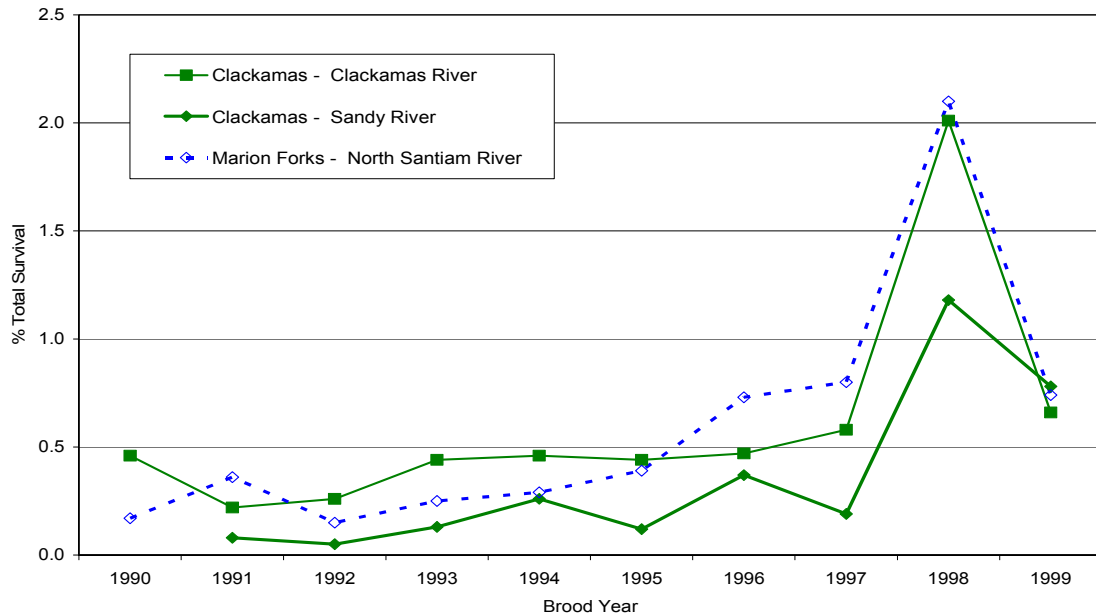


Figure 5. Percent survival by brood year for Clackamas and Marion Forks Hatchery spring chinook programs.

Marion Forks Hatchery

Marion Forks Hatchery is located on the North Santiam River 10 miles east of Idana along Highway 22. Marion Forks Hatchery rears and releases spring chinook salmon, winter steelhead, rainbow and cutthroat trout. Although prior brood years of winter steelhead have been coded-wire tagged, none were tagged for the current 10 brood years. All other rainbow and cutthroat trout released by the Marion Forks Hatchery were not coded-wire tagged for evaluation.

The 1990 to 1999 brood years of Marion Forks spring chinook survived at an average rate of 0.60% and ranged from 0.15% to 2.10% (Table 4). Survival for Marion Forks Hatchery spring chinook was below 0.5% for the 1990 to 1995 broods (Figure 5). There is an increasing trend in survival since the 10 year survival low of 0.15% for the 1992 brood (Figure 5). Survival spiked dramatically for the 1998 brood, to 2.10% (Table 4).

Ocean recoveries of these spring chinook are mainly in Alaska and British Columbia fisheries (Table 9). Marion Forks spring chinook have a relatively high average percent survival to freshwater fisheries, but relatively low survival to hatchery returns, compared with other Willamette Basin spring chinook programs (Table 10). This is most likely related to adult collection methods at the hatcheries. Marion Forks Hatchery historically only collects adult spring chinook in the fall. The other Willamette Basin spring chinook hatcheries initially open their adult traps in the summer, close them in late summer and then re-open the traps in the fall, just prior to spawning.

South Santiam Hatchery

South Santiam Hatchery is located below Foster Dam on the South Santiam River near Sweet Home. South Santiam Hatchery rears and releases spring chinook salmon and summer steelhead. Summer steelhead released by South Santiam Hatchery have not been coded-wire tagged to permit evaluation.

The 1990 to 1999 brood South Santiam spring chinook survived at an average rate of 0.51% and ranged from 0.18% to 1.27% (Table 4). Survival has generally increased since the 10 year low of 0.18% for the 1992 brood year (Figure 6). Similar to Marion Forks hatchery survival spiked dramatically for the 1998 brood, to 1.27% (Table 4).

Ocean recoveries of these spring chinook are almost exclusively in Alaskan and Canadian fisheries (Table 9). South Santiam Hatchery spring chinook freshwater recoveries are mainly hatchery returns (Table 10). Freshwater catch (sport and lower river gillnet combined) composed 43% of the average freshwater recoveries for South Santiam Hatchery spring chinook.

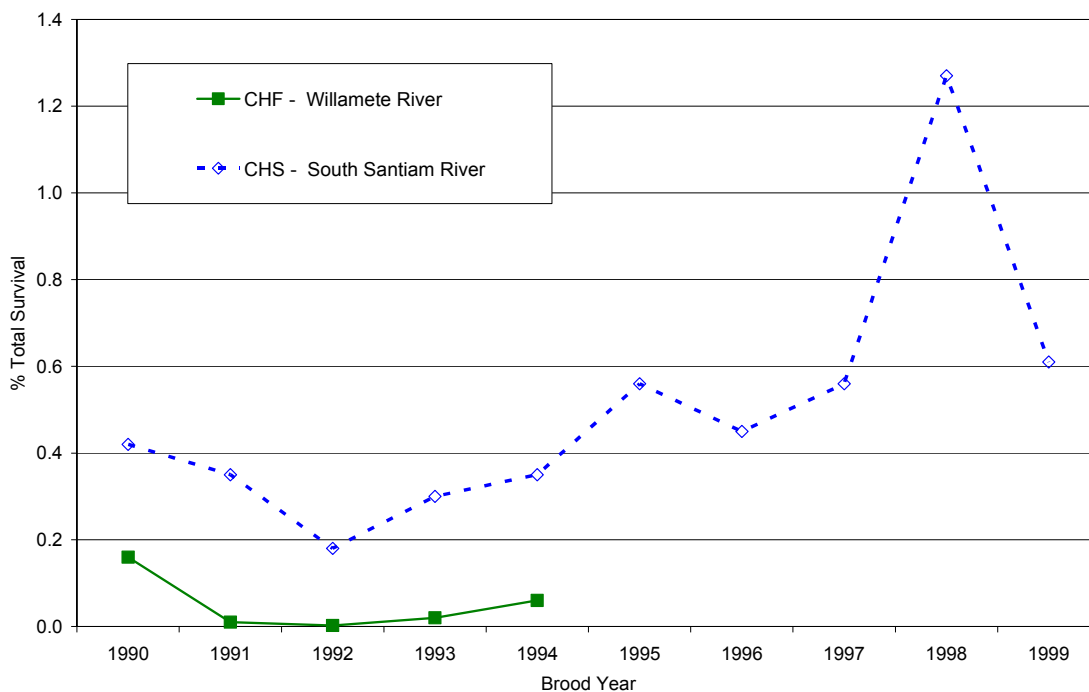


Figure 6. Percent survival by brood year for South Santiam Hatchery programs.

Stayton Rearing Pond

Stayton Pond, a refurbished gravel pit located south of the city of Stayton, was operated as a satellite of the South Santiam Hatchery. Stayton Pond reared tule stock fall chinook, but production was discontinued after the 1994 brood year due to budget cuts and flood damage to the facility during the 1996 flood.

The 1990 to 1994 brood Stayton Pond fall chinook survived at an average rate of 0.05%, ranging from 0.00% to 0.16% (Appendix Table A). Survival was consistently below 0.2% for all brood years (Figure 6). Ocean recoveries were mostly in West Coast Vancouver Island and Washington Coastal fisheries (Appendix Table A).

Roaring River Hatchery

Roaring River Hatchery is located 11 miles southeast of Scio off State Highway 226. The hatchery rears and releases winter steelhead and rainbow trout. None of these fish have been coded-wire tagged for evaluation.

McKenzie Hatchery

McKenzie Hatchery is located on the McKenzie River 16 miles east of Springfield. The hatchery rears and releases spring chinook salmon and summer steelhead. None of the summer steelhead released from McKenzie Hatchery have been coded-wire tagged for evaluation.

The 1990 to 1999 brood McKenzie Hatchery spring chinook survived at an average rate of 0.46% and ranged from 0.11% to 1.45% (Table 4). Survival was low from the 1990 through 1995 brood years, but has increased since then, reaching over 1.4% for the 1998 brood (Figure 7).

Ocean recoveries of these spring chinook are almost exclusively in Alaskan and West Coast Vancouver Island fisheries (Table 9). McKenzie Hatchery spring chinook freshwater recoveries are mainly hatchery returns (Table 10). Freshwater catch (sport and lower river gillnet combined) composed 28% of the average freshwater recoveries for McKenzie Hatchery spring chinook.

McKenzie Hatchery was involved in a net pen acclimation experiment for spring chinook. The goal of the experiment was to determine the effect of both acclimated and direct smolt releases at several sites below Willamette Falls, on catch in the Lower Willamette sport fishery. The experiment involved releases for the 1994 to 1999 brood years, although some fish were also released below Willamette falls for the 1992 and 1993 broods. Results by tagcode are reported in Appendix Table A. For a discussion of the experiment see Schroeder et.al. (2001).

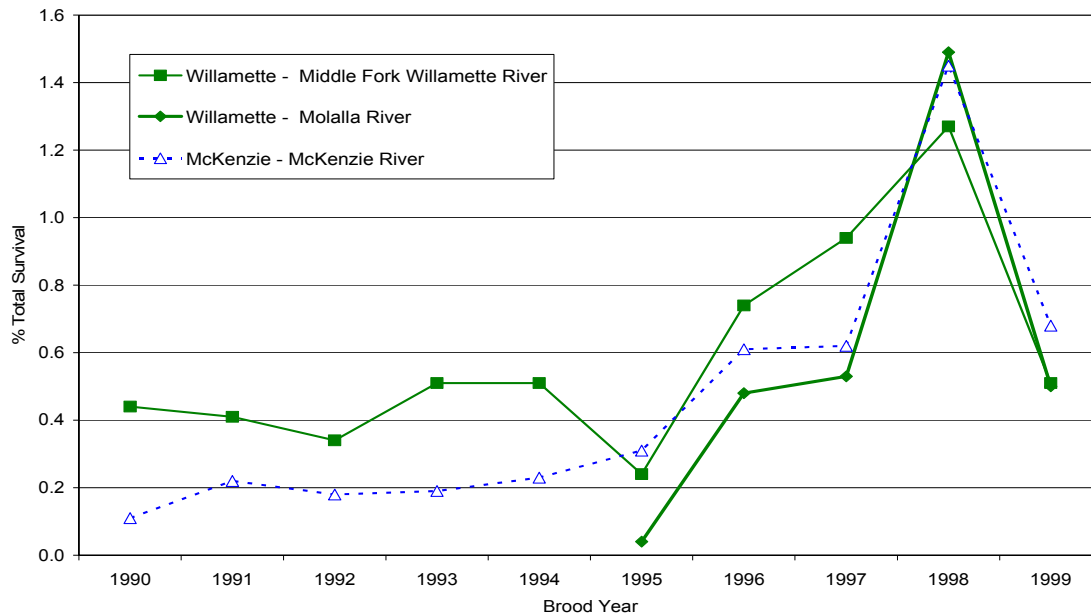


Figure 7. Percent survival by brood for Willamette & McKenzie hatchery spring chinook programs.

Leaburg Hatchery

Leaburg Hatchery is located on the McKenzie River off Highway 126, 18 miles east of Springfield. Leaburg Hatchery rears and releases summer steelhead and rainbow trout. None of these fish have been coded-wire tagged for evaluation.

Willamette Hatchery

Willamette Hatchery is located on the Middle Fork Willamette River 1 mile east of Oakridge off Highway 58. Willamette Hatchery rears and releases spring chinook salmon, summer and winter steelhead and rainbow trout. None of the steelhead or rainbow trout have been coded-wire tagged for evaluation.

The 1990 to 1999 brood Willamette Hatchery spring chinook survived at an average rate of 0.59% and ranged from 0.24% to 1.27% (Table 4). Survival was about 0.5% or less consistently from the 1990 to 1995 broods, but has increased since then (Figure 7). Willamette Hatchery releases South Santiam stock spring chinook in the Molalla River. These fish averaged 0.61% survival for the 1995 to 1999 broods (Table 4). This was the highest average survival in Table 4, but doesn't include the poor survival brood years from 1990 through 1994.

Ocean recoveries of spring chinook released from Willamette Hatchery are mainly in Alaska and British Columbia fisheries (Table 9). Willamette Hatchery spring chinook freshwater recoveries are mainly hatchery returns with freshwater catch composing 31% of the average total freshwater recoveries (Table 10). Catch composed 73% of all freshwater recoveries of Molalla River releases, due to the lack of a terminal recovery location in the Molalla River (Table 10).

Sandy Hatchery

Sandy Hatchery is located on the Sandy River 1 mile northeast of the city of Sandy off Highway 26. Sandy Hatchery rears and releases coho salmon, rainbow and brook trout. Starting with the 1999 brood year Sandy Hatchery began acclimating and releasing a portion of the spring chinook reared at Clackamas Hatchery and released in the Sandy Basin. None of the rainbow or brook trout released by Sandy Hatchery were coded-wire tagged for evaluation.

The 1992 to 2001 brood years of Sandy River stock coho released in the Sandy River survived at an average rate of 1.49%, and ranged from 0.32% to 3.52% (Table 8). Coho survival was generally low for the 1992 to 1996 broods, but has increased since then (Figure 8). Ocean catch was mainly in Oregon and Washington coastal fisheries (Table 9). Sandy Hatchery coho freshwater recoveries are mainly hatchery returns (Table 10). Freshwater sport and lower river gillnet catch composed 29% of the average freshwater recoveries for Sandy Hatchery coho.

Cascade Hatchery

Cascade Hatchery is located off Highway 84 just above Bonneville Dam. Cascade Hatchery rears coho salmon that are acclimated and released in the Umatilla River and in upper Columbia River tributaries.

The 1992 to 2001 brood years of Tanner Creek stock coho released in the Umatilla River survived at an average rate of 0.38%, and ranged from 0.05% to 1.15% (Table 8). The 1992 to 1997 brood years released in the Yakima River survived at an average rate of 0.20%, and ranged from 0.08% to 0.48% (Table 8). Starting with the 1998 brood year the Yakima River releases were switched to releases in the Methow and Wenatchee Rivers. Survival for 1998 to 2001 brood coho released from these two sites is reported in Appendix Table A. Survival for these above Bonneville Dam coho programs has been relatively low since the 1992 brood year (Figure 8), and is generally lower than the survival of the same stock released below Bonneville Dam (Table 8). These programs have not shown the recent large increases in survival seen for coho released below Bonneville Dam (Table 8).

Ocean catch of Tanner Creek stock coho released in the Umatilla and Yakima Rivers was mainly in Oregon and Washington coastal fisheries (Table 9). Freshwater

recoveries of these coho were mainly fisheries (Yakima) and hatcheries (Umatilla) (Table 10). Unlike coho released below Bonneville Dam, the coho released above the dam contributed to gillnet fisheries above the dam, about 50% of the total gillnet catch (Table 10). Percent survival to hatchery recovery for Tanner Creek stock coho released in the Umatilla and Yakima Rivers was lower than that for the same stock released below the dam (Table 10). This may be related to the sampling programs for CWT coho in the Umatilla and Yakima basin escapement.

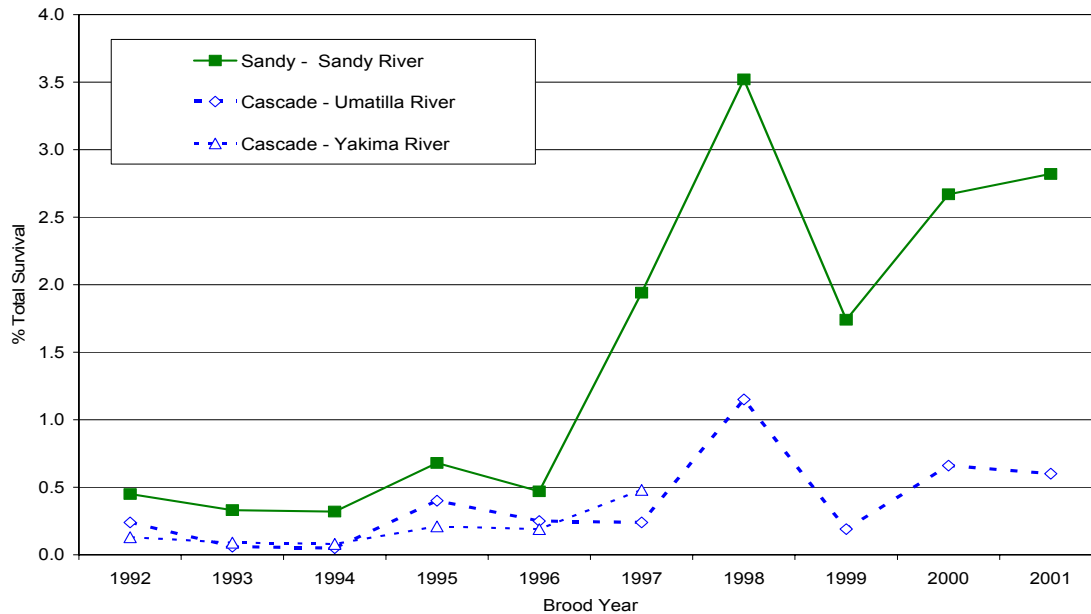


Figure 8. Percent survival by brood for Sandy & Cascade Hatchery coho programs.

Bonneville Hatchery

Bonneville Hatchery is located adjacent to the Columbia River, off Highway 84 just below Bonneville Dam. Bonneville Hatchery rears and releases up-river bright fall chinook, sockeye, and coho salmon. Bonneville Hatchery reared and released spring chinook salmon smolts until the 1992 brood year for Umatilla River releases, and the 1993 brood for West Fork Hood River releases. In addition, tule stock fall chinook production was discontinued after the 1995 brood year. Appendix Table A reports CWT release and recovery data for these programs.

Bonneville Hatchery releases up-river bright stock fall chinook in Tanner Creek and in the Umatilla River. Average percent survival for the 1990 to 1999 broods, released in Tanner Creek was 0.30%, and for fish released in Umatilla River was 0.53% (Table 3). Survival has generally been low for both groups over this time period, except for a dramatically increased survival for the 1998 brood year (Figure 9). Ocean catch for both groups was mainly in Alaskan and Canadian (West Coast Vancouver Island and North Central British Columbia) fisheries (Table 9). Freshwater recoveries were mainly hatchery returns for both groups, with freshwater catch (sport and gillnet combined) accounting for 30% to 40% of the total average freshwater recoveries (Table 10).

The 1992 to 2001 brood years of Bonneville Hatchery coho survived at an average rate of 2.17%, and ranged from 0.42% to 5.89% (Table 8). Survival of Bonneville Hatchery coho generally low for the 1992 to 1996 brood years, but has increased substantially since then (Figure 9). Ocean catch was mainly in Oregon and Washington coastal fisheries (Table 9). Bonneville Hatchery coho freshwater

recoveries are mainly hatchery returns, with freshwater sport and lower river gillnet catch comprising 19% of the average freshwater recoveries (Table 10).

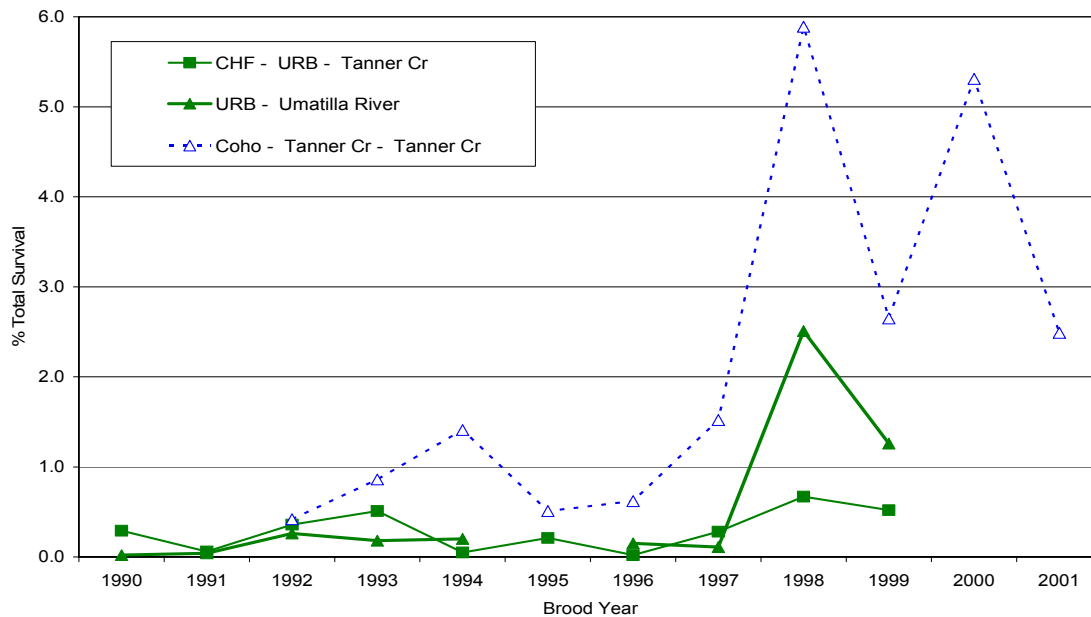


Figure 9. Percent survival by brood year for Bonneville Hatchery programs. URB = Up-River Bright stock.

Oxbow Hatchery

Oxbow Hatchery is located on the Columbia River 2 miles east of Cascade Locks off Highway 84. Oxbow Hatchery rears coho and spring chinook salmon. Coho reared by Oxbow Hatchery are released at Tanner Creek, Youngs Bay, or Umatilla River after acclimation and/or extended rearing. For results from these programs see the Bonneville, CEDC, and Cascade discussions above. The spring chinook from Oxbow are transferred to Clackamas Hatchery for rearing and release, results are reported under the Clackamas Hatchery section. Wahkeena Pond, located near Multnomah Falls State Park off Highway 84 was operated as a coho rearing satellite of Oxbow Hatchery through the 1992 brood. Release and recovery data for Wahkeena Pond CWT coho is reported in Appendix Table A. Wahkeena Pond is now being developed as a public fishing area instead of a hatchery rearing facility.

Round Butte Hatchery

Round Butte Hatchery is located at the base of Round Butte Dam on the Deschutes River east of Madras. Round Butte Hatchery rears and releases spring chinook, summer steelhead and brown trout. The summer steelhead and brown trout released from Round Butte Hatchery have not been coded-wire tagged for evaluation.

Percent survival for the 1990 to 1999 brood Deschutes River stock spring chinook released in the Deschutes River averaged 0.74%, and ranged from 0.08% to 3.13% (Table 6). Survival was generally low for the 1990 to 1996 broods, but has increased substantially since then (Figure 10). The very few ocean recoveries of Round Butte Hatchery spring chinook were in Oregon and Washington Coast fisheries (Appendix Table A). Freshwater recoveries were mainly hatchery returns, with freshwater catch (sport, gillnet, and tribal subsistence/ceremonial combined) accounting for about 27% of the total average freshwater recoveries (Table 10).

There are only 6 brood years of data available for Deschutes River stock spring chinook released in the West Fork Hood River (1994 to 1999). Percent survival for these brood years averaged 0.24%, and ranged from 0.00% to 1.19% (Table 6). There have been very few ocean recoveries for these fish (Appendix Table A). Freshwater recoveries were about 61% at hatcheries and 39% in sport and gillnet catch, many above Bonneville (Table 10).

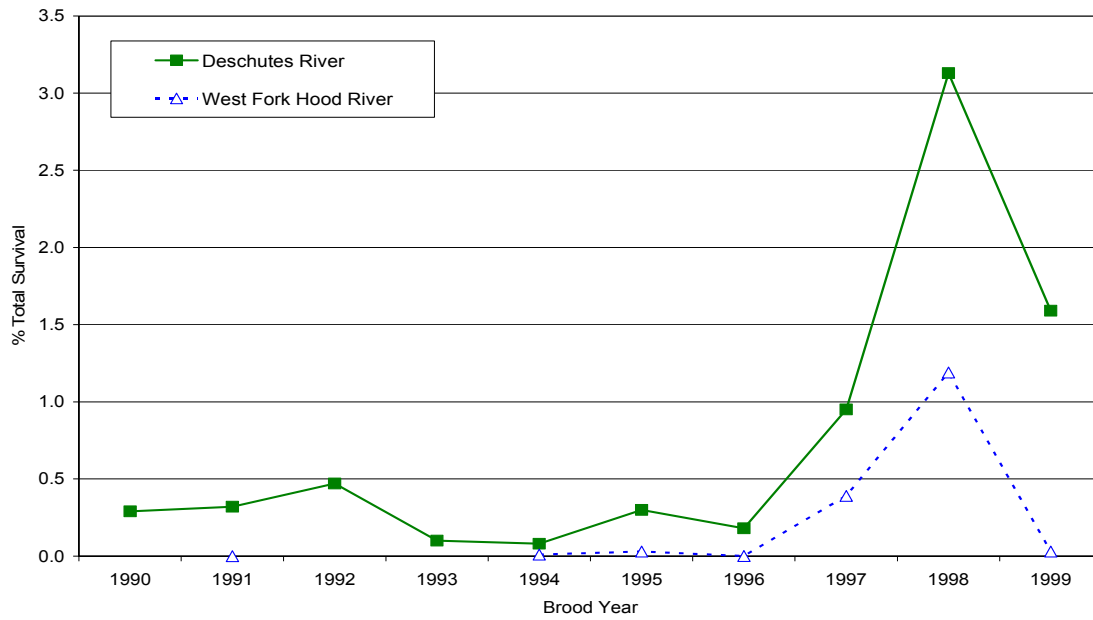


Figure 10. Percent survival by brood year for Round Butte Hatchery programs.

Oak Springs Hatchery

Oak Springs Hatchery is located on the Deschutes River 3 miles north of Maupin. Oak Springs Hatchery rears and releases summer steelhead, winter steelhead, and rainbow trout. The rainbow trout have not been coded-wire tagged for evaluation.

There are only 4 brood years of data available for winter steelhead released in the West Fork Hood River (1993 to 1995, and 1999). Average percent survival of these groups of Hood River stock winter steelhead reared at Oak Springs and released in East Fork Hood River was 0.32%, and ranged from 0.08% to 0.47% (Table 7). There were only freshwater recoveries for this group, which were mainly in freshwater sport fisheries (Appendix Table A).

Wizard Falls Hatchery

Wizard Falls Hatchery is located on the Metolius River 2 miles north of Camp Sherman off Highway 20. Wizard Falls Hatchery rears and releases Atlantic and kokanee salmon, brown, brook and rainbow trout. None of these fish have been coded-wire tagged for evaluation.

Fall River Hatchery

Fall River Hatchery is located on Fall River, a tributary of the Deschutes River southeast of Bend. Fall River Hatchery rears and releases cutthroat, brook, and rainbow trout. None of these fish have been coded-wire tagged for evaluation.

Umatilla Hatchery

Umatilla Hatchery, constructed in 1990, is located on the Columbia River adjacent to Irrigon Hatchery. Umatilla Hatchery rears up-river bright fall chinook, Carson stock spring chinook, and summer steelhead trout. Starting with the 1991 brood year, Umatilla Hatchery took over production of spring and fall chinook salmon for the Umatilla River from Irrigon Hatchery, and production of summer steelhead for the Umatilla River from Oak Spring Hatchery.

Percent survival of the 1991 to 1999 brood years of Umatilla Hatchery up-river bright stock fall chinook averaged 0.10%, and ranged from 0.00% to 0.33% (Table 3). Survival was generally very low through the 1997 brood but increased substantially with the 1998 brood year (Figure 11). Ocean catch was primarily in Alaska and British Columbia fisheries (Table 9, Appendix Table A). Freshwater recoveries were mainly hatchery returns, with above Bonneville Dam gillnet catch accounting for 50% of the total gillnet recoveries (Table 10).

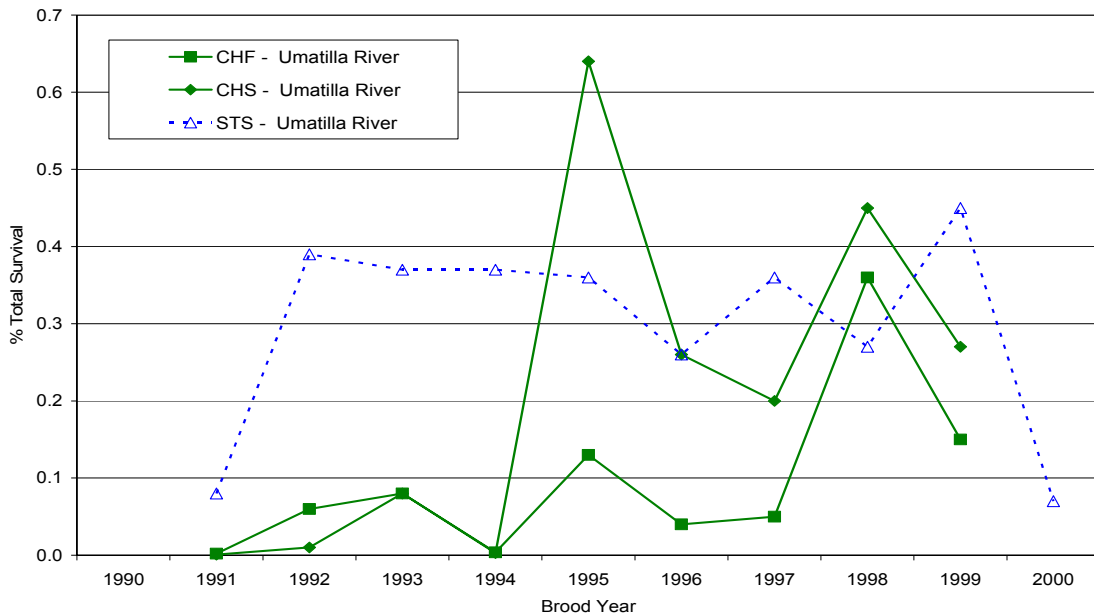


Figure 11. Percent survival by brood year for Umatilla Hatchery programs.

Percent survival of the 1991 to 1999 brood years of Umatilla Hatchery Carson stock spring chinook averaged 0.21%, and ranged from 0.00% to 0.64% (Table 6). Survival was consistently below 0.1% until the 1995 brood year which jumped to 0.64% (Figure 11). The few ocean recoveries were in; Alaska, Washington, Oregon, and California fisheries (Appendix Table A). Freshwater recoveries were mainly hatchery returns, with recoveries on spawning grounds accounting for 30% of the total average freshwater recoveries (Table 10).

Percent survival of the 1991 to 2000 brood years of Umatilla Hatchery summer steelhead averaged 0.36%, and ranged from 0.07% to 0.98% (Table 7). Survival was

between 0.25% and 0.40% except for the 1991, 1994, and 2000 brood years (Table 7 and Figure 11). The one ocean recovery was in a North Central British Columbia fishery (Appendix Table A). Freshwater recoveries were mainly hatchery returns, with catch (freshwater sport, and above Bonneville Dam gillnet) accounting for 37% of the total average freshwater recoveries (Table 10).

Irrigon Hatchery

Irrigon Hatchery is located along the Columbia River off Highway 730 near Irrigon. Irrigon rears and releases summer steelhead and rainbow trout. Starting with the 1991 brood year production of spring and fall chinook salmon for the Umatilla River was taken over by the new Umatilla Hatchery. Release and recovery data for Irrigon Hatchery fall and spring chinook salmon is reported in Appendix Table A.

The 1991 to 2000 brood years Imnaha River stock summer steelhead reared at Irrigon Hatchery and released in Little Sheep Creek averaged 0.34% percent survival, and ranged from 0.01% to 0.60% (Table 7). Survival was generally between 0.2% and 0.5% except for one year at 0.60% and 1 year at 0.01% (Table 7 and Figure 12). The two ocean recoveries were in British Columbia fisheries (Appendix Table A). Freshwater recoveries were mainly hatchery returns, with catch accounting for 47% of the total average freshwater recoveries (Table 10).

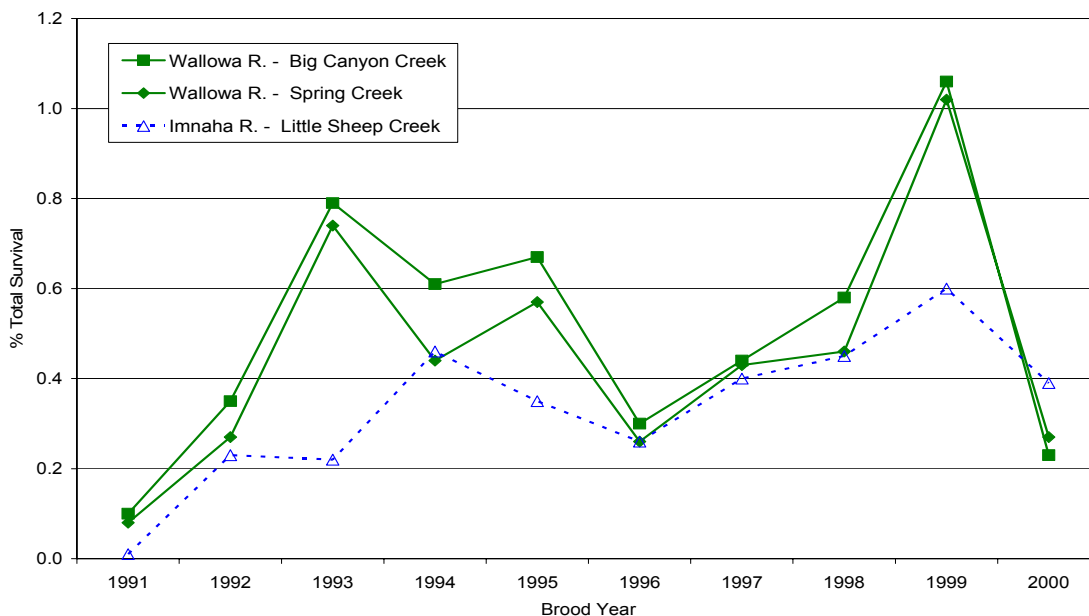


Figure 12. Percent survival by brood year for Irrigon and Wallowa hatchery summer steelhead programs.

Lookingglass Hatchery

Lookingglass Hatchery is located on Lookingglass Creek, a tributary to the Grande Ronde River north of Elgin. Lookingglass Hatchery rears and releases spring chinook salmon. In recent years Lookingglass Hatchery has begun a spring chinook captive broodstock program, based on wild fingerlings collected in the Grande Ronde Basin.

Percent survival of the 1990 to 1999 brood years of Rapid River stock spring chinook released in Lookingglass Creek averaged 0.12%, and ranged from 0.03% to

0.33% (Table 6). Survival was consistently 0.1% or below for 1990 to 1994 broods, increased for the 1995 to 1997 broods then declined to less than 0.1% for the 1998 and 1999 brood years (Figure 13). The eight ocean recoveries were in Alaska (5) and Oregon (3) fisheries (Appendix Table A). Hatchery returns accounted for 75% of the total average freshwater recoveries (Table 10).

Percent survival of the 1990 to 1999 brood years of Imnaha stock spring chinook released in Imnaha River averaged 0.22%, and ranged from 0.01% to 0.65% (Table 6). Survival was about 0.1% or below for 1990 to 1994 broods, then increased beginning with the 1995 brood (Figure 13). The 27 ocean recoveries were in Washington (6) Oregon (18), and California (3) fisheries (Appendix Table A). Freshwater recoveries were mainly hatchery returns, with recoveries on spawning grounds accounting for 29% of the total average freshwater recoveries (Table 10).

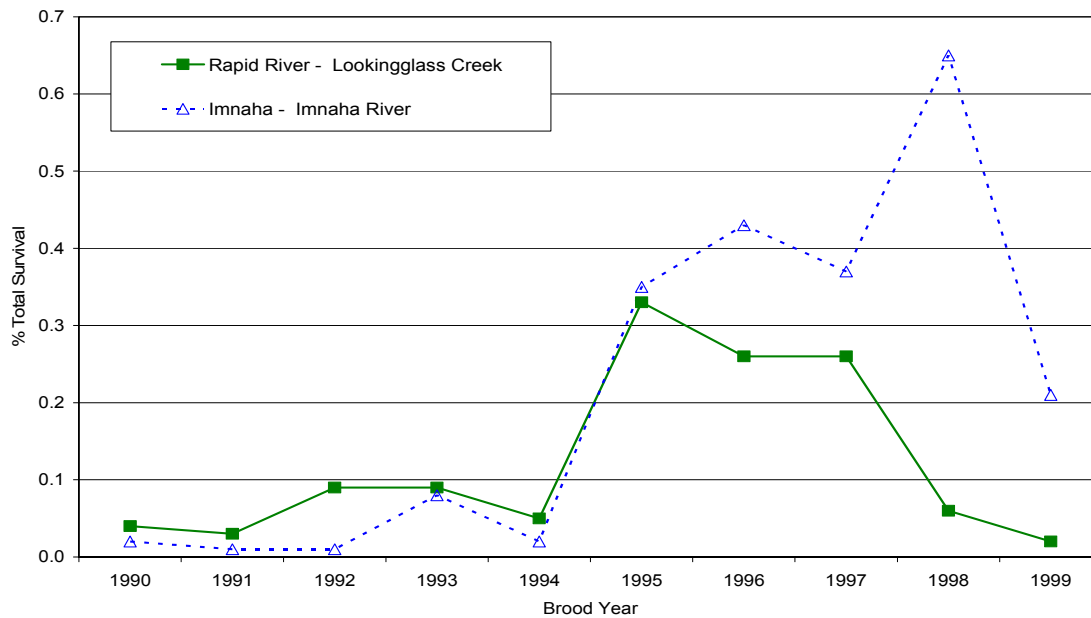


Figure 13. Percent survival by brood year for Lookingglass Hatchery spring chinook programs.

Wallowa Hatchery

Wallowa Hatchery is located on the Wallowa River near Enterprise. The Wallowa Hatchery rears and releases summer steelhead and rainbow trout. The rainbow trout have not been tagged for evaluation.

The 1991 to 2000 brood years Wallowa stock summer steelhead reared at Irrigon and Wallowa hatcheries and released in Big Canyon Creek averaged 0.51% survival, and ranged from 0.10% to 1.06% (Table 7). Survival increased for the first 3 brood years (1991 to 1993), declined from the 1993 to 1996 brood years, has increased since then, until it declined significantly for the 2000 brood year (Figure 12). The two ocean recoveries were in British Columbia fisheries (Appendix Table A). Freshwater recoveries were mainly in fisheries (sport and above Bonneville Dam gillnet catch), with hatchery returns accounting for 46% of the total average freshwater recoveries (Table 10).

The 1991 to 2000 brood years Wallowa stock summer steelhead reared at Irrigon, acclimated at Wallowa Hatchery and released in Spring Creek averaged 0.45% survival, and ranged from 0.08% to 1.02% (Table 7). Survival was variable for the 1991 through 1993 brood years, declined from the 1993 to 1996 brood years, has

increased since then until it declined significantly for the 2000 brood year (Figure 12). The two ocean recoveries were in Oregon fisheries (Appendix Table A). Freshwater recoveries were mainly in fisheries (sport and above Bonneville Dam gillnet catch), with hatchery returns accounting for 48% of the total average freshwater recoveries (Table 10).

REFERENCES

- Blankenship, L. 1981. Coded-wire tag loss study. Washington Department of Fisheries, Technical Report No. 65, Olympia, Washington.
- Hankin, D.G. and S.M. Mohr. 1990. Determination of levels of coded-wire tagging needed to support time/area harvest management. Final contract report to Klamath River Technical Advisory Team.
- Jefferts, K.B., P.K. Bergman, and H.F. Fiscus. 1963. A coded-wire identification system for macro-organisms. *Nature* 198:460-462.
- Jenkinson, D.W., and H.T. Bilton. 1981. Additional guidelines to marking and coded wire tagging of juvenile salmon. Canadian Technical Report of Fisheries and Aquatic Sciences No. 1051. 24 pages.
- Northwest Power Planning Council (NPPC). 2000. Columbia basin fish and wildlife plan, a multi-species approach to decision making. Council Document 2000-19. Northwest Power Planning Council, Portland, Oregon.
- Pacific Salmon Commission (PSC). 1995. Hatchery methodology workshop. Held January 10th through 12th 1995, Seattle, Washington.
- Reisenbichler, R.R., and N.A. Hartmann. 1978. Effect of number of marked fish and years of repetition on precision in studies of contribution to a fishery. Oregon Department of Fish and Wildlife, Information Report 78-2, Portland, Oregon.
- Schroeder, R.K., K.R. Kenaston, and R.B. Lindsay. 2001. Spring chinook salmon in the Willamette and Sandy Rivers. Oregon Department of Fish and Wildlife, Annual Progress Report, Portland, Oregon.

APPENDIX

Appendix Table A. Coded-wire-tagged salmon and steelhead released by ODFW in the Columbia Basin, release and recovery data. Chinook 1990-1999, steelhead 1991-2000, and coho 1992-2001 brood years. Stock sources: N = Native; H = Hatchery; M = Mixed. AK = Alaska, NCBC = North Central British Columbia, WCVI = West Coast Vancouver Island, GST = Georgia Strait, PS = Puget Sound, WA = Washington Coast, CA = California. Oregon ocean areas are displayed in Figure 1. URB = Columbia River Upriver Bright Stock.

Hatchery,					Ocean Catch																										
Stock source (H, N, M)		Release Site	Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.									
brood, tagcode	Stock			Ad+CWT	Total		AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4		5	6+							
FALL CHINOOK SALMON																															
Big Creek (Tule):																															
H	1990	074262	Big Creek	Big Cr	04/01/91	26,841	1,935,399	3.06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0.01	
H	1990	074401	Big Creek	Big Cr	04/07/91	25,732	1,923,163	3.13	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	0.07	
H	1990	075519	Big Creek	Big Cr	04/25/91	53,151	1,187,057	4.66	0	0	3	0	0	5	0	0	0	0	0	0	0	0	0	0	1	14	6	0	0	0.05	
H	1990	075520	Big Creek	Big Cr	05/31/91	51,970	5,835,334	5.85	3	0	31	4	0	3	0	0	0	0	0	0	0	0	0	0	0	10	17	0	0	0.13	
H	1991	074947	Big Creek	Big Cr	03/30/92	26,473	1,377,150	3.43	0	0	6	12	0	0	5	0	0	0	0	0	0	0	0	0	0	2	9	3	0	0	0.14
H	1991	074944	Big Creek	Big Cr	03/30/92	25,971	1,376,955	4.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0.02
H	1991	075759	Big Creek	Big Cr	05/08/92	25,706	2,911,921	5.98	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	2	22	4	0	0	0.16	
H	1991	075760	Big Creek	Big Cr	05/08/92	27,266	2,913,560	6.04	0	0	7	0	0	1	0	0	0	0	0	0	0	0	0	0	3	39	7	0	0	0.21	
H	1992	076022	Big Creek	Big Cr	04/30/93	27,176	655,391	4.40	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	1	0	0	0.02	
H	1992	076021	Big Creek	Big Cr	04/30/93	27,048	660,102	4.55	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8	6	0	0	0.07	
H	1992	076024	Big Creek	Big Cr	05/17/93	26,064	2,853,284	6.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	7	3	0	0	0.05	
H	1992	076023	Big Creek	Big Cr	06/01/93	25,678	3,732,284	6.31	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	9	0	0	0.11	
H	1993	070547	Big Creek	Big Cr	04/15/94	52,289	1,240,973	4.77	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	5	36	14	0	0	0.11	
H	1993	070548	Big Creek	Big Cr	05/16/94	53,136	5,784,742	6.05	6	25	13	1	2	19	0	0	3	0	0	0	0	0	0	0	4	64	30	2	0	0.32	
H	1994	070952	Big Creek	Big Cr	04/13/95	51,851	3,761,417	3.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	2	5	1	0	0.02	
H	1994	076141	Big Creek	Big Cr	04/26/95	52,767	1,742,555	4.01	0	0	4	0	0	2	0	0	0	0	0	0	0	0	0	0	2	15	9	0	0	0.06	
H	1994	076144	Big Creek	Big Cr	05/22/95	54,138	5,684,812	6.18	0	0	8	0	0	3	0	0	0	0	0	0	0	0	0	0	3	25	14	0	0	0.10	
H	1995	070238	Big Creek	Big Cr	04/03/96	52,284	2,196,444	3.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.00	
H	1995	071142	Big Creek	Big Cr	04/19/96	52,506	1,282,744	4.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	10	0	0	0.04	
H	1995	070550	Big Creek	Big Cr	05/10/96	52,273	5,991,604	5.88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	8	0	0	0.04	
H	1996	071251	Big Creek	Big Cr	05/15/97	217,574	5,961,118	5.98	0	0	79	0	2	23	2	2	7	2	0	0	0	0	0	4	39	232	43	0	0	0.20	
H	1997	092121	Big Creek	Big Cr	05/04/98	54,736	1,379,290	6.08	0	0	12	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	15	7	1	0	0.07
H	1997	092448	Big Creek	Big Cr	05/07/98	164,231	4,488,493	6.18	0	0	43	0	0	0	0	0	0	0	0	0	0	0	0	0	3	48	44	1	0	0.08	
H	1998	071253	Big Creek	Big Cr	05/24/99	225,527	5,804,921	5.75	7	0	158	0	0	138	23	25	115	14	2	0	0	0	0	39	578	262	2	0	0.62		
H	1999	093005	Big Creek	Big Cr	05/12/00	215,198	5,821,235	6.51	0	0	433	0	4	346	77	27	35	46	3	0	0	0	0	68	768	432	5	--	1.05		
Big Creek (Rogue):																															
H	1990	075650	Rogue R	Big Cr	07/05/91	51,183	249,042	12.22	0	0	0	0	0	15	3	0	44	7	0	6	24	39	35	6	24	39	35	6	0	0.35	
H	1990	075651	Rogue R	Big Cr	08/12/91	50,783	300,645	25.06	0	0	0	0	0	20	4	0	83	0	0	5	39	96	93	16	39	96	93	16	0	0.70	
H	1990	075652	Rogue R	Big Cr	08/23/91	51,043	236,247	35.71	0	0	0	0	0	15	7	0	214	0	3	14	51	147	183	22	51	147	183	22	0	1.33	
H	1991	075716	Rogue R	Big Cr	08/06/92	52,014	217,625	20.90	0	0	0	0	0	0	0	0	7	0	0	10	10	43	66	0	10	43	66	0	0	0.26	
H	1991	075717	Rogue R	Big Cr	08/14/92	52,017	297,258	23.70	0	0	4	0	0	0	0	0	21	0	0	15	9	74	108	2	15	9	74	108	2	0	0.45
H	1991	075653	Rogue R	Big Cr	08/26/92	51,786	248,504	30.60	0	0	4	0	0	0	0	0	2	39	0	0	2	19	125	208	3	19	125	208	3	0	0.80

Appendix Table A. Continued.

Hatchery,					Ocean Catch																					
Stock source (H, N, M)		Release Site	Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.				
brood, tagcode	Stock			Ad+CWT	Total		AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4		5	6+		
FALL CHINOOK SALMON (Continued)																										
Big Creek (Rogue) (Continued):																										
H	1992	075737	Rogue R	Big Cr	08/25/93	51,797	242,691	27.82	2	0	2	4	0	0	0	14	177	9	4	51	45	271	181	11	0	1.51
H	1992	070232	Rogue R	Big Cr	08/25/93	52,453	202,027	27.99	0	0	0	3	0	11	0	28	204	23	3	27	44	274	197	16	0	1.61
H	1993	070755	Rogue R	Big Cr	08/04/94	54,731	553,793	23.97	0	0	0	0	0	0	0	48	11	3	14	45	74	104	5	0	0.56	
H	1993	070756	Rogue R	Big Cr	08/22/94	54,317	250,878	29.82	0	1	0	0	0	1	0	0	89	12	0	36	53	69	119	4	0	0.71
H	1994	070540	Rogue R	Big Cr	08/11/95	26,051	166,503	22.10	0	0	0	0	0	3	0	0	20	16	0	0	5	21	27	1	0	0.37
H	1994	070541	Rogue R	Big Cr	08/11/95	26,215	166,707	22.21	0	4	0	0	0	0	0	18	6	0	0	5	19	27	9	0	0.34	
H	1994	070542	Rogue R	Big Cr	08/29/95	26,881	175,032	29.41	0	0	0	0	0	0	0	22	2	0	0	0	20	44	2	0	0.35	
H	1994	070543	Rogue R	Big Cr	08/30/95	26,178	500,356	29.06	0	0	0	0	0	0	3	23	9	0	0	6	12	18	4	0	0.29	
H	1995	071352	Rogue R	Big Cr	08/26/96	26,791	521,952	31.72	0	0	0	0	0	0	2	0	7	8	0	0	1	9	20	0	0	0.18
H	1995	071353	Rogue R	Klaskanine R, NF	07/31/96	25,322	26,178	20.43	0	0	0	0	0	1	0	0	2	4	0	0	1	19	23	1	0	0.20
Bonneville (Tule):																										
H	1991	075757	Big Creek	Big Cr	04/16/92	26,987	612,087	4.77	0	0	18	0	9	0	0	0	16	0	0	0	1	34	10	0	0	0.33
H	1991	075758	Big Creek	Big Cr	04/16/92	27,598	613,253	5.06	0	0	16	0	0	0	0	0	0	0	0	0	3	31	6	0	0	0.20
H	1990	074402	Tanner Cr	Tanner Cr	05/10/91	25,336	1,143,105	6.02	0	0	0	0	0	5	0	0	0	0	0	0	3	2	1	0	0	0.04
H	1990	074404	Tanner Cr	Tanner Cr	05/10/91	24,634	1,143,104	6.36	0	0	9	0	0	0	0	0	0	0	0	2	3	5	0	0	0	0.08
H	1990	074407	Big Creek	Tanner Cr	05/24/91	25,382	1,290,411	8.04	0	0	24	0	0	8	0	0	0	0	0	8	12	6	0	0	0	0.23
H	1990	074408	Big Creek	Tanner Cr	05/24/91	24,976	1,290,410	8.06	0	0	3	0	0	3	0	0	0	0	0	2	8	9	1	0	0	0.10
H	1991	075753	Big Creek	Tanner Cr	05/01/92	26,705	2,151,279	6.54	0	0	0	0	0	0	0	0	0	0	0	1	3	2	0	0	0	0.02
H	1991	075754	Big Creek	Tanner Cr	05/01/92	26,461	2,151,278	6.54	0	0	3	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0.03
H	1991	075755	Big Creek	Tanner Cr	05/14/92	26,564	1,727,639	6.65	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0.02
H	1991	075756	Big Creek	Tanner Cr	05/14/92	26,875	1,727,639	6.65	0	0	0	0	0	0	0	0	9	0	0	0	3	3	0	0	0	0.06
H	1992	071537	Tanner Cr	Tanner Cr	05/19/93	26,861	535,948	7.96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1992	075942	Tanner Cr	Tanner Cr	06/01/93	53,487	5,028,917	6.79	0	0	0	0	0	0	0	0	0	0	0	1	12	1	1	0	0	0.03
H	1992	076020	Tanner Cr	Tanner Cr	06/11/93	26,953	1,017,412	7.24	0	0	0	0	0	0	0	0	2	0	0	0	9	0	0	0	0	0.04
H	1993	076143	Tanner Cr	Tanner Cr	05/19/94	52,175	5,866,287	6.85	0	0	2	0	0	0	0	0	0	0	0	3	12	9	0	0	0	0.05
H	1994	070561	Tanner Cr	Tanner Cr	03/15/95	25,204	382,376	3.31	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0.01
H	1994	070562	Tanner Cr	Tanner Cr	04/14/95	26,944	505,966	5.00	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.01
H	1994	070560	Tanner Cr	Tanner Cr	05/15/95	26,197	248,819	5.50	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0	0	0	0.02
H	1994	070120	Tule (WA)	Tanner Cr	03/15/95	27,155	1,751,566	3.24	0	0	3	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0.03
H	1994	070121	Tule (WA)	Tanner Cr	04/14/95	26,824	3,567,065	4.80	0	0	2	0	0	0	0	0	0	0	0	5	5	4	0	0	0	0.06
H	1994	070122	Tule (WA)	Tanner Cr	05/15/95	26,747	1,784,239	6.03	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0.02
H	1995	070544	Tanner Cr	Tanner Cr	03/15/96	27,454	882,260	3.41	0	0	1	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0.02
H	1995	071144	Tanner Cr	Tanner Cr	04/15/96	26,991	1,858,378	5.24	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0.03
H	1995	070545	Tanner Cr	Tanner Cr	05/15/96	26,765	991,075	6.44	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	0	0	0.02
H	1995	071155	Tule (WA)	Tanner Cr	03/15/96	26,090	940,053	2.99	0	0	1	0	0	0	0	0	0	0	0	1	4	1	0	0	0	0.03
H	1995	072925	Tule (WA)	Tanner Cr	04/15/96	23,737	1,895,407	4.67	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	0.02
H	1995	074731	Tule (WA)	Tanner Cr	05/15/96	26,012	984,415	6.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00

Appendix Table A. Continued.

Hatchery,			Ocean Catch																								
Stock source (H, N, M)			Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.					
brood,	tagcode	Stock		Release Site	Ad+CWT		Total	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3		4	5	6+		
FALL CHINOOK SALMON (Continued)																											
Bonneville (URB):																											
H	1999	093030	Columbia (URB)	Klickitat R WA	05/22/00	213,934	216,672	6.96	287	77	47	0	4	21	0	2	7	0	0	0	0	2	92	218	85	--	0.39
H	1990	074649	Columbia (URB)	Mid-Columbia R	06/27/91	94,213	423,744	7.31	31	22	6	0	0	0	0	0	0	0	0	0	2	19	50	23	0	0.16	
H	1990	075654	Columbia (URB)	Mid-Columbia R	06/28/91	96,358	424,944	7.50	32	16	16	0	0	0	0	0	0	0	0	0	2	14	52	39	0	0.18	
H	1993	070816	Columbia (URB)	Ringold Pd WA	07/04/94	208,105	792,077	8.25	67	66	2	1	0	1	0	0	0	0	0	0	26	208	231	83	1	0.33	
H	1993	070817	Columbia (URB)	Ringold Pd WA	07/06/94	217,184	3,466,415	8.32	64	38	10	0	0	0	0	0	0	0	0	0	25	156	215	56	1	0.26	
H	1990	071416	Columbia (URB)	Tanner Cr	06/27/91	96,085	117,011	7.51	16	17	7	0	5	0	0	0	0	0	0	0	1	13	51	24	0	0.14	
H	1990	071417	Columbia (URB)	Tanner Cr	06/28/91	98,211	119,120	7.42	31	11	5	0	0	0	0	0	0	0	0	0	1	14	35	33	1	0.13	
H	1990	075521	Columbia (URB)	Tanner Cr	07/22/91	52,810	4,631,842	9.55	19	20	7	0	0	2	0	0	0	0	0	0	5	6	55	43	2	0.30	
H	1991	076112	Columbia (URB)	Tanner Cr	07/15/92	35,162	1,051,028	9.05	4	0	0	0	0	0	0	0	0	0	0	0	2	10	6	1	0.07		
H	1991	076110	Columbia (URB)	Tanner Cr	07/15/92	35,219	1,051,028	9.20	3	0	0	0	0	0	0	0	0	0	0	0	1	4	1	7	0	0.05	
H	1991	076109	Columbia (URB)	Tanner Cr	07/15/92	31,782	1,051,028	9.29	7	4	0	0	0	0	0	0	0	0	0	0	1	9	0	0	0	0.07	
H	1992	070433	Columbia (URB)	Tanner Cr	07/21/93	97,104	4,030,615	9.00	47	7	15	0	0	6	0	0	8	0	0	0	34	69	143	22	2	0.36	
H	1993	075814	Columbia (URB)	Tanner Cr	06/14/94	49,055	794,970	6.76	37	18	3	0	0	0	0	0	0	0	0	0	9	48	64	22	0	0.41	
H	1993	075815	Columbia (URB)	Tanner Cr	06/14/94	50,112	795,198	6.95	45	16	4	0	0	0	0	0	3	0	0	0	14	62	80	31	0	0.51	
H	1993	074954	Columbia (URB)	Tanner Cr	07/28/94	53,174	2,071,787	9.28	49	22	5	0	0	2	0	0	0	0	0	0	13	47	95	29	0	0.49	
H	1993	075816	Columbia (URB)	Tanner Cr	07/28/94	51,593	2,071,787	9.28	51	32	5	0	0	0	0	0	0	0	0	0	17	57	99	24	3	0.56	
H	1994	070820	Columbia (URB)	Tanner Cr	06/01/95	53,726	757,624	5.04	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5	1	0	0.01	
H	1994	070926	Columbia (URB)	Tanner Cr	06/01/95	49,768	418,179	5.06	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	3	0	0.02	
H	1994	070819	Columbia (URB)	Tanner Cr	06/01/95	53,472	419,015	5.54	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	0.01	
H	1994	076361	Columbia (URB)	Tanner Cr	07/24/95	76,816	4,886,853	9.27	10	10	0	0	0	0	0	0	0	0	0	0	1	2	13	8	0	0.06	
H	1995	070921	Columbia (URB)	Tanner Cr	06/12/96	53,525	428,887	5.45	34	6	1	0	0	0	0	0	0	0	0	0	5	10	40	25	2	0.23	
H	1995	070927	Columbia (URB)	Tanner Cr	06/12/96	53,281	428,888	5.67	56	12	0	0	0	3	0	0	0	0	0	0	4	16	64	33	5	0.36	
H	1995	071154	Columbia (URB)	Tanner Cr	06/12/96	53,223	428,887	5.67	71	11	0	0	0	3	0	0	0	0	0	0	2	24	49	51	3	0.40	
H	1995	091712	Columbia (URB)	Tanner Cr	07/31/96	79,953	4,893,902	10.00	39	6	0	0	0	0	0	0	0	0	0	0	4	15	45	31	0	0.18	
H	1996	092118	Columbia (URB)	Tanner Cr	06/03/97	52,693	502,638	2.90	14	0	0	0	0	2	0	0	0	0	0	0	1	12	12	0	0	0.08	
H	1996	092119	Columbia (URB)	Tanner Cr	07/31/97	53,506	6,577,692	8.14	6	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	0	0.02	
H	1997	092440	Columbia (URB)	Tanner Cr	06/01/98	55,960	575,204	5.04	5	0	0	0	0	0	0	0	0	1	0	0	0	3	5	4	0	0.03	
H	1997	092122	Columbia (URB)	Tanner Cr	07/30/98	58,536	5,775,615	9.20	25	0	0	0	0	3	0	0	0	2	0	0	5	23	116	6	0	0.31	
H	1998	092441	Columbia (URB)	Tanner Cr	06/02/99	55,554	56,417	6.26	64	0	3	0	0	4	1	0	2	3	0	0	7	34	97	10	0	0.41	
H	1998	092751	Columbia (URB)	Tanner Cr	07/27/99	200,460	212,229	11.52	245	52	21	0	6	8	4	2	12	1	0	0	90	226	374	122	1	0.58	
H	1998	092442	Columbia (URB)	Tanner Cr	07/28/99	52,756	5,515,130	10.03	72	35	10	0	0	2	0	4	3	0	0	0	28	54	109	36	1	0.68	
H	1999	092740	Columbia (URB)	Tanner Cr	06/06/00	53,014	1,618,922	5.37	88	20	10	0	0	1	0	0	0	0	0	0	8	47	72	29	--	0.52	
H	1999	092741	Columbia (URB)	Tanner Cr	08/21/00	53,099	190,180	12.26	61	16	0	0	0	11	0	2	0	0	0	0	5	28	73	61	--	0.48	
H	1990	075618	Columbia (URB)	Umatilla R	03/17/92	26,178	97,801	60.47	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.02
H	1990	075619	Columbia (URB)	Umatilla R	03/19/92	26,160	122,639	60.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0.02	
H	1991	071460	Columbia (URB)	Umatilla R	03/18/93	23,863	68,492	49.84	0	0	3	0	0	0	0	0	0	0	0	0	3	1	0	1	0	0.03	
H	1991	071461	Columbia (URB)	Umatilla R	03/18/93	23,239	66,345	52.14	0	4	0	0	0	0	0	0	0	0	0	0	3	5	0	0	1	0.06	
H	1992	070255	Columbia (URB)	Umatilla R	03/23/94	23,699	233,629	43.61	0	0	7	0	0	0	0	0	2	0	0	0	34	13	12	1	0	0.29	

Appendix Table A. Continued.

Hatchery,			Ocean Catch																							
Stock source (H, N, M)			Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.				
brood,	tagcode	Stock		Release Site	Ad+CWT		Total	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3		4	5	6+	
FALL CHINOOK SALMON (Continued)																										
Bonneville (URB) (Continued):																										
H	1992	070252	Columbia (URB)	Umatilla R	04/19/94	23,470	49,824	53.35	0	0	0	0	0	0	0	0	0	0	15	12	1	0	0	0.12		
H	1993	070659	Columbia (URB)	Umatilla R	04/07/95	24,374	115,271	55.25	0	0	0	0	0	0	0	0	0	0	27	0	0	2	0	0.12		
H	1993	070658	Columbia (URB)	Umatilla R	04/07/95	24,865	111,817	58.08	7	0	0	0	0	0	0	0	0	0	47	5	2	2	0	0.25		
H	1994	071037	Columbia (URB)	Umatilla R	04/05/96	27,397	204,022	64.70	2	0	0	0	0	0	0	0	0	0	57	2	15	0	0	0.28		
H	1994	071038	Columbia (URB)	Umatilla R	04/18/96	28,521	217,294	64.70	0	0	0	0	0	0	0	0	0	0	22	1	12	3	0	0.13		
H	1996	092037	Columbia (URB)	Umatilla R	03/13/98	27,402	256,910	42.00	2	0	0	0	0	0	0	0	0	0	4	4	14	18	0	0.15		
H	1997	092651	Columbia (URB)	Umatilla R	03/11/99	24,693	26,070	48.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00		
H	1997	092652	Columbia (URB)	Umatilla R	04/15/99	24,918	26,124	49.79	3	1	0	0	0	3	4	0	3	0	0	17	3	17	5	0	0.22	
H	1998	092925	Columbia (URB)	Umatilla R	03/09/00	26,956	27,787	41.57	131	13	46	0	0	27	10	0	3	0	0	149	90	270	117	9	3.21	
H	1998	092926	Columbia (URB)	Umatilla R	04/13/00	28,223	28,947	44.86	49	39	29	0	0	36	12	0	0	0	0	130	55	113	47	9	1.84	
H	1999	093031	Klickitat R	Tanner Cr	07/26/00	221,958	224,311	12.53	550	188	92	0	0	47	4	10	10	0	2	0	78	202	534	315	--	0.92
H	1999	093206	Umatilla R	Umatilla R	03/16/01	23,737	23,737	46.75	14	43	43	0	0	17	0	2	0	0	0	0	38	45	70	30	--	1.27
H	1999	093207	Umatilla R	Umatilla R	04/19/01	23,002	23,002	49.30	36	2	63	0	0	17	2	0	10	3	0	0	31	53	35	36	--	1.25
CEDC Fisheries (Rogue):																										
H	1995	071351	Rogue R	Blind Slough	07/15/96	27,231	27,380	22.77	0	0	0	0	0	0	0	0	14	0	3	2	47	40	6	0	0.41	
H	1996	092145	Rogue R	Blind Slough	07/17/97	27,413	27,413	14.37	0	0	0	0	0	0	0	0	5	0	4	0	7	4	0	0	0.07	
H	1995	071350	Rogue R	Tongue Point	07/15/96	26,354	26,792	20.60	0	0	0	0	0	4	0	3	2	0	0	3	34	23	2	0	0.27	
H	1996	092146	Rogue R	Tongue Point	07/17/97	27,427	27,482	18.82	0	0	0	0	0	5	0	3	3	0	0	1	8	18	0	0	0.14	
H	1991	071427	Rogue R	Youngs R	08/03/92	25,467	56,467	33.10	0	0	0	0	0	0	0	0	0	0	10	12	15	0	0	0.15		
H	1993	070757	Rogue R	Youngs R	07/20/94	25,351	337,915	22.43	0	0	0	0	3	0	0	48	4	3	26	38	77	94	5	0	1.18	
H	1994	070742	Rogue R	Youngs R	06/27/95	49,826	107,892	24.87	0	0	0	0	2	0	0	7	6	0	8	6	62	37	5	0	0.27	
H	1994	071421	Rogue R	Youngs R	07/17/95	19,514	707,127	11.45	0	0	0	0	0	0	0	0	0	0	0	2	3	2	0	0	0.04	
H	1994	070931	Rogue R	Youngs R	07/18/95	42,854	115,702	32.82	0	0	0	0	2	0	0	18	10	6	0	3	37	42	1	0	0.28	
H	1994	070928	Rogue R	Youngs R	07/18/95	49,657	77,100	33.30	0	0	0	0	0	0	0	26	2	0	5	9	27	35	3	0	0.22	
H	1994	070930	Rogue R	Youngs R	07/18/95	44,123	127,936	38.37	0	0	0	0	0	0	2	51	10	3	5	15	97	57	1	0	0.55	
H	1994	070929	Rogue R	Youngs R	07/18/95	43,518	116,030	41.54	4	4	0	0	0	0	0	32	8	0	3	10	89	57	11	0	0.51	
H	1995	071341	Rogue R	Youngs R	07/16/96	45,148	154,593	31.48	0	0	0	0	3	0	0	0	4	0	6	5	43	68	5	0	0.30	
H	1995	071342	Rogue R	Youngs R	07/16/96	57,523	64,679	34.86	0	0	0	0	7	0	4	21	15	0	3	8	131	118	8	0	0.55	
H	1995	071354	Rogue R	Youngs R	07/17/96	26,934	329,976	14.25	0	0	0	0	0	0	0	7	0	0	1	0	10	13	0	0	0.12	
H	1996	071339	Rogue R	Youngs R	06/17/97	52,956	53,442	11.93	0	0	0	0	0	0	0	20	0	0	0	6	37	17	0	0	0.15	
H	1996	092136	Rogue R	Youngs R	07/17/97	52,468	116,680	21.19	0	0	0	0	1	0	0	0	1	0	0	3	28	14	0	0	0.09	
H	1996	071340	Rogue R	Youngs R	07/17/97	52,618	53,765	24.65	0	0	0	0	0	0	0	0	0	0	0	1	9	15	0	0	0.05	
H	1996	071338	Rogue R	Youngs R	07/17/97	50,371	50,868	25.06	0	0	0	0	1	0	0	0	0	0	0	2	10	5	0	0	0.04	
H	1996	092135	Rogue R	Youngs R	07/17/97	51,270	188,948	25.34	0	0	3	0	0	2	0	0	0	0	0	3	18	11	1	0	0.07	
H	1997	092454	Rogue R	Youngs R	07/01/98	24,853	25,201	22.91	0	0	0	0	0	0	0	0	1	0	4	4	28	2	0	0	0.16	
H	1997	092455	Rogue R	Youngs R	07/20/98	24,931	25,024	27.49	0	0	0	0	0	0	1	0	1	0	0	4	27	5	0	0	0.15	
H	1997	092453	Rogue R	Youngs R	07/20/98	24,896	25,019	28.35	0	0	0	0	0	0	7	3	4	0	0	1	31	14	0	0	0.24	

Appendix Table A. Continued.

Hatchery,				Ocean Catch																								
Stock source (H, N, M)		Release Site	Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.						
brood,	tagcode			Stock	Ad+CWT		Total	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3		4	5	6+			
FALL CHINOOK SALMON (Continued)																												
CEDC Fisheries (Rogue) (Continued):																												
H	1997	092457	Rogue R	Youngs R	07/20/98	16,850	17,303	28.71	0	0	0	0	0	0	0	0	3	0	7	1	0	16	6	35	6	0	0	0.44
H	1997	092456	Rogue R	Youngs R	07/20/98	24,513	25,035	31.28	0	0	0	0	0	1	0	0	11	14	0	9	9	64	12	0	0	0	0	0.49
H	1998	092758	Rogue R	Youngs R	07/12/99	25,851	85,837	14.75	0	0	3	0	0	17	3	3	89	12	0	4	41	159	214	0	0	0	2.12	
H	1998	092756	Rogue R	Youngs R	07/12/99	25,106	25,921	24.94	3	0	0	0	0	11	0	13	52	35	0	0	12	252	187	3	0	0	2.31	
H	1998	092755	Rogue R	Youngs R	07/12/99	25,570	32,410	25.35	0	0	12	0	0	1	4	5	62	13	0	10	17	220	242	6	0	0	2.36	
H	1998	092754	Rogue R	Youngs R	07/12/99	25,369	25,811	26.40	0	0	0	0	0	8	15	38	77	14	1	15	27	256	220	13	0	0	2.70	
H	1998	092757	Rogue R	Youngs R	07/12/99	25,697	25,992	27.21	0	0	2	0	0	21	4	4	47	28	3	18	35	162	256	8	0	0	2.31	
H	1998	092753	Rogue R	Youngs R	08/02/99	25,396	26,000	36.17	0	0	0	0	0	12	6	11	79	20	0	15	36	199	298	5	0	0	2.76	
H	1999	093039	Rogue R	Youngs R	07/05/00	24,075	24,944	26.52	0	0	0	0	0	2	0	7	26	17	0	23	15	110	60	2	--	1.09		
H	1999	093040	Rogue R	Youngs R	07/05/00	23,586	25,079	26.68	0	0	0	0	0	4	1	6	28	14	3	29	3	138	93	2	--	1.38		
H	1999	093041	Rogue R	Youngs R	07/05/00	24,167	24,909	27.16	0	0	0	0	0	25	6	22	26	4	2	8	18	151	116	4	--	1.59		
H	1999	093043	Rogue R	Youngs R	07/05/00	22,269	54,013	28.89	0	0	0	0	0	16	5	9	27	15	5	10	27	131	134	1	--	1.73		
H	1999	093042	Rogue R	Youngs R	07/05/00	24,344	24,983	31.71	0	0	0	0	0	19	5	12	48	29	0	26	11	262	189	4	--	2.56		
CEDC Fisheries (URB):																												
H	1995	091711	Columbia (URB)	Tongue Point	07/15/96	46,186	97,866	16.79	13	3	0	0	0	0	0	0	0	0	0	0	0	2	21	2	0	0	0.09	
H	1996	092137	Columbia (URB)	Tongue Point	07/15/97	51,897	201,849	18.82	3	0	4	0	0	0	0	0	0	0	0	0	2	5	3	2	0	0	0.04	
H	1994	071235	Columbia (URB)	Youngs R	07/18/95	50,608	199,088	19.45	3	3	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0.02	
H	1997	092515	Columbia (URB)	Youngs R	07/01/98	27,305	205,544	12.23	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0.01	
H	1997	092516	Columbia (URB)	Youngs R	07/06/98	26,744	424,252	10.20	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	1	0	0	0.03	
Hanford Reach Net Pens:																												
H	1993	070818	Columbia (URB)	Hanford Reach	06/17/94	479,106	496,746	7.28	93	42	7	0	0	2	0	0	9	0	0	0	58	287	270	95	2	0	0.18	
Irrigon:																												
H	1990	075225	Columbia (URB)	Umatilla R	05/08/91	52,252	1,343,311	5.53	17	0	0	0	0	0	0	0	0	0	0	0	1	2	23	10	0	0	0.10	
H	1990	075226	Columbia (URB)	Umatilla R	05/08/91	51,728	1,343,042	5.53	13	3	13	0	0	0	0	0	0	0	0	0	0	6	9	10	0	0	0.10	
H	1990	075450	Columbia (URB)	Umatilla R	05/08/91	51,814	52,326	5.53	12	29	13	0	0	0	0	0	0	0	0	1	10	38	26	0	0	0.25		
H	1990	075451	Columbia (URB)	Umatilla R	05/08/91	52,444	52,706	5.53	22	11	36	0	0	4	0	0	0	0	0	5	9	28	7	0	0	0.23		
H	1990	070016	Columbia (URB)	Umatilla R	05/10/91	48,301	99,225	6.21	29	7	14	0	0	3	0	0	0	0	0	1	12	28	10	1	0	0.22		
H	1990	075328	Columbia (URB)	Umatilla R	05/10/91	48,266	100,642	62.13	27	8	12	0	0	0	0	3	0	0	0	3	12	93	7	0	0	0.34		
H	1990	075449	Columbia (URB)	Umatilla R	05/10/91	48,481	99,962	62.13	12	16	10	0	0	0	0	0	0	0	0	7	3	42	21	1	0	0.23		
H	1990	075560	Columbia (URB)	Umatilla R	05/13/91	25,720	25,862	5.27	17	8	3	0	0	0	0	0	0	0	0	6	2	11	16	0	0	0.24		
H	1990	075561	Columbia (URB)	Umatilla R	05/13/91	25,425	25,708	5.27	2	4	9	0	0	0	0	0	0	0	0	0	8	9	13	0	0	0.18		
H	1990	075562	Columbia (URB)	Umatilla R	05/13/91	22,309	23,295	5.27	7	8	0	0	0	2	0	0	0	0	0	0	8	12	2	0	0	0.17		
H	1990	075563	Columbia (URB)	Umatilla R	05/13/91	26,173	26,481	5.63	4	13	0	0	0	0	0	0	0	0	0	5	12	4	0	0	0	0.15		
H	1990	075601	Columbia (URB)	Umatilla R	05/13/91	24,762	26,585	5.63	9	7	13	0	0	0	0	0	0	0	0	1	9	7	8	0	0	0.22		
H	1990	075602	Columbia (URB)	Umatilla R	05/13/91	25,476	26,606	5.63	4	17	3	0	0	0	0	0	4	0	0	2	8	13	6	0	0	0.22		

Appendix Table A. Continued.

Hatchery,				Ocean Catch																								
Stock source (H, N, M)		Release Site	Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.						
brood,	tagcode			Stock	Ad+CWT		Total	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3		4	5	6+			
FALL CHINOOK SALMON (Continued)																												
Klaskanine:																												
H	1996	092143	Rogue R	NF Klaskanine R	10/31/97	9,593	195,247	32.86	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	18	2	0	0.23
H	1996	092144	Rogue R	NF Klaskanine R	10/31/97	27,222	408,713	32.86	0	0	1	0	0	0	0	0	0	2	8	0	3	0	31	69	6	0	0.46	
H	1997	092517	Rogue R	NF Klaskanine R	09/30/98	26,701	216,635	25.77	0	0	11	0	0	14	0	13	31	2	0	0	5	66	144	1	0	1.09		
H	1997	092518	Rogue R	NF Klaskanine R	11/04/98	26,571	445,342	28.17	0	0	0	0	0	0	0	0	4	0	0	0	0	0	3	16	1	0	0.09	
H	1998	092760	Rogue R	NF Klaskanine R	09/28/99	25,977	208,232	27.36	0	0	2	0	0	22	7	42	71	29	0	11	6	109	297	2	0	2.37		
H	1998	092759	Rogue R	NF Klaskanine R	11/03/99	25,124	494,968	32.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.00	
H	1999	093048	Rogue R	NF Klaskanine R	08/24/00	27,239	202,783	23.50	0	0	14	0	0	38	8	45	98	90	3	41	62	265	314	16	--		3.67	
H	1999	093049	Rogue R	NF Klaskanine R	09/26/00	26,762	205,709	28.89	0	0	2	0	0	60	12	54	65	77	0	48	17	143	324	13	--		3.12	
Stayton Pond:																												
H	1992	075658	Tanner Cr	Santiam R & NF	05/05/93	51,429	1,254,750	6.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1993	070234	Tanner Cr	Santiam R & NF	05/12/94	46,981	1,402,112	8.13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.00	
H	1994	070432	Tanner Cr	Santiam R & NF	05/04/95	53,689	54,086	6.73	0	4	12	0	0	0	0	0	2	0	0	0	0	14	4	0	0	0	0.07	
H	1992	075657	Tanner Cr	Tanner Cr	04/26/93	55,442	56,442	6.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1993	070235	Tanner Cr	Tanner Cr	05/02/94	53,383	55,057	7.78	0	0	0	0	0	0	0	0	0	0	0	0	1	20	2	0	0	0	0.04	
H	1994	075812	Tanner Cr	Tanner Cr	04/24/95	52,482	52,935	6.44	0	0	13	0	0	0	0	0	4	0	0	0	1	40	10	0	0	0	0.13	
H	1990	075227	Tanner Cr	Willamette R	05/09/91	39,127	1,897,990	8.11	0	0	27	0	5	0	0	0	4	0	0	0	6	21	9	0	0	0	0.18	
H	1990	075228	Tanner Cr	Willamette R	05/09/91	37,988	1,842,767	8.11	0	0	19	0	9	0	0	0	0	0	0	0	10	23	0	0	0	0	0.16	
H	1990	075229	Tanner Cr	Willamette R	05/09/91	40,149	1,947,585	8.11	0	0	18	0	7	4	0	6	0	0	0	0	3	17	0	0	0	0	0.14	
H	1990	075230	Tanner Cr	Willamette R	05/09/91	39,540	1,918,027	8.11	0	0	3	0	13	4	3	0	0	0	0	0	8	22	1	0	0	0	0.14	
H	1990	075231	Tanner Cr	Willamette R	05/09/91	39,383	1,910,410	8.11	0	0	9	0	0	17	0	0	3	0	0	0	5	28	2	0	0	0	0.16	
H	1991	071601	Tanner Cr	Willamette R	05/02/92	35,861	2,057,967	8.22	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.01	
H	1991	071602	Tanner Cr	Willamette R	05/02/92	40,237	2,032,995	8.22	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.00	
H	1991	071603	Tanner Cr	Willamette R	05/02/92	40,142	1,991,864	8.22	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.00	
H	1991	071604	Tanner Cr	Willamette R	05/02/92	40,903	2,013,522	8.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1991	075905	Tanner Cr	Willamette R	05/02/92	39,286	1,995,947	8.22	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.01	
H	1992	070221	Tanner Cr	Willamette R	05/05/93	41,255	1,007,956	8.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1992	070222	Tanner Cr	Willamette R	05/05/93	42,110	1,026,744	8.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1992	070223	Tanner Cr	Willamette R	05/05/93	40,543	989,309	8.57	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0.01	
H	1992	070224	Tanner Cr	Willamette R	05/05/93	41,091	1,001,111	8.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1992	076321	Tanner Cr	Willamette R	05/05/93	41,307	1,006,420	8.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.00	
H	1993	070516	Tanner Cr	Willamette R	05/12/94	39,468	1,186,737	8.83	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0.01	
H	1993	070517	Tanner Cr	Willamette R	05/12/94	38,822	1,166,435	8.83	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0.02	
H	1993	070518	Tanner Cr	Willamette R	05/12/94	39,011	1,171,734	8.83	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	0	0	0	0.01	
H	1993	070519	Tanner Cr	Willamette R	05/12/94	38,794	1,164,984	8.83	0	0	0	0	0	0	0	0	0	0	0	0	1	5	3	0	0	0	0.03	
H	1993	070520	Tanner Cr	Willamette R	05/12/94	38,424	1,154,229	8.83	0	0	4	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0.03	
H	1994	070852	Tanner Cr	Willamette R	05/04/95	206,717	10667,979	7.43	0	0	23	0	0	15	0	0	4	2	0	0	5	56	24	0	0	0	0.06	

Appendix Table A. Continued.

Hatchery,				Ocean Catch																				
Stock source (H, N, M)				Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.	
brood,	tagcode	Stock	Release Site		Ad+CWT	Total		AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4		5
FALL CHINOOK SALMON (Continued)																								
Umatilla:																								
H	1991	071434	Columbia (URB)	Umatilla R	05/18/92	31,224	306,802	6.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1991	071438	Columbia (URB)	Umatilla R	05/18/92	30,924	301,831	7.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1991	071436	Columbia (URB)	Umatilla R	05/18/92	30,365	302,555	7.33	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.00
H	1991	071433	Columbia (URB)	Umatilla R	05/18/92	29,066	303,878	7.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1991	071435	Columbia (URB)	Umatilla R	05/18/92	30,326	297,331	7.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1991	071437	Columbia (URB)	Umatilla R	05/18/92	30,508	223,830	8.22	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.00
H	1991	071430	Columbia (URB)	Umatilla R	05/19/92	32,287	281,350	6.97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.01
H	1991	071432	Columbia (URB)	Umatilla R	05/19/92	29,425	191,257	7.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1991	071431	Columbia (URB)	Umatilla R	05/19/92	28,951	182,931	8.07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1991	071429	Columbia (URB)	Umatilla R	05/20/92	31,892	286,578	6.42	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.00
H	1992	076334	Columbia (URB)	Umatilla R	05/24/93	29,958	282,175	6.67	3	0	0	0	0	0	0	0	0	0	2	3	1	1	0	0.03
H	1992	076331	Columbia (URB)	Umatilla R	05/24/93	29,537	282,125	6.77	5	0	0	0	0	0	0	0	0	0	2	4	7	1	0	0.06
H	1992	070127	Columbia (URB)	Umatilla R	05/24/93	27,092	269,336	7.15	6	0	0	0	0	6	0	0	0	0	0	3	3	1	0	0.07
H	1992	076330	Columbia (URB)	Umatilla R	05/24/93	28,964	292,895	7.20	10	0	0	0	0	0	0	0	0	0	3	2	4	5	0	0.08
H	1992	076332	Columbia (URB)	Umatilla R	05/24/93	29,451	277,931	7.37	0	0	0	0	0	0	0	0	0	0	4	3	14	0	0	0.07
H	1992	076333	Columbia (URB)	Umatilla R	05/24/93	29,718	273,662	7.52	3	0	0	0	0	0	0	0	0	0	4	7	11	0	0	0.08
H	1992	070125	Columbia (URB)	Umatilla R	05/25/93	29,360	272,496	7.63	0	0	9	0	0	0	0	0	0	0	2	5	3	0	0	0.06
H	1992	076329	Columbia (URB)	Umatilla R	05/25/93	30,706	203,731	7.63	3	0	0	0	0	0	0	0	0	0	1	4	11	0	0	0.06
H	1992	076335	Columbia (URB)	Umatilla R	05/25/93	30,462	207,565	7.63	0	4	0	0	0	0	0	0	0	0	2	7	3	1	0	0.06
H	1992	070126	Columbia (URB)	Umatilla R	05/25/93	29,594	268,001	7.65	3	0	0	0	0	0	0	0	0	0	0	6	12	0	0	0.07
H	1995	070953	Columbia (URB)	Umatilla R	03/30/97	29,983	169,478	33.11	5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.02
H	1995	070954	Columbia (URB)	Umatilla R	03/30/97	30,344	91,490	33.85	0	0	0	0	0	0	0	0	0	0	1	2	3	4	0	0.03
H	1997	092411	Umatilla R	Umatilla R	03/08/99	21,741	48,901	33.77	0	0	0	0	0	0	0	0	0	0	1	6	33	3	1	0.20
H	1998	076051	Umatilla R	Umatilla R	03/09/00	22,102	49,189	35.86	0	0	0	0	0	0	0	0	0	0	13	7	71	27	0	0.53
H	1998	076039	Umatilla R	Umatilla R	03/09/00	21,070	50,365	37.03	0	0	0	0	0	0	0	0	0	0	27	7	89	23	0	0.69
H	1998	076040	Umatilla R	Umatilla R	03/09/00	22,483	53,256	37.03	0	0	0	0	0	0	0	0	0	0	16	6	140	24	0	0.83
H	1993	070719	Washington URB	Umatilla R	05/23/94	31,658	327,700	6.25	7	6	0	0	0	0	0	0	0	0	4	4	6	0	0	0.09
H	1993	070721	Washington URB	Umatilla R	05/23/94	28,474	306,105	6.59	6	0	0	0	0	0	0	0	0	0	0	5	4	0	0	0.05
H	1993	070723	Washington URB	Umatilla R	05/23/94	30,447	326,408	6.64	0	0	0	0	0	0	0	0	0	0	2	3	5	0	0	0.03
H	1993	070722	Washington URB	Umatilla R	05/23/94	30,950	303,843	6.66	6	0	0	0	0	0	0	0	0	0	2	9	9	1	0	0.09
H	1993	070720	Washington URB	Umatilla R	05/23/94	30,528	314,518	6.93	3	9	0	0	0	0	0	0	0	0	2	13	15	0	0	0.14
H	1993	070663	Washington URB	Umatilla R	05/23/94	31,162	322,867	7.19	9	0	0	0	0	0	0	0	0	0	2	0	4	1	0	0.05
H	1993	070718	Washington URB	Umatilla R	05/24/94	31,040	279,965	7.06	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	0.01
H	1993	070662	Washington URB	Umatilla R	05/24/94	31,239	280,046	7.54	2	0	0	0	0	0	0	0	0	0	0	17	13	4	0	0.12
H	1993	070717	Washington URB	Umatilla R	05/24/94	32,481	190,439	7.55	7	0	0	0	0	2	0	0	0	0	2	14	15	3	0	0.13
H	1993	070716	Washington URB	Umatilla R	05/24/94	30,502	191,321	7.66	10	8	0	0	0	0	0	0	0	0	0	6	2	0	0	0.09
H	1994	071017	Washington URB	Umatilla R	05/31/95	29,736	271,129	6.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1994	071025	Washington URB	Umatilla R	05/31/95	29,784	274,110	6.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00

Appendix Table A. Continued.

Hatchery,			Ocean Catch																				
Stock source (H, N, M)			Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.	
brood,	tagcode	Stock		Release Site	Ad+CWT		Total	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3		4
FALL CHINOOK SALMON (Continued)																							
Umatilla (Continued):																							
H	1994	071020	Washington URB Umatilla R	05/31/95	29,460	275,613	6.89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1994	071018	Washington URB Umatilla R	05/31/95	29,132	241,342	6.95	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0.02
H	1994	071022	Washington URB Umatilla R	05/31/95	28,472	280,406	7.18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1994	071023	Washington URB Umatilla R	05/31/95	28,623	287,313	7.18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1994	071019	Washington URB Umatilla R	05/31/95	29,353	286,459	7.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1994	071024	Washington URB Umatilla R	05/31/95	30,204	151,943	7.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1994	071021	Washington URB Umatilla R	05/31/95	29,327	152,098	7.71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1994	071026	Washington URB Umatilla R	05/31/95	30,106	245,885	7.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1994	071039	Washington URB Umatilla R	04/18/96	23,238	48,499	85.58	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0.01
H	1994	071041	Washington URB Umatilla R	04/18/96	23,343	47,125	85.58	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0.05
H	1994	071040	Washington URB Umatilla R	04/18/96	23,442	47,463	96.51	0	0	0	0	0	0	0	0	0	0	7	1	0	2	0	0.04
H	1995	071320	Washington URB Umatilla R	05/30/96	30,015	303,803	6.52	3	6	0	0	0	0	0	0	0	0	1	3	7	4	1	0.08
H	1995	071321	Washington URB Umatilla R	05/30/96	28,997	299,233	6.63	2	0	0	0	0	0	0	0	0	0	3	1	7	3	0	0.06
H	1995	071325	Washington URB Umatilla R	05/30/96	30,220	300,895	6.72	0	2	0	0	0	0	0	0	0	0	1	1	1	3	0	0.03
H	1995	071324	Washington URB Umatilla R	05/30/96	30,243	272,594	6.82	5	0	0	0	0	0	0	0	0	0	1	4	16	16	0	0.14
H	1995	071323	Washington URB Umatilla R	05/30/96	29,914	300,377	7.21	0	0	0	0	0	1	0	0	0	0	0	3	13	4	0	0.07
H	1995	071328	Washington URB Umatilla R	05/30/96	30,455	181,709	7.51	6	0	0	0	0	0	0	0	0	0	2	0	12	3	0	0.08
H	1995	071322	Washington URB Umatilla R	05/30/96	29,646	266,913	7.92	7	0	0	0	1	0	0	0	0	0	3	7	11	2	0	0.10
H	1995	071326	Washington URB Umatilla R	05/30/96	30,238	181,291	8.02	19	0	0	0	0	0	0	0	0	0	0	11	9	3	0	0.14
H	1995	071157	Washington URB Umatilla R	05/31/96	29,852	393,339	6.22	0	0	0	0	0	0	0	0	0	0	2	5	6	1	0	0.05
H	1995	071327	Washington URB Umatilla R	05/31/96	28,476	460,259	6.52	3	0	0	0	0	0	0	0	0	0	2	4	3	1	0	0.05
H	1995	071358	Washington URB Umatilla R	03/25/97	25,983	51,112	55.31	15	2	0	0	0	0	0	0	0	0	18	13	29	52	14	0.55
H	1995	091807	Washington URB Umatilla R	03/25/97	25,258	51,066	55.31	31	14	0	0	4	0	0	0	0	0	22	8	39	55	17	0.75
H	1995	071359	Washington URB Umatilla R	03/25/97	25,232	50,865	56.00	19	7	3	0	10	0	0	0	0	0	29	6	52	83	5	0.85
H	1995	091729	Washington URB Umatilla R	03/25/97	25,250	53,993	59.68	37	5	1	0	3	0	0	0	0	0	13	10	46	49	15	0.71
H	1995	091748	Washington URB Umatilla R	03/25/97	25,260	51,917	59.68	48	2	6	0	5	0	0	3	0	0	24	21	75	101	31	1.27
H	1996	092133	Washington URB Umatilla R	05/29/97	33,273	394,250	6.42	2	4	3	0	0	0	0	0	0	0	2	2	2	0	0	0.05
H	1996	092127	Washington URB Umatilla R	05/29/97	32,764	195,031	6.46	0	0	0	0	0	0	0	0	0	0	1	3	10	3	0	0.05
H	1996	092134	Washington URB Umatilla R	05/29/97	33,640	311,016	6.71	4	3	0	0	0	0	0	0	0	0	0	4	0	3	0	0.04
H	1996	092132	Washington URB Umatilla R	05/29/97	31,382	304,993	6.79	0	0	0	0	0	0	0	0	0	0	2	5	3	0	0	0.03
H	1996	092128	Washington URB Umatilla R	05/29/97	29,732	194,562	6.90	0	0	0	0	0	0	0	0	0	0	1	3	2	0	0	0.02
H	1996	092131	Washington URB Umatilla R	05/30/97	31,844	395,493	6.68	0	0	0	0	2	0	0	0	0	0	1	1	2	0	0	0.02
H	1996	092126	Washington URB Umatilla R	05/30/97	33,555	197,028	6.75	0	0	0	0	0	0	0	0	0	0	3	6	6	0	0	0.04
H	1996	092129	Washington URB Umatilla R	05/30/97	33,161	294,417	7.13	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	0.02
H	1996	092130	Washington URB Umatilla R	05/30/97	32,464	294,043	7.27	0	0	0	0	0	0	0	0	0	0	1	3	3	0	0	0.02
H	1996	071158	Washington URB Umatilla R	04/17/98	21,547	89,106	58.15	3	0	4	0	2	0	0	0	0	0	14	4	10	6	2	0.21
H	1996	076127	Washington URB Umatilla R	04/17/98	22,783	89,994	58.15	0	0	4	0	0	0	0	0	0	0	17	2	17	7	0	0.21
H	1997	092403	Washington URB Umatilla R	05/28/98	30,808	31,987	6.91	2	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0.02

Appendix Table A. Continued.

Hatchery,		Ocean Catch																													
Stock source (H, N, M)		Release	Number Released		Size	Oregon Areas											Freshwater Recoveries					%									
brood, tagcode	Stock	Release Site	Date	Ad+CWT	Total	(gm)	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.							
FALL CHINOOK SALMON (Continued)																															
Umatilla (Continued):																															
H	1997	092404	Washington	URB	Umatilla	R	05/28/98	33,286	33,402	6.95	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	9	3	0	0.05
H	1997	092402	Washington	URB	Umatilla	R	05/28/98	30,654	31,198	7.07	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	3	5	0	0.04
H	1997	092408	Washington	URB	Umatilla	R	06/01/98	32,322	32,386	6.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0.01	
H	1997	092406	Washington	URB	Umatilla	R	06/01/98	30,558	31,267	6.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	0	0	0.02	
H	1997	092405	Washington	URB	Umatilla	R	06/01/98	30,533	30,887	6.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	1	0	0.02	
H	1997	092409	Washington	URB	Umatilla	R	06/01/98	32,219	32,333	6.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0.01	
H	1997	092410	Washington	URB	Umatilla	R	06/01/98	31,820	31,820	6.79	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	4	0	3	0.04	
H	1997	092407	Washington	URB	Umatilla	R	06/01/98	32,661	33,017	6.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0.02	
H	1998	092705	Washington	URB	Umatilla	R	06/03/99	63,147	64,610	7.88	31	4	7	0	0	2	0	0	0	0	0	0	0	0	9	37	31	21	0	0.23	
H	1998	092703	Washington	URB	Umatilla	R	06/03/99	65,821	66,311	7.99	26	7	5	0	0	0	0	0	0	0	0	0	0	0	17	22	49	5	0	0.20	
H	1998	092704	Washington	URB	Umatilla	R	06/03/99	63,757	66,272	8.13	41	0	10	0	0	0	0	0	3	0	0	0	0	0	20	28	33	6	0	0.22	
H	1998	092701	Washington	URB	Umatilla	R	06/03/99	64,881	66,270	8.28	31	0	7	0	0	3	0	5	0	0	0	0	0	0	8	20	71	9	0	0.24	
H	1998	092702	Washington	URB	Umatilla	R	06/03/99	63,127	65,278	8.28	35	4	0	0	0	0	0	0	0	0	0	0	0	0	14	26	64	18	0	0.26	
H	1998	092663	Washington	URB	Umatilla	R	06/03/99	66,220	66,739	8.31	38	8	0	0	0	3	0	0	0	0	0	0	0	0	8	46	47	8	0	0.24	
H	1999	093036	Washington	URB	Umatilla	R	05/23/00	65,514	67,191	9.18	12	4	5	0	0	5	0	0	0	0	0	0	0	0	9	28	14	16	--	0.14	
H	1999	093035	Washington	URB	Umatilla	R	05/23/00	65,425	67,996	9.24	24	2	12	0	0	1	5	0	3	0	0	0	0	0	8	18	48	4	--	0.19	
H	1999	093037	Washington	URB	Umatilla	R	05/23/00	67,911	68,169	9.29	26	10	2	0	0	4	0	0	0	0	0	0	0	0	12	13	21	8	--	0.14	
H	1999	093002	Washington	URB	Umatilla	R	05/24/00	66,975	67,358	9.26	25	2	10	0	0	2	0	3	0	0	0	0	0	0	7	7	17	26	--	0.15	
H	1999	093003	Washington	URB	Umatilla	R	05/24/00	67,044	67,297	9.26	43	0	2	0	6	11	0	2	0	0	0	0	0	4	4	41	27	15	--	0.23	
H	1999	093034	Washington	URB	Umatilla	R	05/24/00	63,593	64,332	9.37	22	12	2	0	0	6	0	0	0	0	0	0	0	0	3	6	10	7	--	0.11	
H	1999	093004	Washington	URB	Umatilla	R	05/24/00	60,629	66,716	9.43	11	10	0	0	0	3	0	0	0	0	0	0	0	0	7	5	22	14	--	0.12	
H	1999	093033	Washington	URB	Umatilla	R	05/24/00	68,834	69,095	9.43	38	4	2	0	0	3	0	0	0	0	0	0	0	0	7	22	15	10	--	0.15	
H	1999	093032	Washington	URB	Umatilla	R	05/24/00	68,418	68,940	9.51	22	28	2	0	0	3	0	0	2	0	0	0	0	0	2	11	36	4	--	0.16	
SPRING CHINOOK SALMON																															
Bonneville:																															
H	1990	075829	Lookingglass	Umatilla	R	11/08/91	25,499	26,020	26.99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0.01	
H	1990	075830	Lookingglass	Umatilla	R	11/08/91	25,382	25,899	26.99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0.02	
H	1990	075831	Lookingglass	Umatilla	R	11/08/91	26,029	26,561	26.99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0.01	
H	1990	075826	Lookingglass	Umatilla	R	11/08/91	26,769	27,039	27.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0.02	
H	1990	075827	Lookingglass	Umatilla	R	11/08/91	26,737	27,007	27.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0.02	
H	1990	075828	Lookingglass	Umatilla	R	11/08/91	26,827	27,097	27.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0.02	
H	1990	075835	Lookingglass	Umatilla	R	04/21/92	26,570	36,351	49.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0.01	
H	1990	075836	Lookingglass	Umatilla	R	04/21/92	26,426	36,154	49.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0.01	
H	1990	075837	Lookingglass	Umatilla	R	04/21/92	26,750	36,596	49.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1990	075832	Lookingglass	Umatilla	R	04/21/92	25,503	32,994	53.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.00	
H	1990	075833	Lookingglass	Umatilla	R	04/21/92	25,472	32,953	53.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0.03	
H	1990	075834	Lookingglass	Umatilla	R	04/21/92	25,493	32,982	53.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0.01	

Appendix Table A. Continued.

Hatchery,				Ocean Catch																					
Stock source (H, N, M)		Release	Number Released		Size	Oregon Areas										Freshwater Recoveries					%				
brood, tagcode	Stock	Release Site	Date	Ad+CWT	Total	(gm)	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.	
SPRING CHINOOK SALMON (Continued)																									
Bonneville (Continued):																									
H	1991	076047	Carson (WA)	Umatilla R	11/03/92	17,269	17,667	44.91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1991	076046	Carson (WA)	Umatilla R	11/03/92	24,221	24,715	45.36	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.00
H	1991	076045	Carson (WA)	Umatilla R	11/03/92	24,638	24,638	45.82	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	0	0.02
H	1991	076044	Carson (WA)	Umatilla R	11/04/92	15,423	15,730	34.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1991	076042	Carson (WA)	Umatilla R	11/04/92	25,104	25,104	34.89	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.00
H	1991	076043	Carson (WA)	Umatilla R	11/04/92	24,992	25,075	34.89	0	0	0	0	0	0	0	0	0	0	0	0	1	3	3	0	0.03
H	1991	071456	Carson (WA)	Umatilla R	03/22/93	20,022	46,112	31.72	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6	0	0.04
H	1991	071455	Carson (WA)	Umatilla R	03/23/93	19,951	45,430	30.65	0	0	0	0	0	0	0	0	0	0	0	0	1	3	6	0	0.05
H	1992	075944	Carson (WA)	Umatilla R	03/25/94	20,109	103,980	36.28	0	0	0	0	0	0	0	0	0	0	0	0	2	96	7	0	0.52
H	1992	075945	Carson (WA)	Umatilla R	03/25/94	20,219	99,676	37.17	0	0	0	0	0	0	0	0	0	0	0	0	3	81	4	0	0.44
H	1992	070250	Carson (WA)	Umatilla R	03/25/94	26,716	99,616	38.76	0	0	0	0	0	0	0	0	0	0	0	0	5	117	7	0	0.48
H	1992	070251	Carson (WA)	Umatilla R	03/25/94	26,305	101,830	38.76	0	0	0	0	0	0	0	0	0	0	0	1	6	121	5	0	0.51
H	1990	075659	Lookingglass	Hood R, W Fk	04/02/92	52,732	163,295	45.40	0	0	0	0	0	0	0	0	0	0	0	0	0	13	4	0	0.03
N	1991	073335	Deschutes R	Hood R, W Fk	04/01/93	39,739	40,317	40.14	0	0	0	0	0	0	0	0	0	0	0	1	0	9	0	0	0.03
N	1993	070549	Deschutes R	Hood R, W Fk	04/05/95	42,861	170,004	33.82	0	0	0	0	0	0	0	0	0	0	0	1	0	17	0	0	0.04
CEDC Fisheries:																									
H	1990	075603	Clackamas R	SF Klaskanine R	06/14/91	26,472	119,627	8.95	0	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0.02
H	1991	071425	M Willamette	SF Klaskanine R	06/05/92	26,630	74,517	11.90	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0.02
H	1992	076146	N Santiam R	SF Klaskanine R	03/01/94	24,668	109,974	48.77	0	2	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0.03
H	1993	070351	M Willamette	SF Klaskanine R	02/07/95	51,829	86,978	31.48	0	0	0	0	0	0	0	0	0	0	0	4	1	12	19	0	0.07
H	1994	071119	S Santiam R	SF Klaskanine R	01/31/96	52,205	76,618	30.83	0	0	0	0	0	0	0	0	0	0	0	0	0	5	7	0	0.02
H	1995	071337	M Willamette	SF Klaskanine R	03/04/97	25,149	76,821	28.35	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0	0.04
H	1990	075604	Clackamas R	Youngs R	07/20/91	26,597	210,867	30.64	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	0	0.04
H	1990	075454	Clackamas R	Youngs R	02/20/92	22,592	31,667	87.21	5	6	0	0	0	8	0	0	0	0	0	2	1	29	129	6	0.88
H	1991	071426	M Willamette	Youngs R	06/23/92	26,352	301,786	26.80	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.00
H	1992	070318	N Santiam R	Youngs R	03/08/94	26,418	301,361	50.96	2	3	0	0	0	0	0	0	0	0	0	1	2	67	21	0	0.36
H	1993	070345	M Willamette	Youngs R	02/09/95	39,519	79,336	37.45	10	2	0	0	0	5	0	0	0	0	0	1	3	118	91	4	0.59
H	1993	070343	M Willamette	Youngs R	03/07/95	52,446	156,519	56.00	28	10	0	0	0	0	0	0	0	0	0	26	5	196	201	2	0.89
H	1993	070344	M Willamette	Youngs R	03/30/95	52,224	127,367	61.21	33	1	0	0	0	0	0	0	0	0	0	12	1	132	168	10	0.68
H	1994	071121	S Santiam R	Youngs R	02/05/96	53,685	142,976	38.41	3	0	0	0	0	0	0	0	0	0	0	0	1	29	36	0	0.13
H	1994	071122	S Santiam R	Youngs R	02/29/96	51,737	133,517	42.75	3	0	0	0	0	0	0	0	0	0	0	0	0	32	23	0	0.11
H	1994	071120	Clackamas R	Youngs R	03/21/96	41,085	97,945	45.31	10	0	0	0	0	0	0	0	0	0	0	0	2	36	60	3	0.27
H	1995	091737	M Willamette	Youngs R	02/01/97	49,944	100,680	24.87	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.00
H	1995	091738	M Willamette	Youngs R	03/05/97	49,341	96,540	29.63	2	0	0	0	0	0	0	0	0	0	0	0	0	15	13	0	0.06
H	1995	091739	M Willamette	Youngs R	04/04/97	50,208	95,396	31.07	5	0	0	0	0	0	0	0	0	0	0	0	0	17	43	0	0.13
H	1995	091740	M Willamette	Youngs R	04/04/97	50,139	94,612	35.71	2	0	0	0	0	0	0	0	0	0	0	0	0	43	59	0	0.21
H	1996	092216	M Willamette	Youngs R	03/03/98	50,865	149,878	39.10	10	0	0	0	0	0	0	0	0	0	0	0	1	99	89	0	0.39

Appendix Table A. Continued.

Hatchery,		Ocean Catch																								
Stock source (H, N, M)		Release	Number Released		Size	Oregon Areas											Freshwater Recoveries					%				
brood, tagcode	Stock	Release Site	Date	Ad+CWT	Total	(gm)	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.		
SPRING CHINOOK SALMON (Continued)																										
CEDC Fisheries (Continued):																										
H	1996	092214	M	Willamette	Youngs R	04/01/98	47,147	153,265	37.80	31	0	0	0	0	0	0	0	0	0	0	1	328	348	0	1.51	
H	1996	092215	M	Willamette	Youngs R	04/01/98	49,392	153,139	47.25	39	0	2	0	0	0	0	0	0	0	0	1	541	675	23	2.62	
H	1997	092534	M	Willamette	Youngs R	03/04/99	24,415	165,298	34.13	0	0	0	0	0	0	0	0	0	0	0	0	89	67	0	0.64	
H	1997	092533	M	Willamette	Youngs R	04/01/99	24,253	158,574	37.86	2	0	0	0	0	0	0	0	0	0	0	1	177	159	0	1.40	
H	1997	092536	M	Willamette	Youngs R	04/01/99	23,566	102,546	54.78	4	1	3	0	0	0	0	0	1	0	0	4	164	206	0	1.63	
H	1998	092847	M	Willamette	Youngs R	03/01/00	27,420	128,656	28.42	25	0	2	0	0	0	0	0	3	0	0	5	220	117	4	1.37	
H	1998	092846	M	Willamette	Youngs R	04/04/00	24,689	180,695	24.15	12	4	0	0	0	0	2	0	0	0	0	0	102	130	3	1.02	
H	1998	092848	M	Willamette	Youngs R	04/04/00	26,694	155,299	31.37	10	0	8	0	0	0	0	0	3	0	0	0	33	49	2	0.39	
H	1999	093123	M	Willamette	Youngs R	03/02/01	24,520	101,516	30.03	19	1	27	0	0	0	0	0	0	0	1	0	101	212	--	1.47	
H	1999	093127	M	Willamette	Youngs R	03/02/01	17,226	96,839	31.94	8	8	10	0	0	0	0	0	0	0	0	0	38	124	--	1.09	
H	1999	093133	M	Willamette	Youngs R	03/29/01	26,560	27,310	32.86	23	8	12	0	0	0	0	0	3	0	0	3	1	88	319	--	1.72
H	1999	093126	M	Willamette	Youngs R	04/03/01	25,883	146,346	27.99	15	2	3	0	0	0	0	0	0	0	0	0	73	191	--	1.10	
H	1999	093124	M	Willamette	Youngs R	04/03/01	24,519	138,491	28.70	13	2	5	0	0	0	0	0	0	0	0	0	40	163	--	0.91	
H	1999	093129	M	Willamette	Youngs R	04/12/01	23,849	27,396	36.87	35	8	34	0	0	0	0	0	0	0	3	0	113	495	--	2.88	
H	1994	071237	S	Santiam R	Blind Slough	02/29/96	52,369	199,389	45.77	2	0	0	0	0	0	0	0	0	0	0	1	21	37	0	0.12	
H	1995	091716	M	Willamette	Blind Slough	03/05/97	58,002	171,229	29.88	10	0	0	0	0	2	0	0	0	0	0	0	45	91	0	0.26	
H	1996	092217	M	Willamette	Blind Slough	03/03/98	44,452	198,034	36.00	0	0	0	0	0	0	0	0	0	0	0	0	22	31	0	0.12	
H	1996	092036	M	Willamette	Blind Slough	04/01/98	23,319	25,396	39.10	3	0	0	0	0	0	0	0	0	0	0	0	91	95	2	0.82	
H	1996	092035	M	Willamette	Blind Slough	04/01/98	24,203	25,284	47.25	4	0	0	0	0	0	0	0	0	0	0	0	51	51	0	0.44	
H	1997	092530	M	Willamette	Blind Slough	03/03/99	24,644	148,881	32.17	0	0	0	0	0	0	0	0	0	0	0	0	44	32	0	0.31	
H	1997	092531	M	Willamette	Blind Slough	04/01/99	25,544	25,553	40.94	0	0	0	0	0	0	0	0	0	0	0	0	25	108	3	0.53	
H	1997	092537	M	Willamette	Blind Slough	04/01/99	25,560	25,573	45.22	6	0	3	0	0	0	0	0	0	0	0	0	130	245	0	1.50	
H	1998	092845	M	Willamette	Blind Slough	03/01/00	25,656	143,507	25.50	13	0	0	0	0	3	0	0	0	0	0	0	131	99	0	0.96	
H	1998	092843	M	Willamette	Blind Slough	04/04/00	25,442	26,393	32.75	26	9	0	0	0	2	0	5	0	0	0	9	1	277	181	3	2.02
H	1998	092844	M	Willamette	Blind Slough	04/04/00	25,397	26,501	37.96	26	0	19	0	0	23	0	0	0	0	0	9	1	420	169	0	2.63
H	1999	093128	M	Willamette	Blind Slough	03/02/01	25,502	139,319	27.65	15	0	38	0	3	0	2	0	0	0	0	1	0	92	313	--	1.82
H	1999	093132	M	Willamette	Blind Slough	03/29/01	23,745	27,467	31.49	38	0	30	0	0	1	0	0	3	0	0	1	128	346	--	2.31	
H	1999	093125	M	Willamette	Blind Slough	03/29/01	24,707	25,384	35.43	3	2	6	0	0	0	0	0	0	0	0	0	45	135	--	0.77	
H	1999	093130	M	Willamette	Blind Slough	04/03/01	14,728	30,329	27.82	0	0	0	0	0	0	0	0	0	0	0	0	1	4	--	0.03	
H	1999	093131	M	Willamette	Blind Slough	04/03/01	13,470	27,897	33.84	0	0	0	0	0	0	0	0	0	0	0	0	1	14	--	0.11	
H	1994	071238	S	Santiam R	Tongue Point	02/05/96	52,119	100,138	44.86	3	0	0	0	0	0	0	0	0	0	0	0	10	18	0	0.06	
H	1994	071236	S	Santiam R	Tongue Point	02/29/96	48,281	142,181	41.96	7	0	0	0	0	0	0	0	0	0	0	0	12	18	0	0.08	
H	1995	091717	M	Willamette	Tongue Point	03/05/97	51,461	151,905	27.32	5	0	0	0	0	0	0	0	0	0	0	0	38	68	2	0.22	
H	1995	091718	M	Willamette	Tongue Point	04/04/97	50,309	149,889	31.07	13	0	0	0	0	0	0	0	0	0	0	0	21	67	4	0.22	
H	1996	092218	M	Willamette	Tongue Point	03/03/98	46,710	128,314	32.87	9	0	0	0	0	0	0	0	0	0	1	1	92	104	0	0.44	
H	1996	092219	M	Willamette	Tongue Point	04/01/98	43,987	125,456	33.35	15	0	0	0	0	0	0	0	0	0	0	4	195	255	6	1.08	
H	1997	092532	M	Willamette	Tongue Point	03/03/99	23,782	118,291	44.95	3	0	0	0	0	0	0	0	0	0	0	2	97	125	0	0.95	
H	1997	092535	M	Willamette	Tongue Point	04/01/99	21,637	105,986	50.51	5	0	0	0	0	0	0	0	0	0	0	1	62	134	0	0.93	

Appendix Table A. Continued.

Hatchery,				Ocean Catch																								
Stock source (H, N, M)		Release Site	Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.						
brood, tagcode	Stock			Ad+CWT	Total		AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4		5	6+				
SPRING CHINOOK SALMON (Continued)																												
CEDC Fisheries (Continued):																												
H	1998	092850	M Willamette	Tongue Point	03/01/00	29,028	132,484	35.86	24	1	9	0	0	0	0	0	0	0	0	0	0	0	0	2	140	119	5	1.03
H	1998	092849	M Willamette	Tongue Point	04/04/00	23,515	117,525	46.05	19	0	6	0	0	0	0	0	0	0	0	0	0	0	1	0	187	115	2	1.40
Clackamas:																												
H	1990	075452	Clackamas R	Clackamas R	08/05/91	49,085	308,340	33.59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	19	7	0	0.06	
H	1990	075346	Clackamas R	Clackamas R	09/03/91	50,949	315,000	50.39	3	0	2	0	0	0	0	0	0	0	0	0	0	0	5	48	34	0	0.20	
H	1990	075661	Clackamas R	Clackamas R	03/16/92	34,495	412,274	51.54	12	6	9	0	0	0	1	0	0	0	0	0	0	0	7	147	149	0	0.96	
H	1991	075811	Clackamas R	Clackamas R	08/24/92	45,463	302,092	32.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0.01	
H	1991	070017	Clackamas R	Clackamas R	08/24/92	43,091	282,079	38.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0.01	
H	1991	075735	Clackamas R	Clackamas R	03/29/93	30,427	447,387	31.07	7	2	0	0	0	0	0	0	0	0	0	0	0	0	1	95	43	0	0.49	
H	1992	075903	Clackamas R	Clackamas R	08/13/93	46,472	300,602	39.78	0	3	4	0	0	0	0	0	0	0	0	3	0	20	56	2	0	0.19		
H	1992	075902	Clackamas R	Clackamas R	09/13/93	52,297	297,112	52.13	0	0	0	0	0	0	0	6	0	0	0	1	4	39	5	0	0	0.11		
H	1992	070346	Clackamas R	Clackamas R	04/04/94	28,594	239,158	25.48	2	0	0	0	7	0	0	0	5	0	0	1	0	76	58	1	0	0.52		
H	1993	070231	Clackamas R	Clackamas R	08/08/94	51,497	317,468	40.46	0	0	2	0	0	0	0	0	2	0	0	0	0	9	64	7	0	0.16		
H	1993	070361	Clackamas R	Clackamas R	08/11/94	51,100	335,055	32.15	0	0	0	0	0	0	0	0	3	4	0	0	0	5	47	12	0	0.14		
H	1993	070446	Clackamas R	Clackamas R	04/03/95	29,005	361,702	31.92	12	0	0	0	2	0	0	0	0	0	0	0	0	0	98	170	0	0.97		
H	1994	071518	Clackamas R	Clackamas R	08/07/95	24,761	345,103	29.06	4	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0.03	
H	1994	074522	Clackamas R	Clackamas R	08/07/95	25,946	267,698	30.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0.04	
H	1994	070859	Clackamas R	Clackamas R	03/19/96	25,985	379,140	41.20	19	8	0	0	3	0	0	3	0	0	0	3	1	117	147	1	1.16			
H	1995	070237	Clackamas R	Clackamas R	08/14/96	45,475	615,580	43.20	0	0	0	0	0	0	0	0	0	0	0	0	0	7	25	4	0	0.08		
H	1995	071357	Clackamas R	Clackamas R	03/31/97	29,211	390,111	33.35	33	0	0	0	2	3	0	0	0	0	0	0	1	102	149	4	0	1.02		
H	1996	092116	Clackamas R	Clackamas R	08/12/97	32,774	683,121	39.78	0	0	0	0	0	0	0	0	0	0	0	0	8	7	2	0	0	0.05		
H	1996	092318	Clackamas R	Clackamas R	03/19/98	31,007	487,334	38.12	30	0	0	0	0	0	0	0	0	0	0	0	1	192	103	2	1.06			
H	1997	092450	Clackamas R	Clackamas R	08/03/98	627,999	657,734	29.98	19	9	3	0	0	2	0	0	0	0	0	0	24	347	13	0	0.07			
H	1997	092631	Clackamas R	Clackamas R	03/17/99	216,470	220,955	47.64	146	91	103	0	0	71	14	2	31	15	3	0	1	39	1986	1013	3	1.63		
H	1997	092510	Clackamas R	Clackamas R	03/17/99	94,852	155,394	47.75	30	25	23	0	0	16	0	1	4	4	0	0	53	761	271	2	1.25			
H	1998	092117	Clackamas R	Clackamas R	10/07/99	32,555	430,913	55.65	5	8	0	0	0	2	0	0	0	0	0	0	7	146	10	0	0.55			
H	1998	092439	Clackamas R	Clackamas R	03/15/00	21,774	160,783	48.20	83	30	19	0	0	11	0	0	0	0	0	36	2	445	201	0	3.80			
H	1998	092918	Clackamas R	Clackamas R	03/15/00	28,006	224,816	48.20	116	21	60	0	0	15	3	0	0	0	0	36	4	454	274	1	3.52			
H	1999	092949	Clackamas R	Clackamas R	08/08/00	30,743	313,072	34.89	11	8	0	0	0	3	0	0	0	0	0	3	14	50	8	--	0.32			
H	1999	093018	Clackamas R	Clackamas R	08/30/00	30,127	260,466	29.07	10	6	14	0	0	2	2	0	0	0	0	0	3	46	26	--	0.36			
H	1999	093022	Clackamas R	Clackamas R	03/14/01	50,009	313,254	41.23	45	7	74	0	0	19	0	0	4	7	0	1	0	122	349	--	1.26			
H	1991	075655	Clackamas R	Sandy R	03/16/93	51,764	371,484	33.10	0	5	0	0	0	0	0	0	0	0	0	0	0	31	3	0	0.08			
H	1992	070354	Clackamas R	Sandy R	03/22/94	25,177	344,893	37.48	3	0	4	0	0	0	0	0	3	0	0	0	0	2	0	0	0	0.05		
H	1993	070553	Clackamas R	Sandy R	03/15/95	23,927	459,479	45.31	6	4	0	0	0	2	0	0	3	0	0	0	0	5	12	0	0.13			
H	1994	071151	Clackamas R	Sandy R	03/15/96	23,634	421,768	48.77	22	0	12	0	0	0	0	0	3	0	0	0	0	11	9	0	0.26			
H	1995	075333	Clackamas R	Sandy R	03/20/97	23,280	429,117	42.59	5	0	2	0	0	2	0	0	0	0	0	0	0	10	10	0	0.12			
H	1996	092063	Clackamas R	Sandy R	03/19/98	25,001	358,769	44.91	76	0	0	0	0	3	0	0	0	0	0	0	0	5	9	0	0.37			

Appendix Table A. Continued.

Hatchery,		Ocean Catch																										
Stock source (H, N, M)		Release	Number Released		Size	Oregon Areas											Freshwater Recoveries					%						
brood, tagcode	Stock	Release Site	Date	Ad+CWT	Total	(gm)	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.				
SPRING CHINOOK SALMON (Continued)																												
Clackamas (Continued):																												
H	1997	092519	Clackamas R	Sandy R	03/17/99	460,053	468,301	43.07	129	63	144	0	0	61	5	25	24	2	0	0	0	0	0	0	139	242	0	0.19
H	1998	092429	Clackamas R	Sandy R	03/15/00	24,108	455,472	46.05	76	20	27	0	0	25	0	0	3	0	0	0	0	0	0	0	48	85	0	1.18
H	1999	093029	Clackamas R	Sandy R	03/16/01	27,982	434,084	42.38	41	6	52	0	0	3	4	0	2	0	0	0	0	0	0	0	21	89	--	0.78
Clackamette Cove NP:																												
H	1998	092863	McKenzie R	Clackamas R	03/07/00	37,376	40,913	55.65	63	13	12	0	0	10	3	0	0	0	0	0	16	9	315	209	1	1.74		
H	1998	092862	McKenzie R	Clackamas R	03/07/00	37,434	40,436	64.34	57	0	0	0	0	12	0	0	0	0	0	4	2	171	193	0	1.17			
H	1999	093141	McKenzie R	Clackamas R	03/07/01	39,844	41,220	40.49	28	13	11	0	0	0	0	0	3	0	0	0	0	71	130	--	0.64			
H	1999	093142	McKenzie R	Clackamas R	03/07/01	36,997	37,960	43.61	37	3	49	0	0	0	0	0	3	0	0	0	0	101	257	--	1.22			
Irrigon:																												
	1998	092828	Imnaha R	Imnaha R	04/18/00	16,108	17,585	24.94	0	0	0	0	0	0	0	0	0	0	0	1	34	68	18	0	0.75			
H	1998	092819	Rapid R (ID)	Lookingglass Cr	06/24/99	57,290	57,290	3.56	0	0	0	0	0	0	0	0	0	0	0	0	0	9	24	1	0.06			
H	1999	093114	Rapid R (ID)	Lookingglass Cr	06/09/00	24,058	24,201	6.52	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	--	0.02			
Lookingglass:																												
	1998	092820	Catherine Cr	Catherine Cr	04/18/00	22,986	23,698	19.20	0	0	0	0	0	0	0	0	0	0	0	0	11	55	11	0	0.33			
	1998	092833	Catherine Cr	Catherine Cr	04/18/00	11,082	11,261	21.21	0	0	0	0	0	0	0	0	0	0	0	0	19	67	10	0	0.87			
	1998	092837	Catherine Cr	Catherine Cr	04/18/00	1,036	1,061	21.21	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0.77			
	1998	092839	Catherine Cr	Catherine Cr	04/18/00	563	563	21.21	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	1.07			
	1998	092838	Catherine Cr	Catherine Cr	04/18/00	1,042	1,064	24.81	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	0.58			
	1998	092842	Catherine Cr	Catherine Cr	04/18/00	489	501	24.81	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.41			
N	1999	093106	Catherine Cr	Catherine Cr	04/16/01	6,073	6,073	23.06	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	--	0.02			
N	1999	093107	Catherine Cr	Catherine Cr	04/16/01	4,713	4,713	23.06	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	--	0.21			
N	1999	093108	Catherine Cr	Catherine Cr	04/16/01	6,923	6,923	23.06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	0.00			
N	1999	093109	Catherine Cr	Catherine Cr	04/16/01	11,472	11,472	23.06	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	--	0.10			
N	1999	093110	Catherine Cr	Catherine Cr	04/16/01	13,063	13,063	23.06	0	0	0	0	0	0	0	0	0	0	0	0	1	20	2	--	0.18			
N	1999	093111	Catherine Cr	Catherine Cr	04/16/01	18,985	18,985	23.06	0	0	0	0	0	0	0	0	0	0	0	0	0	29	4	--	0.17			
N	1999	093112	Catherine Cr	Catherine Cr	04/16/01	25,480	25,480	23.06	0	0	0	0	0	0	0	0	0	0	0	0	0	25	2	--	0.11			
N	1999	093113	Catherine Cr	Catherine Cr	04/16/01	25,525	25,525	23.06	0	0	0	0	0	0	0	0	0	0	0	0	1	32	0	--	0.13			
N	1999	093226	Catherine Cr	Catherine Cr	04/16/01	7,938	7,938	23.06	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	--	0.03			
N	1999	093227	Catherine Cr	Catherine Cr	04/16/01	16,661	16,661	23.06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	0.00			
	1998	092840	Grande Ronde	Grande Ronde R	03/14/00	1,508	1,508	23.15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.13			
N	1999	093115	Grande Ronde	Grande Ronde R	03/26/01	2,560	2,560	32.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	0.00			
M	1990	075848	Imnaha R	Imnaha R	03/30/92	42,444	43,555	21.00	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0.01			
M	1990	075849	Imnaha R	Imnaha R	03/30/92	43,433	43,547	21.00	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0.01			
M	1990	075844	Imnaha R	Imnaha R	03/30/92	42,208	42,894	21.60	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0.00			
M	1990	075845	Imnaha R	Imnaha R	03/30/92	42,902	42,902	21.60	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0.02			

Appendix Table A. Continued.

Hatchery,			Ocean Catch																					
Stock source (H, N, M)			Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.		
brood,	tagcode	Stock		Release Site	Ad+CWT		Total	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3		4	5
SPRING CHINOOK SALMON (Continued)																								
Lookingglass (Continued):																								
M	1990	075846	Imnaha R	Imnaha R	03/30/92	45,075	45,256	41.23	0	0	0	0	0	0	0	0	0	0	1	6	14	0	0	0.05
M	1990	075847	Imnaha R	Imnaha R	03/30/92	43,315	44,346	41.23	0	0	0	0	0	0	0	0	0	0	0	7	6	1	0	0.03
M	1991	071540	Imnaha R	Imnaha R	04/12/93	49,077	49,470	18.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
M	1991	071541	Imnaha R	Imnaha R	04/12/93	49,365	49,465	18.90	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.00
M	1991	071538	Imnaha R	Imnaha R	04/12/93	29,330	29,548	37.80	0	0	0	0	0	0	0	0	0	0	0	6	1	1	0	0.03
M	1991	071539	Imnaha R	Imnaha R	04/12/93	29,114	29,176	37.80	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.00
M	1992	076362	Imnaha R	Imnaha R	04/11/94	81,997	84,013	17.65	0	0	0	0	0	0	0	0	0	0	0	1	18	4	0	0.03
M	1992	076363	Imnaha R	Imnaha R	04/11/94	80,404	83,900	18.90	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0.00
M	1992	070117	Imnaha R	Imnaha R	04/11/94	81,508	83,930	22.23	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0.00
M	1992	070116	Imnaha R	Imnaha R	04/11/94	78,785	83,334	22.34	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0.01
M	1992	070118	Imnaha R	Imnaha R	04/11/94	49,471	52,075	29.84	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.00
M	1992	070119	Imnaha R	Imnaha R	04/11/94	49,682	51,365	30.64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
M	1993	070746	Imnaha R	Imnaha R	03/28/95	72,015	72,959	18.36	0	0	0	0	0	0	0	0	0	0	0	5	16	14	0	0.05
M	1993	070748	Imnaha R	Imnaha R	03/28/95	75,831	77,318	19.53	0	0	0	0	0	0	0	0	0	3	0	1	42	8	0	0.07
M	1993	070745	Imnaha R	Imnaha R	03/28/95	77,200	77,952	20.41	0	0	0	0	0	0	0	0	0	0	0	2	35	19	0	0.07
M	1993	070751	Imnaha R	Imnaha R	03/28/95	47,084	48,723	25.74	0	0	0	0	0	0	0	0	0	0	0	14	41	11	0	0.14
M	1993	070750	Imnaha R	Imnaha R	03/28/95	49,576	50,222	26.19	0	0	0	0	0	0	0	0	0	0	1	5	24	8	0	0.08
M	1993	070747	Imnaha R	Imnaha R	04/24/95	64,414	67,130	22.13	0	0	0	0	0	0	0	0	0	0	0	9	26	7	0	0.07
M	1994	071229	Imnaha R	Imnaha R	04/03/96	22,069	22,840	22.32	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.00
M	1994	071228	Imnaha R	Imnaha R	04/03/96	22,643	22,915	23.36	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0.01
M	1994	071230	Imnaha R	Imnaha R	04/03/96	10,695	10,887	23.85	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.02
M	1994	071225	Imnaha R	Imnaha R	04/03/96	13,635	13,839	25.74	0	0	0	0	0	0	0	0	0	0	0	1	7	2	0	0.07
M	1994	071226	Imnaha R	Imnaha R	04/03/96	13,376	13,890	25.89	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0.02
M	1994	071227	Imnaha R	Imnaha R	04/03/96	6,847	6,869	27.81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
M	1995	091719	Imnaha R	Imnaha R	04/07/97	4,924	4,980	19.72	0	0	0	0	0	0	0	0	0	0	0	7	2	0	0	0.18
M	1995	091723	Imnaha R	Imnaha R	04/07/97	15,858	16,588	19.72	0	0	0	0	0	0	0	0	0	0	0	9	35	1	0	0.28
M	1995	091722	Imnaha R	Imnaha R	04/07/97	12,749	12,835	21.91	0	0	0	0	0	0	0	0	0	0	0	13	42	3	0	0.45
M	1995	091721	Imnaha R	Imnaha R	04/07/97	9,742	9,896	29.84	0	0	0	0	0	0	0	0	0	0	1	8	25	3	0	0.38
M	1995	091720	Imnaha R	Imnaha R	04/07/97	6,390	6,613	32.17	0	0	0	0	0	0	0	0	0	0	0	1	22	1	0	0.38
	1996	092202	Imnaha R	Imnaha R	04/06/98	8,596	9,514	19.06	0	0	0	0	0	0	0	0	0	0	0	31	16	0	0	0.55
	1996	092206	Imnaha R	Imnaha R	04/06/98	18,691	19,874	19.38	0	0	0	0	0	0	0	0	0	0	0	41	58	0	0	0.53
	1996	092201	Imnaha R	Imnaha R	04/06/98	9,000	9,493	19.55	0	0	0	0	0	0	0	0	0	0	0	8	18	0	0	0.29
	1996	092205	Imnaha R	Imnaha R	04/06/98	18,028	19,055	19.55	0	0	0	0	0	0	0	0	0	0	0	35	36	1	0	0.40
	1996	092163	Imnaha R	Imnaha R	04/06/98	6,619	6,996	27.66	0	0	0	0	0	0	0	0	0	0	0	9	18	0	0	0.41
	1996	092203	Imnaha R	Imnaha R	04/06/98	12,670	14,023	29.45	0	0	0	0	0	0	0	0	0	0	0	17	26	0	0	0.34
	1996	092124	Imnaha R	Imnaha R	04/06/98	1,698	1,806	31.28	0	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0.41
	1996	092204	Imnaha R	Imnaha R	04/06/98	11,630	12,367	31.28	0	0	0	0	0	0	0	0	0	0	0	25	24	0	0	0.42
	1997	092609	Imnaha R	Imnaha R	04/05/99	9,260	10,241	26.45	0	0	0	0	0	0	0	0	0	0	0	9	17	0	0	0.28

Appendix Table A. Continued.

Hatchery,			Ocean Catch																							
Stock source (H, N, M)			Release	Number Released		Size	Oregon Areas										Freshwater Recoveries					%				
brood,	tagcode	Stock	Release Site	Date	Ad+CWT	Total	(gm)	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.	
SPRING CHINOOK SALMON (Continued)																										
Lookingglass (Continued):																										
	1997	092619	Imnaha R	Imnaha R	04/16/99	39,811	44,712	17.19	0	0	0	0	0	0	0	0	3	0	0	0	0	58	90	12	0	0.41
	1997	092616	Imnaha R	Imnaha R	04/16/99	20,212	21,787	17.94	0	0	0	0	0	0	0	0	4	0	0	0	0	31	51	4	0	0.45
	1997	092615	Imnaha R	Imnaha R	04/16/99	21,239	22,385	18.02	0	0	0	0	0	0	0	0	0	0	0	0	0	49	78	3	0	0.61
	1997	092558	Imnaha R	Imnaha R	04/16/99	12,051	13,308	24.57	0	0	0	0	0	0	0	0	0	0	0	0	0	3	22	0	0	0.21
	1997	092559	Imnaha R	Imnaha R	04/16/99	12,992	14,872	25.83	0	0	0	0	0	0	0	0	0	0	0	0	0	8	23	0	0	0.24
	1997	071248	Imnaha R	Imnaha R	04/16/99	24,570	26,796	26.28	0	0	0	0	0	0	0	0	0	0	0	0	0	23	36	2	0	0.25
	1997	092613	Imnaha R	Imnaha R	04/16/99	12,756	13,443	26.53	0	0	0	0	0	0	0	0	0	0	0	0	0	9	29	1	0	0.31
	1997	092614	Imnaha R	Imnaha R	04/16/99	12,287	13,997	27.76	0	0	0	0	0	0	0	0	0	0	0	0	0	18	14	0	0	0.29
	1997	092612	Imnaha R	Imnaha R	04/16/99	11,942	13,395	28.28	0	0	0	0	0	0	0	0	0	0	0	0	1	26	18	2	0	0.39
	1998	092823	Imnaha R	Imnaha R	04/18/00	17,659	18,618	21.00	0	0	0	0	0	0	0	0	0	0	0	0	0	17	58	29	0	0.59
	1998	092824	Imnaha R	Imnaha R	04/18/00	18,178	18,624	21.21	0	0	0	0	0	0	0	0	0	3	0	0	0	12	68	37	0	0.66
	1998	092821	Imnaha R	Imnaha R	04/18/00	18,001	18,634	21.70	0	0	0	0	0	0	0	0	0	0	0	0	1	24	29	27	0	0.45
	1998	092822	Imnaha R	Imnaha R	04/18/00	18,207	18,617	22.13	0	0	0	0	0	0	0	2	0	3	0	0	1	19	73	26	0	0.68
	1998	092825	Imnaha R	Imnaha R	04/18/00	18,232	18,600	22.13	0	0	0	0	0	0	0	0	0	0	0	0	0	29	71	27	0	0.70
	1998	092826	Imnaha R	Imnaha R	04/18/00	14,880	15,245	22.57	0	0	0	0	0	0	0	0	0	0	0	0	0	29	64	38	0	0.88
	1998	092829	Imnaha R	Imnaha R	04/18/00	16,948	17,581	24.52	0	0	0	0	0	0	0	0	0	3	0	0	3	52	42	21	0	0.71
	1998	092830	Imnaha R	Imnaha R	04/18/00	18,097	18,894	26.87	0	0	0	0	0	0	0	0	0	0	0	0	1	23	61	18	0	0.57
	1998	092827	Imnaha R	Imnaha R	04/18/00	15,972	17,590	28.78	0	0	0	0	0	0	0	0	0	0	0	0	1	27	49	15	0	0.58
	1999	093056	Imnaha R	Imnaha R	04/16/01	18,029	18,029	28.27	0	0	0	0	0	0	0	0	0	0	0	0	0	11	27	1	--	0.22
	1999	093057	Imnaha R	Imnaha R	04/16/01	35,859	35,859	28.27	0	0	0	0	0	0	0	0	0	0	0	0	0	18	53	4	--	0.21
	1999	093058	Imnaha R	Imnaha R	04/16/01	35,879	35,879	28.27	0	0	0	0	6	0	0	0	0	0	0	0	0	34	47	2	--	0.25
	1999	093059	Imnaha R	Imnaha R	04/16/01	33,247	33,247	28.27	0	0	0	0	0	0	0	0	0	0	0	0	0	18	35	2	--	0.17
H	1997	092622	Lookingglass	Lookingglass Cr	04/01/99	63,504	66,142	19.24	0	0	0	0	0	0	0	0	0	0	0	0	14	169	19	0	0.32	
H	1997	070749	Lookingglass	Lookingglass Cr	04/01/99	62,189	64,167	21.14	0	0	0	0	0	0	0	0	0	0	0	0	0	8	104	2	0	0.18
H	1997	070148	Lookingglass	Lookingglass Cr	04/01/99	49,967	56,638	21.23	0	0	0	0	0	0	0	0	0	0	0	0	0	8	106	3	0	0.23
H	1997	092620	Lookingglass	Lookingglass Cr	04/01/99	63,786	66,302	21.44	0	0	0	0	0	0	0	0	0	0	0	0	0	29	139	18	0	0.29
H	1997	092621	Lookingglass	Lookingglass Cr	04/01/99	56,320	58,896	22.61	0	0	0	0	0	0	0	0	0	0	0	0	0	17	127	22	0	0.29
	1997	092610	Lostine R	Lostine R	04/15/99	11,179	11,870	22.28	0	0	0	0	0	0	0	0	0	0	0	0	0	14	32	2	0	0.43
	1998	092831	Lostine R	Lostine R	04/18/00	11,323	11,438	20.52	0	0	0	0	0	0	0	0	0	0	0	0	0	6	50	11	0	0.59
	1998	092834	Lostine R	Lostine R	04/18/00	7,615	7,654	20.52	0	0	0	0	0	0	0	0	0	0	0	0	0	1	22	7	0	0.39
	1998	092832	Lostine R	Lostine R	04/18/00	9,666	9,743	21.40	0	0	0	0	0	0	0	0	0	0	0	0	0	1	29	3	0	0.34
	1998	092835	Lostine R	Lostine R	04/18/00	2,705	2,783	21.60	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	1	0	0.26
	1998	092841	Lostine R	Lostine R	04/18/00	464	477	21.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0.65
	1998	092836	Lostine R	Lostine R	04/18/00	3,010	3,010	22.45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8	4	0	0.43
N	1999	093060	Lostine R	Lostine R	03/29/01	3,582	3,582	23.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	--	0.06
N	1999	093061	Lostine R	Lostine R	03/29/01	11,262	11,262	23.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	--	0.06
N	1999	093062	Lostine R	Lostine R	03/29/01	12,935	12,935	23.14	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	--	0.05
N	1999	093063	Lostine R	Lostine R	03/29/01	16,302	16,302	23.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	--	0.02

Appendix Table A. Continued.

Hatchery,		Ocean Catch																							
Stock source (H, N, M)		Release	Number Released		Size	Oregon Areas											Freshwater Recoveries					%			
brood, tagcode	Stock	Release Site	Date	Ad+CWT	Total	(gm)	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.	
SPRING CHINOOK SALMON (Continued)																									
Lookingglass (Continued):																									
N	1999	093101	Lostine R	Lostine R	03/29/01	15,274	15,274	23.14	0	0	0	0	0	0	0	0	0	0	0	0	2	5	0	--	0.05
N	1999	093102	Lostine R	Lostine R	03/29/01	14,354	14,354	23.14	0	0	0	0	0	0	0	0	0	0	0	0	3	5	0	--	0.06
N	1999	093103	Lostine R	Lostine R	03/29/01	22,575	22,575	23.14	0	0	0	0	0	0	0	0	0	0	0	0	9	16	1	--	0.12
N	1999	093104	Lostine R	Lostine R	03/29/01	34,124	34,124	23.14	0	0	0	0	0	0	0	0	0	0	0	0	2	33	2	--	0.11
N	1999	093105	Lostine R	Lostine R	03/29/01	3,475	3,475	23.14	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	--	0.37
H	1990	075306	Rapid R (ID)	Lookingglass Cr	04/01/92	43,738	425,445	23.02	0	0	0	0	0	0	0	0	0	0	0	0	0	9	3	0	0.03
H	1990	075305	Rapid R (ID)	Lookingglass Cr	04/01/92	43,631	424,069	23.38	0	0	0	0	0	0	0	0	0	0	0	0	1	22	0	0	0.05
H	1990	074746	Rapid R (ID)	Lookingglass Cr	04/01/92	39,623	50,595	46.75	0	0	0	0	0	0	0	0	0	0	0	0	2	7	1	0	0.03
H	1990	075055	Rapid R (ID)	Lookingglass Cr	04/01/92	40,123	50,759	47.74	0	0	0	0	0	0	0	0	0	0	0	0	2	17	7	0	0.06
H	1991	071548	Rapid R (ID)	Lookingglass Cr	04/07/93	35,011	35,152	22.13	0	0	0	0	0	0	0	0	0	0	0	1	0	18	1	0	0.06
H	1991	071550	Rapid R (ID)	Lookingglass Cr	04/07/93	35,351	35,626	22.13	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0.02
H	1991	071551	Rapid R (ID)	Lookingglass Cr	04/07/93	35,460	35,626	22.13	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0.03
H	1991	071546	Rapid R (ID)	Lookingglass Cr	04/07/93	35,580	35,662	22.68	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0.01
H	1991	071547	Rapid R (ID)	Lookingglass Cr	04/07/93	35,583	35,662	22.68	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0.02
H	1991	071553	Rapid R (ID)	Lookingglass Cr	04/07/93	34,812	35,093	22.68	0	0	0	0	0	0	0	0	0	0	0	0	2	9	1	0	0.03
H	1991	071555	Rapid R (ID)	Lookingglass Cr	04/07/93	34,822	34,965	22.68	0	0	0	0	0	0	0	0	0	0	0	0	2	16	0	0	0.05
H	1991	071552	Rapid R (ID)	Lookingglass Cr	04/07/93	36,445	36,738	22.91	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0.03
H	1991	071554	Rapid R (ID)	Lookingglass Cr	04/07/93	35,190	35,190	22.91	0	0	0	0	0	0	0	0	0	0	0	0	2	5	1	0	0.02
H	1991	071556	Rapid R (ID)	Lookingglass Cr	04/07/93	35,176	35,176	22.91	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0.02
H	1991	071557	Rapid R (ID)	Lookingglass Cr	04/07/93	34,753	34,962	23.02	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0.02
H	1991	071558	Rapid R (ID)	Lookingglass Cr	04/07/93	23,063	23,155	23.14	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0.06
H	1991	071549	Rapid R (ID)	Lookingglass Cr	04/07/93	35,002	35,212	23.26	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0.02
H	1992	070441	Rapid R (ID)	Lookingglass Cr	04/10/94	74,132	76,403	22.23	0	0	0	0	0	0	0	0	0	0	0	0	2	50	8	0	0.08
H	1992	075307	Rapid R (ID)	Lookingglass Cr	04/10/94	68,959	71,133	22.23	0	0	0	0	0	0	0	0	0	0	0	0	7	75	9	0	0.13
H	1992	075308	Rapid R (ID)	Lookingglass Cr	04/10/94	68,693	71,371	22.45	0	0	0	0	0	0	0	0	0	0	0	0	2	71	8	0	0.12
H	1992	070434	Rapid R (ID)	Lookingglass Cr	04/10/94	80,275	83,838	22.56	0	0	0	0	0	0	0	0	0	0	0	0	0	42	5	0	0.06
H	1992	070439	Rapid R (ID)	Lookingglass Cr	04/10/94	79,827	81,285	23.02	0	0	0	0	0	0	0	0	0	0	0	0	4	62	6	0	0.09
H	1992	070436	Rapid R (ID)	Lookingglass Cr	04/10/94	77,160	81,071	23.62	0	0	0	0	0	0	0	0	0	0	0	0	4	77	6	0	0.11
H	1992	070437	Rapid R (ID)	Lookingglass Cr	04/10/94	79,481	81,158	24.00	0	0	0	0	0	0	0	0	0	0	0	0	11	115	11	0	0.17
H	1992	070447	Rapid R (ID)	Lookingglass Cr	04/10/94	32,160	34,522	24.51	0	0	0	0	0	0	0	0	0	0	0	0	5	29	8	0	0.13
H	1992	070448	Rapid R (ID)	Lookingglass Cr	04/10/94	33,231	34,647	24.65	0	0	0	0	0	0	0	0	0	0	0	0	2	37	5	0	0.13
H	1992	070440	Rapid R (ID)	Lookingglass Cr	05/06/94	67,540	69,068	27.16	0	0	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0.02
H	1992	070438	Rapid R (ID)	Lookingglass Cr	05/06/94	77,722	80,627	28.70	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0.01
H	1993	070824	Rapid R (ID)	Lookingglass Cr	04/05/95	77,133	85,980	20.05	0	0	0	0	0	0	0	0	0	0	0	0	3	42	21	0	0.09
H	1993	070829	Rapid R (ID)	Lookingglass Cr	04/05/95	87,087	88,189	20.23	0	0	0	0	0	0	0	0	0	0	0	0	2	43	18	0	0.07
H	1993	070828	Rapid R (ID)	Lookingglass Cr	04/05/95	85,509	87,745	20.98	5	0	0	0	0	0	0	0	0	0	0	0	3	68	25	0	0.12
H	1993	070825	Rapid R (ID)	Lookingglass Cr	04/05/95	75,678	86,299	21.68	0	0	0	0	0	0	0	0	0	0	0	0	2	48	13	1	0.08
H	1993	070823	Rapid R (ID)	Lookingglass Cr	04/06/95	84,234	86,934	19.79	0	0	0	0	0	0	0	0	0	0	0	0	1	35	8	0	0.05

Appendix Table A. Continued.

Hatchery,		Ocean Catch																								
Stock source (H, N, M)		Release	Number Released		Size	Oregon Areas											Freshwater Recoveries					%				
brood,	tagcode	Stock	Release Site	Date	Ad+CWT	Total	(gm)	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.	
SPRING CHINOOK SALMON (Continued)																										
Lookingglass (Continued):																										
H	1993	070827	Rapid R (ID)	Lookingglass Cr	04/06/95	86,435	88,097	20.32	0	0	0	0	0	0	0	0	0	0	0	0	0	12	86	32	0	0.15
H	1993	070826	Rapid R (ID)	Lookingglass Cr	04/06/95	65,983	66,204	21.27	0	0	0	0	0	0	0	0	0	0	0	0	0	2	59	17	0	0.12
H	1993	070822	Rapid R (ID)	Lookingglass Cr	04/06/95	68,559	68,782	21.68	0	0	0	0	0	0	0	0	3	0	0	0	0	2	32	10	0	0.07
H	1994	071234	Rapid R (ID)	Lookingglass Cr	04/05/96	32,997	34,786	22.10	0	0	0	0	0	0	0	0	0	0	0	0	4	0	14	2	0	0.06
H	1994	071232	Rapid R (ID)	Lookingglass Cr	04/05/96	34,379	35,292	22.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	5	0	0.06
H	1994	071233	Rapid R (ID)	Lookingglass Cr	04/05/96	33,534	34,809	22.77	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0.02
H	1994	071231	Rapid R (ID)	Lookingglass Cr	04/05/96	33,902	34,225	22.79	0	0	0	0	0	0	0	0	0	0	0	0	3	1	9	0	0	0.04
H	1995	091726	Rapid R (ID)	Lookingglass Cr	04/07/97	36,172	37,974	20.25	0	0	0	0	0	0	0	0	0	0	0	0	0	8	148	8	0	0.45
H	1995	091727	Rapid R (ID)	Lookingglass Cr	04/07/97	37,156	38,962	21.81	0	0	0	0	0	0	0	0	0	0	0	0	0	8	111	3	0	0.33
H	1995	091725	Rapid R (ID)	Lookingglass Cr	04/07/97	36,310	37,785	21.91	0	0	0	0	0	0	0	0	0	0	0	0	0	2	140	4	0	0.40
H	1995	091724	Rapid R (ID)	Lookingglass Cr	04/07/97	37,340	38,756	22.68	0	0	0	0	0	0	0	0	0	0	0	0	0	6	130	8	0	0.39
H	1995	091728	Rapid R (ID)	Lookingglass Cr	07/25/97	29,298	30,880	2.99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0.04
H	1996	092207	Rapid R (ID)	Lookingglass Cr	04/06/98	48,583	51,131	10.77	0	0	0	0	0	0	0	0	0	0	0	0	0	6	47	1	0	0.11
H	1996	075850	Rapid R (ID)	Lookingglass Cr	04/06/98	32,653	33,430	23.14	0	0	0	0	0	0	0	0	0	0	0	0	0	4	53	5	0	0.19
H	1996	075309	Rapid R (ID)	Lookingglass Cr	04/06/98	28,755	31,880	23.38	0	0	0	0	0	0	0	0	0	0	0	0	0	5	66	6	0	0.27
H	1996	092208	Rapid R (ID)	Lookingglass Cr	04/06/98	16,835	17,893	23.50	0	0	0	0	0	0	0	0	0	0	0	0	0	11	45	0	0	0.33
H	1996	075310	Rapid R (ID)	Lookingglass Cr	04/06/98	31,976	34,748	24.92	0	0	0	0	0	0	0	0	0	0	0	0	0	3	52	0	0	0.17
H	1996	075311	Rapid R (ID)	Lookingglass Cr	04/06/98	31,887	33,216	24.92	0	0	0	0	0	0	0	0	0	0	0	0	0	2	50	3	0	0.17
H	1996	092211	Rapid R (ID)	Lookingglass Cr	04/06/98	27,282	31,007	25.20	0	0	0	0	0	0	0	0	0	0	0	0	0	5	94	3	0	0.37
H	1996	092209	Rapid R (ID)	Lookingglass Cr	04/06/98	12,470	12,760	25.77	0	0	0	0	0	0	0	0	0	0	0	0	0	2	45	12	0	0.47
H	1996	092210	Rapid R (ID)	Lookingglass Cr	04/06/98	25,694	28,163	26.22	0	0	0	0	0	0	0	0	0	0	0	0	0	3	79	8	0	0.35
H	1996	092212	Rapid R (ID)	Lookingglass Cr	04/06/98	23,538	27,920	26.68	0	0	0	0	0	0	0	0	0	0	0	0	0	2	99	16	0	0.50
H	1992	070435	Rapid R (ID)	Snake R	04/12/94	79,382	84,051	23.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
Marion Forks:																										
H	1990	075710	N Santiam R	Santiam R & NF	03/06/92	17,405	297,234	38.76	0	8	0	0	0	0	0	0	0	0	0	0	0	8	12	0	0	0.16
H	1990	075711	N Santiam R	Santiam R & NF	03/06/92	17,430	256,653	41.23	2	0	0	0	0	0	0	0	0	0	0	0	0	8	19	2	0	0.18
H	1991	076119	N Santiam R	Santiam R & NF	03/18/93	9,020	17,752	29.65	2	0	0	0	0	0	0	0	0	0	0	0	0	9	10	0	0	0.23
H	1991	076114	N Santiam R	Santiam R & NF	03/18/93	9,282	16,285	30.04	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0.06
H	1991	076118	N Santiam R	Santiam R & NF	03/18/93	9,655	17,748	34.62	0	0	0	0	0	0	0	0	0	0	0	0	0	1	27	4	0	0.33
H	1991	076116	N Santiam R	Santiam R & NF	03/18/93	9,327	19,872	34.89	0	0	0	0	0	0	0	0	0	0	0	0	0	9	4	0	0	0.14
H	1991	073722	N Santiam R	Santiam R & NF	03/18/93	16,146	331,526	37.80	8	0	0	0	0	0	0	0	0	0	0	0	0	47	14	0	0	0.43
H	1991	076115	N Santiam R	Santiam R & NF	03/18/93	9,211	21,078	40.14	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3	0	0	0.10
H	1991	076117	N Santiam R	Santiam R & NF	03/18/93	8,861	20,656	40.86	0	2	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0.12
H	1992	070430	N Santiam R	Santiam R & NF	03/02/94	13,347	240,979	40.49	25	0	0	0	0	0	0	0	0	0	0	0	0	10	2	0	0	0.28
H	1992	070431	N Santiam R	Santiam R & NF	03/03/94	15,122	248,846	35.99	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0.02
H	1993	076125	N Santiam R	Santiam R & NF	03/01/95	15,054	326,851	39.07	6	0	0	0	0	0	0	0	0	0	0	0	0	12	7	0	0	0.17
H	1993	076338	N Santiam R	Santiam R & NF	03/01/95	15,726	338,833	39.07	8	0	0	0	0	0	0	0	0	0	0	0	0	2	27	13	0	0.32

Appendix Table A. Continued.

Hatchery,					Ocean Catch																									
Stock source (H, N, M)			Release Site	Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.							
brood,	tagcode	Stock			Ad+CWT	Total		AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4		5	6+					
SPRING CHINOOK SALMON (Continued)																														
Marion Forks (Continued):																														
H	1994	070861	N Santiam R	Santiam R & NF	03/01/96	12,363	340,609	34.86	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	8	0	0.23		
H	1994	070862	N Santiam R	Santiam R & NF	03/01/96	13,324	358,793	34.86	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	25	0	0.34	
H	1995	071259	N Santiam R	Santiam R & NF	03/04/97	16,925	353,789	34.89	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	33	0	0.44	
H	1995	071260	N Santiam R	Santiam R & NF	03/04/97	16,270	342,646	35.44	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	23	0	0.34	
H	1996	092319	N Santiam R	Santiam R & NF	03/03/98	244,804	309,677	29.45	129	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	488	1080	4	0.71
H	1996	092320	N Santiam R	Santiam R & NF	03/03/98	407,781	415,423	33.11	246	1	10	0	5	0	0	0	0	0	0	0	0	0	0	0	5	1014	1717	6	0.74	
H	1997	092632	N Santiam R	Santiam R & NF	03/12/99	240,057	246,329	32.01	45	12	52	0	10	24	10	2	10	5	0	3	2	29	1255	843	1	0.97				
H	1997	092633	N Santiam R	Santiam R & NF	03/12/99	342,272	351,214	38.44	72	13	52	0	0	20	8	2	8	3	0	2	4	20	1256	864	0	0.68				
H	1998	071261	N Santiam R	Santiam R & NF	03/08/00	15,067	240,983	34.23	36	4	24	0	2	12	4	0	0	0	0	0	0	0	0	0	3	83	80	3	1.67	
H	1998	071262	N Santiam R	Santiam R & NF	04/11/00	15,335	425,261	36.43	64	9	20	0	0	7	0	0	0	0	0	0	1	7	113	137	2	2.35				
H	1999	093023	N Santiam R	Santiam R & NF	03/12/01	31,985	664,200	35.99	19	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	135	--	0.74	
McKenzie:																														
H	1994	071050	Clackamas R	Clackamas R	03/15/96	39,454	40,014	55.93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	5	0	0.03	
H	1994	071051	Clackamas R	Clackamas R	03/15/96	39,457	39,655	59.60	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0.03	
H	1994	071049	Clackamas R	Clackamas R	03/15/96	41,471	42,078	61.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0.01	
H	1994	071243	Clackamas R	Clackamas R	03/15/96	38,087	38,240	61.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	4	0	0.02	
H	1994	071045	Clackamas R	Willamette R	11/08/95	33,666	33,666	50.91	12	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5	14	6	0	0.12	
H	1994	071046	Clackamas R	Willamette R	11/08/95	25,317	25,624	52.08	9	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15	16	0	0.17	
H	1994	071047	Clackamas R	Willamette R	11/08/95	30,543	32,842	53.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0.02	
H	1994	071048	Clackamas R	Willamette R	11/09/95	28,853	31,917	53.93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0.01	
H	1995	091801	M Willamette	Clackamas R	03/13/97	30,529	42,561	47.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	11	0	0.08	
H	1995	091802	M Willamette	Clackamas R	03/13/97	24,996	31,016	55.31	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	8	0	0.06	
H	1995	091758	McKenzie R	Clackamas R	11/08/96	29,049	29,491	56.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	19	0	0.12	
H	1995	091759	McKenzie R	Clackamas R	11/08/96	29,407	29,525	57.42	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	7	7	0	0.08	
H	1995	091756	McKenzie R	Clackamas R	11/08/96	29,610	29,942	63.88	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	6	0	0.12	
H	1995	091757	McKenzie R	Clackamas R	11/08/96	28,955	29,792	63.88	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	48	0	0	0.18	
H	1995	091754	McKenzie R	Clackamas R	11/08/96	33,415	34,916	64.80	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	54	18	0	0.26	
H	1995	091755	McKenzie R	Clackamas R	11/08/96	27,699	29,937	65.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	31	4	0	0.17	
H	1995	091760	McKenzie R	Clackamas R	03/13/97	30,170	39,085	49.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.00	
H	1995	091762	McKenzie R	Clackamas R	03/13/97	30,120	32,307	50.96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0.01	
H	1996	092239	McKenzie R	Clackamas R	03/12/98	39,106	41,718	44.04	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101	106	10	0.60
H	1996	092236	McKenzie R	Clackamas R	03/12/98	37,178	41,924	48.25	19	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	31	63	0	0.31
H	1996	092237	McKenzie R	Clackamas R	03/12/98	36,825	39,251	48.25	10	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	14	41	0	0.19	
H	1996	092238	McKenzie R	Clackamas R	03/12/98	39,168	41,695	48.25	18	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	75	0	0.36	
H	1996	092235	McKenzie R	Clackamas R	03/12/98	36,118	41,596	52.74	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	44	0	0.27	
H	1996	092234	McKenzie R	Clackamas R	03/12/98	34,071	38,218	54.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	9	0	0.14	
H	1997	092548	McKenzie R	Clackamas R	03/09/99	77,537	78,504	45.00	5	0	2	0	0	5	0	0	4	0	0	0	0	0	0	0	0	44	178	0	0.31	

Appendix Table A. Continued.

Hatchery,		Ocean Catch																											
Stock source (H, N, M)		Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.								
brood, tagcode	Stock		Release Site	Ad+CWT		Total	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3		4	5	6+					
SPRING CHINOOK SALMON (Continued)																													
McKenzie (Continued):																													
H	1998	092860	McKenzie R	Clackamas R	03/07/00	37,217	40,208	50.68	20	0	0	0	0	0	3	0	0	0	0	0	0	0	0	2	0	81	36	0	0.38
H	1998	092861	McKenzie R	Clackamas R	03/07/00	36,907	40,493	50.74	37	4	12	0	0	5	0	0	0	0	0	0	0	0	9	0	100	128	14	0.84	
H	1998	092901	McKenzie R	Clackamas R	03/08/00	38,447	40,775	49.57	55	0	16	0	0	0	2	0	0	0	0	0	0	0	3	0	343	125	0	1.41	
H	1998	092902	McKenzie R	Clackamas R	03/08/00	38,948	40,915	50.12	43	14	8	0	0	3	0	0	0	0	0	0	0	7	0	205	150	0	1.10		
H	1999	093145	McKenzie R	Clackamas R	03/06/01	35,914	40,246	46.75	34	8	23	0	0	3	0	0	0	3	0	0	0	0	3	153	177	--	1.12		
H	1999	093146	McKenzie R	Clackamas R	03/06/01	38,719	39,548	47.24	8	1	10	0	0	0	0	0	0	3	0	0	0	0	0	0	37	48	--	0.28	
H	1999	093144	McKenzie R	Clackamas R	03/07/01	39,113	39,840	47.24	14	0	11	0	2	0	0	0	4	3	0	0	0	0	1	72	128	--	0.60		
H	1999	093143	McKenzie R	Clackamas R	03/07/01	38,913	39,710	47.74	75	13	28	0	0	1	0	0	0	9	0	0	1	1	110	246	--	1.24			
H	1990	075656	McKenzie R	McKenzie R	11/15/91	49,264	236,504	59.67	3	0	4	0	0	0	0	0	2	0	0	0	0	0	3	76	81	0	0.36		
H	1990	075629	McKenzie R	McKenzie R	03/12/92	30,985	52,269	36.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	3	1	0.04		
H	1990	075660	McKenzie R	McKenzie R	03/12/92	32,253	52,777	39.10	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	20	0	0.10		
H	1990	075630	McKenzie R	McKenzie R	03/12/92	30,743	681,011	49.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	0	0.03		
H	1991	075734	McKenzie R	McKenzie R	11/13/92	30,724	228,440	53.99	4	3	0	0	0	0	0	0	0	0	0	3	0	0	12	17	0	0.13			
H	1991	075733	McKenzie R	McKenzie R	03/10/93	30,720	50,130	28.53	2	0	0	0	3	0	0	0	0	0	0	0	3	0	0	16	19	1	0.14		
H	1991	075818	McKenzie R	McKenzie R	03/10/93	31,021	54,025	38.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	36	1	0.22		
H	1991	075732	McKenzie R	McKenzie R	03/10/93	31,196	472,747	53.36	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	22	0	0.27		
H	1992	070428	McKenzie R	McKenzie R	02/09/94	230,137	245,806	35.16	2	0	0	0	0	0	0	0	2	0	0	0	0	0	1	92	186	7	0.13		
H	1992	070429	McKenzie R	McKenzie R	03/02/94	50,401	51,757	34.10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	12	1	0.05		
H	1992	070236	McKenzie R	McKenzie R	03/02/94	46,383	49,575	38.11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	16	29	1	0.11		
H	1992	070240	McKenzie R	McKenzie R	03/02/94	144,006	158,024	50.39	2	5	0	0	0	0	0	0	0	0	0	0	0	0	1	92	200	5	0.21		
H	1992	070254	McKenzie R	McKenzie R	03/02/94	37,895	41,583	50.39	2	5	0	0	0	0	0	0	0	0	0	0	0	0	1	30	46	1	0.22		
H	1992	076121	McKenzie R	McKenzie R	03/02/94	169,400	185,890	50.39	25	5	0	0	0	0	0	0	0	0	0	0	0	0	4	146	260	5	0.26		
H	1993	070444	McKenzie R	McKenzie R	03/01/95	27,924	162,283	53.30	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	34	29	1	0.25		
H	1993	070850	McKenzie R	McKenzie R	03/01/95	27,738	160,901	53.30	0	4	0	0	3	0	0	0	0	0	0	0	0	0	0	9	22	0	0.14		
H	1993	070851	McKenzie R	McKenzie R	03/01/95	27,022	156,999	53.30	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	24	0	0.19		
H	1994	070445	McKenzie R	McKenzie R	02/08/96	29,805	193,730	52.08	7	0	0	0	0	2	0	0	0	0	0	0	0	0	0	34	34	0	0.26		
H	1994	070450	McKenzie R	McKenzie R	02/08/96	30,170	194,516	52.08	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	25	0	0.24		
H	1994	070860	McKenzie R	McKenzie R	03/08/96	25,058	203,991	58.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	24	19	0	0.18		
H	1995	071317	McKenzie R	McKenzie R	02/06/97	33,634	287,606	34.16	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	35	0	0.22		
H	1995	076140	McKenzie R	McKenzie R	02/06/97	30,091	199,692	49.84	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	46	0	0.28		
H	1995	071258	McKenzie R	McKenzie R	03/06/97	29,143	144,642	52.14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	48	3	0.33		
H	1995	091803	McKenzie R	McKenzie R	03/06/97	34,167	163,306	52.14	2	0	10	0	0	0	0	0	0	0	0	0	0	0	1	62	55	0	0.38		
H	1995	091804	McKenzie R	McKenzie R	03/06/97	33,838	158,639	52.14	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	77	6	0.41		
H	1996	092241	McKenzie R	McKenzie R	11/11/97	35,705	36,648	56.70	8	0	0	0	0	0	0	0	0	0	0	0	0	0	1	30	28	0	0.20		
H	1996	092251	McKenzie R	McKenzie R	11/11/97	37,875	39,437	58.15	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	38	0	0.25		
H	1996	092240	McKenzie R	McKenzie R	11/11/97	35,349	36,457	59.68	17	0	0	0	0	0	0	0	0	0	0	0	0	0	2	32	9	0	0.17		
H	1996	092250	McKenzie R	McKenzie R	11/11/97	149,671	154,365	61.29	33	0	1	0	0	0	0	0	0	0	0	0	0	0	7	217	109	1	0.26		
H	1996	092247	McKenzie R	McKenzie R	02/05/98	46,287	55,588	36.29	23	0	0	0	0	0	0	0	0	0	0	0	0	0	2	111	207	0	0.76		

Appendix Table A. Continued.

Hatchery,				Ocean Catch																					
Stock source (H, N, M)		Release	Number Released		Size	Oregon Areas											Freshwater Recoveries					%			
brood, tagcode	Stock	Release Site	Date	Ad+CWT	Total	(gm)	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.	
SPRING CHINOOK SALMON (Continued)																									
McKenzie (Continued):																									
H	1996	092253	McKenzie R	McKenzie R	02/05/98	49,918	56,725	36.29	28	0	0	0	0	0	0	0	0	0	0	0	2	118	217	3	0.74
H	1996	092252	McKenzie R	McKenzie R	02/05/98	45,974	56,765	36.88	20	0	4	0	0	0	0	0	0	0	0	0	0	101	174	4	0.66
H	1996	092249	McKenzie R	McKenzie R	02/05/98	105,588	114,107	37.18	39	0	9	0	0	0	0	0	0	0	0	0	5	264	477	6	0.76
H	1996	092246	McKenzie R	McKenzie R	02/05/98	38,884	42,689	55.31	17	0	2	0	0	0	0	0	0	0	0	0	0	122	122	0	0.68
H	1996	092244	McKenzie R	McKenzie R	03/05/98	28,531	29,107	48.25	13	0	0	0	0	0	0	0	0	0	0	0	0	47	149	0	0.73
H	1996	092248	McKenzie R	McKenzie R	03/05/98	56,907	57,856	48.25	37	2	0	0	0	0	0	0	0	0	0	0	0	99	256	0	0.69
H	1996	092242	McKenzie R	McKenzie R	03/05/98	28,685	28,972	48.77	13	0	0	0	0	0	0	0	0	0	0	0	1	61	144	0	0.78
H	1996	092243	McKenzie R	McKenzie R	03/05/98	28,391	28,853	48.77	26	0	0	0	0	0	0	0	0	0	0	0	0	61	166	6	0.91
H	1996	092160	McKenzie R	McKenzie R	03/05/98	81,960	87,799	53.36	37	0	4	0	0	0	0	0	0	0	0	0	2	255	432	14	0.91
H	1996	092161	McKenzie R	McKenzie R	03/05/98	28,383	31,300	53.36	8	0	0	0	0	0	0	0	0	0	0	0	0	66	119	3	0.69
H	1996	092162	McKenzie R	McKenzie R	03/05/98	29,620	31,460	53.36	14	2	1	0	0	0	0	0	0	0	0	0	1	93	152	0	0.89
H	1997	092628	McKenzie R	McKenzie R	11/04/98	241,943	250,639	56.07	16	7	7	0	0	2	0	0	0	0	0	0	5	250	189	1	0.20
H	1997	092352	McKenzie R	McKenzie R	02/10/99	12,012	12,012	37.09	0	4	7	0	0	0	0	0	0	0	0	0	0	21	11	0	0.36
H	1997	092630	McKenzie R	McKenzie R	02/10/99	245,005	272,999	37.12	14	4	13	0	0	2	0	0	0	0	0	0	1	398	784	6	0.50
H	1997	092629	McKenzie R	McKenzie R	02/10/99	75,941	79,323	53.24	6	0	0	0	0	5	0	0	0	0	0	0	1	72	54	0	0.18
H	1997	092446	McKenzie R	McKenzie R	03/10/99	21,978	23,272	47.20	0	4	0	0	0	6	0	0	0	0	0	0	2	77	153	1	1.12
H	1997	092550	McKenzie R	McKenzie R	03/10/99	129,554	137,183	47.20	27	0	8	0	0	12	3	2	0	0	0	0	1	487	854	1	1.08
H	1997	092451	McKenzie R	McKenzie R	03/10/99	27,034	27,882	54.52	3	0	10	0	0	4	0	0	0	0	0	0	3	119	167	0	1.13
H	1997	092452	McKenzie R	McKenzie R	03/10/99	25,768	27,468	54.52	3	0	0	0	0	1	0	0	3	0	0	0	0	85	201	1	1.16
H	1997	092512	McKenzie R	McKenzie R	03/10/99	89,288	95,003	54.52	8	5	5	0	10	4	2	0	7	6	0	0	9	528	652	1	1.39
H	1998	092738	McKenzie R	McKenzie R	11/10/99	28,965	246,362	57.13	3	1	8	0	0	2	0	0	0	0	0	0	8	237	18	0	0.96
H	1998	092908	McKenzie R	McKenzie R	02/09/00	30,236	277,780	38.97	38	0	9	0	0	4	0	0	0	0	0	0	0	196	127	5	1.25
H	1998	092739	McKenzie R	McKenzie R	02/09/00	31,342	84,039	50.74	31	8	5	0	0	11	0	0	0	0	0	1	3	195	71	0	1.04
H	1998	092653	McKenzie R	McKenzie R	03/08/00	29,032	169,767	50.34	57	0	8	0	0	6	4	3	0	0	0	1	5	328	218	1	2.18
H	1998	092654	McKenzie R	McKenzie R	03/08/00	29,244	170,174	50.34	34	4	15	0	0	5	3	0	0	3	0	0	0	317	186	6	1.96
H	1999	093038	McKenzie R	McKenzie R	11/08/00	28,446	242,363	57.41	11	0	30	0	0	2	7	0	0	0	0	0	38	123	87	--	1.05
H	1999	093024	McKenzie R	McKenzie R	02/07/01	31,812	272,148	38.11	13	0	9	0	0	0	0	0	0	0	0	0	0	47	75	--	0.45
H	1999	093019	McKenzie R	McKenzie R	02/07/01	31,088	80,199	50.39	22	0	5	0	0	4	0	0	7	0	0	0	6	59	110	--	0.69
H	1999	093147	McKenzie R	McKenzie R	03/07/01	33,026	177,377	47.74	7	2	11	0	0	2	0	0	0	0	0	0	0	41	120	--	0.55
H	1999	093148	McKenzie R	McKenzie R	03/07/01	33,200	177,610	50.39	8	0	7	0	0	0	0	0	0	0	0	0	0	63	131	--	0.63
H	1996	092245	McKenzie R	Mohawk R	02/05/98	35,455	42,301	45.82	4	0	0	0	0	0	0	0	0	0	0	0	2	34	80	0	0.34
H	1992	070455	McKenzie R	Willamette R	03/08/94	29,548	44,352	50.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0.01
H	1992	070456	McKenzie R	Willamette R	03/08/94	29,606	43,373	51.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1992	070457	McKenzie R	Willamette R	03/08/94	28,789	43,079	51.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0.01
H	1992	070452	McKenzie R	Willamette R	03/08/94	30,862	43,127	53.35	4	0	0	0	0	0	0	0	0	0	0	0	1	6	2	0	0.04
H	1992	070454	McKenzie R	Willamette R	03/08/94	28,878	43,869	53.35	6	0	0	0	0	0	0	0	0	0	0	0	0	7	2	1	0.06
H	1992	070453	McKenzie R	Willamette R	03/08/94	30,382	38,747	54.64	0	3	0	0	0	0	0	0	4	0	0	0	0	2	4	0	0.04
H	1993	070833	McKenzie R	Willamette R	11/08/94	29,379	30,932	57.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00

Appendix Table A. Continued.

Hatchery,		Ocean Catch																							
Stock source (H, N, M)		Release Site	Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.			
brood, tagcode	Stock			Ad+CWT	Total		AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4		5	6+	
SPRING CHINOOK SALMON (Continued)																									
McKenzie (Continued):																									
H	1993	070832	McKenzie R	Willamette R	11/08/94	29,487	31,363	58.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00			
H	1993	070831	McKenzie R	Willamette R	11/08/94	29,712	31,578	58.83	3	0	0	0	0	0	0	0	0	0	0	14	14	1	0.11		
H	1993	070834	McKenzie R	Willamette R	11/09/94	33,338	33,925	50.91	10	6	0	0	0	0	0	0	0	0	0	20	18	0	0.16		
H	1993	070830	McKenzie R	Willamette R	11/09/94	27,441	30,793	55.25	12	0	0	0	0	0	0	3	0	0	0	0	7	16	0	0.14	
H	1993	070835	McKenzie R	Willamette R	11/09/94	20,540	21,149	62.91	2	0	0	0	0	0	0	0	0	0	0	18	18	2	0.19		
H	1993	070845	McKenzie R	Willamette R	02/24/95	21,226	29,610	50.34	0	0	0	0	0	0	0	0	0	0	0	9	4	0	0.06		
H	1993	070846	McKenzie R	Willamette R	02/24/95	20,880	29,610	50.34	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0.02		
H	1993	070848	McKenzie R	Willamette R	03/08/95	25,497	38,889	51.48	0	1	0	0	0	0	0	0	0	0	0	0	6	0	0.03		
H	1993	070849	McKenzie R	Willamette R	03/08/95	26,957	42,075	51.48	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0.01		
H	1993	070847	McKenzie R	Willamette R	03/08/95	31,139	43,208	52.08	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0.01		
H	1993	070836	McKenzie R	Willamette R	03/08/95	19,899	30,662	52.68	3	0	0	0	0	0	0	0	0	0	0	5	5	0	0.07		
H	1995	091761	McKenzie R	Willamette R	03/13/97	29,020	42,067	44.91	2	0	0	0	0	0	0	0	0	0	0	18	4	0	0.08		
H	1995	091763	McKenzie R	Willamette R	03/13/97	29,888	42,720	50.96	2	0	0	0	0	0	0	0	0	0	0	5	1	0	0.03		
H	1996	092231	McKenzie R	Willamette R	11/06/97	31,356	31,716	54.58	7	0	0	0	0	0	0	0	0	0	0	1	7	21	0	0.11	
H	1996	092228	McKenzie R	Willamette R	11/06/97	30,368	31,088	57.34	0	0	0	0	0	0	0	0	0	0	0	0	29	30	0	0.19	
H	1996	092229	McKenzie R	Willamette R	11/06/97	30,916	32,016	58.15	17	0	0	0	0	0	0	0	0	0	0	1	45	9	7	0.27	
H	1996	092230	McKenzie R	Willamette R	11/06/97	30,273	31,692	61.21	8	0	0	0	0	0	0	0	0	0	0	6	25	18	0	0.20	
H	1996	092232	McKenzie R	Willamette R	03/13/98	36,135	41,175	50.40	8	0	1	0	0	0	0	0	0	0	0	0	10	39	0	0.16	
H	1996	092233	McKenzie R	Willamette R	03/13/98	30,798	35,783	53.36	5	0	0	0	0	0	0	0	0	0	0	2	11	7	0	0.08	
H	1997	092545	McKenzie R	Willamette R	11/05/98	55,748	60,020	54.45	0	0	0	0	0	0	0	0	0	0	0	0	14	60	0	0.13	
H	1997	092544	McKenzie R	Willamette R	11/05/98	55,189	60,270	58.00	0	0	0	0	0	0	0	0	0	0	0	0	23	33	0	0.10	
H	1997	092546	McKenzie R	Willamette R	03/08/99	79,186	82,088	48.20	6	4	0	0	0	0	0	0	0	0	0	0	1	23	0	0.04	
H	1997	092549	McKenzie R	Willamette R	03/08/99	79,463	82,037	48.62	0	0	0	0	0	0	0	0	0	0	0	0	15	12	0	0.03	
H	1997	092547	McKenzie R	Willamette R	03/09/99	75,243	81,581	47.10	0	0	0	0	0	0	0	0	0	0	0	0	10	5	0	0.02	
H	1998	092904	McKenzie R	Willamette R	03/09/99	29,063	30,505	55.65	4	4	7	0	0	0	0	0	0	0	0	1	13	7	0	0.12	
H	1998	092906	McKenzie R	Willamette R	11/04/99	27,646	30,584	54.32	10	0	0	0	0	0	0	0	0	0	1	4	100	40	0	0.56	
H	1998	092905	McKenzie R	Willamette R	11/04/99	28,661	30,584	55.72	3	13	0	0	0	1	0	0	6	0	0	1	22	203	20	0	0.97
H	1998	092903	McKenzie R	Willamette R	11/09/99	27,871	30,509	54.39	17	0	0	0	0	5	0	0	0	0	0	1	3	83	17	0	0.45
H	1998	092859	McKenzie R	Willamette R	03/06/00	37,118	41,095	47.50	11	0	0	0	0	0	0	0	0	0	0	0	24	4	0	0.11	
H	1998	092858	McKenzie R	Willamette R	03/06/00	36,698	40,176	48.51	11	0	0	0	0	3	0	0	0	0	0	3	28	28	3	0.21	
H	1999	093135	McKenzie R	Willamette R	11/07/00	25,498	30,273	52.73	19	30	23	0	0	2	0	0	5	0	0	0	29	60	71	--	0.94
H	1999	093136	McKenzie R	Willamette R	11/07/00	27,723	30,215	53.99	12	0	16	0	0	0	0	0	4	0	0	0	1	94	75	--	0.73
H	1999	093137	McKenzie R	Willamette R	11/07/00	29,950	31,734	55.31	21	19	20	0	0	7	0	0	0	0	0	0	5	68	57	--	0.66
H	1999	093138	McKenzie R	Willamette R	11/07/00	25,600	30,573	57.41	10	0	35	0	0	2	0	0	0	3	0	0	0	80	84	--	0.84
H	1999	093140	McKenzie R	Willamette R	03/08/01	38,363	39,178	48.25	73	13	54	0	0	3	0	0	7	0	0	0	0	123	265	--	1.40
H	1999	093139	McKenzie R	Willamette R	03/08/01	38,125	40,313	49.84	32	10	51	0	0	6	0	0	0	0	0	0	0	112	223	--	1.14
H	1995	076048	S Santiam R	Molalla R	03/18/97	19,881	63,890	44.91	2	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0.04	

Appendix Table A. Continued.

Hatchery,				Ocean Catch																						
Stock source (H, N, M)		Release Site	Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.				
brood, tagcode	Stock			Ad+CWT	Total		AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4		5	6+		
SPRING CHINOOK SALMON (Continued)																										
Round Butte (Continued):																										
	1996	092222	Deschutes R	Deschutes R	05/12/98	61,326	64,149	45.36	0	0	0	0	0	0	0	0	0	0	0	0	8	33	4	0	0.07	
	1996	092220	Deschutes R	Deschutes R	05/12/98	57,619	60,145	50.40	3	0	0	0	0	0	0	0	0	0	0	0	18	103	3	0	0.22	
	1996	092221	Deschutes R	Deschutes R	05/12/98	62,075	63,213	56.00	0	0	0	0	0	0	0	0	0	0	0	0	6	59	5	0	0.11	
	1997	092551	Deschutes R	Deschutes R	05/09/99	68,539	71,395	57.93	3	0	0	0	0	0	0	0	0	0	0	0	73	638	31	0	1.09	
	1997	092553	Deschutes R	Deschutes R	05/09/99	78,655	79,611	58.75	0	0	0	0	0	0	0	0	0	0	0	0	78	701	13	0	1.01	
	1997	092552	Deschutes R	Deschutes R	05/09/99	71,362	72,375	60.24	0	0	0	0	0	0	0	5	0	0	0	0	54	638	20	0	1.00	
	1997	092554	Deschutes R	Deschutes R	05/09/99	80,535	80,940	63.17	0	0	0	0	0	0	0	0	0	0	0	0	63	518	13	0	0.74	
	1998	092852	Deschutes R	Deschutes R	05/09/00	79,590	81,900	53.30	0	0	2	0	0	10	0	0	0	0	0	23	709	1672	46	0	3.09	
	1998	092851	Deschutes R	Deschutes R	05/09/00	80,290	82,130	55.65	0	0	2	0	0	2	0	0	2	0	0	3	32	801	1916	52	0	3.51
	1998	092854	Deschutes R	Deschutes R	05/09/00	50,371	51,142	60.56	0	0	0	0	0	0	0	5	2	0	0	23	361	874	19	0	2.55	
	1998	092853	Deschutes R	Deschutes R	05/09/00	81,180	82,938	62.39	0	0	0	0	0	0	1	2	3	0	0	30	770	1708	31	0	3.14	
H	1999	093116	Deschutes R	Deschutes R	05/01/01	75,737	77,600	52.13	0	0	0	0	0	6	0	0	0	0	0	5	122	752	13	--	1.19	
H	1999	093119	Deschutes R	Deschutes R	05/01/01	79,018	82,139	54.12	0	0	0	0	0	0	0	0	0	0	0	2	123	1222	18	--	1.73	
H	1999	093118	Deschutes R	Deschutes R	05/01/01	56,910	59,406	55.71	0	0	0	0	0	0	0	0	0	0	0	1	137	921	6	--	1.87	
H	1999	093117	Deschutes R	Deschutes R	05/01/01	78,542	82,072	58.14	0	0	0	0	0	2	0	0	0	0	0	4	137	1110	8	--	1.61	
	1998	092857	Deschutes R	Hood R, Mid Fk	05/15/00	30,334	30,486	73.75	0	0	0	0	0	2	0	0	1	0	0	238	29	126	0	0	1.32	
H	1999	093209	Deschutes R	Hood R, Mid Fk	05/14/01	7,073	7,073	31.87	0	0	0	0	0	0	0	0	0	0	0	1	1	4	0	--	0.08	
H	1999	093122	Deschutes R	Hood R, Mid Fk	05/14/01	31,351	31,351	47.05	0	0	0	0	0	0	0	0	0	0	0	11	9	27	18	--	0.21	
	1991	075022	Deschutes R	Hood R, W Fk	04/09/93	28,133	28,810	67.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
	1994	071130	Deschutes R	Hood R, W Fk	05/09/96	121,296	127,156	45.77	0	0	0	0	0	0	0	0	0	0	0	2	0	6	0	0	0.01	
	1995	091806	Deschutes R	Hood R, W Fk	04/21/97	55,155	56,103	54.00	0	0	0	0	0	0	0	0	0	0	0	0	1	9	0	0	0.02	
	1995	091747	Deschutes R	Hood R, W Fk	04/21/97	44,338	46,369	57.42	0	0	0	0	0	0	0	0	0	0	0	1	1	17	0	0	0.04	
	1996	092226	Deschutes R	Hood R, W Fk	04/22/98	58,233	62,929	46.76	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.00	
	1996	092227	Deschutes R	Hood R, W Fk	04/22/98	62,886	63,730	46.76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
	1998	092855	Deschutes R	Hood R, W Fk	05/10/00	51,769	53,151	55.05	0	0	0	0	0	0	3	0	0	0	0	235	43	272	18	0	1.10	
	1998	092856	Deschutes R	Hood R, W Fk	05/10/00	48,428	49,618	69.25	0	0	0	0	0	4	2	0	0	0	0	314	55	227	18	0	1.28	
H	1999	093121	Deschutes R	Hood R, W Fk	05/14/01	42,303	42,303	43.19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	0.00	
H	1999	093120	Deschutes R	Hood R, W Fk	05/14/01	43,952	43,952	47.14	0	0	0	0	0	0	0	0	0	0	0	8	3	16	1	--	0.06	
	1997	092557	Hood R	Hood R, Mid Fk	05/05/99	29,635	30,409	70.54	0	0	0	0	0	0	0	0	0	0	0	2	0	99	1	0	0.34	
	1997	092555	Hood R	Hood R, W Fk	05/11/99	42,851	44,707	57.93	0	0	0	0	0	0	0	0	0	0	0	1	17	136	29	0	0.43	
	1997	092556	Hood R	Hood R, W Fk	05/11/99	40,378	46,303	62.74	0	0	0	0	0	0	0	0	0	0	0	2	10	123	10	0	0.36	
South Santiam:																										
H	1990	075626	S Santiam R	S Santiam R	11/13/91	158,403	478,559	47.24	66	23	16	0	0	9	1	0	0	0	0	3	0	48	581	784	8	1.00
H	1990	075628	S Santiam R	S Santiam R	03/03/92	95,559	291,930	58.90	6	0	0	0	0	0	0	0	0	0	0	4	0	62	73	1	0.16	
H	1990	075627	S Santiam R	S Santiam R	03/05/92	159,796	483,249	55.99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0.00	
H	1991	071457	S Santiam R	S Santiam R	11/13/92	162,055	499,788	54.64	34	13	0	0	0	0	0	0	0	0	0	0	0	205	72	2	0.20	
H	1991	071458	S Santiam R	S Santiam R	03/17/93	149,899	482,190	53.36	41	10	5	0	3	0	0	0	0	0	0	0	0	174	164	6	0.27	

Appendix Table A. Continued.

Hatchery,				Ocean Catch																						
Stock source (H, N, M)				Release	Number Released		Size	Oregon Areas										Freshwater Recoveries					%			
brood,	tagcode	Stock	Release Site	Date	Ad+CWT	Total	(gm)	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.	
SPRING CHINOOK SALMON (Continued)																										
South Santiam (Continued):																										
H	1991	071459	S Santiam R	S Santiam R	03/17/93	94,811	309,583	53.36	40	21	9	0	1	0	0	0	0	0	0	23	2	357	215	3	0.71	
H	1992	071535	S Santiam R	S Santiam R	11/08/93	25,482	241,614	53.99	4	0	0	0	0	0	0	0	0	0	0	0	1	22	20	0	0.18	
H	1992	071536	S Santiam R	S Santiam R	11/08/93	25,351	241,248	53.99	7	0	0	0	0	0	0	0	0	0	0	15	21	20	1	0.25		
H	1992	076123	S Santiam R	S Santiam R	02/28/94	24,838	223,068	54.64	5	0	0	0	3	0	0	0	0	0	0	0	0	17	15	1	0.17	
H	1992	076122	S Santiam R	S Santiam R	03/08/94	29,318	239,363	55.99	0	0	0	0	0	0	0	0	0	0	0	0	11	22	1	0.12		
H	1993	070233	S Santiam R	S Santiam R	11/09/94	47,628	217,625	48.72	4	4	0	0	0	0	0	0	0	0	0	0	19	16	2	0.09		
H	1993	070442	S Santiam R	S Santiam R	02/10/95	31,162	252,944	56.63	8	0	0	0	2	0	0	0	0	0	0	3	6	53	41	0	0.36	
H	1993	070443	S Santiam R	S Santiam R	03/10/95	31,602	448,669	62.91	4	2	0	0	0	0	0	0	0	0	0	2	42	65	0	0.36		
H	1994	071153	S Santiam R	S Santiam R	11/09/95	50,366	377,611	55.93	0	0	1	0	0	0	0	0	0	0	0	1	17	5	0	0.06		
H	1994	070858	S Santiam R	S Santiam R	02/13/96	30,533	286,827	59.60	28	0	0	0	0	0	0	2	0	0	0	3	1	92	36	0	0.54	
H	1994	070857	S Santiam R	S Santiam R	03/12/96	30,113	417,989	52.68	10	1	0	0	0	0	2	0	0	0	0	1	70	58	0	0.48		
H	1995	070741	S Santiam R	S Santiam R	11/07/96	50,011	214,098	57.42	4	0	0	0	0	0	0	0	0	0	0	0	16	16	0	0.07		
H	1995	071256	S Santiam R	S Santiam R	02/11/97	25,952	26,428	49.84	21	0	0	0	0	0	0	0	0	0	0	0	115	62	0	0.76		
H	1995	071257	S Santiam R	S Santiam R	03/13/97	29,051	406,149	54.00	31	2	0	0	0	0	0	0	0	0	0	3	92	106	0	0.81		
H	1996	092120	S Santiam R	S Santiam R	11/01/97	52,336	299,569	54.64	4	1	1	0	0	0	0	0	0	0	0	9	94	39	0	0.29		
H	1996	092157	S Santiam R	S Santiam R	02/18/98	29,508	300,234	55.31	7	0	0	0	0	0	0	0	0	0	0	1	27	38	0	0.25		
H	1996	092158	S Santiam R	S Santiam R	03/30/98	31,269	379,084	42.39	36	0	0	0	0	0	0	0	0	0	0	1	65	125	0	0.73		
H	1997	092627	S Santiam R	S Santiam R	11/02/98	283,842	304,596	54.85	15	8	3	0	0	0	0	0	0	0	0	7	225	267	0	0.19		
H	1997	092523	S Santiam R	S Santiam R	02/11/99	290,632	294,611	53.17	94	5	8	0	0	5	0	0	0	0	11	24	408	457	1	0.35		
H	1997	092524	S Santiam R	S Santiam R	03/30/99	258,943	268,983	49.14	112	28	21	0	0	21	11	3	10	2	0	13	41	969	1465	9	1.05	
H	1997	092513	S Santiam R	S Santiam R	04/15/99	139,377	148,881	53.17	46	15	19	0	0	5	5	0	11	7	0	1	33	539	467	0	0.83	
H	1998	091752	S Santiam R	S Santiam R	10/31/99	49,061	302,660	58.53	22	4	0	0	0	0	0	0	0	0	0	9	192	27	0	0.52		
H	1998	092813	S Santiam R	S Santiam R	02/19/00	29,470	304,489	49.63	15	0	9	0	0	5	0	0	0	0	0	2	0	203	62	3	1.01	
H	1998	092814	S Santiam R	S Santiam R	03/21/00	24,886	267,297	53.68	62	16	23	0	0	8	8	0	3	0	0	11	6	318	150	0	2.43	
H	1999	093021	S Santiam R	S Santiam R	10/27/00	52,509	292,147	55.99	51	0	6	0	0	0	0	0	2	0	0	7	197	101	--	0.69		
H	1999	093027	S Santiam R	S Santiam R	02/20/01	30,457	297,609	47.94	4	0	0	0	0	0	0	0	0	6	0	15	0	7	15	--	0.15	
H	1999	093028	S Santiam R	S Santiam R	03/12/01	28,834	256,193	53.29	33	1	32	0	0	2	0	0	0	0	0	27	0	35	116	--	0.86	
H	1999	092950	S Santiam R	S Santiam R	03/19/01	31,667	161,969	53.23	47	10	33	0	0	1	0	6	0	3	0	30	1	38	112	--	0.89	
Umatilla:																										
H	1991	071451	Carson (WA)	Umatilla R	05/11/92	52,128	98,617	11.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1991	071449	Carson (WA)	Umatilla R	05/11/92	51,518	109,528	11.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1991	071452	Carson (WA)	Umatilla R	05/11/92	51,659	108,652	12.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1991	071450	Carson (WA)	Umatilla R	05/12/92	51,271	109,997	12.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1991	071447	Carson (WA)	Umatilla R	05/12/92	50,047	104,670	12.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1991	071448	Carson (WA)	Umatilla R	05/12/92	51,707	104,929	12.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1991	071445	Carson (WA)	Umatilla R	05/12/92	49,498	63,305	14.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1991	071444	Carson (WA)	Umatilla R	05/12/92	48,051	63,585	14.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	

Appendix Table A. Continued.

Hatchery,					Ocean Catch																		
Stock source (H, N, M)			Release Date	Release Site	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.
brood,	tagcode	Stock			Ad+CWT	Total		AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	
SPRING CHINOOK SALMON (Continued)																							
Umatilla (Continued):																							
H	1991	071443	Carson (WA)	Umatilla R	05/13/92	50,611	97,013	14.13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1991	071446	Carson (WA)	Umatilla R	05/13/92	50,045	95,456	14.13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1991	071543	Carson (WA)	Umatilla R	11/05/92	25,633	50,680	23.26	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.01
H	1991	071542	Carson (WA)	Umatilla R	11/05/92	26,135	50,736	23.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1991	075739	Carson (WA)	Umatilla R	03/23/93	21,499	50,311	55.31	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.01
H	1991	075740	Carson (WA)	Umatilla R	03/23/93	20,880	50,109	56.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1991	075742	Carson (WA)	Umatilla R	03/24/93	20,307	54,015	52.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1991	075741	Carson (WA)	Umatilla R	03/24/93	21,157	54,347	54.65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1992	076132	Carson (WA)	Umatilla R	06/01/93	52,893	113,852	15.91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1992	076133	Carson (WA)	Umatilla R	06/01/93	52,335	116,316	16.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1992	076134	Carson (WA)	Umatilla R	06/01/93	51,963	111,333	16.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1992	076135	Carson (WA)	Umatilla R	06/01/93	51,680	109,473	16.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1992	076137	Carson (WA)	Umatilla R	06/02/93	52,172	111,103	16.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1992	076136	Carson (WA)	Umatilla R	06/02/93	52,588	105,290	16.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1992	070216	Carson (WA)	Umatilla R	11/16/93	36,102	47,867	21.80	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0.01
H	1992	070159	Carson (WA)	Umatilla R	11/16/93	34,541	49,694	22.34	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.00
H	1992	070162	Carson (WA)	Umatilla R	11/16/93	35,467	48,343	22.45	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0.03
H	1992	070161	Carson (WA)	Umatilla R	11/17/93	35,657	52,211	21.09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1992	070160	Carson (WA)	Umatilla R	11/17/93	35,408	49,081	21.70	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0.01
H	1992	070163	Carson (WA)	Umatilla R	11/17/93	36,157	49,318	21.80	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.00
H	1992	070158	Carson (WA)	Umatilla R	11/17/93	34,130	41,244	23.62	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0.01
H	1992	070156	Carson (WA)	Umatilla R	11/17/93	33,999	42,734	24.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1992	070155	Carson (WA)	Umatilla R	11/17/93	35,710	40,661	24.51	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0.01
H	1992	070157	Carson (WA)	Umatilla R	11/17/93	34,857	39,656	25.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1992	070219	Carson (WA)	Umatilla R	03/21/94	20,971	52,620	51.54	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0.05
H	1992	070217	Carson (WA)	Umatilla R	03/21/94	20,070	51,210	53.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1992	070218	Carson (WA)	Umatilla R	03/21/94	19,920	49,375	55.99	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0.07
H	1992	070220	Carson (WA)	Umatilla R	03/22/94	20,982	51,938	53.99	0	0	0	0	0	0	0	0	0	0	0	0	24	1	0.12
H	1993	070734	Carson (WA)	Umatilla R	05/20/94	49,726	140,255	14.76	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.00
H	1993	070735	Carson (WA)	Umatilla R	05/20/94	52,298	142,237	14.76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1993	070738	Carson (WA)	Umatilla R	05/20/94	51,042	138,665	14.86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1993	070739	Carson (WA)	Umatilla R	05/20/94	52,317	135,990	14.86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1993	070736	Carson (WA)	Umatilla R	05/20/94	52,636	140,227	15.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1993	070737	Carson (WA)	Umatilla R	05/20/94	53,172	142,003	15.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1993	070726	Carson (WA)	Umatilla R	11/15/94	35,156	39,551	43.16	0	0	0	0	0	0	0	0	0	1	1	9	1	0	0.03
H	1993	070733	Carson (WA)	Umatilla R	11/15/94	34,220	34,668	47.20	0	0	0	0	0	0	0	0	0	0	4	10	1	0	0.04
H	1993	070728	Carson (WA)	Umatilla R	11/15/94	34,808	38,234	47.69	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0.01
H	1993	070729	Carson (WA)	Umatilla R	11/15/94	35,160	40,383	48.20	0	0	0	0	0	0	0	0	3	0	1	4	0	0	0.02

Appendix Table A. Continued.

Hatchery,				Ocean Catch																				
Stock source (H, N, M)				Release Site	Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.
brood,	tagcode	Stock				Ad+CWT	Total		AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	
SPRING CHINOOK SALMON (Continued)																								
Umatilla (Continued):																								
H	1993	070725	Carson (WA)	Umatilla R	11/15/94	34,824	39,517	48.72	0	0	0	0	0	0	0	0	0	0	1	4	4	1	0	0.03
H	1993	070727	Carson (WA)	Umatilla R	11/15/94	34,790	39,487	49.25	0	0	0	0	0	0	0	0	0	0	1	0	5	1	0	0.02
H	1993	070724	Carson (WA)	Umatilla R	11/15/94	34,124	39,548	50.34	0	0	0	0	0	0	0	0	0	0	0	3	4	1	0	0.02
H	1993	070731	Carson (WA)	Umatilla R	11/15/94	35,750	37,096	58.08	0	0	0	0	0	0	0	0	0	0	0	3	13	0	0	0.04
H	1993	070732	Carson (WA)	Umatilla R	11/15/94	32,251	32,700	61.21	0	0	0	0	0	0	0	0	0	0	0	4	9	0	0	0.04
H	1993	070730	Carson (WA)	Umatilla R	11/15/94	34,915	37,073	62.91	0	0	0	0	0	0	0	0	0	0	1	6	9	0	0	0.05
H	1993	070660	Carson (WA)	Umatilla R	03/13/95	23,607	74,735	32.61	0	0	0	0	0	0	0	0	0	3	4	1	33	3	0	0.19
H	1993	070651	Carson (WA)	Umatilla R	03/13/95	18,864	49,001	54.58	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0.01
H	1993	070653	Carson (WA)	Umatilla R	03/13/95	18,175	44,188	55.25	0	0	0	0	0	0	0	0	0	0	2	4	2	0	0	0.04
H	1993	071454	Carson (WA)	Umatilla R	03/13/95	15,661	40,685	55.93	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0	0.03
H	1993	070654	Carson (WA)	Umatilla R	03/13/95	19,091	47,846	57.34	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.01
H	1993	071453	Carson (WA)	Umatilla R	03/13/95	20,315	50,007	60.40	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0.01
H	1993	070652	Carson (WA)	Umatilla R	03/13/95	19,052	44,077	61.21	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0.04
H	1993	070661	Carson (WA)	Umatilla R	04/14/95	28,765	74,921	39.75	2	0	0	0	0	0	0	0	0	0	3	3	77	7	0	0.32
H	1993	070649	Carson (WA)	Umatilla R	04/21/95	22,189	123,257	43.16	0	0	0	0	0	0	0	0	0	0	1	5	67	8	0	0.37
H	1993	070650	Carson (WA)	Umatilla R	04/21/95	24,088	124,614	44.42	0	0	0	0	0	0	0	0	0	0	0	12	60	12	0	0.35
H	1994	071028	Carson (WA)	Umatilla R	03/13/96	18,844	45,887	41.96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1994	071033	Carson (WA)	Umatilla R	03/13/96	19,583	56,709	47.69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1994	071027	Carson (WA)	Umatilla R	03/13/96	19,622	49,032	50.34	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.01
H	1994	071029	Carson (WA)	Umatilla R	03/13/96	19,258	49,121	50.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1994	071031	Carson (WA)	Umatilla R	03/13/96	20,066	60,137	51.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1994	071032	Carson (WA)	Umatilla R	03/13/96	19,874	57,076	52.08	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0.01
H	1994	071030	Carson (WA)	Umatilla R	03/13/96	19,961	60,599	60.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1995	091730	Carson (WA)	Umatilla R	03/26/97	19,842	57,668	48.77	0	0	0	0	0	0	0	0	0	0	0	1	97	13	0	0.56
H	1995	091750	Carson (WA)	Umatilla R	03/26/97	20,289	56,901	48.77	0	0	0	0	0	0	0	0	0	0	1	3	121	19	0	0.71
H	1995	091749	Carson (WA)	Umatilla R	03/26/97	19,818	56,764	50.96	0	0	0	0	0	0	0	0	0	0	0	5	77	14	0	0.48
H	1995	091751	Carson (WA)	Umatilla R	03/26/97	20,597	54,550	50.96	0	0	0	0	0	0	0	0	0	0	1	0	147	18	0	0.81
H	1996	071420	Carson (WA)	Umatilla R	03/08/98	19,403	172,999	29.08	0	0	0	0	0	0	0	0	0	0	1	3	18	0	0	0.11
H	1996	092262	Carson (WA)	Umatilla R	03/08/98	23,778	53,318	37.80	0	0	0	2	0	0	0	0	0	0	0	11	89	5	0	0.45
H	1996	092260	Carson (WA)	Umatilla R	03/08/98	22,759	59,744	38.12	0	0	0	0	0	0	0	0	0	0	0	9	99	3	0	0.49
H	1996	092261	Carson (WA)	Umatilla R	03/08/98	23,248	53,502	38.12	0	0	0	0	0	0	0	0	0	0	0	7	86	3	0	0.41
H	1996	092259	Carson (WA)	Umatilla R	03/08/98	23,247	60,277	38.44	0	0	0	0	0	0	0	0	0	0	0	10	83	1	0	0.40
H	1996	092258	Carson (WA)	Umatilla R	03/08/98	22,450	51,743	39.44	0	0	0	0	0	0	0	0	0	0	0	12	72	2	0	0.38
H	1996	092256	Carson (WA)	Umatilla R	03/08/98	23,162	52,159	40.50	0	0	0	0	0	0	0	0	0	0	0	9	70	6	0	0.37
H	1996	092257	Carson (WA)	Umatilla R	03/08/98	22,788	51,972	40.50	0	0	0	0	0	0	0	0	0	0	1	11	62	4	0	0.34
H	1996	076036	Carson (WA)	Umatilla R	04/14/98	18,721	99,641	27.83	0	0	0	0	0	0	0	0	0	0	0	2	45	4	0	0.27
H	1996	075743	Carson (WA)	Umatilla R	04/14/98	19,255	172,258	39.10	0	0	0	0	0	0	0	0	0	0	0	2	12	1	0	0.08

Appendix Table A. Continued.

Hatchery,			Ocean Catch																					
Stock source (H, N, M)			Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.		
brood,	tagcode	Stock		Release Site	Ad+CWT		Total	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3		4	5
SPRING CHINOOK SALMON (Continued)																								
Umatilla (Continued):																								
	1997	092414	Umatilla R	Umatilla R	12/20/98	21,795	61,849	24.98	0	0	0	0	0	0	0	0	0	0	0	2	20	4	0	0.12
	1997	092416	Umatilla R	Umatilla R	12/20/98	21,969	52,521	24.98	0	0	0	0	0	0	0	0	0	0	0	1	40	0	0	0.19
	1997	092412	Umatilla R	Umatilla R	03/08/99	21,833	51,018	31.41	0	0	0	0	0	0	0	0	0	0	0	4	40	1	0	0.21
	1997	092413	Umatilla R	Umatilla R	03/08/99	21,602	53,403	32.33	0	0	0	0	0	0	0	0	0	0	5	1	56	0	0	0.29
	1997	092347	Umatilla R	Umatilla R	03/08/99	20,832	49,190	32.56	0	0	0	0	0	0	0	0	0	0	1	2	23	2	0	0.13
	1997	092415	Umatilla R	Umatilla R	03/08/99	21,740	51,319	35.35	0	0	0	0	0	0	0	2	0	0	5	7	49	1	0	0.29
	1998	076041	Umatilla R	Umatilla R	03/09/00	21,848	51,376	33.47	0	0	0	0	0	0	0	0	0	0	13	8	95	9	0	0.57
	1998	076049	Umatilla R	Umatilla R	03/09/00	22,137	53,621	33.47	0	0	0	0	0	0	0	0	0	0	12	4	63	16	0	0.43
	1998	076050	Umatilla R	Umatilla R	03/09/00	22,115	52,426	33.47	0	0	0	0	0	0	0	0	0	0	11	4	54	23	0	0.42
	1998	076138	Umatilla R	Umatilla R	03/09/00	21,112	47,489	34.49	0	0	0	0	0	0	0	0	0	0	6	4	62	7	0	0.37
H	1999	093153	Umatilla R	Umatilla R	03/09/01	22,050	48,965	30.64	0	0	0	0	0	0	0	0	0	0	0	1	52	4	--	0.26
H	1999	093156	Umatilla R	Umatilla R	03/09/01	21,664	42,762	30.64	0	0	0	0	0	0	0	0	0	0	0	1	50	6	--	0.26
H	1999	093152	Umatilla R	Umatilla R	03/09/01	21,488	52,671	43.19	0	0	0	0	0	0	0	0	0	0	0	10	58	3	--	0.33
H	1999	093154	Umatilla R	Umatilla R	03/09/01	21,457	58,418	43.19	0	0	0	0	0	0	0	0	0	0	0	11	38	1	--	0.23
H	1999	093155	Umatilla R	Umatilla R	03/09/01	21,770	51,589	43.57	0	0	0	0	0	0	0	0	0	0	0	7	70	5	--	0.38
H	1999	093157	Umatilla R	Umatilla R	03/09/01	21,884	52,986	43.61	0	0	0	0	0	0	0	0	0	0	0	4	45	4	--	0.24
H	1999	093158	Umatilla R	Umatilla R	03/09/01	21,733	29,130	43.61	0	0	0	0	0	0	0	0	0	0	0	2	23	0	--	0.12
Willamette:																								
H	1997	092511	M Willamette	Fall Cr (Will)	03/03/99	87,361	90,722	49.73	9	0	6	0	0	0	0	0	0	0	0	21	232	281	0	0.64
H	1994	070955	M Willamette	Willamette R	11/28/95	28,349	172,858	68.62	20	0	0	0	0	0	0	0	0	0	0	1	27	31	0	0.28
H	1995	091715	M Willamette	Willamette R	11/09/96	30,888	86,216	53.30	5	0	0	0	0	0	0	0	0	0	0	1	32	22	0	0.19
H	1990	075722	M Willamette	Willamette R, MF	08/20/91	25,273	25,273	19.06	2	0	0	0	0	0	0	4	0	0	0	0	27	9	1	0.17
H	1990	075723	M Willamette	Willamette R, MF	08/20/91	26,666	26,666	19.06	0	0	0	0	0	0	0	0	0	0	0	2	24	8	0	0.13
H	1990	075021	M Willamette	Willamette R, MF	11/14/91	28,547	354,478	58.90	11	12	3	0	0	0	0	0	0	0	1	75	217	95	0	1.45
H	1990	075635	M Willamette	Willamette R, MF	03/02/92	27,881	120,855	34.10	0	0	0	0	0	0	0	0	0	0	0	0	15	3	1	0.07
H	1990	075641	M Willamette	Willamette R, MF	03/02/92	32,614	58,804	34.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1990	075642	M Willamette	Willamette R, MF	03/02/92	31,961	57,628	34.89	0	5	0	0	0	0	0	0	0	0	0	0	6	5	0	0.05
H	1990	075636	M Willamette	Willamette R, MF	03/02/92	31,724	113,437	36.87	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0.02
H	1990	075633	M Willamette	Willamette R, MF	03/02/92	29,676	37,475	40.49	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0.02
H	1990	075631	M Willamette	Willamette R, MF	03/02/92	30,748	38,511	42.78	0	0	0	0	0	0	0	0	0	0	0	1	29	38	0	0.22
H	1990	074043	M Willamette	Willamette R, MF	03/02/92	21,444	21,546	44.03	0	0	0	0	0	0	0	0	0	0	0	1	14	39	0	0.28
H	1990	075634	M Willamette	Willamette R, MF	03/02/92	31,263	37,421	45.35	3	0	0	0	0	0	0	0	0	0	0	2	2	2	0	0.03
H	1990	075638	M Willamette	Willamette R, MF	03/03/92	29,690	53,525	28.52	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.01
H	1990	075637	M Willamette	Willamette R, MF	03/03/92	32,112	58,016	28.89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1990	075639	M Willamette	Willamette R, MF	03/03/92	28,813	51,952	33.35	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.01
H	1990	075640	M Willamette	Willamette R, MF	03/03/92	30,755	55,455	34.62	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0.02
H	1990	075632	M Willamette	Willamette R, MF	03/03/92	32,483	38,881	43.61	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0.02

Appendix Table A. Continued.

Hatchery,				Ocean Catch																								
Stock source (H, N, M)		Release Site	Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.						
brood, tagcode	Stock			Ad+CWT	Total		AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4		5	6+				
SPRING CHINOOK SALMON (Continued)																												
Willamette (Continued):																												
H	1993	070563	M Willamette	Willamette R, MF	02/08/95	23,817	378,256	56.63	15	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	108	72	1	0.85
H	1993	070616	M Willamette	Willamette R, MF	03/11/95	25,893	809,156	46.71	1	7	0	0	0	0	0	0	0	0	0	0	0	0	0	1	41	37	3	0.35
H	1994	070856	M Willamette	Willamette R, MF	02/07/96	28,011	776,465	55.93	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	20	0	0.17
H	1994	070855	M Willamette	Willamette R, MF	03/19/96	26,510	541,025	54.58	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	125	123	0	1.00
H	1995	071254	M Willamette	Willamette R, MF	02/28/97	31,655	413,739	50.96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	18	15	0	0.11
H	1995	071255	M Willamette	Willamette R, MF	02/28/97	30,412	218,626	52.74	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	73	49	11	0.49
H	1996	092155	M Willamette	Willamette R, MF	11/03/97	31,797	253,303	56.70	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	30	9	0	0.16
H	1996	092156	M Willamette	Willamette R, MF	03/03/98	31,695	552,403	48.77	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	102	196	0	1.01
H	1997	092514	M Willamette	Willamette R, MF	11/03/98	240,805	251,210	55.18	20	1	3	0	0	0	0	0	0	0	0	0	0	0	0	12	517	140	1	0.29
H	1997	092521	M Willamette	Willamette R, MF	02/05/99	421,427	444,986	53.87	42	10	18	0	0	10	0	0	4	0	0	0	0	0	0	8	2011	843	5	0.70
H	1997	092522	M Willamette	Willamette R, MF	03/05/99	501,424	517,427	50.29	90	13	13	0	0	7	0	4	6	3	0	0	0	0	0	22	5175	2025	6	1.47
H	1998	092811	M Willamette	Willamette R, MF	01/26/00	30,058	448,376	46.05	14	4	7	0	0	3	8	0	0	0	0	0	0	0	0	14	107	60	7	0.75
H	1998	092812	M Willamette	Willamette R, MF	03/06/00	29,074	658,097	53.05	23	4	47	0	0	0	0	3	0	0	0	0	0	0	0	33	170	181	11	1.62
H	1999	093020	M Willamette	Willamette R, MF	11/01/00	50,451	252,353	56.69	31	2	18	0	0	5	0	2	7	0	0	0	0	0	0	12	211	196	--	0.96
H	1999	093026	M Willamette	Willamette R, MF	02/05/01	31,065	545,578	49.30	0	7	11	0	0	2	0	0	0	6	0	0	0	0	0	1	18	46	--	0.29
H	1999	093025	M Willamette	Willamette R, MF	03/01/01	31,587	660,307	47.74	16	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	40	101	--	0.51
H	1996	092159	McKenzie R	Willamette R	11/04/97	52,301	61,099	48.20	24	2	0	0	0	3	0	0	0	0	0	0	0	0	0	5	97	73	0	0.40
H	1997	092507	McKenzie R	Willamette R	11/03/98	30,625	31,050	48.82	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	77	23	0	0.35
H	1997	092508	McKenzie R	Willamette R	11/03/98	29,562	30,140	51.02	3	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	80	41	0	0.45
H	1998	092815	McKenzie R	Willamette R	11/08/99	30,208	37,271	47.00	27	0	9	0	0	0	0	0	0	0	0	0	0	0	0	1	103	30	0	0.56
H	1998	092816	McKenzie R	Willamette R	11/18/99	30,492	32,340	46.05	8	9	2	0	0	0	0	0	0	0	0	0	0	0	0	12	102	39	0	0.56
H	1996	092062	S Santiam R	Molalla R	02/27/98	24,413	68,398	41.61	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	46	2	0.48
H	1997	092509	S Santiam R	Molalla R	11/04/98	29,836	30,193	54.45	3	1	3	0	0	0	0	0	0	0	0	0	0	0	0	3	35	20	0	0.22
H	1997	092520	S Santiam R	Molalla R	03/04/99	57,520	60,626	48.62	25	0	6	0	0	4	0	0	0	0	0	0	0	0	0	5	159	195	0	0.68
H	1998	092430	S Santiam R	Molalla R	03/08/00	25,286	70,740	50.34	48	13	32	0	0	18	7	1	0	2	0	0	0	0	2	0	158	91	4	1.49
H	1999	092744	S Santiam R	Molalla R	02/28/01	26,415	75,600	47.74	32	8	33	0	0	3	0	0	0	0	0	0	0	0	0	1	22	34	--	0.50
COHO SALMON																												
Big Creek:																												
H	1992	070256	Big Creek	Big Cr	06/03/94	25,880	301,630	32.63	0	0	18	0	0	9	3	0	0	0	0	0	0	0	0	72	0	0	0	0.39
H	1992	070257	Big Creek	Big Cr	06/03/94	25,887	164,360	45.81	0	0	5	0	0	45	10	0	0	0	0	0	0	0	0	293	0	0	0	1.36
H	1993	070137	Big Creek	Big Cr	04/28/95	27,418	130,654	43.99	0	0	0	0	0	13	2	0	0	0	0	0	0	0	16	166	0	0	0	0.72
H	1993	070138	Big Creek	Big Cr	05/31/95	26,424	403,203	41.20	0	0	0	0	0	3	5	0	0	0	0	0	0	0	2	197	0	0	0	0.78
H	1994	070958	Big Creek	Big Cr	05/06/96	28,110	141,056	32.63	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4	88	0	0	0	0.33
H	1994	070959	Big Creek	Big Cr	06/05/96	27,957	402,510	37.18	0	0	0	0	0	7	0	0	0	0	0	0	0	0	4	301	0	0	0	1.12
H	1995	070842	Big Creek	Big Cr	04/30/97	27,589	146,067	35.16	0	0	0	0	0	7	2	0	0	0	0	0	0	0	18	206	0	0	0	0.84
H	1995	070946	Big Creek	Big Cr	05/30/97	27,707	389,635	37.49	0	0	0	0	0	4	0	0	0	0	0	0	0	0	1	120	0	0	0	0.45
H	1996	092254	Big Creek	Big Cr	04/24/98	24,849	146,064	36.58	0	0	0	0	0	3	3	2	2	0	0	0	0	0	26	201	0	0	0	0.95

Appendix Table A. Continued.

Hatchery,				Ocean Catch																								
Stock source (H, N, M)			Release Site	Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.					
brood,	tagcode	Stock			Ad+CWT	Total		AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4		5	6+			
COHO SALMON (Continued)																												
Big Creek (Continued):																												
H	1996	092255	Big Creek	Big Cr	05/28/98	26,284	355,130	39.10	0	0	0	0	0	0	1	0	0	0	0	0	0	0	7	82	0	0	0	0.34
H	1997	092420	Big Creek	Big Cr	04/26/99	26,386	142,730	38.76	0	0	0	0	0	0	4	7	2	6	4	0	0	27	363	0	0	0	1.57	
H	1997	092419	Big Creek	Big Cr	05/25/99	26,259	382,612	39.10	0	0	0	0	0	18	8	0	14	15	0	0	9	346	0	0	0	1.56		
H	1998	092434	Big Creek	Big Cr	04/15/00	25,602	145,353	37.50	0	0	0	0	0	49	7	2	11	2	0	3	110	627	0	0	0	3.17		
H	1998	092431	Big Creek	Big Cr	05/15/00	25,513	398,106	39.10	0	0	0	0	0	26	15	0	13	2	0	0	150	906	0	0	0	4.36		
H	1999	092731	Big Creek	Big Cr	04/16/01	27,026	145,147	37.09	0	0	0	0	0	34	12	4	9	2	0	11	122	708	0	0	--	3.34		
H	1999	092732	Big Creek	Big Cr	05/15/01	26,766	392,038	37.12	0	0	0	0	0	42	7	9	4	7	0	0	62	906	0	0	--	3.87		
H	2000	093242	Big Creek	Big Cr	04/01/02	26,833	144,690	35.88	0	0	0	0	0	50	19	24	64	43	0	0	120	570	0	--	--	3.32		
H	2000	093243	Big Creek	Big Cr	05/01/02	27,141	396,208	37.45	0	0	0	0	0	114	61	24	88	59	0	0	103	795	0	--	--	4.58		
H	2001	091929	Big Creek	Big Cr	04/01/03	27,165	143,575	35.71	0	0	0	0	0	15	2	2	33	2	3	0	39	189	--	--	--	1.05		
H	2001	091930	Big Creek	Big Cr	05/01/03	27,052	393,511	37.48	0	0	0	0	0	33	34	6	41	0	0	0	40	199	--	--	--	1.30		
H	1992	075154	Big Creek	Tualatin R	05/16/94	26,533	60,239	29.45	0	0	0	0	0	1	4	0	0	0	0	0	0	1	0	0	0	0.02		
H	1993	075263	Big Creek	Tualatin R	05/03/95	26,303	59,250	32.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00		
H	1994	075334	Big Creek	Tualatin R	05/13/96	26,426	59,919	32.40	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0.09		
H	1995	091813	Big Creek	Tualatin R	04/29/97	25,222	60,000	31.72	0	0	0	0	0	1	2	0	0	0	0	0	0	2	0	0	0	0.02		
H	1996	092417	Big Creek	Tualatin R	04/27/98	27,506	60,152	32.40	0	0	0	0	0	0	0	0	2	0	0	0	0	15	0	0	0	0.06		
Bonneville:																												
H	1992	074936	Tanner Cr	Tanner Cr	04/19/94	26,606	871,511	28.52	0	0	0	0	0	8	3	0	0	0	0	2	6	65	0	0	0	0.32		
H	1992	075130	Tanner Cr	Tanner Cr	05/31/94	11,937	165,957	38.11	0	0	18	0	0	5	3	0	0	0	0	0	2	86	0	0	0	0.96		
H	1993	075445	Tanner Cr	Tanner Cr	04/26/95	26,529	274,691	33.35	0	0	0	0	0	8	6	0	0	0	0	4	18	227	0	0	0	0.99		
H	1993	075446	Tanner Cr	Tanner Cr	06/09/95	25,407	1,004,506	40.50	0	0	3	0	0	2	6	0	0	0	0	0	0	200	0	0	0	0.83		
H	1994	075413	Tanner Cr	Tanner Cr	02/12/96	23,615	332,739	30.24	0	0	0	0	0	0	0	0	0	0	0	0	1	14	0	0	0	0.06		
H	1994	075414	Tanner Cr	Tanner Cr	06/07/96	25,080	887,011	36.58	0	0	0	0	0	6	2	0	0	0	0	0	0	472	0	0	0	1.91		
H	1995	091817	Tanner Cr	Tanner Cr	04/24/97	28,488	332,386	40.49	0	0	0	0	0	10	2	0	0	0	0	0	11	324	0	0	0	1.22		
H	1995	091819	Tanner Cr	Tanner Cr	05/12/97	27,842	782,863	31.06	0	0	0	0	0	3	0	0	0	0	0	0	0	56	0	0	0	0.21		
H	1996	092307	Tanner Cr	Tanner Cr	04/30/98	20,478	292,480	45.36	0	0	0	0	0	20	4	0	5	1	0	0	4	255	0	0	0	1.41		
H	1996	092303	Tanner Cr	Tanner Cr	06/04/98	21,814	698,556	37.80	0	0	0	0	0	0	0	0	0	0	0	0	0	63	0	0	0	0.29		
H	1997	092418	Tanner Cr	Tanner Cr	04/30/99	25,196	377,983	35.16	0	0	0	0	0	14	11	1	12	8	0	0	11	528	0	0	0	2.32		
H	1997	092421	Tanner Cr	Tanner Cr	06/01/99	25,855	938,448	32.39	0	0	0	0	0	6	2	0	2	3	0	0	0	298	0	0	0	1.20		
H	1998	092726	Tanner Cr	Tanner Cr	05/02/00	26,133	394,966	34.90	0	0	0	0	0	42	26	6	10	10	0	0	42	824	0	0	0	3.67		
H	1998	092715	Tanner Cr	Tanner Cr	06/01/00	26,888	781,116	37.80	0	0	0	0	0	145	63	16	15	42	0	0	9	1595	0	0	0	7.01		
H	1999	092733	Tanner Cr	Tanner Cr	05/31/00	26,292	832,854	31.94	0	0	0	0	0	41	13	2	13	6	0	0	0	516	0	0	--	2.25		
H	1999	093012	Tanner Cr	Tanner Cr	04/30/01	24,631	416,801	35.63	0	0	0	0	0	41	19	2	12	4	5	0	19	751	0	0	--	3.46		
H	2000	093345	Tanner Cr	Tanner Cr	04/01/02	26,933	398,943	34.52	0	0	0	0	0	169	93	28	100	71	0	0	45	1357	0	--	--	6.92		
H	2000	093014	Tanner Cr	Tanner Cr	05/14/02	25,439	799,266	31.20	0	0	0	0	0	90	53	16	65	43	0	0	15	864	0	--	--	4.50		
H	2001	093459	Tanner Cr	Tanner Cr	04/28/03	26,803	400,591	35.99	0	0	0	0	0	106	6	13	44	22	3	0	21	806	--	--	--	3.81		
H	2001	091931	Tanner Cr	Tanner Cr	06/05/03	25,979	842,886	34.89	0	0	0	0	0	50	17	8	31	3	0	0	1	377	--	--	--	1.87		

Appendix Table A. Continued.

Hatchery,			Ocean Catch																												
Stock source (H, N, M)			Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.									
brood,	tagcode	Stock		Release Site	Ad+CWT		Total	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3		4	5	6+						
COHO SALMON (Continued)																															
Cascade/Oxbow:																															
H	1999	093011	Tanner Cr	Methow R (WA)	05/15/01	25,576	26,083	23.82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	--	0.03	
H	1992	070337	Tanner Cr	Umatilla R	04/07/94	27,166	418,222	25.06	0	0	5	0	0	0	6	0	0	0	0	0	0	0	0	0	0	4	47	0	0	0	0.23
H	1992	070339	Tanner Cr	Umatilla R	04/07/94	27,010	232,778	26.52	0	0	0	0	0	5	6	0	0	0	0	0	0	0	0	0	3	42	0	0	0	0.21	
H	1992	070338	Tanner Cr	Umatilla R	04/07/94	27,452	233,105	26.68	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	4	62	0	0	0	0.30
H	1993	070559	Tanner Cr	Umatilla R	03/31/95	26,498	497,449	31.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9	0	0	0	0.04	
H	1993	070557	Tanner Cr	Umatilla R	04/04/95	26,421	250,970	30.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15	0	0	0	0.06	
H	1993	070558	Tanner Cr	Umatilla R	04/04/95	26,381	251,135	30.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	22	0	0	0	0.09	
H	1994	071150	Tanner Cr	Umatilla R	03/25/96	26,860	465,769	25.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0.02	
H	1994	071146	Tanner Cr	Umatilla R	04/03/96	26,319	500,005	25.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0.07	
H	1994	071145	Tanner Cr	Umatilla R	04/12/96	25,878	511,609	24.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0.07	
H	1995	071360	Umatilla R	Umatilla R	04/03/97	24,807	438,153	28.34	3	0	0	0	0	7	0	0	0	6	0	0	0	0	0	1	53	0	0	0	0	0.28	
H	1996	092308	Tanner Cr	Umatilla R	03/27/98	26,759	528,350	27.83	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	2	33	0	0	0	0	0.14	
H	1996	092309	Tanner Cr	Umatilla R	04/02/98	26,791	526,082	27.00	0	0	0	0	0	6	0	1	1	4	0	0	0	0	1	48	0	0	0	0	0	0.23	
H	1996	092313	Tanner Cr	Umatilla R	04/02/98	25,967	525,304	27.00	0	0	0	0	0	11	0	2	5	1	0	0	0	0	4	79	0	0	0	0	0	0.39	
H	1997	092423	Tanner Cr	Umatilla R	03/24/99	26,537	465,314	28.70	0	0	0	0	0	3	2	0	8	0	0	0	0	0	5	46	0	0	0	0	0	0.24	
H	1997	092424	Tanner Cr	Umatilla R	04/02/99	27,136	477,588	25.20	0	0	0	0	0	4	2	0	0	2	0	0	0	0	1	76	0	0	0	0	0	0.31	
H	1997	092425	Tanner Cr	Umatilla R	04/02/99	26,753	505,650	25.62	0	0	0	0	0	2	7	0	0	0	0	0	0	0	0	0	40	0	0	0	0	0.18	
H	1998	092717	Tanner Cr	Umatilla R	03/15/00	26,422	513,288	27.00	0	0	0	0	0	25	2	0	0	5	0	0	0	25	125	0	0	0	0	0	0	0.69	
H	1998	092718	Tanner Cr	Umatilla R	03/15/00	26,068	222,462	27.00	0	0	0	0	0	14	0	5	2	2	0	0	0	9	81	0	0	0	0	0	0	0.43	
H	1998	092719	Tanner Cr	Umatilla R	04/28/00	26,370	798,210	29.80	0	0	0	0	0	41	7	8	8	21	0	0	0	23	324	0	0	0	0	0	0	1.64	
H	1999	093007	Tanner Cr	Umatilla R	03/14/01	26,599	478,639	25.83	0	0	0	0	0	2	3	2	0	0	0	0	0	1	18	0	0	--	--	--	0.10		
H	1999	093009	Tanner Cr	Umatilla R	03/14/01	26,058	223,025	25.83	0	0	0	0	0	0	0	0	0	0	0	0	0	1	54	0	0	--	--	--	0.21		
H	1999	093008	Tanner Cr	Umatilla R	04/28/01	26,474	745,497	33.04	0	0	0	0	0	0	3	2	0	4	0	0	0	0	58	0	0	--	--	--	0.25		
H	2001	091934	Tanner Cr	Umatilla R	03/05/03	26,086	222,680	27.82	0	0	0	0	0	22	0	8	17	1	0	0	0	6	48	--	--	--	--	--	0.39		
H	2001	091933	Tanner Cr	Umatilla R	03/05/03	26,989	515,859	28.70	0	0	0	0	0	18	5	0	16	6	0	0	0	5	54	--	--	--	--	--	0.39		
H	2001	091935	Tanner Cr	Umatilla R	04/10/03	27,298	591,349	30.23	0	0	0	0	0	26	21	12	19	25	9	0	0	2	120	--	--	--	--	--	0.86		
H	1992	070340	Tanner Cr	Yakima R	05/06/94	25,468	269,107	31.94	0	0	0	0	0	9	4	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0.10	
H	1992	070341	Tanner Cr	Yakima R	05/06/94	25,985	269,408	31.94	0	0	0	0	0	10	3	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0.11	
H	1992	070342	Tanner Cr	Yakima R	05/06/94	26,901	172,059	35.99	0	0	6	0	0	33	6	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0.21	
H	1993	070554	Tanner Cr	Yakima R	04/26/95	22,851	186,464	31.48	0	0	0	0	0	3	0	0	0	0	0	0	4	0	13	0	0	0	0	0	0	0.09	
H	1993	070555	Tanner Cr	Yakima R	04/26/95	20,031	183,732	31.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0.08	
H	1993	070556	Tanner Cr	Yakima R	04/26/95	19,133	195,420	31.48	0	0	0	0	0	5	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0.09	
H	1994	071147	Tanner Cr	Yakima R	04/30/96	26,733	193,628	30.24	0	0	0	0	0	1	0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0.08	
H	1994	071148	Tanner Cr	Yakima R	04/30/96	26,135	193,275	30.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0	0	0	0	0	0	0.13	
H	1994	071149	Tanner Cr	Yakima R	04/30/96	26,538	193,476	30.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0.03	
H	1996	092310	Tanner Cr	Yakima R	05/16/98	27,046	224,253	41.23	0	0	0	0	0	13	5	2	0	0	0	0	0	0	30	0	0	0	0	0	0	0.18	
H	1996	092311	Tanner Cr	Yakima R	05/16/98	26,878	224,137	41.23	0	0	0	0	0	3	0	0	2	0	0	0	0	1	30	0	0	0	0	0	0	0.13	
H	1996	092312	Tanner Cr	Yakima R	05/16/98	26,821	224,082	41.23	0	0	0	0	0	13	5	0	3	0	0	0	0	0	50	0	0	0	0	0	0	0.26	

Appendix Table A. Continued.

Hatchery,		Ocean Catch																							
Stock source (H, N, M)		Release	Number Released		Size	Oregon Areas										Freshwater Recoveries					%				
brood, tagcode	Stock	Release Date	Ad+CWT	Total	(gm)	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.		
COHO SALMON (Continued)																									
Cle Elum Acclimation:																									
H	1997 092426	Tanner Cr	Yakima R	05/17/99	26,593	204,017	26.68	0	0	0	0	0	0	0	0	0	0	0	1	64	0	0	0	0.37	
Gnat Creek:																									
H	1995 091753	Tanner Cr	Umatilla R	04/05/97	26,822	853,688	29.64	0	0	0	0	0	9	2	0	0	0	0	9	112	0	0	0	0.49	
Jack Creek Acclimation:																									
H	1997 092427	Tanner Cr	Yakima R	05/17/99	25,864	247,724	26.68	0	0	0	0	0	3	11	0	14	9	0	0	111	0	0	0	0.57	
Leavenworth NFH:																									
H	1998 092720	Tanner Cr	Wenatchee (WA)	05/24/00	26,367	498,716	23.90	0	0	0	0	0	29	26	3	5	12	0	0	142	0	0	0	0.82	
Pendelton Acclimation:																									
H	2000 093016	Tanner Cr	Umatilla R	03/07/02	26,629	542,475	29.00	0	0	0	0	0	9	5	0	0	0	0	3	26	0	--	--	0.16	
H	2000 093010	Tanner Cr	Umatilla R	03/07/02	26,437	27,185	30.73	0	0	0	0	0	15	5	8	15	18	0	0	11	132	0	--	--	0.77
H	2000 093017	Tanner Cr	Umatilla R	04/17/02	26,244	644,680	31.92	0	0	0	0	0	48	11	19	9	29	0	0	22	142	0	--	--	1.07
Rosa Acclimation:																									
H	1995 071245	Clackamas R	Yakima R	05/15/97	25,046	33,802	38.77	0	0	0	0	0	20	2	0	0	0	0	0	31	0	0	0	0.21	
Winthrop NFH:																									
H	1998 092721	Tanner Cr	Methow R (WA)	05/15/00	26,470	199,763	26.68	0	0	0	0	0	29	5	2	9	5	0	0	1	106	0	0	0	0.59
H	2000 093326	Tanner Cr	Methow R (WA)	04/30/02	24,302	25,053	22.34	0	0	0	0	0	62	11	23	25	30	0	0	0	75	0	--	--	0.93
CEDC Fisheries:																									
H	1992 070135	Clackamas R	Youngs R	04/04/94	24,850	257,853	30.64	0	0	0	0	0	24	9	3	1	0	0	0	13	60	0	0	0	0.44
H	1992 070136	Clackamas R	Youngs R	06/15/94	23,940	788,523	33.35	0	0	0	0	0	26	6	0	0	0	0	0	5	115	0	0	0	0.63
H	1993 070743	Clackamas R	Youngs R	05/08/95	22,545	467,531	35.97	0	0	0	0	0	7	0	0	0	0	0	0	15	46	0	0	0	0.30
H	1993 070744	Clackamas R	Youngs R	05/15/95	22,057	280,412	35.97	0	0	0	0	0	2	0	0	0	0	0	0	3	46	0	0	0	0.23
H	1994 071222	Clackamas R	Youngs R	05/07/96	26,274	216,187	48.20	0	0	0	0	0	1	0	0	0	2	0	0	51	245	0	0	0	1.14
H	1994 071223	Clackamas R	Youngs R	05/20/96	22,104	341,339	40.46	0	0	0	0	0	1	0	0	0	0	0	0	34	326	0	0	0	1.63
H	1996 053732	Clackamas R	Youngs R	05/01/98	52,510	268,870	37.18	0	0	0	0	0	2	0	0	0	0	0	0	3	971	0	0	0	1.86
H	1996 053733	Clackamas R	Youngs R	05/01/98	50,604	261,654	37.18	0	0	0	0	0	36	12	0	5	2	0	0	30	875	0	0	0	1.90
H	1997 053947	Clackamas R	Youngs R	05/05/99	24,963	502,146	36.28	0	0	0	0	6	23	10	5	22	9	0	0	33	899	0	0	0	4.03
H	1997 053946	Clackamas R	Youngs R	05/19/99	24,874	479,562	38.43	0	0	0	0	0	0	0	0	0	0	0	0	16	391	0	0	0	1.64
H	1998 053948	Clackamas R	Youngs R	05/31/00	21,731	476,148	28.50	0	0	0	0	0	32	15	0	0	2	0	0	1	432	0	0	0	2.22
H	1999 050191	Clackamas R	Youngs R	05/14/01	22,577	502,077	31.87	0	0	0	0	0	19	5	9	8	3	0	0	2	808	0	0	--	3.78
H	2000 054250	Clackamas R	Youngs R	05/06/02	24,632	482,657	32.12	0	0	0	0	0	103	64	18	52	47	0	0	31	1795	0	--	--	8.57
H	2001 054760	Clackamas R	Youngs R	05/08/03	23,482	512,549	35.99	0	0	0	0	0	30	7	6	10	5	0	0	4	458	--	--	--	2.21

Appendix Table A. Continued.

Hatchery,				Ocean Catch																							
Stock source (H, N, M)		Release Site	Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.					
brood, tagcode	Stock			Ad+CWT	Total		AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4		5	6+			
COHO SALMON (Continued)																											
CEDC Fisheries (Continued):																											
H	1994	071136	Sandy R	Youngs R	05/28/96	26,418	295,512	40.46	0	0	0	0	0	0	0	0	0	7	43	0	0	0	0.19				
H	1995	071335	Sandy R	Youngs R	05/12/97	26,598	633,310	31.50	0	0	0	0	0	0	7	2	0	0	0	0	0	3	160	0	0	0	0.65
H	1997	092643	Sandy R	Youngs R	06/01/99	26,215	272,656	33.84	0	0	0	0	0	26	12	0	18	8	0	3	3	691	0	0	0	2.90	
H	1998	092729	Sandy R	Youngs R	05/25/00	26,699	272,992	33.40	0	0	0	0	0	53	38	4	12	5	0	0	0	522	0	0	0	2.37	
H	1992	076142	Tanner Cr	Youngs R	04/04/94	50,745	827,864	32.86	0	0	12	0	0	40	14	0	0	0	0	22	121	0	0	0	0.41		
H	1992	070124	Tanner Cr	Youngs R	05/02/94	27,869	300,907	46.28	0	0	14	0	0	162	53	0	0	0	3	5	159	674	0	0	0	3.84	
H	1993	070758	Tanner Cr	Youngs R	04/18/95	25,886	822,185	46.71	0	0	0	0	0	0	0	0	0	0	0	5	42	0	0	0	0.18		
H	1993	071544	Tanner Cr	Youngs R	05/11/95	28,995	138,371	58.08	0	0	18	0	0	36	5	0	0	0	0	23	997	0	0	0	3.72		
H	1994	071242	Tanner Cr	Youngs R	04/15/96	28,299	808,263	39.07	0	0	0	0	0	0	0	0	0	0	0	14	52	0	0	0	0.23		
H	1994	070961	Tanner Cr	Youngs R	04/26/96	26,548	829,600	47.20	0	0	0	0	0	3	0	0	0	0	0	58	117	0	0	0	0.67		
H	1995	070942	Tanner Cr	Youngs R	05/05/97	27,198	146,818	34.36	0	0	0	0	0	18	2	0	0	0	0	1	376	0	0	0	1.46		
H	1996	092302	Tanner Cr	Youngs R	05/01/98	25,672	133,373	43.61	0	0	0	0	0	16	12	1	2	0	0	5	76	614	0	0	0	2.83	
H	1996	092336	Tanner Cr	Youngs R	05/26/98	29,469	425,634	34.10	0	0	0	0	0	26	4	0	4	1	0	0	0	168	0	0	0	0.69	
H	1997	092422	Tanner Cr	Youngs R	04/12/99	26,676	663,012	32.63	0	0	0	0	0	4	0	0	0	0	0	4	8	115	0	0	0	0.49	
H	1997	092334	Tanner Cr	Youngs R	04/28/99	28,809	158,203	38.11	0	0	0	0	0	9	6	3	10	2	0	0	74	569	0	0	0	2.34	
H	1998	092716	Tanner Cr	Youngs R	04/12/00	26,244	836,845	28.90	0	0	0	0	0	18	5	0	3	2	0	4	80	340	0	0	0	1.72	
H	1998	092914	Tanner Cr	Youngs R	05/04/00	24,396	206,377	38.10	0	0	0	0	0	39	22	4	10	15	0	4	109	466	0	0	0	2.74	
H	1999	093006	Tanner Cr	Youngs R	04/10/01	26,075	808,735	29.02	0	0	0	0	0	9	2	0	8	0	0	2	258	0	0	--	--	1.07	
H	1999	093161	Tanner Cr	Youngs R	04/16/01	26,011	234,371	32.33	0	0	0	0	0	4	0	0	2	0	0	0	7	124	0	0	--	0.53	
H	2000	093015	Tanner Cr	Youngs R	04/12/02	26,400	837,201	34.86	0	0	0	0	0	53	17	13	21	47	0	0	22	692	0	--	--	3.28	
H	2000	093340	Tanner Cr	Youngs R	05/03/02	22,937	191,108	37.77	0	0	0	0	0	92	29	30	46	47	0	0	6	1377	0	--	--	7.09	
H	2000	093339	Tanner Cr	Youngs R	05/05/02	24,555	177,730	37.99	0	0	0	0	0	76	28	27	45	53	0	0	6	1070	1	--	--	5.32	
H	2001	091932	Tanner Cr	Youngs R	04/10/03	27,009	844,653	38.76	0	0	0	0	0	17	5	3	10	2	3	0	22	77	--	--	--	0.51	
H	2001	093610	Tanner Cr	Youngs R	05/09/03	25,249	158,476	43.61	0	0	0	0	4	54	10	10	10	11	4	0	3	366	--	--	--	1.87	
H	1992	076145	Klaskanine R	Klaskanine R, SF	04/04/94	25,978	538,994	37.79	0	0	0	0	0	26	6	0	1	0	0	0	23	105	0	0	0	0.62	
H	1993	070356	Klaskanine R	Klaskanine R, SF	04/10/95	23,160	433,674	43.16	0	0	0	0	0	8	5	0	0	0	0	0	65	146	0	0	0	0.97	
H	1994	070925	Klaskanine R	Klaskanine R, SF	04/14/96	25,979	443,183	42.75	0	0	0	0	0	0	0	0	0	0	0	0	47	84	0	0	0	0.50	
H	1995	091824	Klaskanine R	Klaskanine R, SF	05/12/97	28,284	621,932	35.71	0	0	0	0	0	11	4	0	0	0	0	0	16	457	0	0	0	1.73	
H	1996	092321	Klaskanine R	Klaskanine R, SF	04/29/98	26,787	550,427	27.00	0	0	0	0	0	8	6	0	4	0	0	0	11	260	0	0	0	1.08	
H	1997	092428	Klaskanine R	Klaskanine R, SF	04/21/99	19,622	429,652	34.10	0	0	0	0	0	2	1	1	0	6	0	0	2	86	0	0	0	0.50	
H	1998	092730	Klaskanine R	Klaskanine R, SF	05/08/00	25,414	610,658	35.40	0	0	0	0	0	82	20	2	12	13	0	9	171	853	0	0	0	4.57	
H	1999	093013	Big Creek	Klaskanine R, SF	05/07/01	26,231	344,738	36.23	0	0	0	0	0	36	10	10	9	3	0	0	11	709	0	0	--	3.00	
H	2000	093357	Klaskanine R	Klaskanine R, SF	05/07/02	24,144	583,248	39.65	0	0	0	0	0	196	44	20	81	71	0	4	63	1407	0	--	--	7.81	
H	2001	093460	Klaskanine R	Klaskanine R, SF	04/28/03	26,035	641,555	37.79	0	0	0	0	0	23	0	4	16	16	3	5	12	240	--	--	--	1.23	
H	1994	075901	Clackamas R	Blind Slough	05/06/96	24,942	209,761	50.34	0	0	0	0	0	5	0	0	0	2	0	0	24	293	0	0	0	1.30	
H	1999	093220	Sandy R	Blind Slough	05/24/01	26,969	274,257	29.19	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	--	0.01	
H	2000	093352	Sandy R	Blind Slough	05/07/02	26,896	315,988	32.84	0	0	0	0	0	41	8	11	21	17	0	0	3	627	0	--	--	2.71	
H	2001	093461	Sandy R	Blind Slough	05/07/03	27,775	288,931	34.89	0	0	0	0	0	0	0	0	0	0	0	0	0	8	--	--	--	0.03	

Appendix Table A. Continued.

Hatchery,				Ocean Catch																								
Stock source (H, N, M)		Release Site	Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.						
brood,	tagcode			Stock	Ad+CWT		Total	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3		4	5	6+			
COHO SALMON (Continued)																												
CEDC Fisheries (Continued):																												
H	1993	071545	Tanner Cr	Blind Slough	05/12/95	26,258	140,267	50.91	0	0	10	0	0	0	19	8	0	0	0	0	0	4	1	470	0	0	0	1.95
H	1995	091818	Tanner Cr	Blind Slough	05/05/97	25,104	196,963	31.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0.07
H	1996	092305	Tanner Cr	Blind Slough	05/01/98	24,607	144,958	39.79	0	0	0	0	0	0	4	2	0	3	1	0	0	12	410	0	0	0	0	1.76
H	1997	092528	Tanner Cr	Blind Slough	04/28/99	26,072	197,089	40.13	0	0	0	0	0	13	3	1	8	3	0	0	0	40	449	0	0	0	0	1.98
H	1998	092912	Tanner Cr	Blind Slough	05/04/00	24,624	195,645	39.40	0	0	0	0	6	12	15	4	5	7	0	0	0	28	494	0	0	0	0	2.32
H	1993	075329	Tanner Cr	Tongue Point	05/12/95	26,426	130,623	52.08	0	0	13	0	10	30	9	0	0	0	4	0	5	746	0	0	0	0	3.09	
H	1994	071241	Clackamas R	Tongue Point	05/06/96	23,942	190,032	53.93	0	0	0	0	0	5	0	0	0	0	0	0	0	20	191	0	0	0	0	0.90
H	1995	071336	Tanner Cr	Tongue Point	05/05/97	26,174	430,221	32.63	0	0	0	0	0	4	0	0	0	0	0	0	0	0	135	0	0	0	0	0.53
H	1996	092306	Tanner Cr	Tongue Point	05/01/98	18,355	119,611	40.50	0	0	0	0	0	18	5	2	6	6	0	0	14	745	0	0	0	0	4.34	
H	1997	092529	Tanner Cr	Tongue Point	04/28/99	26,269	204,143	39.78	0	0	0	0	0	9	7	4	11	3	0	0	45	340	0	0	0	0	1.60	
H	1998	092913	Tanner Cr	Tongue Point	05/04/00	24,634	228,290	42.00	0	0	0	0	0	47	35	7	12	11	0	0	66	576	0	0	0	0	3.06	
H	1998	092749	Toutle R (WA)	Tongue Point	05/11/00	26,176	525,833	33.90	0	0	0	0	4	52	30	5	16	25	0	0	55	822	0	0	0	0	3.85	
H	1999	093160	Tanner Cr	Tongue Point	04/16/01	21,854	173,199	34.28	0	0	0	0	0	20	8	2	10	12	0	4	7	607	0	0	--	--	3.07	
H	1999	054908	Clackamas R	Tongue Point	05/31/01	25,055	482,414	29.59	0	0	0	0	0	9	0	2	0	0	0	0	0	124	0	0	--	--	0.54	
H	2000	093341	Tanner Cr	Tongue Point	04/25/02	23,639	178,892	30.96	0	0	0	0	0	116	47	35	67	55	0	0	23	937	0	--	--	--	5.41	
H	2000	054254	Clackamas R	Tongue Point	05/16/02	28,068	488,866	31.39	0	0	41	0	0	62	16	18	39	16	0	0	5	615	0	--	--	--	2.89	
H	2001	093612	Tanner Cr	Tongue Point	04/24/03	25,439	197,794	45.35	0	0	0	0	5	104	39	32	64	24	5	0	40	663	--	--	--	--	3.84	
H	2001	054759	Clackamas R	Tongue Point	05/22/03	23,396	477,918	35.43	0	0	0	0	0	5	7	0	6	6	0	0	0	108	--	--	--	--	0.56	
H	1999	093159	Tanner Cr	Columbia (Towed)	04/17/01	26,494	179,187	30.75	0	0	0	0	0	15	16	0	4	3	0	5	16	740	0	0	--	--	3.02	
H	2001	093611	Tanner Cr	Columbia (Towed)	05/10/03	27,005	171,033	44.03	0	0	0	0	4	78	40	15	36	14	3	4	8	623	--	--	--	--	3.05	
Klaskanine:																												
H	1993	075262	Kalama R	Klaskanine R, NF	04/04/95	26,279	1,201,313	43.99	0	2	0	0	0	8	3	0	0	0	0	0	28	94	0	0	0	0	0.51	
H	1992	070362	Klaskanine R	Klaskanine R, NF	04/15/94	26,574	831,887	37.48	0	0	7	0	0	5	3	0	0	0	0	0	2	67	0	0	0	0	0.32	
H	1994	075415	Klaskanine R	Klaskanine R, NF	04/07/96	24,974	837,355	45.36	0	0	0	0	0	3	3	0	0	0	0	0	16	108	0	0	0	0	0.52	
H	1995	071361	Tanner Cr	Umatilla R	03/10/97	11,057	31,921	25.06	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0.04	
H	1995	071362	Tanner Cr	Umatilla R	03/10/97	2,681	8,209	25.06	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0.15	
H	1995	071363	Tanner Cr	Umatilla R	03/10/97	7,890	22,889	25.06	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.01	
H	1995	091805	Tanner Cr	Umatilla R	03/10/97	7,903	10,503	25.06	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.03	
Sandy:																												
H	1992	075126	Sandy R	Cedar Cr (Sandy)	04/04/94	22,071	54,611	22.68	0	0	0	0	0	11	3	0	0	0	0	0	0	50	0	0	0	0	0.29	
H	1992	074929	Sandy R	Cedar Cr (Sandy)	04/04/94	23,141	56,771	23.50	0	0	0	0	0	11	3	0	0	0	0	0	3	63	0	0	0	0	0.35	
H	1992	074933	Sandy R	Cedar Cr (Sandy)	04/04/94	23,758	170,622	24.00	0	0	0	0	0	7	3	2	0	0	0	0	1	49	0	0	0	0	0.26	
H	1992	070239	Sandy R	Cedar Cr (Sandy)	05/03/94	48,070	272,188	30.23	0	0	20	0	0	24	0	0	0	0	0	0	1	65	0	0	0	0	0.23	
H	1992	074934	Sandy R	Cedar Cr (Sandy)	06/01/94	22,862	59,590	30.44	0	0	29	0	0	25	4	0	0	0	0	0	0	120	0	0	0	0	0.78	
H	1992	074930	Sandy R	Cedar Cr (Sandy)	06/01/94	25,096	62,281	30.64	0	0	52	0	0	32	11	0	0	0	0	0	0	141	0	0	0	0	0.94	
H	1992	075127	Sandy R	Cedar Cr (Sandy)	06/01/94	23,046	241,271	30.85	0	0	24	0	0	25	0	0	0	0	0	0	0	109	0	0	0	0	0.69	

Appendix Table A. Continued.

Hatchery,			Ocean Catch																								
Stock source (H, N, M)			Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.					
brood,	tagcode	Stock		Release Site	Ad+CWT		Total	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3		4	5	6+		
COHO SALMON (Continued)																											
Sandy (Continued):																											
H	1993	070552	Sandy R	Cedar Cr (Sandy)	04/09/95	52,335	54,686	32.87	0	0	4	0	0	0	22	0	0	0	0	0	0	12	259	0	0	0	0.57
H	1993	070551	Sandy R	Cedar Cr (Sandy)	05/03/95	55,237	57,924	30.04	0	0	0	0	0	0	6	0	0	0	0	0	0	0	49	0	0	0	0.10
H	1994	071135	Sandy R	Cedar Cr (Sandy)	03/27/96	28,047	70,806	30.83	0	0	0	0	0	4	0	0	0	0	0	0	10	34	0	0	0	0	0.17
H	1994	070839	Sandy R	Cedar Cr (Sandy)	03/27/96	27,601	70,156	30.86	0	0	0	0	0	2	0	0	0	0	0	0	9	36	0	0	0	0	0.17
H	1994	071134	Sandy R	Cedar Cr (Sandy)	03/27/96	28,803	70,093	31.26	0	0	0	0	0	0	0	0	0	0	0	0	14	69	0	0	0	0	0.29
H	1994	070840	Sandy R	Cedar Cr (Sandy)	03/27/96	27,221	69,120	31.48	0	0	0	0	0	0	0	0	0	0	3	7	38	0	0	0	0	0.18	
H	1994	070841	Sandy R	Cedar Cr (Sandy)	03/27/96	26,498	70,272	31.70	0	0	0	0	0	0	2	0	0	0	0	0	18	46	0	0	0	0	0.25
H	1994	071133	Sandy R	Cedar Cr (Sandy)	03/27/96	27,958	68,990	32.15	0	0	0	0	0	0	0	0	0	0	0	14	41	0	0	0	0	0	0.20
H	1994	070837	Sandy R	Cedar Cr (Sandy)	05/06/96	27,133	124,717	30.86	0	0	0	0	0	0	0	0	0	4	13	106	0	0	0	0	0	0	0.45
H	1994	070838	Sandy R	Cedar Cr (Sandy)	05/06/96	27,393	124,797	31.72	0	0	0	0	0	6	0	0	0	0	0	16	131	0	0	0	0	0	0.56
H	1995	070843	Sandy R	Cedar Cr (Sandy)	04/07/97	27,492	194,817	29.26	0	0	0	0	0	2	0	0	0	0	0	4	141	0	0	0	0	0	0.53
H	1995	070844	Sandy R	Cedar Cr (Sandy)	04/07/97	27,459	195,252	29.45	0	0	0	0	0	6	7	0	0	0	0	4	161	0	0	0	0	0	0.65
H	1995	091838	Sandy R	Cedar Cr (Sandy)	05/05/97	29,337	233,740	30.03	0	0	0	0	0	2	7	0	0	0	0	1	211	0	0	0	0	0	0.75
H	1995	092034	Sandy R	Cedar Cr (Sandy)	05/07/97	16,085	16,147	29.64	0	0	0	0	0	9	0	0	0	0	0	3	181	0	0	0	0	0	1.20
H	1995	091839	Sandy R	Cedar Cr (Sandy)	05/07/97	30,004	30,714	29.84	0	0	0	0	0	10	3	0	0	0	0	5	300	0	0	0	0	0	1.06
H	1996	092332	Sandy R	Cedar Cr (Sandy)	04/15/98	29,251	135,391	29.65	0	0	0	0	0	14	5	0	2	0	0	14	150	0	0	0	0	0	0.63
H	1996	092333	Sandy R	Cedar Cr (Sandy)	05/14/98	29,770	120,211	31.28	0	0	0	0	0	11	3	0	0	2	0	1	70	0	0	0	0	0	0.29
H	1997	092432	Sandy R	Cedar Cr (Sandy)	04/15/99	26,383	364,796	30.44	0	0	0	0	0	47	15	0	23	9	0	24	481	0	0	0	0	0	2.27
H	1997	092433	Sandy R	Cedar Cr (Sandy)	05/14/99	27,760	232,964	31.61	0	0	0	0	0	11	20	0	2	3	0	9	352	0	0	0	0	0	1.43
H	1998	092727	Sandy R	Cedar Cr (Sandy)	04/18/00	26,254	402,526	30.20	0	0	0	0	0	80	26	5	10	19	0	19	728	0	0	0	0	0	3.38
H	1998	092728	Sandy R	Cedar Cr (Sandy)	05/15/00	26,491	332,020	30.77	0	0	0	0	0	110	35	2	25	32	0	11	761	0	0	0	0	0	3.68
H	1999	093218	Sandy R	Cedar Cr (Sandy)	04/19/01	26,426	365,588	30.61	0	33	0	0	7	59	23	6	18	24	0	11	382	0	0	--	--	--	2.13
H	1999	093221	Sandy R	Cedar Cr (Sandy)	05/16/01	26,630	231,598	31.07	0	0	0	0	0	37	16	0	12	18	0	4	4	209	0	0	--	--	1.13
H	2000	093353	Sandy R	Cedar Cr (Sandy)	04/18/02	27,633	518,036	30.61	0	0	0	0	0	104	49	32	49	54	0	21	458	0	--	--	--	--	2.78
H	2000	093354	Sandy R	Cedar Cr (Sandy)	05/16/02	26,889	316,698	32.35	0	0	41	0	5	97	36	33	46	49	0	8	353	0	--	--	--	--	2.48
H	2001	093462	Sandy R	Cedar Cr (Sandy)	04/17/03	27,745	471,251	30.79	0	0	0	0	0	106	50	13	50	34	0	53	455	--	--	--	--	--	2.74
H	2001	093463	Sandy R	Cedar Cr (Sandy)	05/14/03	27,987	273,689	30.68	0	0	0	0	0	95	62	24	55	36	14	20	523	--	--	--	--	--	2.96
H	1995	091840	Sandy R	Klickitat R (WA)	03/26/97	30,918	273,896	24.92	0	0	0	0	0	1	2	0	0	0	0	0	7	0	0	0	0	0	0.03
Wahkeena Pond:																											
H	1992	071529	Sandy R	Wahkeena Pond	04/30/94	23,472	1,503,732	23.14	0	0	0	0	0	3	0	0	0	0	0	1	2	0	0	0	0	0	0.03

Appendix Table A. Continued.

Hatchery,			Ocean Catch																					
Stock source (H, N, M)			Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.		
brood,	tagcode	Stock		Release Site	Ad+CWT		Total	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3		4	5
SUMMER STEELHEAD																								
Irrigon:																								
H	1991	075860	Imnaha R	Little Sheep Cr	04/27/92	24,828	24,962	74.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1991	075861	Imnaha R	Little Sheep Cr	04/27/92	27,195	27,265	74.35	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0.01
M	1991	075859	Imnaha R	Little Sheep Cr	04/27/92	26,895	98,280	80.98	0	1	0	0	0	0	0	0	0	0	4	0	0	0	0	0.02
M	1991	075862	Imnaha R	Little Sheep Cr	04/27/92	26,752	98,280	80.98	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.00
	1992	076063	Imnaha R	Little Sheep Cr	04/28/93	22,570	24,306	79.56	0	0	0	0	0	0	0	0	0	0	30	19	0	0	0	0.22
	1992	076101	Imnaha R	Little Sheep Cr	04/28/93	23,393	24,441	79.56	0	0	1	0	0	0	0	0	0	0	38	15	0	0	0	0.23
	1992	076061	Imnaha R	Little Sheep Cr	04/28/93	24,357	119,636	82.46	0	0	0	0	0	0	0	0	0	0	37	23	0	0	0	0.25
	1992	076062	Imnaha R	Little Sheep Cr	04/28/93	24,806	118,333	82.46	0	0	0	0	0	0	0	0	0	0	20	33	0	0	0	0.21
	1993	070322	Imnaha R	Little Sheep Cr	04/25/94	23,876	126,314	79.58	0	0	0	0	0	0	0	0	0	0	12	20	0	0	0	0.13
	1993	070323	Imnaha R	Little Sheep Cr	04/25/94	22,900	23,285	88.94	0	0	0	0	0	0	0	0	0	0	27	8	0	0	0	0.15
	1993	070324	Imnaha R	Little Sheep Cr	04/25/94	24,187	24,681	88.94	0	0	0	0	0	0	0	0	0	0	11	10	0	0	0	0.09
	1993	070321	Imnaha R	Little Sheep Cr	04/25/94	24,658	126,495	96.51	0	0	0	0	0	0	0	0	0	0	60	24	0	0	0	0.34
	1994	070919	Imnaha R	Little Sheep Cr	05/01/95	54,985	56,954	81.00	0	0	0	0	0	0	0	0	0	0	119	33	1	0	0	0.28
	1994	075820	Imnaha R	Little Sheep Cr	05/01/95	26,980	115,441	92.57	0	0	0	0	0	0	0	0	0	0	85	33	0	0	0	0.44
	1994	075821	Imnaha R	Little Sheep Cr	05/01/95	26,630	115,441	92.57	0	0	0	0	0	0	0	0	0	0	104	51	0	0	0	0.58
	1995	071217	Imnaha R	Little Sheep Cr	04/29/96	26,025	134,269	82.32	0	0	0	0	0	0	0	0	0	0	61	29	0	0	0	0.35
	1995	071218	Imnaha R	Little Sheep Cr	04/29/96	26,986	134,268	82.32	0	0	0	0	0	0	0	0	0	0	99	22	0	0	0	0.45
	1995	071219	Imnaha R	Little Sheep Cr	04/29/96	26,363	26,972	87.23	0	0	0	0	0	0	0	0	0	0	30	5	0	0	0	0.13
	1995	071220	Imnaha R	Little Sheep Cr	04/29/96	26,337	26,637	87.23	0	0	0	0	0	0	0	0	0	0	20	2	0	0	0	0.08
	1996	091832	Imnaha R	Little Sheep Cr	04/15/97	26,175	104,468	85.58	0	0	0	0	0	0	0	0	0	0	44	27	0	0	0	0.27
	1996	091833	Imnaha R	Little Sheep Cr	04/15/97	28,070	104,468	85.58	0	0	0	0	0	0	0	0	0	0	45	21	0	0	0	0.24
	1997	074860	Imnaha R	Little Sheep Cr	04/26/98	13,565	13,660	79.58	0	0	0	0	0	0	0	0	0	0	65	34	0	0	0	0.73
	1997	075301	Imnaha R	Little Sheep Cr	04/26/98	12,970	13,718	90.72	0	0	0	0	0	0	0	0	0	0	21	10	0	0	0	0.24
	1997	092322	Imnaha R	Little Sheep Cr	04/26/98	25,425	31,409	90.72	0	0	0	0	0	0	0	0	0	0	48	35	1	0	0	0.33
	1997	092323	Imnaha R	Little Sheep Cr	04/26/98	26,468	27,692	90.72	0	0	0	0	0	0	0	0	0	0	90	19	0	0	0	0.41
	1998	092560	Imnaha R	Little Sheep Cr	04/13/99	25,459	105,277	98.60	0	0	0	0	0	0	0	0	0	0	87	67	0	0	0	0.60
	1998	092634	Imnaha R	Little Sheep Cr	04/13/99	26,165	110,016	98.60	0	0	0	0	0	0	0	0	0	0	123	29	1	0	0	0.58
	1998	092561	Imnaha R	Little Sheep Cr	05/18/99	24,862	119,379	84.00	0	0	0	0	0	0	0	0	0	0	34	11	1	0	0	0.19
	1999	092706	Imnaha R	Little Sheep Cr	09/10/99	59,976	59,976	3.63	0	0	0	0	0	0	0	0	0	0	0	2	4	0	--	0.01
	1999	092927	Imnaha R	Little Sheep Cr	04/12/00	25,798	80,795	104.3	0	0	0	0	0	0	0	0	0	0	137	52	1	0	--	0.74
	1999	092928	Imnaha R	Little Sheep Cr	04/12/00	24,960	80,787	104.3	0	0	0	0	0	0	0	0	0	0	191	42	0	0	--	0.93
	1999	092929	Imnaha R	Little Sheep Cr	05/10/00	23,575	66,506	114.0	0	0	0	0	0	0	0	0	0	0	99	31	0	0	--	0.55
M	2000	093210	Imnaha R	Little Sheep Cr	04/11/01	27,476	104,547	109.0	0	0	0	0	0	0	0	0	0	0	92	40	0	--	--	0.48
M	2000	093211	Imnaha R	Little Sheep Cr	05/09/01	28,283	83,370	100.8	0	0	0	0	0	0	0	0	0	0	51	26	1	--	--	0.28
H	1991	075857	Wallowa R	Big Canyon Cr	04/23/92	25,725	26,658	87.21	0	0	0	0	0	0	0	0	0	0	4	17	0	0	0	0.08
H	1991	075858	Wallowa R	Big Canyon Cr	04/23/92	26,429	27,083	87.21	0	0	0	0	0	0	0	0	0	0	9	9	0	0	0	0.07
H	1991	075855	Wallowa R	Big Canyon Cr	04/23/92	26,046	122,344	94.48	0	0	0	0	0	0	0	0	0	0	7	30	1	0	0	0.15
H	1991	075856	Wallowa R	Big Canyon Cr	04/23/92	26,667	122,647	94.48	0	0	0	0	0	0	0	0	0	0	8	5	0	0	0	0.05

Appendix Table A. Continued.

Hatchery,			Ocean Catch																						
Stock source (H, N, M)			Release	Number Released		Size	Oregon Areas										Freshwater Recoveries					%			
brood,	tagcode	Stock	Release Date	Ad+CWT	Total	(gm)	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.	
SUMMER STEELHEAD (Continued)																									
Irrigon (Continued):																									
	1992	076102	Wallowa R	Big Canyon Cr	04/23/93	25,890	112,086	87.21	0	1	0	0	0	0	0	0	0	0	0	48	30	0	0	0	0.31
	1992	076103	Wallowa R	Big Canyon Cr	04/23/93	25,222	111,857	87.21	0	0	0	0	0	0	0	0	0	0	0	52	36	1	0	0	0.35
	1992	076104	Wallowa R	Big Canyon Cr	04/23/93	23,277	25,267	92.55	0	0	0	0	0	0	0	0	0	0	0	39	64	2	0	0	0.45
	1992	076105	Wallowa R	Big Canyon Cr	04/23/93	24,821	26,315	92.55	0	1	0	0	0	0	0	0	0	0	0	70	26	0	0	0	0.39
	1993	070327	Wallowa R	Big Canyon Cr	04/22/94	23,287	25,334	108.00	0	0	0	0	0	0	0	0	0	0	0	71	94	0	0	0	0.71
	1993	070328	Wallowa R	Big Canyon Cr	04/22/94	21,981	24,873	108.00	0	0	0	0	0	0	0	0	0	0	0	89	45	0	0	0	0.61
	1993	070325	Wallowa R	Big Canyon Cr	04/22/94	26,858	52,569	113.39	0	0	0	0	0	0	0	0	0	0	0	158	114	0	0	0	1.01
	1993	070326	Wallowa R	Big Canyon Cr	04/22/94	26,960	52,978	113.39	0	0	0	0	0	0	0	0	0	0	0	102	87	0	0	0	0.70
	1994	070920	Wallowa R	Big Canyon Cr	04/21/95	50,524	53,822	103.09	0	0	0	0	0	0	0	0	0	0	0	201	62	1	0	0	0.52
	1994	075824	Wallowa R	Big Canyon Cr	04/21/95	26,990	112,478	116.30	0	0	0	0	0	0	0	0	0	0	0	91	47	0	0	0	0.51
	1994	075825	Wallowa R	Big Canyon Cr	04/21/95	27,281	112,478	116.30	0	0	0	0	0	0	0	0	0	0	0	149	54	4	0	0	0.76
	1995	071161	Wallowa R	Big Canyon Cr	04/17/96	24,771	25,522	85.58	0	0	0	0	0	0	0	0	0	0	0	91	61	6	0	0	0.64
	1995	071162	Wallowa R	Big Canyon Cr	04/17/96	25,294	25,448	85.58	0	0	0	0	0	0	0	0	0	0	0	102	58	0	0	0	0.63
	1995	071159	Wallowa R	Big Canyon Cr	04/17/96	27,223	111,419	96.51	0	0	0	0	0	0	0	0	0	0	0	105	53	0	0	0	0.58
	1995	071160	Wallowa R	Big Canyon Cr	04/17/96	27,289	111,418	96.51	0	0	0	0	0	0	0	0	0	0	0	155	49	7	0	0	0.77
	1996	075330	Wallowa R	Big Canyon Cr	04/08/97	25,227	53,796	82.47	0	0	0	0	0	0	0	0	0	0	0	42	9	0	0	0	0.20
	1996	091825	Wallowa R	Big Canyon Cr	04/08/97	26,766	53,795	82.47	0	0	0	0	0	0	0	0	0	0	0	43	25	1	0	0	0.26
	1996	091826	Wallowa R	Big Canyon Cr	04/23/97	26,571	54,773	88.94	0	0	0	0	0	0	0	0	0	0	0	67	35	0	0	0	0.38
	1996	091827	Wallowa R	Big Canyon Cr	04/23/97	26,844	54,771	88.94	0	0	0	0	0	0	0	0	0	0	0	82	11	0	0	0	0.35
	1997	092326	Wallowa R	Big Canyon Cr	03/31/98	24,970	95,873	81.00	0	0	0	0	0	0	0	0	0	0	0	71	86	0	0	0	0.63
	1997	092327	Wallowa R	Big Canyon Cr	03/31/98	26,142	97,079	90.72	0	0	0	0	0	0	0	0	0	0	0	50	32	0	0	0	0.31
	1997	092330	Wallowa R	Big Canyon Cr	03/31/98	26,096	81,735	92.57	0	0	0	0	0	0	0	0	0	0	0	51	46	0	0	0	0.37
	1997	092331	Wallowa R	Big Canyon Cr	05/12/98	28,309	87,453	98.60	0	0	0	0	0	0	0	0	0	0	0	49	76	1	0	0	0.45
	1998	092563	Wallowa R	Big Canyon Cr	04/07/99	25,240	119,648	94.50	0	0	0	0	0	0	0	0	0	0	0	126	57	3	0	0	0.74
	1998	092562	Wallowa R	Big Canyon Cr	04/21/99	25,472	119,409	98.60	0	0	0	0	0	0	0	0	0	0	0	75	66	6	0	0	0.58
	1998	092604	Wallowa R	Big Canyon Cr	05/19/99	25,354	104,489	90.72	0	0	0	0	0	0	0	0	0	0	0	53	79	8	0	0	0.55
	1998	092603	Wallowa R	Big Canyon Cr	06/03/99	26,229	103,829	92.57	0	0	0	0	0	0	0	0	0	0	0	68	41	6	0	0	0.44
	1999	092934	Wallowa R	Big Canyon Cr	04/12/00	23,685	87,119	113.96	0	0	0	0	0	0	0	0	0	0	0	245	69	8	0	--	1.36
	1999	092935	Wallowa R	Big Canyon Cr	04/13/00	23,612	91,536	114.25	0	0	0	0	0	0	0	0	0	0	0	219	57	3	0	--	1.18
	1999	092936	Wallowa R	Big Canyon Cr	05/10/00	25,868	67,298	111.17	0	0	0	0	0	0	0	0	0	0	0	125	78	7	0	--	0.81
	1999	092937	Wallowa R	Big Canyon Cr	05/25/00	23,943	67,751	112.83	0	0	0	0	0	0	0	0	0	0	0	132	45	4	0	--	0.76
M	2000	093215	Wallowa R	Deer Cr	04/11/01	26,298	81,797	100.78	0	0	0	0	0	0	0	0	0	0	0	28	18	0	--	--	0.17
M	2000	093216	Wallowa R	Deer Cr	05/09/01	26,184	65,716	96.70	0	0	0	0	0	0	0	0	0	0	0	52	25	4	--	--	0.31
M	2000	093217	Wallowa R	Deer Cr	05/10/01	26,264	64,498	96.08	0	0	0	0	0	0	0	0	0	0	0	39	20	2	--	--	0.23
H	1991	075853	Wallowa R	Spring Cr	04/20/92	25,448	248,402	94.48	0	0	0	0	0	0	0	0	0	0	0	8	11	0	0	0	0.07
H	1991	075854	Wallowa R	Spring Cr	04/20/92	25,059	248,403	94.48	0	0	0	0	0	0	0	0	0	0	0	8	12	0	0	0	0.08
	1992	076106	Wallowa R	Spring Cr	04/19/93	26,088	247,770	96.49	0	0	0	0	0	0	0	0	0	0	0	43	28	0	0	0	0.27
	1992	076107	Wallowa R	Spring Cr	04/19/93	25,413	247,394	96.49	0	0	0	0	0	0	0	0	0	0	0	39	27	3	0	0	0.27

Appendix Table A. Continued.

Hatchery,			Ocean Catch																					
Stock source (H, N, M)			Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.		
brood,	tagcode	Stock		Release Site	Ad+CWT		Total	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3		4	5
SUMMER STEELHEAD (Continued)																								
Irrigon (Continued):																								
	1993	070330	Wallowa R	Spring Cr	04/18/94	27,694	246,515	116.30	0	0	0	0	0	0	0	0	0	0	121	73	0	0	0	0.70
	1993	070329	Wallowa R	Spring Cr	04/18/94	27,187	247,827	125.99	0	0	0	0	0	0	0	0	0	0	128	80	1	0	0	0.77
	1994	075823	Wallowa R	Spring Cr	04/16/95	26,937	247,984	94.50	0	0	0	0	0	0	0	0	0	0	74	18	3	0	0	0.35
	1994	075822	Wallowa R	Spring Cr	04/16/95	26,336	247,153	96.51	0	0	0	0	0	0	0	0	0	0	95	38	6	0	0	0.53
	1995	071163	Wallowa R	Spring Cr	04/09/96	27,311	249,540	88.94	0	0	0	0	0	0	0	0	0	0	100	50	1	0	0	0.55
	1995	071216	Wallowa R	Spring Cr	04/23/96	26,755	244,941	90.72	0	0	0	0	0	0	0	0	0	0	117	41	1	0	0	0.59
	1996	091829	Wallowa R	Spring Cr	04/01/97	26,360	257,776	87.23	0	0	0	0	0	0	0	0	0	0	68	20	0	0	0	0.33
	1996	091828	Wallowa R	Spring Cr	04/18/97	26,798	259,114	92.57	0	0	0	0	0	0	0	0	0	0	67	21	0	0	0	0.33
	1996	091831	Wallowa R	Spring Cr	05/15/97	26,588	85,417	88.94	0	0	0	0	0	0	0	0	0	0	5	6	0	0	0	0.04
	1996	091830	Wallowa R	Spring Cr	05/30/97	24,487	78,175	90.72	0	0	0	0	0	0	0	0	0	0	12	2	0	0	0	0.06
	1997	071247	Wallowa R	Spring Cr	03/24/98	25,301	43,570	49.84	0	0	0	0	0	0	0	0	0	0	55	12	0	0	0	0.26
	1997	092328	Wallowa R	Spring Cr	03/24/98	26,243	134,930	90.72	0	0	0	0	0	0	0	0	0	0	36	49	1	0	0	0.33
	1997	092329	Wallowa R	Spring Cr	04/08/98	26,245	184,420	90.72	0	0	0	0	0	0	0	0	0	0	84	29	0	0	0	0.43
	1997	092325	Wallowa R	Spring Cr	05/01/98	25,285	199,238	88.94	0	0	0	0	0	0	0	0	0	0	55	31	0	0	0	0.34
	1997	092324	Wallowa R	Spring Cr	05/20/98	22,982	197,209	96.51	0	0	0	0	0	0	0	0	0	0	86	54	0	0	0	0.61
	1998	092601	Wallowa R	Spring Cr	03/31/99	25,938	216,755	103.09	0	0	0	0	0	0	0	0	0	0	77	71	11	0	0	0.61
	1998	092602	Wallowa R	Spring Cr	04/15/99	26,156	218,711	110.63	0	0	0	0	0	0	0	0	0	0	38	45	11	0	0	0.36
	1998	092606	Wallowa R	Spring Cr	05/12/99	25,310	116,072	85.58	0	0	0	0	0	0	0	0	0	0	71	37	7	0	0	0.45
	1998	092605	Wallowa R	Spring Cr	05/28/99	26,063	110,357	88.94	0	0	0	0	0	0	0	0	0	0	47	49	9	0	0	0.40
	1999	092930	Wallowa R	Spring Cr	04/05/00	22,565	178,962	104.51	0	0	0	0	0	0	2	0	0	0	152	78	13	0	--	1.09
	1999	092931	Wallowa R	Spring Cr	04/06/00	24,142	184,552	117.20	0	0	0	0	0	0	0	0	0	0	214	84	17	0	--	1.30
	1999	092932	Wallowa R	Spring Cr	05/03/00	25,943	104,369	106.22	0	0	0	0	0	0	0	0	0	0	89	77	14	0	--	0.69
	1999	092933	Wallowa R	Spring Cr	05/18/00	23,182	108,322	105.98	0	0	0	0	0	0	0	0	0	0	82	82	14	0	--	0.77
	2000	093212	Wallowa R	Spring Cr	04/05/01	23,729	344,399	102.84	0	0	0	0	0	0	0	0	0	0	38	26	2	--	--	0.28
	2000	093213	Wallowa R	Spring Cr	05/02/01	27,155	105,637	97.32	0	0	0	0	0	0	0	0	0	0	49	37	2	--	--	0.32
	2000	093214	Wallowa R	Spring Cr	05/17/01	25,892	101,483	96.29	0	0	0	0	0	0	0	0	0	0	29	15	1	--	--	0.17
Umatilla:																								
	N	1991	073759	Umatilla R	Umatilla R	03/29/92	10,394	22,474	78.19	0	0	0	0	0	0	0	0	0	15	8	0	0	0	0.22
	N	1991	073862	Umatilla R	Umatilla R	03/29/92	10,594	22,902	78.19	0	0	0	0	0	0	0	0	0	2	12	0	0	0	0.13
	N	1991	074127	Umatilla R	Umatilla R	03/29/92	10,203	22,059	78.19	0	0	0	0	0	0	0	0	0	5	22	0	0	0	0.26
	N	1991	075841	Umatilla R	Umatilla R	04/30/92	10,108	22,262	90.70	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0.02
	N	1991	075842	Umatilla R	Umatilla R	04/30/92	9,498	21,365	90.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
	N	1991	075843	Umatilla R	Umatilla R	04/30/92	9,747	20,923	90.70	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0.04
	N	1991	075838	Umatilla R	Umatilla R	05/01/92	10,562	22,469	82.46	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.01
	N	1991	075839	Umatilla R	Umatilla R	05/01/92	10,275	22,662	82.46	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.01
	N	1991	075840	Umatilla R	Umatilla R	05/01/92	10,105	22,288	82.46	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.01
		1992	076055	Umatilla R	Umatilla R	04/16/93	10,031	27,854	80.98	0	1	0	0	0	0	0	0	0	39	17	0	0	0	0.57

Appendix Table A. Continued.

Hatchery,		Ocean Catch																					
Stock source (H, N, M)		Release Date	Number Released		Size (gm)	Oregon Areas											Freshwater Recoveries					% Surv.	
brood, tagcode	Stock		Release Site	Ad+CWT		Total	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4		5
SUMMER STEELHEAD (Continued)																							
Umatilla (Continued):																							
1992	076056	Umatilla R	Umatilla R	04/16/93	9,418	10,021	80.98	0	0	0	0	0	0	0	0	0	0	29	27	0	0	0	0.59
1992	076057	Umatilla R	Umatilla R	04/16/93	9,643	10,104	80.98	0	0	0	0	0	0	0	0	0	0	37	23	0	0	0	0.62
1992	076058	Umatilla R	Umatilla R	04/18/93	10,194	24,612	100.8	0	0	0	0	0	0	0	0	0	0	40	29	0	0	0	0.68
1992	076059	Umatilla R	Umatilla R	04/18/93	9,792	10,173	100.8	0	0	0	0	0	0	0	0	0	0	23	20	0	0	0	0.44
1992	076060	Umatilla R	Umatilla R	04/18/93	9,440	10,039	100.8	0	0	0	0	0	0	0	0	0	0	49	25	0	0	0	0.78
1992	076052	Umatilla R	Umatilla R	05/13/93	13,117	43,767	74.35	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0	0.06
1992	076053	Umatilla R	Umatilla R	05/13/93	11,410	11,691	74.35	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0.10
1992	076054	Umatilla R	Umatilla R	05/13/93	9,907	10,007	74.35	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0	0.08
1993	070143	Umatilla R	Umatilla R	04/11/94	10,471	26,481	92.57	0	0	0	0	0	0	0	0	0	0	31	12	0	0	0	0.41
1993	070144	Umatilla R	Umatilla R	04/11/94	9,651	24,922	92.57	0	0	0	0	0	0	0	0	0	0	38	35	0	0	0	0.76
1993	070141	Umatilla R	Umatilla R	04/14/94	9,952	24,692	88.94	0	0	0	0	0	0	0	0	0	0	22	13	0	0	0	0.35
1993	070142	Umatilla R	Umatilla R	04/14/94	9,965	24,906	88.94	0	0	0	0	0	0	0	0	0	0	45	19	0	0	0	0.64
1993	070139	Umatilla R	Umatilla R	05/12/94	8,595	26,411	87.23	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0.06
1993	070140	Umatilla R	Umatilla R	05/12/94	8,400	25,686	87.23	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.01
1994	070657	Umatilla R	Umatilla R	04/11/95	19,290	48,539	81.00	0	0	0	0	0	0	0	0	0	0	163	54	0	0	0	1.12
1994	070656	Umatilla R	Umatilla R	04/13/95	18,812	49,983	96.51	0	0	0	0	0	0	0	0	0	0	157	133	3	0	0	1.56
1994	070655	Umatilla R	Umatilla R	05/12/95	19,782	47,941	82.17	0	0	0	0	0	0	0	0	0	0	33	15	0	0	0	0.24
1995	071035	Umatilla R	Umatilla R	04/12/96	19,742	47,543	88.94	0	0	0	0	0	0	0	0	0	0	70	58	0	0	0	0.65
1995	071036	Umatilla R	Umatilla R	04/26/96	21,205	49,377	85.58	0	0	0	0	0	0	0	0	0	0	33	26	1	0	0	0.28
1995	071034	Umatilla R	Umatilla R	05/09/96	20,633	49,783	88.94	0	0	0	0	0	0	0	0	0	0	5	25	0	0	0	0.15
1996	091835	Umatilla R	Umatilla R	04/10/97	19,531	41,555	84.00	0	0	0	0	0	0	0	0	0	0	48	2	1	0	0	0.26
1996	091836	Umatilla R	Umatilla R	04/11/97	19,103	46,788	98.60	0	0	0	0	0	0	0	0	0	0	89	11	0	0	0	0.52
1996	091837	Umatilla R	Umatilla R	05/15/97	20,065	48,944	92.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
1997	092341	Umatilla R	Umatilla R	04/16/98	20,800	41,088	76.88	0	0	0	0	0	0	0	0	0	0	44	40	0	0	0	0.40
1997	092340	Umatilla R	Umatilla R	04/17/98	20,646	49,084	96.51	0	0	0	0	0	0	0	0	0	0	54	41	1	0	0	0.46
1997	092339	Umatilla R	Umatilla R	05/04/98	19,468	47,313	82.47	0	0	0	0	0	0	0	0	0	0	11	30	0	0	0	0.21
1998	092525	Umatilla R	Umatilla R	04/13/99	20,450	44,226	82.02	0	0	0	0	0	0	0	0	0	0	25	9	0	0	0	0.17
1998	092526	Umatilla R	Umatilla R	04/14/99	20,787	41,843	92.57	0	0	0	0	0	0	0	0	0	0	84	32	0	0	0	0.56
1998	092527	Umatilla R	Umatilla R	05/04/99	19,088	35,564	76.49	0	0	0	0	0	0	0	0	0	0	4	5	0	0	0	0.05
1999	070535	Umatilla R	Umatilla R	04/05/00	20,980	51,659	94.50	0	0	0	0	0	0	0	0	0	0	105	20	0	0	--	0.60
1999	070947	Umatilla R	Umatilla R	04/11/00	21,552	49,343	70.32	0	0	0	0	0	0	0	0	0	0	75	11	0	0	--	0.40
1999	092344	Umatilla R	Umatilla R	04/28/00	21,965	52,736	96.51	0	0	0	0	0	0	0	0	0	0	49	28	0	0	--	0.35
2000	093224	Umatilla R	Umatilla R	04/05/01	21,209	53,242	83.98	0	0	0	0	0	0	0	0	0	0	12	4	0	--	--	0.08
2000	093225	Umatilla R	Umatilla R	04/26/01	22,013	47,076	96.08	0	0	0	0	0	0	0	0	0	0	8	1	0	--	--	0.04
2000	093223	Umatilla R	Umatilla R	04/27/01	21,756	51,240	94.50	0	0	0	0	0	0	0	0	0	0	14	7	0	--	--	0.10

Appendix Table A. Concluded.

Hatchery,			Ocean Catch																				
Stock source (H, N, M)			Release Date	Number Released		Size (gm)	Oregon Areas										Freshwater Recoveries					% Surv.	
brood, tagcode	Stock	Release Site		Ad+CWT	Total		AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4		5
WINTER STEELHEAD																							
Oak Springs:																							
1993	070538	Hood R	Hood R, E Fk	04/13/94	5,748	6,445	84.00	0	0	0	0	0	0	0	0	0	0	1	12	4	0	0	0.30
1993	070539	Hood R	Hood R, E Fk	04/13/94	6,478	6,521	84.00	0	0	0	0	0	0	0	0	0	0	1	19	7	0	0	0.42
1993	070536	Hood R	Hood R, E Fk	04/13/94	6,821	6,863	100.8	0	0	0	0	0	0	0	0	0	0	2	11	7	0	0	0.29
1993	070537	Hood R	Hood R, E Fk	04/13/94	6,170	6,189	100.8	0	0	0	0	0	0	0	0	0	0	2	10	14	0	0	0.42
1994	070917	Hood R	Hood R, E Fk	04/19/95	9,654	11,148	79.58	0	0	0	0	0	0	0	0	0	0	0	23	4	0	0	0.28
1994	070918	Hood R	Hood R, E Fk	04/19/95	9,387	10,840	79.58	0	0	0	0	0	0	0	0	0	0	0	34	1	0	0	0.37
1994	070916	Hood R	Hood R, E Fk	04/19/95	9,935	10,371	88.94	0	0	0	0	0	0	0	0	0	0	1	33	6	0	0	0.40
1994	070863	Hood R	Hood R, E Fk	04/20/95	10,096	10,539	88.94	0	0	0	0	0	0	0	0	0	0	4	29	13	0	0	0.46
1995	071131	Hood R	Hood R, E Fk	05/08/96	23,995	23,995	88.94	0	0	0	0	0	0	0	0	0	0	3	9	11	0	0	0.10
1995	071132	Hood R	Hood R, E Fk	05/08/96	26,092	26,871	90.72	0	0	0	0	0	0	0	0	0	0	5	5	6	0	0	0.06
1999	092923	Hood R	Hood R, E Fk	05/09/00	20,951	30,452	60.88	0	0	0	0	0	0	0	0	0	0	0	59	40	0	--	0.47
1999	092924	Hood R	Hood R, Mid Fk	05/19/00	20,178	32,703	57.78	0	0	0	0	0	0	0	0	0	0	2	30	24	0	--	0.28