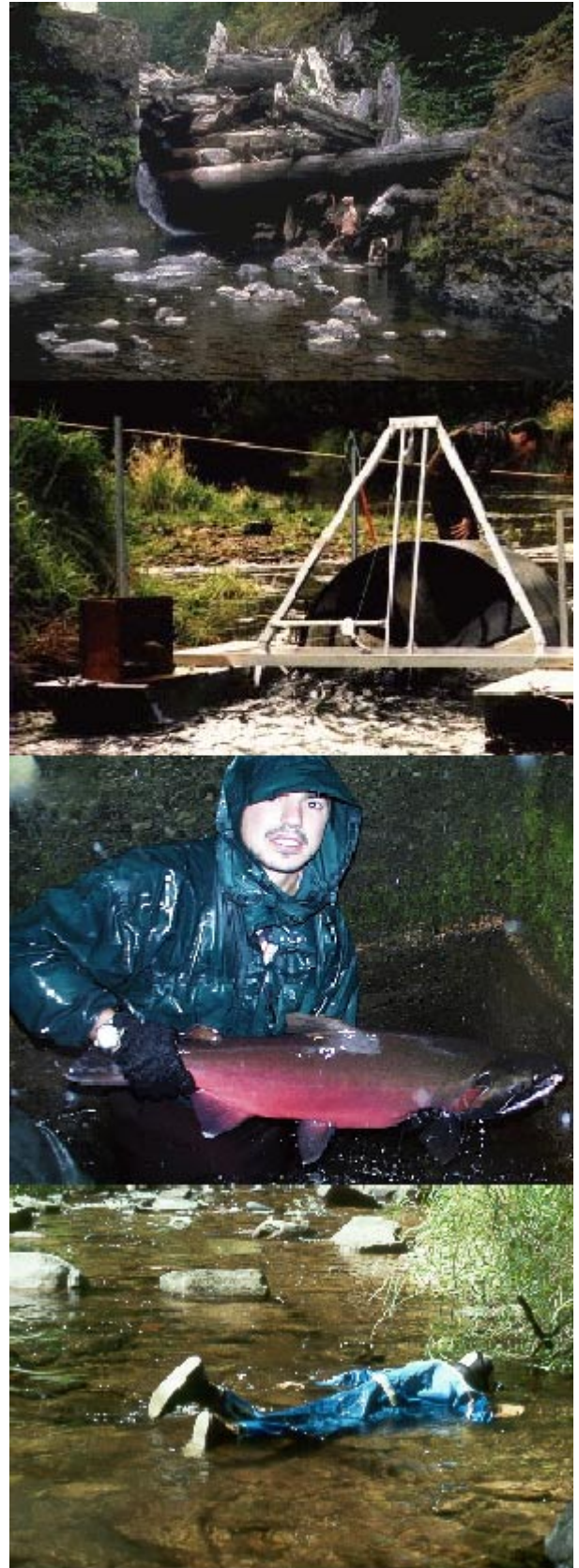


THE OREGON PLAN *for* *Salmon and* *Watersheds*



Stock Assessment of Anadromous Salmonids, 2002

Report Number: OPSW-ODFW-2003-04

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ANNUAL PROGRESS REPORT

FISH CULTURE PROJECT
OREGON

PROJECT TITLE: Stock Assessment of Anadromous Salmonids, 2002

PROJECT NUMBER: AFC-136: Segment 2, Task 3

CONTRACT NUMBER: NA07FA0322

REPORT PERIOD: October 1st, 2002 to March 31th, 2003

Prepared by: M.A. Lewis

Oregon Department of Fish and Wildlife
2501 S.W. First Avenue
P. O. Box 59
Portland, Oregon 97207

Funds supplied in part by:

Anadromous Fish Act (PL 89-304) funds administered by the National Marine Fisheries Service, and State of Oregon.

Citation: Lewis, M.A. 2003. Stock assessment of anadromous salmonids, 2002. Monitoring Program Report Number OPSW-ODFW-2003-04. Oregon Department of Fish and Wildlife, Portland, Oregon.

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SUMMARY

Objectives for Report Period

During FY 2002 we planned to (1) record all ocean fishery recoveries of coded-wire-tagged (CWT) coho salmon (*Oncorhynchus kisutch*) and chinook salmon (*O. tshawytscha*) that were reported during 2002 (recovered in 2001); (2) monitor and record escapement of CWT fish that returned during 2001 and early 2002; (3) calculate catch distribution, catch contribution, and recovery rate for coho and chinook salmon released for this project; (4) liberate groups of CWT coho and chinook salmon with all major production releases from Oregon Department of Fish and Wildlife (ODFW) hatcheries.

Accomplishments in Report Period

All objectives were accomplished. The 2001 return year recovery data was recorded and previous years recovery data was updated. During the current reporting period (October 1st, 2002 to March 31st, 2003) we marked with an adipose fin clip and a coded-wire tag (Ad+CWT) 3 groups of 25,000 spring chinook salmon. During this period we released 3 groups of Ad+CWT coho salmon, and 2 group of Ad+CWT spring chinook salmon that were funded by this project.

Findings in Report Period

The 1998 brood coho salmon released from coastal hatcheries were recovered at an average rate of 2.8%, and ranged from 0.2% to 10.8% across all 8 release groups. The 1998 brood coho salmon released from Columbia River hatcheries were recovered at an average rate of 2.8%, and ranged from 0.6% to 6.1% across all 6 release groups. Recovery rate for the 1996 brood coastal hatchery fall chinook salmon averaged 0.3%, and ranged from 0.0% to 0.9% across all 9 release groups. Recovery rate for the 1996 brood coastal hatchery spring chinook salmon averaged 0.2%, and ranged from 0.1% to 0.4% across all 5 release groups.

INTRODUCTION

Evaluation of hatchery programs requires monitoring of activities in the hatchery, as well as, where, when and how many hatchery fish are caught or return to spawn. Fishery management plans for commercial and recreational salmon fisheries off the west coast of North America have emphasized the need for information concerning the distribution of salmon stocks in the ocean and the contribution of each of those stocks to various fisheries. Our objectives are to (1) monitor adult production from hatchery releases; (2) evaluate rearing and release strategies that will help to improve the survival rate of hatchery-produced smolts; and (3) establish a comprehensive long-term database that will provide information needed to address issues of biology, allocation, and conservation.

METHODS

The adipose fin clip plus 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, storing, and access system. Tagging levels are 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. These levels 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).

Analysis of variance (ANOVA) was used to compare survival and contribution rates. Least significant difference test was used to compare individual means when the ANOVA showed a significant difference. Differences were considered statistically significant at $P \leq 0.05$.

Tagging

- a) Determine groups to be tagged 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 for tagging (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 fish 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.

Tag Recovery

- 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. Oregon tags recovered by other agencies are sent to the Clackamas 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.

RESULTS AND DISCUSSION

Catch information from all ocean fisheries and Oregon freshwater recovery areas is complete through the 2001 return year. Release and recovery information for 1989 to 1999 broods of Ad+CWT coho salmon released for stock assessment is presented in Appendix Table 1. Release and recovery information for 1986 to 1999 broods of Ad+CWT chinook salmon released for stock assessment is presented in Appendix Table 2. Data for prior brood years is available in the 1994 annual report (Lewis 1994).

In using the recovery data in this report several cautions need to be kept in mind. (1) Spawning ground recoveries of CWT fish are not expanded. Only the number of observed recoveries is available. (2) Most freshwater fisheries outside of the Columbia River system are not sampled. A program was begun in 1986 to estimate total catch and escapement of fall chinook salmon from Salmon River hatchery (Boechler and Jacobs 1987). This program addresses these cautions

starting with the 1983 brood year. A similar program was started in 1992 for Elk River hatchery fall chinook salmon. (3) The reduced ocean salmon fishing seasons of the last several years have the potential to bias estimates of total percent recovery for coastal stocks. Reduced ocean harvest should result in increased freshwater escapement. However, due to the cautions stated above this increased escapement will not be fully documented, especially for coastal stocks.

Ocean Percent Recovery Rate

The average percent ocean recovery of various coho and chinook salmon stocks is presented in Tables 1 and 2, respectively. These data are based on production and production scale experimental groups of Ad+CWT fish. Groups of Ad+CWT fish tagged for specific research experiments and not associated with production scale releases are not included in this data. Percent recovery is calculated as (total estimated recoveries/number of tagged fish released)*100. The stock groups in these tables are based on broodstock and release location. Average percent recovery is the simple average of the brood year percent recovery. Brood year percent recovery is the percent recovery 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 recovery is calculated as the weighted average of the Ad+CWT groups. Percent recoveries are weighted by the total number of fish, both marked and unmarked, associated with each Ad+CWT group.

Table 1. Weighted average percent ocean recovery of coho salmon stocks tagged for stock assessment. Total percent recovery (both ocean and freshwater) is also reported. However, freshwater fisheries are only sampled in the Columbia River. Percent ocean recovery (1989-1998 brood years) is not significantly different for stock groups followed by the same letter.

Stock Group	Brood Years	Overall average % recovery	Percent recovery range	1998 percent recovery	1989 - 1998 brood average		
					Ocean	Total	
COLUMBIA RIVER COHO SALMON							
Sandy River	a	1977-1998	1.20	0.01 (1994) to 4.31 (1985)	0.64	0.23	1.06
Big Creek	a	1980-1998	0.93	0.01 (1996) to 4.25 (1986)	0.24	0.22	1.38
Bonneville	a	1980-1998	0.71	0.02 (2 yrs) to 3.15 (1986)	0.81	0.22	1.66
Umatilla River	a	1985-1998	0.44	0.00 (2 yrs) to 2.47 (1986)	0.22	0.07	0.38
Yakima River ^a		1986-94, 1996-97	0.29	0.00 (1991) to 1.11 (1986)	--	0.05 ^a	0.15 ^a
COASTAL RIVERS COHO SALMON							
North Umpqua R.	a	1980-1998	0.98	0.02 (1991) to 3.97 (1984)	0.26	0.28	0.63 ^b
Trask River	a	1977-1998	0.71	0.01 (3 yrs) to 2.39 (1986)	0.62	0.21	2.09
Nehalem River	a	1977-1998	0.74	0.02 (4 yrs) to 3.25 (1985)	0.16	0.18	0.87
Coos River	a	1984-1998	0.81	0.00 (1992) to 4.31 (1985)	0.04	0.15	0.56
South Umpqua R.	a	1982-1998	0.78	0.00 (2 yrs) to 4.03 (1985)	0.13	0.15	0.22 ^b
Coquille River	a	1980-1998	0.43	0.00 (4 yrs) to 1.84 (1985)	0.05	0.05	0.91
Rogue River	a	1977-1998	0.95	0.00 (1995) to 5.98 (1978)	0.05	0.04	2.68 ^b
Alsea River ^a		1975-1996	1.19	0.00 (1991) to 4.96 (1978)	--	0.14 ^a	0.51 ^a
Salmon River ^a		1976-1996	0.54	0.00 (1994) to 1.99 (1976)	--	0.08 ^a	0.43 ^a
Siletz Stock ^a in Salmon R.		1996-1998	0.07	0.04 (1997) to 0.10 (1998)	0.10	0.07 ^a	0.93 ^a

a = Does not include data from all ten years. b = Due to the large number of CWTs recovered in 2001, recovery data for the 1998 brood is incomplete.

Overall average percent ocean recovery provides a long-term evaluation of the performance of an individual stock. Overall average percent ocean recovery for coho salmon stocks ranged from 0.07% to 1.20% (Table 1). In general, within the Columbia River, coho released below Bonneville Dam had higher percent ocean recovery than coho released above Bonneville Dam. Percent ocean recovery was also generally higher for coho stocks from the Umpqua River and north, than from stocks south of the Umpqua (Table 1). The range in percent ocean recovery suggests differences between stocks. However, it is not appropriate to use to compare stocks because it represents different sets of brood years for different stocks, and percent recovery varies as much between brood years as between stocks. Therefore, statistical analysis was only performed on stock groups with data for all of the last ten completed brood years (recoveries through age 3). There were no statistically significant differences in percent ocean recovery for the 11 groups of coho salmon compared. Percent ocean recovery is a reflection of both survival and fisheries management. Rogue River coho, the most southern Oregon hatchery coho program, had the lowest percent ocean recovery but the highest total percent recovery for the 1989 to 1998 brood. Ocean fisheries for coho have been very restricted since 1994. Ocean harvest of OPI coho in 1994 to 1998 was almost exclusively in northern areas, Oregon ocean catch area 2 (Figure 5) and north.

Table 2. Weighted average percent ocean recovery of chinook salmon stocks tagged for stock assessment. Total percent recovery (both ocean and freshwater) is also reported. Freshwater fisheries are only sampled in the Columbia River, Salmon River and Elk River. Percent ocean recovery (1987-1996 brood years) is not significantly different for stock groups followed by the same letter.

Stock Group	Brood Years	Overall average % recovery	Percent recovery range	1996 percent recovery	1987 - 1996 brood average		
					Ocean	Total	
FALL CHINOOK SALMON							
Elk River	a	1977-1996	0.84	0.11 (1982) to 3.97 (1983)	0.18	0.51	1.10
Chetco River	ab	1977-1996	1.05	0.03 (1996) to 2.80 (1985)	0.03	0.44	0.52
Salmon River	ab	1976-80, 82-96	0.66	0.11 (1991) to 1.86 (1976)	0.18	0.42	1.48
Rogue Stock	ab	1982-1996	0.85	0.05 (1996) to 2.64 (1982)	0.05	0.40	0.86
Columbia Rel.							
Trask River	bc	1982-1996	0.28	0.15 (1991) to 0.52 (1984)	0.18	0.26	0.44
Coos River	c	1983-85, 87-96	0.29	0.05 (1996) to 1.71 (1985)	0.05	0.16	0.39
Coquille River ^a		1983-88, 90-96	0.63	0.04 (1991) to 3.41 (1985)	0.10	0.41 ^a	0.47 ^a
Rogue River ^a		1977-86, 88-89, 91-96	1.24	0.02 (1979) to 7.73 (1983)	0.10	0.35 ^a	0.52 ^a
Lower Umpqua R. ^a		1991-1996	0.28	0.07 (1996) to 0.42 (1992)	0.07	0.28 ^a	0.31 ^a
SPRING CHINOOK SALMON							
Rogue River	abc	1980-1996	0.72	0.05 (1996) to 2.99 (1983)	0.05	0.28	1.20
North Umpqua R.	bc	1976-1996	1.00	0.02 (1991) to 4.64 (1983)	0.21	0.27	0.31
Trask River	c	1977-1996	0.22	0.02 (2 yrs) to 0.73 (1977)	0.04	0.08	0.17
E Fk Trask Pd ^a		1993-1996	0.11	0.04 (1996) to 0.18 (1993)	0.04	0.11 ^a	0.29 ^a
Nestucca River ^a		1977-83, 91-96	0.21	0.01 (1982) to 0.97 (1977)	0.16	0.11 ^a	0.24 ^a
Wilson River ^a		1990-1994	0.11	0.04 (1994) to 0.26 (1990)	--	0.11 ^a	0.22 ^a
WINTER CHINOOK SALMON							
Trask River ^a		1986-88, 90-96	0.18	0.03 (1987) to 0.32 (1993)	0.07	0.18 ^a	0.34 ^a

a = Does not include data from all ten years.

Percent ocean recovery for 1998 brood coho salmon was below average for 10 of 12 stocks, but was higher than the 1997 brood ocean recovery rate for all

stocks. Estimated harvest, landed catch and non-retention mortality, of coho salmon in OPI ocean fisheries in 2001 was 254,800 (PFMC 2003). This was more than double the OPI coho salmon ocean harvest in 2000 (100,100) and is the highest OPI coho salmon ocean harvest since 1992 (PFMC 2003). The 2001 coho salmon ocean exploitation rate, based on OPI abundance was 16% (PFMC 2003).

Overall average percent ocean recovery for fall chinook salmon stocks ranged from 0.3% to 1.2% (Table 2). Percent ocean recovery of 1996 brood fall chinook was equal to or lower than the 1995 brood for 7 of 9 stocks, was lower than the overall average for all 9 stocks, and set 4 new record lows. In general, the last 10 completed brood years average percent ocean recovery, was higher for south coast fall chinook stocks than for north coast fall chinook stocks. Overall average percent ocean recovery of spring chinook salmon ranged from 0.1% to 1.0% (Table 2). Ocean recovery of the 1996 brood spring chinook was equal to or lower than the 1995 brood for 2 of 5 stocks, was less than the overall average for all 5 stocks, and set 2 new record lows. Percent ocean recovery for spring chinook was higher for southern stocks. Statistical analysis of percent ocean recovery included both spring and fall chinook. Only 9 of the 16 stocks in Table 2 had data for the last 10 completed brood years (returns through age 5). Coos and Trask River stocks, which had the lowest percent ocean recovery, were significantly lower than Elk, Chetco, Salmon and Rogue River (released in the Columbia River) stocks (Table 2). Percent ocean recovery was not significantly different for Trask River spring and fall chinook stocks.

Percent recovery, ocean and freshwater, of coho salmon stocks released from Columbia River hatcheries show similar patterns (Figure 1). Percent recovery peaked in the 1983, 1986, and 1988 brood years. Overall, percent recovery of Columbia River hatchery coho salmon shows a decreasing trend from the 1986 peak to the 1990 brood year, and was low but stable from 1990 through 1996. Since the 1996 brood year percent recovery, particularly freshwater, has been increasing and exceeded 5.0% for the 1998 brood year Bonneville hatchery coho. Coastal coho stocks show different patterns in percent recovery than the Columbia River stocks (Figure 2). However, percent recovery of both Columbia River and coastal coho salmon stocks declined from the mid 1980's through mid 1990's, and has been increasing since about the 1995 or 1996 brood year. One exception to this general trend for coastal hatchery coho salmon is Rogue River stock coho salmon which have shown higher percent freshwater recovery since the 1990 brood year. Percent freshwater recovery for the 1998 brood Rogue River stock is not yet available because there were so many returning coho that not all of the CWTs have been recovered and read. Trask River stock coho has shown an exceptional increase in percent recoveries since the 1994 brood year. The 1998 brood year of Trask hatchery coho had a freshwater percent recovery exceeding 10%, and the overall percent recovery (ocean and freshwater combined) was 10.8%.

Percent recovery of spring and fall chinook salmon shows the same decreasing trend since the mid 1980's seen in coho salmon (Figures 3 and 4). One exception is Rogue spring chinook which showed an increase in percent recovery for the 1991 through 1993 brood years. This corresponds to the improved percent recovery seen in Rogue River coho salmon starting with the 1990 brood year. Another exception is Salmon River fall chinook which have shown improved freshwater percent recovery since the 1980 brood. This is partly explained by the improved sampling of the freshwater catch and escapement that began in 1986. The variability in percent ocean recovery of North Umpqua spring chinook is not seen in their freshwater percent recovery (Figure 4). This is probably an artifact of the freshwater sampling for this stock. Recovery of Ad+CWT spring chinook is essentially limited to hatchery recoveries. Spring chinook adults for the hatchery broodstock are collected at Winchester Dam (several miles below the hatchery) and from fish

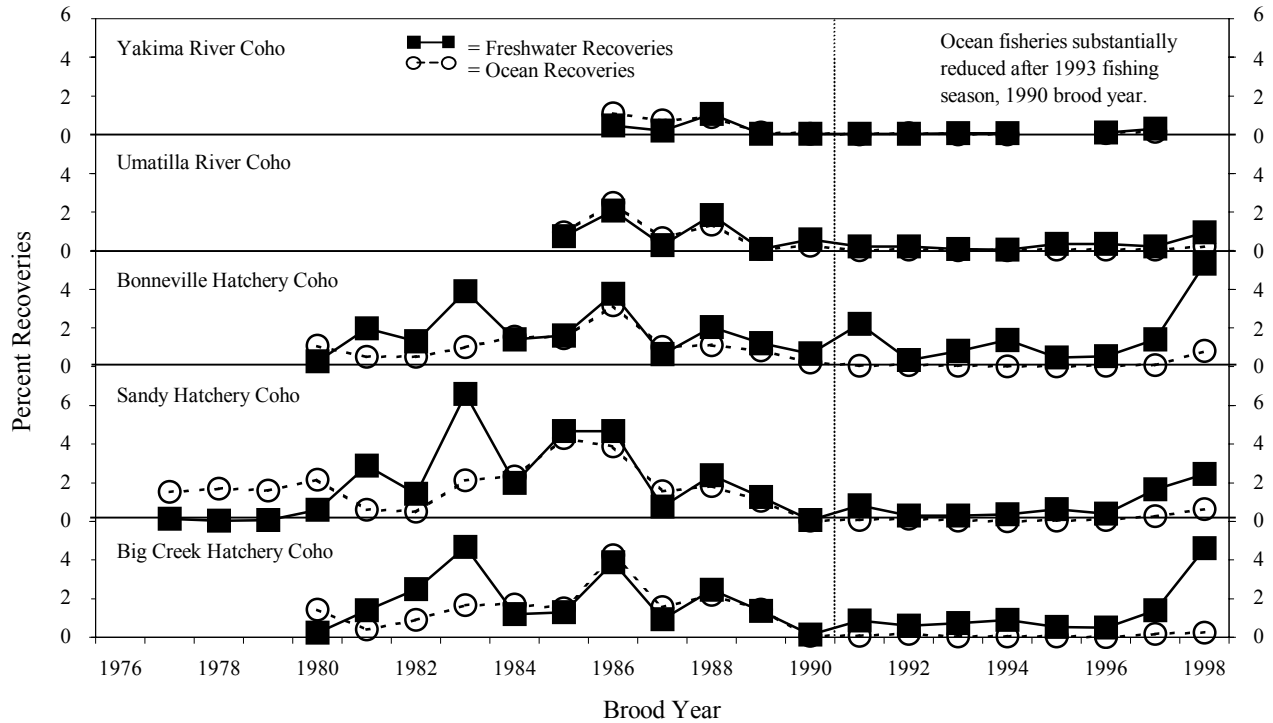


Figure 1. Weighted average percent recovery of Columbia River coho salmon stocks tagged for stock assessment.

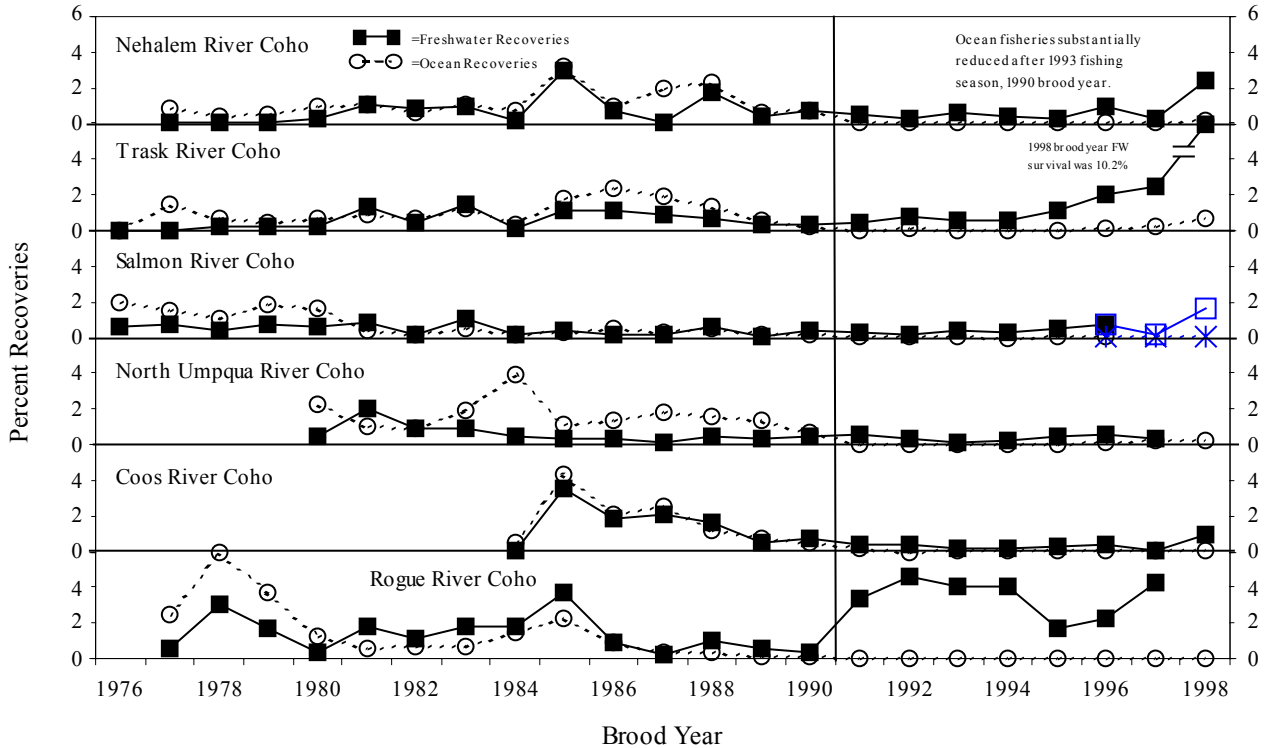


Figure 2. Weighted average percent recovery of coastal rivers coho salmon stocks tagged for stock assessment. Salmon River coho is Salmon River stock for 1975-1996 and Siletz River stock for 1996-1998 brood years.

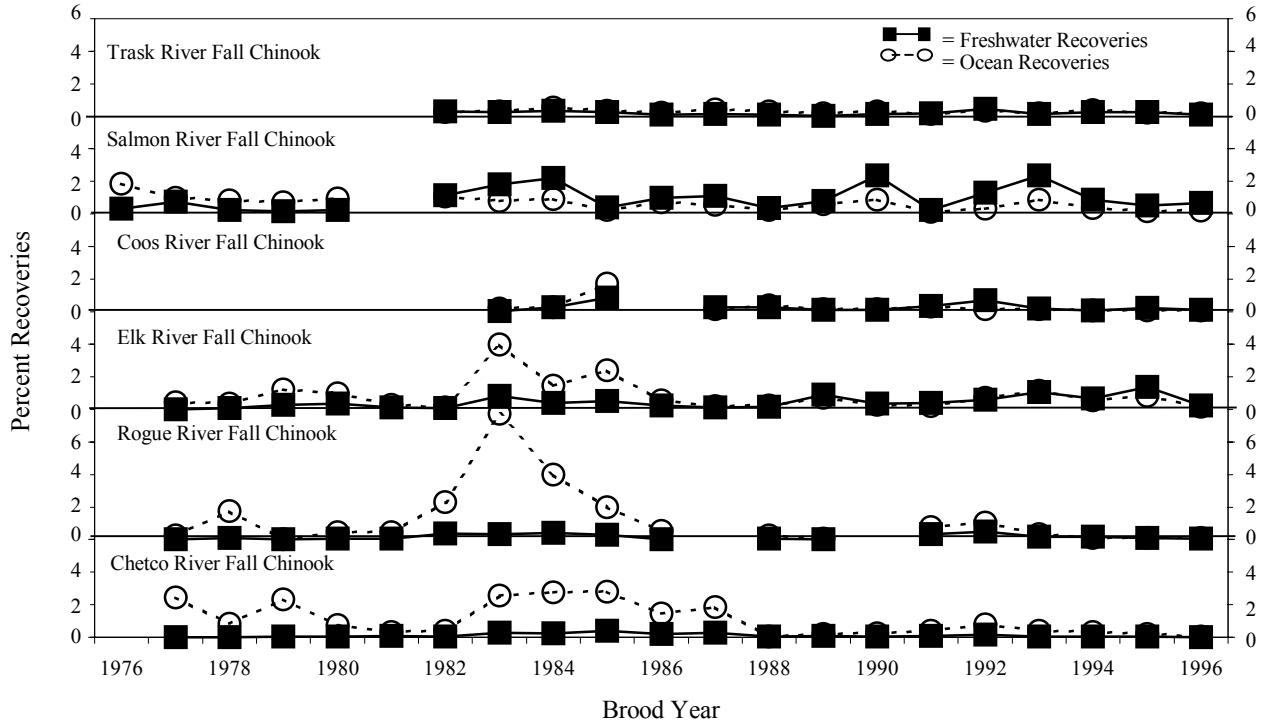


Figure 3. Weighted average percent recovery of fall chinook salmon stocks tagged for stock assessment.

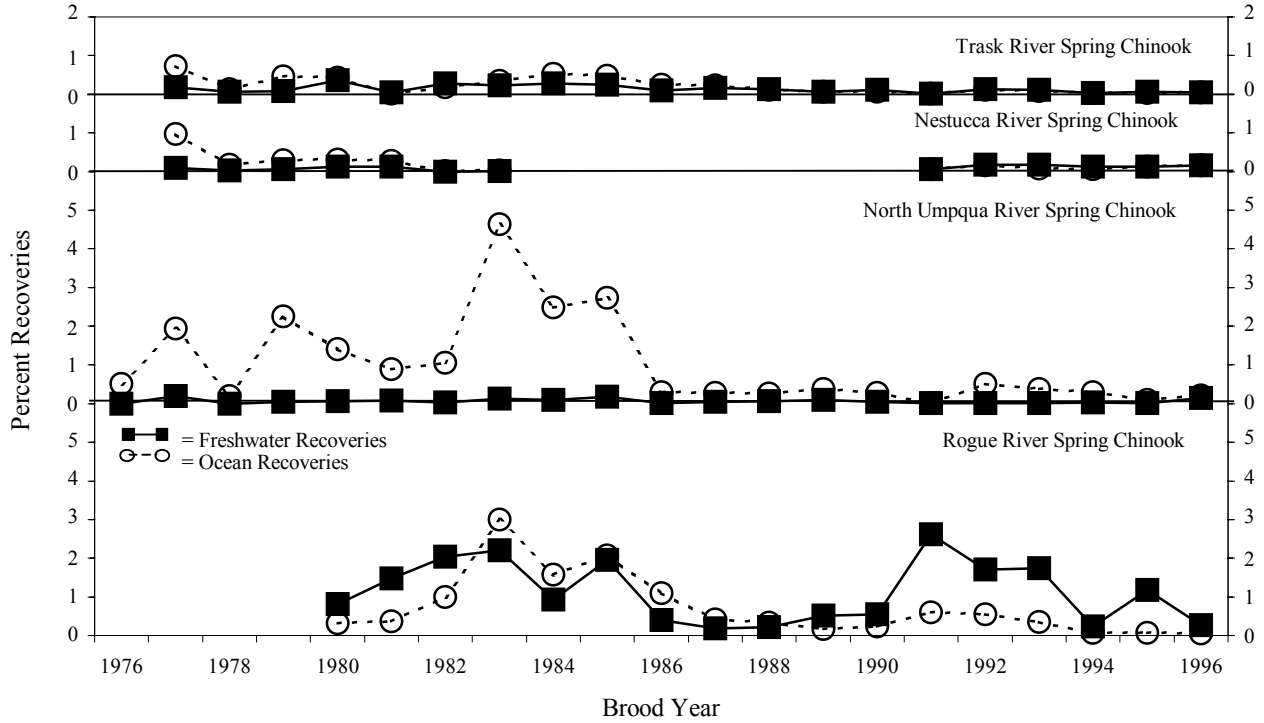


Figure 4. Weighted average percent recovery of spring chinook salmon stocks tagged for stock assessment.

entering the hatchery. Only returning fish needed for broodstock are collected at the dam, the remainder are allowed to continue up-river. Thus, the number of Ad+CWT fish recovered is fairly consistent, and does not necessarily reflect the number of Ad+CWT fish in the run.

Ocean Recovery By Area

Coho ocean fisheries from Washington to California were closed in 1994 and very limited in 1995 through 1999. Since this would bias the calculation of catch distribution for these years (percent of total ocean catch in each area), this section has been changed to percent recovery by area. Average ocean percent recovery by area of coho and chinook salmon stocks is reported in Tables 3 and 4 respectively. Data are based on production and production scale experimental groups of Ad+CWT fish. Groups of Ad+CWT fish tagged for specific experiments and not associated with production scale releases are not included. The stock groups in these tables are based on broodstock and release location. Percent recovery by area is calculated as (total estimated recoveries in an area/number of tagged fish released)*100. Average percent recovery by area is the simple average of the last 10 completed brood years percent recoveries (coho 1989 through 1998, chinook 1987 through 1996). Brood year percent recovery by area is the percent recovery by area 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 recovery is calculated as the weighted average of the Ad+CWT groups. Percent recoveries are weighted by the total number of fish, both marked and unmarked, associated with each Ad+CWT group. Ocean percent recovery by area is strongly influenced by fishing seasons and therefore does not necessarily reflect geographic distribution.

Table 3. Coho salmon average ocean recovery by area. Data are for the last ten completed brood years, 1989 to 1998. AK = Alaska, NCBC = North Central British Columbia, WCVI = West Coast Vancouver Island, GST = Georgia Strait, PS = Puget Sound, WA = Washington Coast, CA = California. Area of release is underlined.

Stock Group	AK	NCBC	WCVI	GST	PS	WA	Oregon Ocean Catch Area ^a					CA
							1&2	3	4	5	6&7	
COLUMBIA RIVER COHO SALMON												
Yakima River ^b	0.00	0.00	0.00	0.00	0.00	0.02	<u>0.01</u>	0.00	0.01	0.01	0.00	0.00
Umatilla River	0.00	0.00	0.00	0.00	0.00	0.03	<u>0.01</u>	0.00	0.01	0.01	0.00	0.01
Bonneville	0.00	0.00	0.01	0.00	0.00	0.08	<u>0.04</u>	0.01	0.04	0.04	0.00	0.01
Sandy River	0.00	0.00	0.01	0.00	0.00	0.09	<u>0.03</u>	0.01	0.06	0.04	0.00	0.00
Big Creek	0.00	0.00	0.01	0.00	0.00	0.05	<u>0.02</u>	0.01	0.06	0.06	0.00	0.00
COASTAL RIVERS COHO SALMON												
Nehalem River	0.00	0.00	0.02	0.00	0.00	0.05	0.01	<u>0.01</u>	0.02	0.03	0.01	0.04
Trask River	0.00	0.00	0.01	0.00	0.00	0.06	0.03	<u>0.01</u>	0.03	0.04	0.00	0.02
Salmon River ^b	0.00	0.00	0.01	0.00	0.00	0.02	0.01	0.00	<u>0.02</u>	0.01	0.00	0.01
Siletz Stock ^b in Salmon R.	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	<u>0.02</u>	0.03	0.00	0.01
Alesea River ^b	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	<u>0.03</u>	0.06	0.00	0.02
North Umpqua River	0.00	0.00	0.02	0.00	0.00	0.02	0.01	0.01	0.05	<u>0.09</u>	0.01	0.07
South Umpqua River	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.03	<u>0.05</u>	0.01	0.03
Coos River	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.02	<u>0.05</u>	0.01	0.04
Coquille River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	<u>0.01</u>	0.00	0.03
Rogue River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	<u>0.00</u>	0.02

a = Oregon ocean areas displayed in Figure 5.

b = Does not include data from all ten years.

Table 4. Chinook salmon average ocean recovery by area. Data are for the last ten completed brood years, 1987 to 1996. AK = Alaska, NCBC = North Central British Columbia, WCVI = West Coast Vancouver Island, GST = Georgia Strait, PS = Puget Sound, WA = Washington Coast, CA = California. Release area is underlined.

Stock Group	AK	NCBC	WCVI	GST	PS	WA	Oregon Ocean Catch Area ^a					CA
							1&2	3	4	5	6&7	
FALL CHINOOK SALMON												
Rogue Stock Columbia Rel.	0.00	0.00	0.02	0.00	0.00	0.05	<u>0.01</u>	0.02	0.17	0.08	0.01	0.03
Trask River	0.13	0.06	0.04	0.00	0.00	0.00	0.00	<u>0.03</u>	0.00	0.00	0.00	0.00
Salmon River	0.19	0.13	0.06	0.00	0.00	0.00	0.00	0.02	<u>0.01</u>	0.00	0.00	0.00
Lower Umpqua R. ^b	0.12	0.06	0.01	0.00	0.00	0.01	0.00	0.01	0.05	<u>0.03</u>	0.00	0.00
Coos River	0.05	0.04	0.03	0.00	0.00	0.00	0.00	0.01	0.02	<u>0.00</u>	0.00	0.00
Coquille River ^b	0.16	0.10	0.08	0.00	0.00	0.02	0.00	0.00	0.02	<u>0.03</u>	0.00	0.00
Elk River	0.09	0.04	0.04	0.00	0.00	0.01	0.00	0.00	0.07	<u>0.24</u>	0.00	0.00
Rogue River ^b	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.02	<u>0.01</u>	0.22
Chetco River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.10	<u>0.12</u>	0.08
SPRING CHINOOK SALMON												
Wilson River ^b	0.03	0.00	0.00	0.00	0.00	0.01	0.00	<u>0.05</u>	0.01	0.00	0.00	0.00
Trask River	0.03	0.01	0.01	0.00	0.00	0.00	0.00	<u>0.02</u>	0.01	0.00	0.00	0.00
E Fk Trask Pond ^b	0.05	0.01	0.01	0.00	0.00	0.00	0.00	<u>0.02</u>	0.01	0.01	0.00	0.00
Nestucca River ^b	0.04	0.01	0.00	0.00	0.00	0.01	0.00	<u>0.01</u>	0.04	0.00	0.00	0.00
North Umpqua R.	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.15	<u>0.05</u>	0.00	0.02
Rogue River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.04	<u>0.01</u>	0.14
WINTER CHINOOK SALMON												
Trask River ^b	0.11	0.03	0.00	0.00	0.00	0.00	0.00	<u>0.03</u>	0.00	0.00	0.00	0.00

a = Oregon ocean areas displayed in Figure 5.

b = Does not include data from all ten years.

Oregon hatchery coho salmon were predominantly recovered in ocean fisheries from their release location and south (Table 3 and Figure 6). The proportion of ocean recoveries in areas from the release location and south averaged 0.60, and ranged from 0.47 to 0.81. Extremes of the range are Salmon River (0.47) and Coquille River (0.81). Although the general pattern is the same, release location determines in which specific fisheries a stock is recovered. Columbia River stocks are recovered more in Washington and less in California ocean fisheries than coastal stocks (Figure 6). Washington recoveries of coastal stocks tends to decrease and California recoveries increase as you move south (Figure 6). Canadian ocean recoveries are mainly in West Coast Vancouver Island fisheries, with very few in North Central British Columbia or Georgia Strait fisheries (Table 3). Washington ocean recoveries are mainly in coastal, not Puget Sound fisheries.

Ocean recoveries of Oregon coastal fall chinook salmon splits the stocks into three groups (Table 4 and Figure 7). Trask and Salmon River stocks are almost exclusively recovered in Alaska and British Columbia fisheries. Umpqua, Coos, Coquille, and Elk stocks are recovered more in Oregon and Washington and less in Alaska and British Columbia fisheries than the more northern stocks. Rogue and Chetco stocks are rarely recovered in Alaska and British Columbia fisheries but are recovered in California fisheries more than the prior stocks. These grouping agree with hypothesized migration patterns for Oregon coastal fall chinook salmon (Nicholas and Hankin 1988). Rogue River fall chinook released in the Columbia River were recovered more in Oregon and Washington, and less in California ocean fisheries than Rogue River fall chinook released in the Rogue

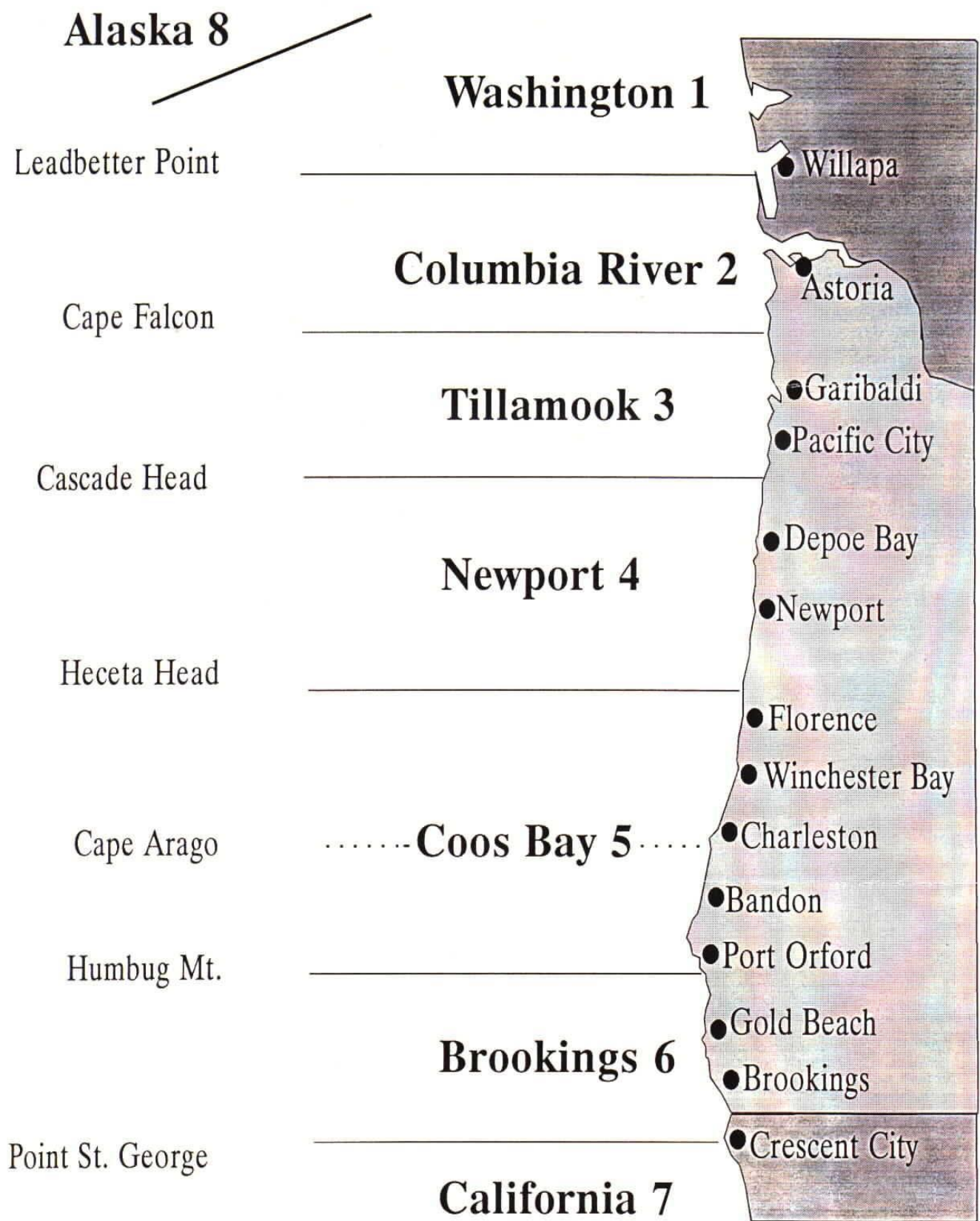


Figure 5. Catch areas for Oregon ocean salmon fisheries.

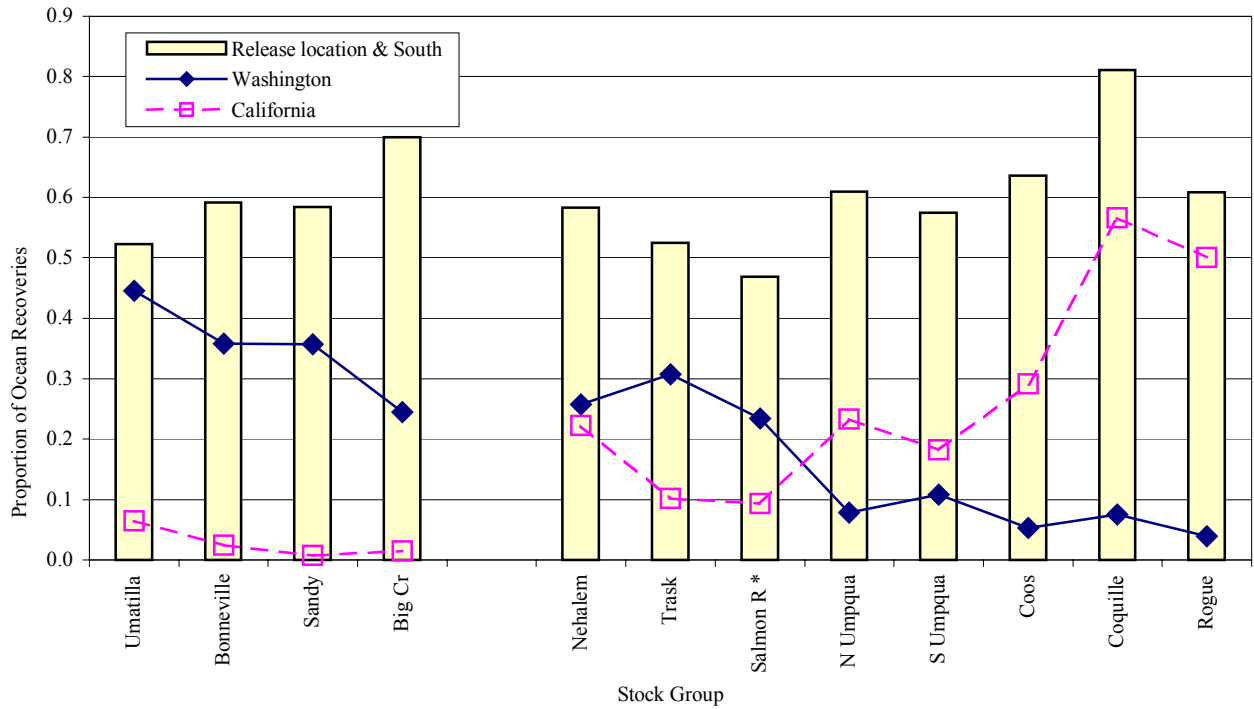


Figure 6. Coho salmon proportion of ocean recoveries in Washington, California, and release location and south. Data is for the 1989 through 1998 brood years. * = Does not contain data for all 10 years.

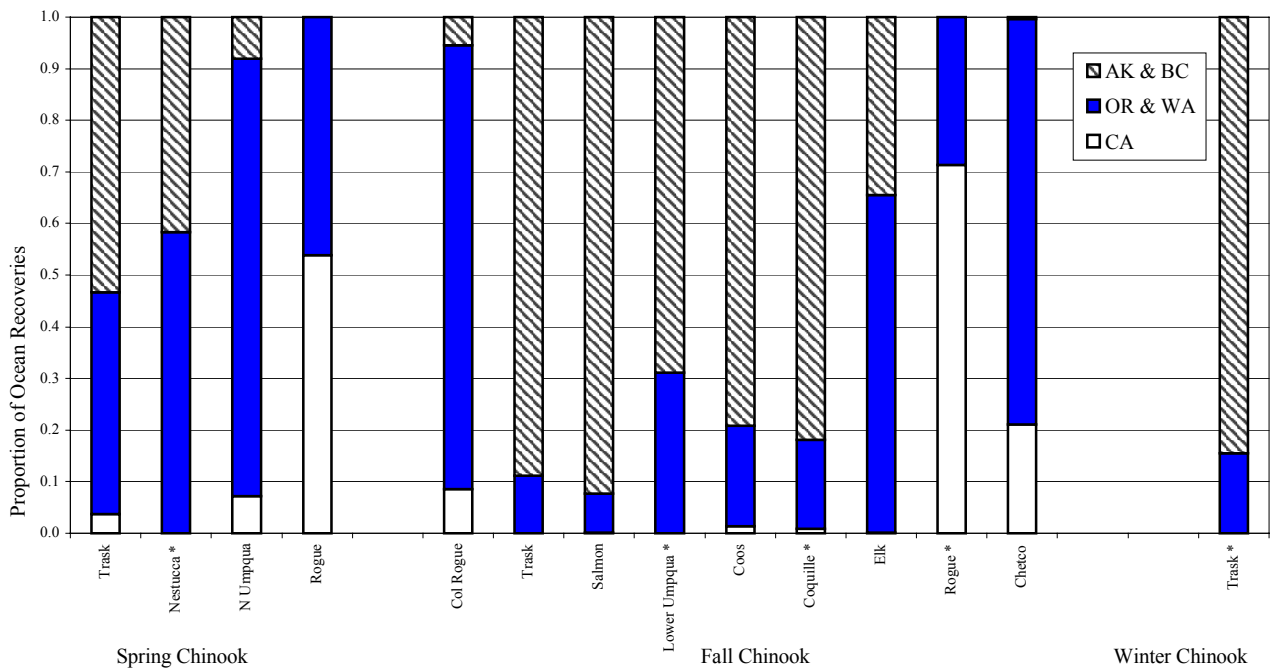


Figure 7. Chinook salmon proportion of ocean recoveries in northern (AK & BC), central (WA & OR), and southern (CA) fisheries. Data is for 1987 through 1996 brood years. * = Does not contain data for all 10 years.

River (Table 4 and Figure 7). Canadian ocean recoveries of Oregon coastal fall chinook stocks are mainly in North Central British Columbia fisheries and West Coast Vancouver Island fisheries (Table 4). Very few Oregon coastal fall chinook are recovered in the Georgia Strait Fisheries (Table 4). Washington recoveries of Oregon coastal fall chinook are mainly in coastal fisheries with very few in Puget Sound fisheries (Table 4). The large percent recovery of Elk River stock fall chinook in Oregon catch area 5, is an artifact of a late season ocean fishery near the mouth of the Elk River, targeting returning hatchery fish.

Nicholas and Hankin (1988) classified the migration patterns of the spring chinook salmon stocks in Table 4 as; Wilson, Trask and Nestucca Rivers north migrating, Umpqua River north and south migrating, and Rogue River south migrating. Ocean recoveries of Ad+CWT fish by area, support these migration classifications (Table 4 and Figure 6). Spring chinook show a shift southward in their actual recovery areas in comparison to fall chinook from the same river. However, the tendency toward north, south, or north and south migration pattern is the same for fall chinook and spring chinook from the same basin (Table 4). The southern shift in actual catch areas may be related to the earlier return of spring chinook salmon to their natal rivers upon maturation. Recovery distribution within Canadian and Washington fisheries for spring chinook is similar to that described for fall chinook. Ocean recoveries by area is very similar for Trask River winter and fall chinook stocks, even though the winter stock does not have data for all of the last 10 years.

Freshwater Percent Recovery Rate

The average percent freshwater recovery of various coho and chinook salmon stocks is presented in Tables 5 and 6, respectively. Freshwater percent recovery is calculated in the same way as ocean percent recovery. Calculation of a freshwater recovery rate is dependent on accurate and representative sampling in all freshwater recovery areas. Fish recovered at hatcheries are well sampled. However, the proportion of the returning hatchery fish collected at hatcheries varies based on annual water flow, hatchery trap efficiency, and location of the hatchery in the basin. Freshwater fisheries are sampled in the Columbia Basin and for chinook in a few coastal basins (Salmon River, Elk River and Tillamook Bay in some years). Spawning grounds are sampled to document the number of wild fish spawning and the proportion of hatchery fish in the spawning population. However, this sampling does not allow for estimation of the total number of Ad+CWT fish recovered, only the number of observed recoveries is reported. The one exception to this is for Salmon River fall chinook where a mark-recapture program does provide the means of expanding observed Ad+CWT recoveries to estimates of total Ad+CWT fish present. Thus, differences in freshwater recovery rate for different groups can reflect differences in survival, differences in sampling, or both.

Overall average percent freshwater recovery for hatchery coho salmon ranged from 0.1% to 2.1% (Table 5). Coho 1998 brood year percent freshwater recovery was higher than the long-term average for all stocks, higher than the 1997 brood year for all stocks, and set 4 new record highs. Of particular note are the 10.2% freshwater recovery of 1998 brood Trask hatchery coho. Due to large numbers of CWT fish recovered in 2001 Rogue and Umpqua data is incomplete. Historically, freshwater recovery rate tends to be higher for Columbia Basin stocks because Columbia Basin fisheries are sampled. This is clear from a comparison of the overall average percent ocean recovery versus percent freshwater recovery (Figure 8). Percent freshwater recovery is higher than percent ocean recovery for 4 of 5 Columbia River stocks, but only 4 of 9 coastal stocks (Figure 6).

Table 5. Weighted average percent freshwater (FW) recovery of coho salmon stocks tagged for stock assessment. Total percent recovery is also reported. Freshwater fisheries are only sampled in the Columbia River. Percent freshwater recovery (1989-1998 brood) is not significantly different for stocks followed by the same letter (Columbia and Coastal stocks tested separately).

Stock Group	Brood Years	Overall average		Percent FW recovery		1998 percent recovery	1989 - 1998 brood average	
		% recovery		range			FW	Total
COLUMBIA RIVER COHO SALMON								
Bonneville	A	1980-1998	1.65	0.28 (1980)	to 5.30 (1998)	5.30	1.44	1.66
Big Creek	AB	1980-1998	1.59	0.14 (1990)	to 4.67 (1983)	4.62	1.16	1.38
Sandy River	BC	1977-1998	1.56	0.02 (1978)	to 6.58 (1983)	2.46	0.82	1.06
Umatilla River	C	1985-1998	0.57	0.05 (1994)	to 2.05 (1986)	0.95	0.30	0.38
Yakima River ^a		1986-94, 1996-97	0.23	0.03 (1990)	to 1.07 (1988)	--	0.09 ^a	0.15 ^a
COASTAL RIVERS COHO SALMON								
Rogue River ^b		1977-1998	2.05	0.20 (1987)	to 4.60 (1992)	NYA	2.79 ^b	2.83 ^b
Trask River	a	1977-1998	1.21	0.00 (1977)	to 10.21 (1998)	10.21	1.88	2.09
Coquille River	a	1980-1998	0.86	0.00 (2 yrs)	to 4.08 (1998)	4.08	0.86	0.91
Nehalem River	a	1977-1998	0.73	0.00 (1977)	to 2.96 (1985)	2.41	0.69	0.87
Coos River	a	1984-1998	0.89	0.04 (1984)	to 3.57 (1985)	0.98	0.41	0.56
North Umpqua R. ^b		1980-1998	0.52	0.08 (1987)	to 1.99 (1981)	NYA	0.38 ^b	0.66 ^b
South Umpqua R. ^b		1982-1998	0.06	0.00 (2 yrs)	to 0.19 (1988)	NYA	0.07 ^b	0.23 ^b
Siletz Stock ^a in Salmon River		1996-1998	0.86	0.21 (1997)	to 1.61 (1998)	1.61	0.86 ^a	0.93 ^a
Alsea River ^a		1975-1996	0.53	0.03 (1994)	to 1.31 (1976)	--	0.37 ^a	0.51 ^a
Salmon River ^a		1976-1996	0.44	0.11 (1989)	to 1.10 (1983)	--	0.35 ^a	0.43 ^a

a = Does not include data from all ten years. b = Due to the large number of CWTs recovered in 2001, hatchery return data is not yet available (NYA).

Generally freshwater fisheries are sampled in the Columbia Basin and are not sampled in coastal basins. Therefore, the statistical analysis was performed separately for these two areas. Statistical differences in coho percent freshwater recovery are reported in Table 5. Percent freshwater recovery was significantly higher for Columbia Basin coho released below Bonneville dam than for coho released above the dam (Table 5). There were no statistically significant differences in percent freshwater recovery for coastal coho stocks. However, due to the large numbers of CWT adults recovered in 2001, not all of the 2001 freshwater recovery data is available for three of the coho stocks listed in Table 5. Differences in the ratio of ocean to freshwater percent recovery is most likely the result of differences in hatchery recovery efficiency, the proportion of migrating coho that enter the trap, and the location of the hatchery trap within the basin.

Overall average percent freshwater recovery for chinook salmon ranged from 0.0% to 1.1% (Table 6). The hatchery chinook 1996 brood year percent freshwater recovery was below the long-term average for 13 of 15 stocks, was at or above the 1995 brood year rate for 10 of 15 stocks, and set 2 record lows. Freshwater fisheries are only sampled in the Columbia Basin, Salmon River and recently started in Elk River. Freshwater recovery rate exceeds ocean recovery rate for 7 of the 14 stocks in Figure 9, and is substantially higher for Salmon River fall chinook and Rogue River spring chinook salmon. Salmon River is the only coastal basin with complete accounting of hatchery returns over the last 10 brood years. Rogue River spring chinook return to the Cole Rivers hatchery trap, which is located at the base of an impassable dam across the Rogue River.

Table 6. Weighted average percent freshwater recovery of chinook salmon stocks tagged for stock assessment. Freshwater fisheries are only sampled in the Columbia River. Percent freshwater recovery (1987-1996 brood) is not significantly different for stocks followed by the same letter.

Stock Group	Brood Years	Overall average % recovery	Percent recovery range		1996 percent recovery	1987 - 1996 brood average		
						FW	Total	
FALL CHINOOK SALMON								
Salmon River	a	1976-80, 82-96	0.94	0.14 (1979)	to 2.37 (1993)	0.68	1.06	1.48
Elk River	bc	1977-1996	0.44	0.01 (1977)	to 1.39 (1995)	0.23	0.59	1.10
Rogue Stock Columbia Rel.	cd	1982-1996	0.70	0.11 (1995)	to 2.19 (1982)	0.33	0.47	0.86
Coos River	cde	1983-85, 87-96	0.27	0.04 (1983)	to 0.84 (1985)	0.12	0.23	0.39
Trask River	de	1982-1996	0.20	0.04 (1989)	to 0.47 (1992)	0.11	0.18	0.44
Chetco River	e	1977-1996	0.10	0.00 (3 yrs)	to 0.40 (1985)	0.00	0.08	0.52
Rogue River ^a		1977-86, 88-89, 91-96	0.17	0.00 (1979)	to 0.48 (1992)	0.07	0.17 ^a	0.52 ^a
Coquille River ^a		1983-88, 90-96	0.10	0.00 (1991)	to 0.67 (1985)	0.01	0.06 ^a	0.47 ^a
Lower Umpqua R. ^a		1991-1996	0.03	0.00 (1992)	to 0.06 (1995)	0.02	0.03 ^a	0.31 ^a
SPRING CHINOOK SALMON								
Rogue River	ab	1980-1996	1.12	0.19 (1987)	to 2.62 (1991)	0.27	0.92	1.20
Trask River	e	1977-1996	0.14	0.02 (1991)	to 0.36 (1980)	0.04	0.09	0.17
North Umpqua R.	e	1976-1996	0.06	0.00 (2 yrs)	to 0.20 (1977)	0.15	0.05	0.31
E Fk Trask Pd ^a		1993-1996	0.18	0.06 (1996)	to 0.30 (1993)	0.06	0.18 ^a	0.29 ^a
Nestucca River ^a		1977-83, 91-96	0.09	0.00 (1982)	to 0.18 (1993)	0.16	0.14 ^a	0.24 ^a
Wilson River ^a		1990-1994	0.11	0.04 (1991)	to 0.16 (1993)	--	0.11 ^a	0.22 ^a
WINTER CHINOOK SALMON								
Trask River ^a		1986-88, 90-96	0.17	0.00 (2 yrs)	to 0.48 (1992)	0.12	0.17 ^a	0.34 ^a

a = Does not include data from all ten years.

Statistical analysis of percent freshwater recovery included both spring and fall chinook, and the results are reported in Table 6. Only 9 of the 16 stocks in Table 6 had data for all of the last 10 completed brood years (returns through age 5). Unlike percent ocean recovery (Table 2), which was significantly higher for southern stocks versus northern stocks, there is no geographic pattern in percent freshwater recovery (Table 6). Salmon River fall chinook (North migrating stock) and Rogue River spring chinook (South migrating stock) had significantly higher percent freshwater recovery than all other groups except Elk River fall chinook salmon (Table 6). Percent freshwater recovery was not significantly different for Trask River spring and fall chinook stocks.

Freshwater Recovery By Area

Weighted average percent freshwater recovery by area is calculated in the same way as percent ocean recovery by area. Average percent freshwater recovery by area for the last 10 completed brood years is reported in Table 7 for coho salmon and Table 8 for chinook salmon. Freshwater sport harvest is only available for the Columbia River system, for Salmon River (creel begun in 1986), and Elk River (creel begun in 1992). Recoveries on spawning grounds are not expanded for sampling rate and are thus not reported, except for Salmon River chinook where expansions are calculated. The "Other freshwater recoveries" column consists mostly of recoveries in test fisheries and lower river seining projects.

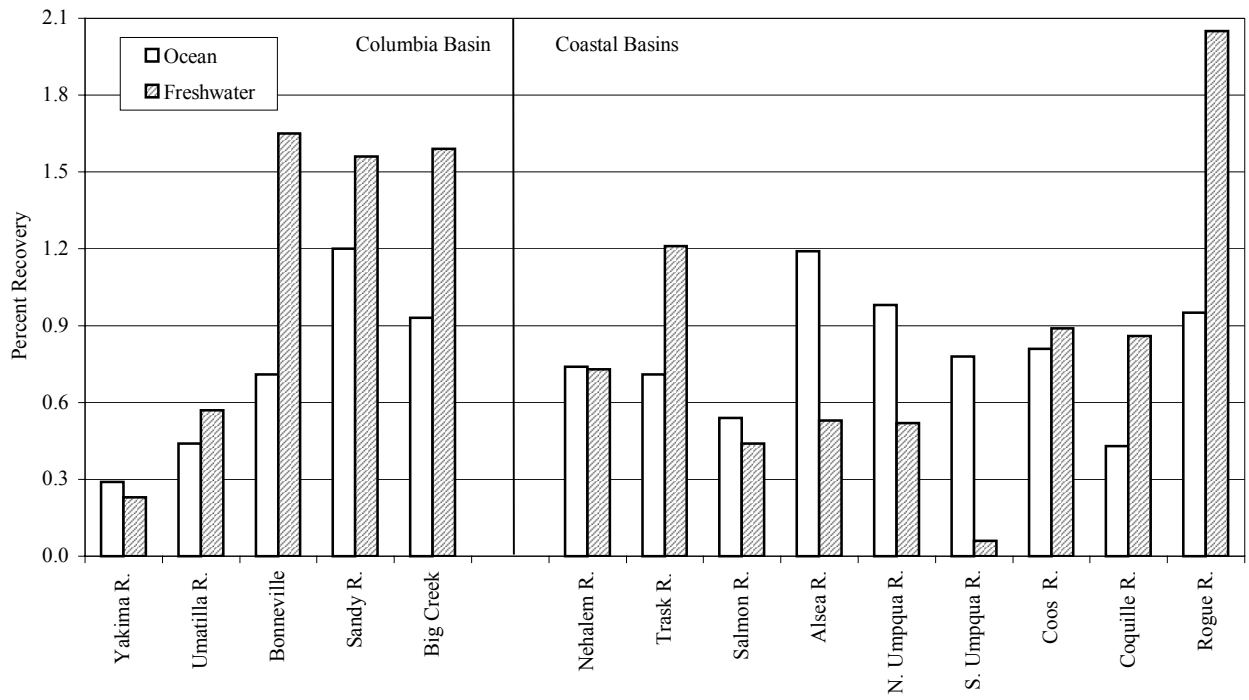


Figure 8. Comparison of overall average ocean and freshwater percent recovery of coho salmon stocks tagged for stock assessment.

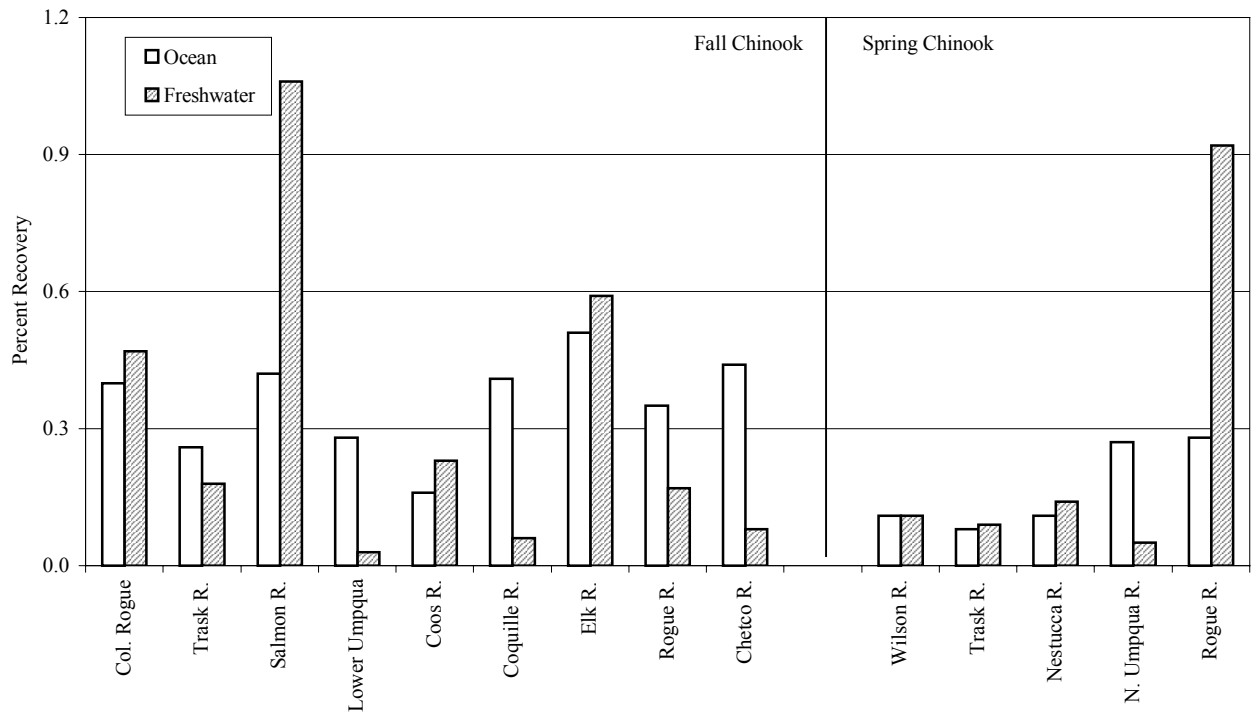


Figure 9. Comparison of overall average ocean and freshwater percent recovery of chinook salmon stocks tagged for stock assessment.

Table 7. Weighted average percent recovery, in various freshwater areas, of coho salmon stocks tagged for stock assessment. Data are for the last ten completed brood years, 1989 to 1998. NA = Data not available.

Stock Group	Estuary & river sport	Gillnet Catch		Tribal ceremonial & subsistence	Hatchery returns	Spawning ground recoveries	Other freshwater recoveries
		Below Bonn.	Above Bonn.				
COLUMBIA RIVER COHO SALMON							
Bonneville	0.18	0.04	0.00	0.00	1.22	NA	0.00
Big Creek	0.11	0.30	0.00	0.00	0.75	NA	0.00
Sandy River	0.12	0.06	0.00	0.00	0.64	NA	0.00
Umatilla River	0.08	0.04	0.03	0.00	0.16	NA	0.00
Yakima River ^a	0.04	0.01	0.02	0.00	0.02	NA	0.00
COASTAL RIVERS COHO SALMON							
Rogue River ^b	NA	0.00	0.00	0.00	2.78 ^b	NA	0.00
Trask River	NA	0.00	0.00	0.00	1.84	NA	0.00
Coquille River	NA	0.00	0.00	0.00	0.86	NA	0.00
Nehalem River	NA	0.00	0.00	0.00	0.67	NA	0.00
Coos River	NA	0.00	0.00	0.00	0.40	NA	0.00
North Umpqua R. ^b	NA	0.00	0.00	0.00	0.36 ^b	NA	0.00
South Umpqua R. ^b	NA	0.00	0.00	0.00	0.06 ^b	NA	0.00
Siletz Stock ^a in Salmon River	NA	0.00	0.00	0.00	0.83	NA	0.00
Alsea River ^a	NA	0.00	0.00	0.00	0.37	NA	0.00
Salmon River ^a	0.02	0.00	0.00	0.00	0.31	NA	0.00

a = Does not include data from all ten years. b = Due to the large number of CWTs recovered in 2001, this hatchery return data is for 1989 to 1997 only.

Percent recovery in freshwater harvest of coho released below Bonneville Dam averages about 1/4 of their total freshwater percent recovery (Table 7). Because of the inability to estimate total survival to spawning grounds this data cannot be used to calculate freshwater exploitation rate. Yakima River coho releases do not have adult recovery sites and therefore have very low hatchery returns in relation to harvest. Gillnet catch above Bonneville Dam is very low for stocks released below the dam, however, it is about 45% of the total gillnet catch of stocks released above the dam (Table 7). Freshwater recovery areas for coastal hatchery coho are essentially only sampled at the hatchery. South Umpqua River coho are an off station release with limited adult recovery abilities, thus they have very few freshwater recoveries in Table 7. Salmon River coho do have estimates of sport catch as a side effect of the sampling for fall chinook salmon. Since this sampling does not target coho salmon, recoveries are not expanded in all years. However, this minimum estimate of freshwater catch for Salmon River coho is about 6% of the total estimated freshwater recoveries.

Percent recovery in freshwater harvest of Rogue River stock fall chinook salmon released in the Columbia River is about 1/3 of their percent recovery at the hatchery (Table 8). Coastal chinook salmon are harvested extensively in freshwater fisheries that are generally not sampled. Percent recovery at the hatchery of Salmon River fall chinook is about 1/3 that of Trask River fall chinook (Table 8). However, percent recovery of Salmon River stock in all freshwater areas is 8 times that of Trask stock, because of the sampling program in Salmon River. The high percent recovery on spawning grounds for Salmon River stock fall chinook (Table 8) is partly an artifact of the sampling program. Fish that return to the hatchery in excess of spawning needs are secondarily tagged and released above the hatchery weir (including Ad+CWT fish) as part of a mark-

recapture program. Thus, many fish that would have been recovered at the hatchery are actually recovered on the spawning grounds. The approximate freshwater exploitation rate for Salmon River fall chinook is 36% (estimated from Table 8). Although we are missing spawning ground data for Elk River fall chinook their approximate freshwater exploitation rate is also about 36%.

The inadequacies of documenting freshwater returns of coastal chinook creates some interesting results in the spring chinook data. North Umpqua stock, which has the highest overall percent ocean recoveries (Table 2) has the lowest percent freshwater recoveries (Table 8). Rogue and North Umpqua spring chinook programs are both at hatcheries located fairly high in their respective basins. For brood years 1987 to 1996 North Umpqua stock percent ocean recovery was about equal to Rogue River stock (Table 2), however, they had very different percent recovery at the hatchery (Rogue 0.91%, North Umpqua 0.04%, Table 8). This is probably an effect of the difference in adult recapture methods. Rogue stock is recovered at the base of an impassable dam, North Umpqua stock relies on partial collections at Winchester Dam and on fish swim ins at Rock Creek Hatchery.

Table 8. Weighted average percent recovery, in various freshwater areas, of chinook salmon stocks tagged for stock assessment. Data are for the last ten completed brood years, 1987 to 1996. NA = Data not available.

Stock Group	Estuary & river sport	Gillnet Catch		Tribal ceremonial & subsistence	Hatchery returns	Spawning ground recoveries	Other freshwater recoveries
		Below Bonn.	Above Bonn.				
FALL CHINOOK SALMON							
Salmon River	0.38	0.00	0.00	0.00	0.04	0.63	0.00
Elk River ^a	0.23	0.00	0.00	0.00	0.41	NA	0.00
Rogue Stock	0.07	0.05	0.00	0.00	0.32	NA	0.00
Columbia Rel.							
Coos River	NA	0.00	0.00	0.00	0.23	NA	0.00
Trask River	NA	0.00	0.00	0.00	0.14	NA	0.00
Chetco River	NA	0.00	0.00	0.00	0.02	NA	0.01
Rogue River ^b	NA	0.00	0.00	0.00	0.13	NA	0.01
Coquille River ^b	NA	0.00	0.00	0.00	0.06	NA	0.00
Lower Umpqua R. ^b	NA	0.00	0.00	0.00	0.00	NA	0.00
SPRING CHINOOK SALMON							
Rogue River	NA	0.00	0.00	0.00	0.91	NA	0.00
Trask River	NA	0.00	0.00	0.00	0.08	NA	0.00
North Umpqua R.	NA	0.00	0.00	0.00	0.04	NA	0.00
E Fk Trask Pd ^b	NA	0.00	0.00	0.00	0.16	NA	0.00
Nestucca River ^b	NA	0.00	0.00	0.00	0.13	NA	0.00
Wilson River ^b	NA	0.00	0.00	0.00	0.09	NA	0.00
WINTER CHINOOK SALMON							
Trask River ^b	NA	0.00	0.00	0.00	0.11	NA	0.00

a = Only data for 1989-96 broods is reported since freshwater creel began in 1992.

b = Does not include data from all ten years.

Oregon Contribution Rate

Contribution rate to Oregon ocean and freshwater fisheries, calculated as (adults caught/1,000 pounds of fish released), is presented in Table 9 for coho salmon and in Table 10 for chinook salmon stocks. The method used to calculate

the overall average Oregon contribution rate is the same as that used to calculate overall average percent ocean recovery rate. Contribution rate is a reflection of both survival and catch distribution. Contribution rate, therefore, gives a more complete appraisal of the impact of particular fisheries on specific stocks.

Table 9. Weighted average Oregon ocean and freshwater (FW) contribution rate (adults caught/1,000 pounds released) for coho salmon stocks. Oregon ocean contribution rate (1989-1998 brood years) is not significantly different for stock groups followed by the same letter. NA = Data not available.

Stock Group	Brood Years	Average ocean contribution	Oregon ocean contribution range	1998 ocean cont.	1989 - 1998 brood average		
					Ocean	FW	
COLUMBIA RIVER COHO SALMON							
Sandy River	a	1977-1998	124.4	0.0 (2 yrs) to 467.6 (1986)	42.5	20.3	27.2
Big Creek	a	1980-1998	94.4	0.0 (2 yrs) to 475.2 (1986)	12.5	18.4	48.1
Bonneville	a	1980-1998	69.3	0.0 (1991) to 306.3 (1986)	49.4	16.2	27.8
Umatilla R.	a	1985-1998	43.6	0.0 (3 yrs) to 278.5 (1986)	16.0	5.0	22.0
Yakima R.	^a	1986-94, 1996-97	27.6	0.0 (3 yrs) to 105.9 (1986)	--	5.0 ^a	11.7 ^a
COASTAL RIVERS COHO SALMON							
North Umpqua	a	1980-1998	61.0	0.0 (1991) to 285.5 (1984)	18.3	17.4	NA
Trask River	a	1977-1998	52.1	0.0 (3 yrs) to 176.5 (1977)	31.7	11.9	NA
South Umpqua	a	1982-1998	44.7	0.0 (4 yrs) to 321.5 (1985)	9.0	11.1	NA
Nehalem River	a	1977-1998	53.4	0.0 (3 yrs) to 253.8 (1985)	7.8	11.0	NA
Coos River	a	1984-1998	47.9	0.0 (5 yrs) to 285.0 (1985)	3.9	10.1	NA
Rogue River	a	1977-1998	28.8	0.0 (3 yrs) to 172.6 (1978)	5.2	2.1	NA
Coquille River	a	1980-1998	17.8	0.0 (5 yrs) to 94.1 (1985)	3.7	2.0	NA
Alsea River	^a	1975-1996	98.7	0.0 (3 yrs) to 478.3 (1978)	--	11.7 ^a	NA
Salmon River	^a	1976-1996	42.7	0.0 (4 yrs) to 165.4 (1979)	--	4.5 ^a	1.6 ^a
Siletz River	^a	1996-1998	4.7	1.4 (1996) to 8.2 (1998)	8.2	4.7 ^a	1.2 ^a
in Salmon R.							

a = Does not include data from all ten years.

Coho ocean fisheries from Washington to California were closed in 1994 and very limited in 1995 through 1999. Therefore, Oregon ocean contribution rate for all coho salmon stocks was 0.00 for the 1991 brood and was very low for the 1992 through 1996 brood years. The 2001 OPI ocean coho fishery was the largest since 1992, but still well below historic levels. Thus, the Oregon ocean contribution rate for the 1998 brood year, was below the long-term average but higher than in recent years (Table 9). Oregon ocean contribution rate for stocks released above Bonneville dam is generally lower than that of stocks released below the dam (Table 9). Columbia River stocks released below Bonneville dam generally had higher Oregon ocean contribution rates than coastal stocks. Statistically none of the differences were significant. Only stocks with data for all of the last ten completed brood years were included in the statistical analysis. Northern coastal stocks tend to have higher Oregon ocean contribution rates than central and southern stocks.

Oregon ocean contribution rate for 1996 brood chinook salmon stocks was lower than the long-term average for all stocks, set record lows for 5 stocks, and was equal to or lower than the 1995 brood for 11 of 15 stocks (Table 10). Comparisons between stocks are limited because only 9 of the 16 stocks have data for all of the last 10 completed broods (1987 through 1996). Statistically,

Table 10. Weighted average Oregon ocean and freshwater catch contribution rate (adults caught/1,000 pounds released) of chinook salmon stocks. Oregon ocean contribution rate (1987-1996 brood years) is not significantly different for stock groups followed by the same letter. NA = Data not available.

Stock Group	Brood Years	Average ocean contribution		Oregon ocean contribution range	1996 ocean cont.	1987 - 1996 brood average		
						Ocean	FW	
FALL CHINOOK SALMON								
Rogue Stock Columbia Rel.	a	1982-1996	103.4	3.4 (1996) to 293.6 (1984)	3.4	53.2	21.3	
Chetco River	ab	1977-1996	74.9	3.2 (1988) to 194.6 (1985)	3.6	36.1	NA	
Elk River	bc	1977-1996	55.9	4.3 (1982) to 244.2 (1985)	14.5	33.3	17.9 ^b	
Trask River	d	1982-1996	4.7	0.0 (2 yrs) to 15.6 (1992)	1.3	5.3	NA	
Coos River	d	1983-85, 87-96	12.9	0.0 (2yrs) to 97.0 (1985)	2.5	5.0	NA	
Salmon River	d	1976-80, 82-96	3.3	0.4 (1988) to 8.9 (1993)	1.6	3.5	49.3	
Rogue River ^a		1977-86, 88-89, 91-96	50.2	0.0 (1979) to 242.8 (1983)	4.1	13.0 ^a	NA	
Lower Umpqua R. ^a		1991-1996	9.1	4.5 (1995) to 17.7 (1992)	8.1	9.1 ^a	NA	
Coquille River ^a		1983-88, 90-96	19.6	0.0 (5yrs) to 155.0 (1985)	0.0	6.1 ^a	NA	
SPRING CHINOOK SALMON								
North Umpqua R.	cd	1976-1996	39.1	1.4 (1991) to 192.6 (1983)	9.4	14.4	NA	
Rogue River	d	1980-1996	26.7	0.4 (1996) to 113.4 (1983)	0.4	11.3	NA	
Trask River	d	1977-1996	5.2	0.7 (1977) to 20.5 (1985)	1.8	4.0	NA	
Wilson River ^a		1990-1994	7.4	1.0 (1993) to 23.1 (1990)	--	7.4 ^a	NA	
Nestucca River ^a		1977-83, 91-96	5.0	0.0 (1982) to 13.9 (1977)	2.5	5.9 ^a	NA	
E Fk Trask Pd ^a		1993-1996	4.4	1.3 (1996) to 8.8 (1993)	1.3	4.4 ^a	NA	
WINTER CHINOOK SALMON								
Trask River ^a		1986-88, 90-96	5.2	0.0 (3yrs) to 18.1 (1990)	0.0	5.2 ^a	NA	

a = Does not include data from all ten years.

b = 1989-96 broods, freshwater creel begun in 1992.

Chetco stock fall chinook, and Rogue stock fall chinook released in the Columbia River had significantly higher Oregon ocean contribution rate than all other stocks, except Elk River fall chinook (Table 10). There is a trend toward increasing Oregon ocean contribution rates from north to south (Table 10). This results from a combination of southern stocks having a higher survival to ocean fisheries, and a higher percent of their ocean recoveries in Oregon fisheries, than northern stocks. Spring chinook salmon exhibit the same trend to higher Oregon ocean contribution rates for central and south coast stocks seen in fall chinook salmon. Oregon ocean contribution rate was not significantly different for Trask River spring and fall chinook stocks.

Oregon Coastal Hatchery Juvenile Salmon Releases

Oregon coastal hatchery release of coho, chinook and steelhead are reported in Tables 11 through 13 respectively. These releases are summarized by year, species, and geographically by Federal ESU and gene conservation area (GCA) as defined by ODFW. Release numbers are reported by three fish size/age categories (unfed fry, fry and fingerlings, smolts). Location of release is reported through three groupings, total releases, off station releases, and out of basin releases. Off station releases are characterized by lack of rearing, acclimation, or adult re-capture at the release site. Fish released in a closed water body, one from which they are assumed not to migrate to the ocean, are not included in Tables 11 through 13. Fish released in a basin other, than that stocks basin of origin are reported as out of basin releases.

Table 11. Coastal hatchery coho releases for calendar years 1993 through 2002, with proposed releases in 2003. Off-station releases are characterized by lack of rearing, acclimation, or adult re-capture at the release site. Fish released in a basin other than the released stocks basin of origin are reported as out of basin.

Release Year	OREGON COAST ESU												SONCC ESU		
	North Coast GCA			Mid Coast GCA			Umpqua Basin GCA			Mid-South Coast GCA			South Coast GCA		
	Unfed Fry	Fry & Fing	Smolts	Unfed Fry	Fry & Fing	Smolts	Unfed Fry	Fry & Fing	Smolts	Unfed Fry	Fry & Fing	Smolts	Unfed Fry	Fry & Fing	Smolts
Total Releases															
1993	0	0	1,851,612	522,453	164,877	2,172,089	509,246	0	298,033	301,692	260,040	271,467	14,203	0	212,504
1994	0	0	2,091,227	146,827	269,628	2,322,398	636,909	0	283,908	477,508	50,745	273,231	8,511	0	208,161
1995	175	0	1,006,785	24,863	29,062	2,041,184	669,379	0	277,561	386,850	16,250	261,402	8,316	0	210,469
1996	0	0	837,617	52,788	46,108	1,920,975	567,672	0	287,623	325,977	0	110,493	7,667	0	204,363
1997	0	0	773,540	69,766	150,794	1,659,488	47,048	0	277,757	525,274	32,406	96,839	11,752	0	193,506
1998	0	0	405,170	0	66,186	599,262	186,005	0	309,678	70,956	0	136,866	10,290	0	214,121
1999	0	0	403,786	21,904	10,500	146,038	551,139	0	219,047	98,256	0	182,421	0	0	207,154
2000	0	0	406,037	8,436	15,750	20,875	657,271	0	214,901	213,619	0	176,232	0	0	174,181
2001	0	0	399,282	10,532	9,000	247,018	635,032	0	76,851	127,349	0	172,569	0	0	209,736
2002	0	0	406,283	0	0	235,606	435,294	0	115,178	122,464	0	191,207	0	0	208,103
2003	0	0	400,000	10,300	20,000	250,000	530,000	0	142,500	75,000	0	170,000	0	0	200,000
Off-Station Releases															
1993	0	0	0	522,453	164,877	809,371	509,246	0	132,234	301,692	260,040	139,009	14,203	0	0
1994	0	0	0	146,827	269,628	887,180	636,909	0	129,253	413,487	50,745	134,743	8,511	0	0
1995	175	0	0	24,863	29,062	367,154	669,379	0	130,153	386,850	0	102,761	8,316	0	0
1996	0	0	0	42,368	46,108	99,407	567,672	0	123,367	281,222	0	33,908	7,667	0	0
1997	0	0	0	41,876	66,186	122,441	47,048	0	134,006	314,956	32,406	11,305	11,752	0	0
1998	0	0	0	0	0	50,821	186,005	0	136,232	70,956	0	36,113	10,290	0	0
1999	0	0	0	21,904	10,500	0	554,805	0	0	98,256	0	34,976	0	0	0
2000	0	0	0	8,436	15,750	425	657,271	0	19,480	213,619	0	32,879	0	0	0
2001	0	0	0	10,532	9,000	1,401	635,032	0	0	127,349	0	28,093	0	0	0
2002	0	0	0	0	0	0	435,294	0	0	122,464	0	32,458	0	0	0
2003	0	0	0	10,300	20,000	0	530,000	0	20,000	75,000	0	30,000	0	0	0
Out of Basin Releases															
1993	0	0	0	558	39,455	72,217	0	0	0	15,083	0	0	0	0	0
1994	0	0	0	95,220	59,078	70,484	0	0	0	74,000	0	0	0	0	0
1995	0	0	0	23,488	29,062	365,873	0	0	0	0	0	0	0	0	0
1996	0	0	0	3,830	0	538,090	0	0	0	0	0	0	0	0	0
1997	0	0	0	36,890	0	360,367	0	0	0	16,170	1,500	0	0	0	0
1998	0	0	0	0	0	223,839	0	0	0	0	0	0	0	0	0
1999	0	0	0	20,082	10,500	111,052	0	0	0	0	0	0	0	0	0
2000	0	0	0	7,176	15,750	20,450	0	0	0	0	0	0	0	0	0
2001	0	0	0	9,000	9,000	198,107	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	192,945	0	0	0	0	0	0	0	0	0
2003	0	0	0	8,000	20,000	200,000	0	0	0	0	0	0	0	0	0

Release of hatchery coho smolts, fingerlings, and unfed fry in coastal basins has decreased substantially since 1993 (Table 11). The proposed 2003 coho smolt releases represent reductions of 45% to 90% from the early 1990's releases for all coastal GCAs, except the South Coast GCA which has remained stable at about 200,000 smolts/year (Table 11). There are no planned fry and fingerling releases in 2003, except for one STEP program that releases 20,000 fry in North Fork Depoe Creek. This is a tributary to Depoe Bay, an area with no current wild coho population (Kostow 1995). Unfed fry releases have been eliminated in the South Coast GCA and the North Coast GCA, and proposed releases in 2003 have declined 90% to 98% from the early 1990's releases in the Mid Coast and Mid-South Coast GCAs (Table 11). Proposed 2003 unfed fry releases in the Umpqua Basin GCA are comparable to the actual releases in the early 1990's, and represent a substantial re-introduction/supplementation program. Off station releases of hatchery coho salmon have also been substantially reduced since the early 1990's (Table 11). The remaining proposed off station releases in 2003 include all the unfed fry and fingerling releases, as well as two smolt releases. The off station smolt releases proposed for 2003 are 25,000 in Sevenmile Creek (Coquille Basin) and 5,000 in South Slough (Coos Basin). Planned out of basin releases have been eliminated except for two unfed fry, the Depoe Bay fingerling and one smolt release. The out of basin unfed fry releases proposed for 2003 are; 8,000 Siletz

River stock in Big Creek (a direct ocean tributary), and 20,000 Siletz River stock in Depoe Creek (a direct ocean tributary). The only proposed out of basin smolt release in 2003 is 200,000 Siletz River stock smolts at Salmon River hatchery. Releases of excess fry and fingerling coho in closed water bodies are not reported in Table 11.

Table 12. Coastal hatchery chinook releases for the years 1993 through 2002, with proposed releases in year 2003. Off-station releases are characterized by lack of rearing, acclimation, or adult re-capture at the release site. Fish released in a basin other than the released stocks basin of origin are reported as out of basin.

Release Year	OREGON COAST ESU												SOUTHERN OREGON ESU		
	Nehalem/Ecola GCA			North-Mid Coast GCA			Umpqua Basin GCA			Mid-South Coast GCA			South Coast GCA		
	Unfed Fry	Fry & Fing	Smolts	Unfed Fry	Fry & Fing	Smolts	Unfed Fry	Fry & Fing	Smolts	Unfed Fry	Fry & Fing	Smolts	Unfed Fry	Fry & Fing	Smolts
Total Releases															
1993	9,380	0	26,000	584,591	196,581	920,379	198,814	492,055	406,676	371,110	1,157,968	561,396	52,798	0	2,043,478
1994	0	0	0	51,483	12,438	815,434	0	234,633	290,386	85,735	1,295,036	539,664	11,006	0	2,164,652
1995	0	0	0	62,327	58,941	854,190	172,990	506,965	353,950	983,280	1,076,570	626,550	66,012	14,394	1,902,669
1996	0	24,969	0	157,223	63,652	824,904	135,214	80,789	625,576	1,787,677	1,106,404	628,972	10,512	0	1,992,827
1997	14,922	0	21,742	529,173	52,106	883,828	0	336,399	202,700	2,145,065	1,111,127	539,413	5,416	258,628	2,008,561
1998	14,245	0	28,514	468,353	40,713	863,069	0	0	298,358	45,745	1,127,010	557,739	9,373	0	1,869,530
1999	19,542	0	26,995	354,543	17,009	866,308	9,056	68,744	401,018	143,932	1,726,605	566,567	64,693	19,476	1,846,996
2000	19,153	0	26,079	618,824	25,725	929,747	61,953	327,161	483,447	80,779	1,858,574	543,833	8,321	27,885	755,975
2001	15,479	0	25,110	260,935	55,123	1,007,233	326,322	175,200	422,422	102,981	2,348,475	533,691	105,699	0	2,054,428
2002	20,000	0	26,240	215,522	54,903	908,683	364,609	0	402,778	104,371	708,369	522,625	64,095	0	2,128,174
2003	20,000	0	25,000	440,000	80,000	938,000	500,500	200,000	412,000	125,700	2,525,000	517,000	84,450	0	2,147,000
Off-Station Releases															
1993	9,380	0	26,000	528,231	28,492	347,063	198,814	478,642	103,539	371,110	18,644	53,723	52,798	0	439,913
1994	0	0	0	51,483	12,438	385,727	0	234,633	75,662	85,735	14,382	50,650	11,006	0	424,523
1995	0	0	0	62,327	58,941	342,387	172,990	496,966	51,920	983,280	123,214	31,960	66,012	14,394	230,802
1996	0	24,969	0	157,223	63,652	315,790	135,214	49,240	84,739	1,787,677	137,450	61,381	10,512	0	282,545
1997	14,922	0	21,742	529,173	38,845	352,213	0	322,272	102,348	2,145,065	156,082	64,947	5,416	0	265,213
1998	14,245	0	28,514	468,353	31,780	382,515	0	0	0	45,745	396,704	70,536	9,373	0	158,208
1999	19,542	0	26,995	354,543	17,009	329,485	9,056	68,744	0	143,932	187,329	111,010	64,693	0	164,741
2000	19,153	0	26,079	618,824	25,725	380,987	61,953	327,161	85,207	80,779	228,779	107,764	8,321	0	158,150
2001	15,479	0	25,110	260,935	55,123	439,454	326,322	175,200	0	102,981	238,409	101,243	105,699	0	156,088
2002	20,000	0	26,240	215,522	54,903	338,894	364,609	0	0	104,171	30,466	146,801	64,095	0	155,941
2003	20,000	0	25,000	440,000	80,000	375,000	475,500	200,000	0	125,700	235,000	100,000	29,650	0	150,000
Out of Basin Releases															
1993	9,380	0	26,000	315,431	13,251	193,305	0	0	0	9,750	0	0	0	0	0
1994	0	0	0	33,458	0	182,716	0	0	0	835	0	0	10,006	0	0
1995	0	0	0	62,052	15,369	136,179	0	0	0	15,832	0	130,413	0	0	0
1996	0	24,969	0	145,020	3,696	118,799	0	0	0	10,056	8,505	101,306	0	0	0
1997	14,922	0	21,742	355,558	13,726	110,532	0	0	0	10,193	0	0	0	0	0
1998	14,245	0	28,514	229,139	11,566	116,273	0	0	0	10,400	0	0	0	0	0
1999	19,542	0	26,995	193,166	0	136,261	0	0	0	10,400	0	0	0	0	0
2000	19,153	0	26,079	344,308	25,725	101,784	0	0	0	0	0	0	0	0	0
2001	15,479	0	25,110	103,374	16,228	114,347	0	0	0	0	0	0	0	0	0
2002	20,000	0	26,240	138,550	16,978	105,237	0	0	0	0	0	0	0	0	0
2003	20,000	0	25,000	205,000	25,000	100,000	0	0	0	10,300	0	0	0	0	0

Release of hatchery chinook smolts in coastal basins has remained fairly stable since 1992 (Table 12). Fry and fingerling releases have fluctuated substantially during the 1990's, with a generally decreasing trend in the North-Mid Coast GCA and an increasing trend in the Mid-South Coast GCA. Unfed fry releases proposed for 2003 are substantially below peak releases for the 1993 to 2002 release years in the Mid-South Coast GCA, but increased in the Umpqua GCA. The two largest coastal chinook programs planned for 2003 are 1.9 million Rogue River spring chinook smolts, and 2.5 million Coos River fall chinook fingerlings. The Nehalem/Ecola GCA has a very small hatchery chinook program in comparison to the other 4 coastal chinook GCAs (Table 12). Off station releases of smolts, and fingerlings have generally been reduced or are at very low levels in all GCAs, except the North-Mid Coast GCA (Table 12). However, for 2003 there are still substantial proposed off station releases of hatchery chinook, including all unfed

fry releases in coastal GCAs. Out of basin releases of smolts, and fingerlings have been eliminated in the Umpqua Basin, Mid-South Coast, and South Coast GCAs (Table 12). The remaining out of basin releases proposed for 2003 include: Trask River stock fall chinook released in the Necanicum River and in Tillamook Bay tributaries; Elk River stock fall chinook unfed fry released in Euchre Creek and Floras Creek; and Trask River stock spring chinook released in the Wilson River. Releases of excess fry and fingerling chinook in closed water bodies are not reported in Table 12.

Table 13. Coastal hatchery steelhead releases for years 1993 through 2002, with proposed releases year 2003. Off-station releases are characterized by lack of rearing, acclimation, or adult re-capture at the release site. Fish released in a basin other than the released stocks basin of origin are reported as out of basin.

Release Year	OREGON COAST ESU			KLAMATH MOUNTAIN PROVINCE ESU					
	North-Mid Coast GCA			Cape Blanco to Border GCA			Upper Rogue GCA		
	Unfed Fry	Fry & Fing	Smolts	Unfed Fry	Fry & Fing	Smolts	Unfed Fry	Fry & Fing	Smolts
Total Releases									
1993	417,915	8,020	1,774,994	0	0	50,478	474,296	0	469,308
1994	199,998	10,602	1,636,409	850	0	51,186	40,949	0	469,295
1995	281,521	0	1,429,555	500	0	52,481	70,397	0	460,271
1996	160,595	17,627	1,429,511	300	0	51,789	60,763	0	614,867
1997	246,789	16,717	1,311,273	325	0	42,895	59,458	0	557,280
1998	83,701	0	1,252,913	400	0	45,425	42,336	0	567,608
1999	202,209	0	1,284,760	306	0	47,622	0	0	416,605
2000	100,180	0	1,334,173	310	0	50,951	0	0	647,161
2001	125,589	0	1,351,966	200	0	71,173	0	0	454,959
2002	<u>69,650</u>	<u>15,461</u>	<u>1,367,450</u>	<u>0</u>	<u>0</u>	<u>49,610</u>	<u>0</u>	<u>0</u>	<u>429,718</u>
2003	<i>110,100</i>	<i>0</i>	<i>1,480,000</i>	<i>600</i>	<i>0</i>	<i>50,000</i>	<i>0</i>	<i>0</i>	<i>340,000</i>
Off-Station Releases									
1993	417,915	0	1,386,050	0	0	40,883	474,296	0	87,309
1994	189,392	0	1,232,957	850	0	51,186	40,949	0	154,939
1995	169,665	0	891,103	500	0	52,481	70,397	0	88,710
1996	50,121	17,627	890,167	300	0	51,789	60,763	0	190,427
1997	246,789	12,667	836,910	325	0	42,895	59,458	0	170,454
1998	83,701	0	798,906	400	0	45,425	42,336	0	170,334
1999	202,209	0	850,356	306	0	47,622	0	0	96,520
2000	100,028	0	768,177	310	0	50,951	0	0	209,473
2001	120,114	0	899,945	200	0	71,173	0	0	99,368
2002	<u>69,650</u>	<u>15,461</u>	<u>905,305</u>	<u>0</u>	<u>0</u>	<u>49,610</u>	<u>0</u>	<u>0</u>	<u>115,530</u>
2003	<i>110,100</i>	<i>0</i>	<i>975,000</i>	<i>600</i>	<i>0</i>	<i>50,000</i>	<i>0</i>	<i>0</i>	<i>60,000</i>
Out of Basin Releases									
1993	209,572	0	737,480	0	0	0	0	0	0
1994	13,896	0	683,367	650	0	0	0	0	0
1995	15,954	0	470,324	100	0	0	0	0	0
1996	5,834	0	301,417	0	0	0	0	0	0
1997	4,555	0	259,647	0	0	0	0	0	0
1998	4,537	0	215,689	0	0	0	0	0	0
1999	5,220	0	211,433	0	0	0	0	0	0
2000	5,170	0	221,950	0	0	0	0	0	0
2001	5,916	0	238,537	0	0	0	0	0	0
2002	<u>4,600</u>	<u>0</u>	<u>223,895</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
2003	<i>2,700</i>	<i>0</i>	<i>220,000</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

Hatchery steelhead juvenile releases on the Oregon Coast are predominately smolts and are mainly released in the North-Mid Coast GCA (Table 13). Fingerling releases were rare during 1993 through 2002, and none are planned for 2003. Unfed fry releases have been reduced dramatically since the early 1990's and are have been essentially limited to the North-Mid Coast GCA in recent years (Table 13). Smolt releases have been reduced slightly since the early 1990's, as have off station releases. The most dramatic reductions have been in out of basin releases, with planned releases in 2003 only 30% of the smolts and 1% of the unfed fry out of basin releases in 1993. Releases of excess fry and fingerling steelhead in closed water bodies are not reported in Table 13.

Oregon Coastal Hatchery Adult Salmon Returns

Collections of salmon and steelhead at ODFW coastal facilities were summarized by species, age (adults versus jacks) and gene conservation area (GCA), as defined by ODFW. Tables 14 through 16 contain the last 10 years adult return information for ODFW hatchery coho, chinook and steelhead. Data from trapping of wild fish and recoveries of fish at hatcheries that did not release that species is also reported, when available.

The number of fish returning to a release facility is influenced by a variety of factors including number of fish released, post-release survival, harvest rate, water flow, homing affinity, and trap efficiency. Because of the number of variables and the interactions between variables hatchery return rates, by themselves, should not be used as an indication of survival but as an index of the potential for interaction of hatchery and wild adults in freshwater. Actual levels of interaction depend on further variables including run timing, spawning timing, hatchery location, abundance of wild fish, and genetic composition.

Hatchery recoveries of adult coho remained strong in the 2002-03 run year in all the coastal GCAs except for the Umpqua GCA (Table 14). The 2002-03 return was comparable to the 2001-02 return in all GCAs and was the highest or second highest return in the last 10 year for the North Coast, Mid-South Coast and South Coast GCAs. These three GCAs had large jack returns in the 2001-02 run year. Jack returns in 2002-03 are higher than in 2001-02 in all but the Umpqua GCA, and are the 2nd highest in the last 10 years, for the North Coast, Mid-South Coast and South Coast GCAs. Jack and adult returns in the Mid Coast GCA are well below those in prior years, but this GCA has had the largest reduction in hatchery coho smolt releases (Table 11). Adult and jack returns in the Umpqua GCA don't reflect actual returns as these fish are mostly collected at Winchester Dam, several miles below the hatchery, and only enough fish for broodstock needs are collected.

Table 14. Adult and jack coho collections: at hatcheries that do not release coho; from wild spawning populations; and at coastal hatcheries that release coho. T = Total collected, W = wild coho (based on marks), B = Retained for broodstock.

Run Year	North Coast GCA						Mid Coast GCA						Umpqua Basin GCA						Mid-South Coast GCA						South Coast GCA							
	Non-Coho Hatch		Wild Coho Trapping		Coho Hatcheries		Non-Coho Hatch		Wild Coho Trapping		Coho Hatcheries		Non-Coho Hatch		Wild Coho Trapping		Coho Hatcheries		Non-Coho Hatch		Wild Coho Trapping		Coho Hatcheries		Non-Coho Hatch		Wild Coho Trapping		Coho Hatcheries			
	T	W	T	B	T	W	T	W	T	B	T	W	T	W	T	B	T	W	T	W	T	B	T	W	T	W	T	B	T	W		
Adult Returns																																
1993-94	0	--	0	0	8,208	--	0	0	0	0	10,663	--	--	--	160	160	679	--	--	--	232	203	2,164	--	0	--	0	0	756	--		
1994-95	0	--	0	0	10,260	--	0	0	0	0	6,487	--	--	--	13	13	1,069	--	--	--	84	43	1,733	--	8	--	0	0	6,577	370		
1995-96	9	--	0	0	11,457	--	0	0	0	0	5,083	--	--	--	7	7	1,210	--	194	--	268	268	244	--	5	--	0	0	8,698	209		
1996-97	5	--	0	0	5,456	--	0	0	0	0	9,575	--	--	--	8	8	1,687	--	160	--	144	144	928	--	4	--	0	0	7,922	171		
1997-98	0	--	0	0	3,413	--	0	0	0	0	5,498	--	--	--	0	0	431	--	53	--	110	110	221	--	14	--	0	0	7,934	310		
1998-99	0	0	0	0	3,903	104	0	0	0	0	8,276	104	--	--	21	21	824	0	0	66	66	301	5	4	0	0	2,963	59				
1999-00	63	55	0	0	5,040	44	0	0	0	0	3,622	197	--	--	0	0	970	0	0	63	63	473	19	16	0	0	4,350	47				
2000-01	196	196	0	0	4,801	120	0	0	0	0	306	60	--	--	0	0	1,102	0	0			1,036	31	30	0	0	9,276	332				
2001-02	41	34	0	0	22,536	204	0	0	0	0	1,401	130	--	--	0	0	832	0	0	61	61	2,033	125	31	0	0	12,738	801				
2002-03	202	199	0	0	14,895	178	28	18	0	0	3,462	427	0	0	258	258	492	0	0	138	138	2,337	47	12	0	0	11,587	589				
Jack Returns																																
1993-94	2	--	0	0	163	--	0	0	0	0	96	--	--	--	6	6	7	--	--	--	11	10	101	--	0	--	0	0	730			
1994-95	0	--	0	0	431	--	0	0	0	0	388	--	--	--	0	0	49	--	25	--	0	0	115	--	5	--	0	0	910	32		
1995-96	0	--	0	0	589	--	0	0	0	0	910	--	--	--	0	0	43	--	55	--	26	26	96	--	1	--	0	0	767	6		
1996-97	0	--	0	0	608	--	0	0	0	0	876	--	--	--	0	0	251	--	42	--	0	0	113	--	1	--	0	0	806	16		
1997-98	0	0	0	0	347		0	0	0	0	796		--	--	0	0	56	4	2	2	181	1	1	0	0	725	16					
1998-99	0	0	0	0	1,301	16	0	0	0	0	394	13	--	--	0	0	60	0	0	6	6	116	0	0	0	0	865	8				
1999-00	1	1	0	0	861	0	0	0	0	0	57	8	--	--	0	0	60	0	0	4	4	144	4	4	0	0	993	21				
2000-01	5	5	0	0	6,616	27	0	0	0	0	42	11	--	--	0	0	35	0	0			1,086	17	17	0	0	2,608	118				
2001-02	26	26	0	0	1,655	12	0	0	0	0	46	24	0	0	0	0	11	0	0	2	2	322	7	6	0	0	1,168	67				
2002-03	13	13	0	0	2,010	6	5	5	0	0	528	26	0	0	8	8	7	0	0	2	2	411	9	9	0	0	2,028	253				

Table 15. Adult and jack chinook collections: at hatcheries that do not release chinook; from wild spawning populations; and at coastal hatcheries that release chinook.

Return Year	Nehalem/Ecola GCA			North-Mid Coast GCA			Umpqua GCA			Mid-South Coast GCA			South Coast GCA		
	Wild Trapping	Non-Chinook hatcheries	Chinook hatcheries	Wild Trapping	Non-Chinook hatcheries	Chinook hatcheries	Wild Trapping	Non-Chinook hatcheries	Chinook hatcheries	Wild Trapping	Non-Chinook hatcheries	Chinook hatcheries	Wild Trapping	Non-Chinook hatcheries	Chinook hatcheries
Adult Returns															
1993-94	0	28	0	0	0	1,474	0	0	669	140	0	1,213	78	9	9,980
1994-95	0	4	0	0	0	2,028	0	0	868	86	0	2,023	54	303	4,044
1995-96	0	0	0	13	0	1,983	0	0	694	474	0	3,415	49	366	54,571
1996-97	0	2	0	91	0	2,671	12	0	648	305	0	4,028	66	0	26,044
1997-98	0	0	0	75	0	1,273	0	0	300	31	0	2,722	44	13	28,169
1998-99	0	0	0	73	3	1,252	43	0	412	161	0	3,709	21	22	10,336
1999-00	0	0	0	103	82	1,885	0	0	672	122	0	3,789	42	7	16,728
2000-01	0	8	0	118	64	1,889	0	0	850	60	0	3,313	0	103	23,068
2001-02	0	0	0	75	24	2,561	0	0	1,377	165	0	7,444	74	202	24,390
2002-03	0	3	0	43	0	3,144	0	0	716	137	0	8,470	28	125	21,615
Jack Returns															
1993-94	0	2	0	0	0	12	0	0	25	0	0	286	9	26	2,864
1994-95	0	0	0	0	7	161	0	0	70	35	0	1,543	21	38	559
1995-96	0	0	0	1	6	83	0	0	20	16	0	1,116	2	31	1,436
1996-97	0	0	0	0	0	35	0	0	12	4	0	554	2	0	551
1997-98	0	0	0	0	0	18	0	0	18	0	0	1,132	2	6	729
1998-99	0	0	0	0	2	37	0	0	19	4	0	219	7	32	1,854
1999-00	0	0	0	0	7	122	0	0	147	6	0	1,144	7	1	975
2000-01	0	2	0	0	4	183	0	0	81	4	0	1,373	0	4	1,209
2001-02	0	0	0	0	0	246	0	0	278	18	0	2,637	0	10	846
2002-03	0	0	0	0	0	172	0	0	12	6	0	3,253	1	238	1,616

Table 16. Adult and jack steelhead collections: at hatcheries that do not release steelhead; from wild spawning populations; and at coastal hatcheries that release steelhead.

Run Year	North-Mid Coast GCA						Cape Blanco to Border GCA						Upper Rogue GCA					
	Wild Steelhead Trapping		Non-Steelhead Hatcheries		Steelhead Hatcheries		Wild Steelhead Trapping		Non-Steelhead Hatcheries		Steelhead Hatcheries		Wild Steelhead Trapping		Non-Steelhead Hatcheries		Steelhead Hatcheries	
	T	B	T	T	B	T	T	B	T	B	T	W	T	W	T	B	T	W
Adult Returns																		
1993-94	230	79	0	--	4,577	--	0	0	0	--	202	--	0	0	0	--	4,554	--
1994-95	545	190	4	--	5,816	--	0	0	0	--	90	--	0	0	0	--	7,923	--
1995-96	181	181	2	--	6,166	--	0	0	0	--	130	--	0	0	0	--	9,494	--
1996-97	409	212	6	--	8,610	--	0	0	0	--	89	--	0	0	0	--	10,333	--
1997-98	502	318	0	0	5,249	260	0	0	6	6	88	0	0	0	0	0	8,486	209
1998-99	697	280	46	1	10,775	297	0	0	0	0	106	31	0	0	0	0	5,905	379
1999-00	1,182	432	26	0	7,509	428	0	0	0	0	104	10	0	0	0	0	6,873	192
2000-01	953	410	28	0	7,450	328	0	0	0	0	104	0	0	0	0	0	9,143	467
2001-02	1,292	478	93	6	18,034	436	0	0	0	0	97	0	196	196	0	0	20,292	763
2002-03	930	282	10	2	10,132	506	0	0	0	0	95	0	30	30	0	0	18,627	708
Jack Returns																		
1993-94	0	0	0	--	4	--	0	0	0	--	0	--	0	0	0	--	0	--
1994-95	0	0	0	--	49	--	0	0	0	--	0	--	0	0	0	--	0	--
1995-96	0	0	0	--	89	--	0	0	0	--	0	--	0	0	0	--	0	--
1996-97	3	0	0	--	149	--	0	0	0	--	0	--	0	0	0	--	0	--
1997-98	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0
1998-99	4	0	0	0	128	0	0	0	0	0	0	0	0	0	0	0	0	0
1999-00	8	1	0	0	69	0	0	0	0	0	0	0	0	0	0	0	0	0
2000-01	29	7	0	0	242	3	0	0	0	0	0	0	0	0	0	0	0	0
2001-02	25	1	0	0	96	0	0	0	0	0	0	0	0	0	0	0	0	0
2002-03	57	0	0	0	233	0	0	0	0	0	0	0	0	0	0	0	0	0

Hatchery recoveries of adult chinook remained high for the 2002-03 run year, and were the highest in the last 10 years in the North-Mid Coast and Mid-South Coast GCAs (Table 15). There are essentially no hatchery recoveries of hatchery chinook in the Nehalem/Ecola GCA, as there are very few hatchery chinook released in this GCA. Chinook salmon jack recoveries at Oregon coastal hatcheries were the

highest for the last 10 years in the Mid-South Coast GCA and third highest in the North-mid Coast and South Coast GCAs (Table 15). The 2001 smolt releases, that produced the 2002-03 jack returns, are slightly higher but comparable to prior years releases (Table 12). As explained for adult coho hatchery returns at Umpqua GCA hatcheries, due to the collection methods the number of adult and jack chinook collected does not necessarily reflect the total returns.

Adult steelhead hatchery returns also remained strong in the 2002-03 return year. Hatchery returns for the Cape Blanco to Border GCA are from the Chetco River smolt releases. There is no adult collection facility in the Chetco River so "hatchery returns" for this program are from broodstock seining efforts in the lower Chetco River. Seining is only done for broodstock needs and therefore, the "hatchery returns" do not reflect total returns. Very few jack steelhead are collected, but for the North-Mid Coast GCA the 2002-03 jack steelhead returns were the second highest for the last 10 years (Table 16). Wild steelhead collected at Siletz Falls account for over 50%, on average, of the total wild steelhead collected in the North-Mid Coast GCA.

Hatchery Salmon Mass Marking

Coastal hatchery releases of chinook and coho smolts, by mark type are reported in Table 17. These are the smolts released in 2002 and represent the 2000 brood year coho salmon and 2001 brood year chinook salmon hatchery releases. Mass marking, adipose fin clip only, of coastal hatchery coho salmon began with the 1995 brood year and with the 1998 brood year for spring chinook salmon. Coastal hatchery fall chinook are not mass marked except for Necanicum River (100% Ad+CWT), Salmon River (100% Ad+CWT), and Yaquina River (100% RV). For mass marked groups, coho, spring chinook and selected fall chinook the number of fish reported in Table 17 in the "Unmarked" column represents poor quality marks or fish missed during marking. Coastal hatchery coho salmon smolts released in 2002 were about 99% marked. However, because of double index tagging (fish marked with a CWT but no fin clip) only 90% had an externally visible mark, an adipose fin clip (Table 17). Coastal hatchery spring chinook salmon smolts released in 2002 were also about 99% marked. Coastal chinook salmon double index tagging is much less than with coho so 97% of the hatchery spring chinook smolts released in 2002 had an adipose fin clip (Table 17).

PLANS FOR FY 2003

In FY 2003 we are planning to mark with Ad+CWT representative samples from all hatchery production groups of coho salmon released from Oregon hatcheries (released during FY 2004) to monitor recovery of hatchery salmon. The one exception is hatchery fall chinook in the Nestucca River, where logistical issues currently preclude Ad+CWT marking. We are planning releases of Ad+CWT coho salmon in Coos, Coquille, Nehalem, Salmon, Trask, North Umpqua, and South Umpqua Rivers. We are planning releases of Ad+CWT fall chinook salmon in Chetco, Coos, Coquille, Necanicum, Rogue, Trask, Umpqua, and Yaquina Rivers. We are also planning releases of Ad+CWT spring chinook salmon in Nestucca, North Umpqua, Trask and Wilson Rivers. We will continue to summarize catch and escapement information as data become available. Other sources of funding will pay for Ad+CWT marking of juvenile hatchery coho and spring chinook salmon in the Rogue River, and juvenile hatchery fall chinook salmon in the Elk and Salmon Rivers.

Table 17. Coastal hatchery coho and chinook smolt releases in 2002 by mark type. Releases are 2000 brood year coho salmon and 2001 brood year chinook salmon. Data in italics is preliminary.

Hatchery	Stock	Release Site	Release Dates		# CWT Groups	Fin Clip*	Number Released by Mark Type				Total Release
			First	Last			Ad+CWT	CWT Only	Ad Only	Unmarked	
Coho Salmon											
Nehalem	N. Nehalem	Nehalem R, N Fk	03/01/02	04/15/02	4	AD	47,686	49,539	105,859	1,450	204,534
Trask	Trask R	Trask R	04/10/02	04/15/02	1	AD	25,786	737	169,282	5,944	201,749
Salmon River	Siletz R	Salmon R	05/01/02	05/03/02	2	AD	24,880	24,753	142,216	1,096	192,945
Salmon River	Siletz R	Rock Cr (Siletz R)	03/26/02	05/21/02	0	AD	0	0	42,450	211	42,661
Rock Creek	Umpqua R	Rock Cr (N Umpqua)	04/13/02	04/16/02	2	AD	57,634	0	57,096	448	115,178
Noble Creek	Coos R	Noble Cr (Coos R)	03/13/02	03/18/02	1	AD	28,983	110	97,524	0	126,617
Charleston	Coos R	Charleston Cr (Coos R)		03/13/02	0	AD	0	0	7,560	0	7,560
Bandon	Coquille R	Ferry Cr		04/24/02	1	AD	29,044	59	470	59	29,632
Butte Falls	Coquille R	Sevenmile Cr (Coq R)		04/10/02	0	AD	0	0	22,254	89	22,343
Cole Rivers	Rogue R	Rogue R-4	04/29/02	04/30/02	2	AD	33,560	33,121	141,263	159	208,103
					13		247,573	108,319	785,974	9,456	1,151,322
Fall Chinook Salmon											
Nehalem	Trask River	Necanicum R		09/04/02	1	AD	25,181	353	706	0	26,240
Trask R	Trask River	Trask R	08/10/02	08/11/02	1	AD	25,154	767	971	86,311	113,203
Rhodes Pond	Nestucca R	Nestucca R		08/05/02	0	RM	0	0	39,125	0	39,125
Salmon R	Salmon R	Salmon R	08/15/02	08/16/02	1	AD	207,374	1,003	501	0	208,878
Yaquina Bay	Yaquina R	Yaquina Bay	09/10/02	09/24/02	1	AD	23,945	43	108	22	24,118
Yaquina Bay	Yaquina R	Yaquina Bay	09/10/02	09/24/02	0	RV	0	0	128,999	692	129,691
Morgan Creek	Coos R	Daniels Cr (Coos R)	09/09/02	09/28/02	1	AD	27,437	0	483	64,444	92,364
Sevenmile Creek	Coquille R	Sevenmile Cr (Coq R)		09/23/02	1	AD	28,639	0	0	66,827	95,466
Coquille HS	Coquille R	Cunningham Cr		09/30/02	0	None	0	0	0	12,063	12,063
Elk River	Elk R	Elk River		09/17/02	1	AD	207,703	2,788	3,833	98,326	312,650
Elk River ^a	Elk R	Elk River		01/31/02	0	RV	0	0	9,270	0	9,270
Indian Cr Pond	Lower Rogue	Rogue R-1		09/15/02	1	AD	26,021	0	0	50,000	76,021
Elk River	Chetco R	Chetco River	09/16/02	09/19/02	1	AD	21,442	248	331	133,920	155,941
					9		592,896	5,202	184,327	512,605	1,295,030
Spring Chinook Salmon											
Tuffy Creek Pond	Trask River	Wilson R		07/30/02	0	AD	0	0	93,401	2,343	95,744
Whiskey Cr	Trask River	Wilson R	06/19/02	07/07/02	0	AD	0	0	21,859	548	22,407
Whiskey Cr	Trask River	Trask R	07/07/02	07/22/02	0	AD	0	0	89,158	2,237	91,395
E Fk Trask Pond	Trask River	Trask R		08/05/02	0	AD	0	0	86,699	2,175	88,874
Trask R	Trask River	Trask R		08/10/02	1	AD	24,977	989	13,640	378	39,984
Cedar Creek	Nestucca R	Nestucca R		07/15/02	1	AD	27,036	0	76,933	0	103,969
Rock Creek ^a	Umpqua R	Rock Cr (N Umpqua)	01/17/02	02/04/02	1	AD	26,064	101	239,678	1,652	267,495
Rock Creek	Umpqua R	Rock Cr (N Umpqua)	10/11/02	10/29/02	1	AD	24,450	1,013	109,774	46	135,283
Cole Rivers	Rogue R	Rogue R	08/13/02	10/11/02	4	AD	119,132	54,855	1,770,554	27,692	1,972,233
					8		221,659	56,958	2,501,696	37,071	2,817,384

a = 2000 brood year.

* AD = Adipose Fin, RV = Right Ventral Fin, RM = Right Maxillary Bone.

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APPENDIX

Release and Recovery Data for Ad+CWT-Marked Salmon
Released for Stock Assessment

Appendix Table 1. Coded-wire-tagged coho salmon released for stock assessment, release and recovery data, 1989-1999 brood years. Column "Number Released CWT" is Ad+CWT for 1989 to 1994 brood years, and is Ad+CWT plus CWT only for 1995 to 1999 brood years. Stock sources: N = Native; H = Hatchery; M = Mixed. NFH = National Fish Hatchery; 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 5.

STOCK GROUP,	stock, (source H, N, M), brood, tagcode Hatchery	Release Site	Release Date	Number Released CWT	Number Released Total	Size (gm)	AK	NCBC	WCVI	GST	PS	WA	Ocean Catch						Freshwater Recoveries	% 6+ Surv.					
													Oregon Areas								CA	2	3	4	5
													1&2	3	4	5	6&7								
ALSEA RIVER																									
Fall Creek (Alsea River):																									
H	1989 074904	Fall Creek	Fall Cr	03/24/91	26,477	207265	30.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0.24				
H	1989 074907	Fall Creek	Fall Cr	04/14/91	25,994	153390	33.10	0	0	0	0	5	0	3	23	12	0	5	1	23	0	0	0.28		
H	1989 074902	Fall Creek	Fall Cr	05/25/91	28,324	244757	40.86	0	0	3	0	2	2	6	34	65	3	4	0	150	0	0	0.95		
H	1989 074908	Fall Creek	Fall Cr	06/01/91	26,615	426162	44.46	0	0	14	0	0	10	2	9	94	242	6	39	1	454	0	0	3.27	
H	1990 074942	Fall Creek	Fall Cr	03/19/92	24,484	204149	29.60	0	0	6	0	0	16	6	0	4	4	3	25	17	83	0	0	0.67	
H	1990 074941	Fall Creek	Fall Cr	04/22/92	23,758	840625	34.40	0	0	0	0	0	14	0	3	7	19	8	33	8	96	0	0	0.79	
H	1990 074413	Fall Creek	Fall Cr	06/01/92	25,365	453661	40.90	0	0	0	0	0	0	0	1	0	0	0	1	4	0	0	0	0.02	
H	1991 076010	Fall Creek	Fall Cr	03/18/93	25,856	148951	29.07	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0.12
H	1991 076011	Fall Creek	Fall Cr	04/20/93	26,032	141679	36.28	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0.08
H	1991 076012	Fall Creek	Fall Cr	05/24/93	27,083	239805	40.49	0	0	4	0	0	0	0	0	0	0	0	0	0	53	0	0	0	0.21
H	1991 076013	Fall Creek	Fall Cr	06/04/93	26,754	410870	49.84	0	0	0	0	0	0	0	0	0	0	0	0	0	133	0	0	0	0.50
H	1992 070261	Fall Creek	Fall Cr	03/16/94	27,330	146845	30.23	0	0	0	0	0	0	0	0	0	0	0	0	2	60	0	0	0	0.23
H	1992 070262	Fall Creek	Fall Cr	04/22/94	26,200	246529	35.43	0	0	0	0	2	0	0	0	0	0	0	0	1	105	0	0	0	0.41
H	1992 070263	Fall Creek	Fall Cr	05/20/94	25,856	244564	39.78	0	0	6	0	0	4	3	0	0	0	0	0	1	58	0	0	0	0.28
H	1992 070312	Fall Creek	Fall Cr	06/01/94	25,252	290763	49.84	0	0	6	0	0	5	0	0	0	0	0	0	0	104	0	0	0	0.46
H	1993 075256	Fall Creek	Fall Cr	03/17/95	26,599	148851	30.24	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0.07
H	1993 075257	Fall Creek	Fall Cr	04/17/95	27,410	299310	37.49	0	0	0	0	2	0	0	0	0	0	0	0	0	65	0	0	0	0.24
H	1993 075258	Fall Creek	Fall Cr	05/15/95	26,671	199039	40.86	0	0	18	0	0	0	0	0	0	0	0	0	0	3	127	0	0	0.55
H	1993 075259	Fall Creek	Fall Cr	06/01/95	27,291	399259	47.25	0	0	0	0	0	0	0	0	0	0	0	0	0	44	0	0	0	0.16
H	1994 070531	Fall Creek	Fall Cr	02/07/96	26,364	518335	26.56	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0.02
H	1994 070532	Fall Creek	Fall Cr	02/07/96	26,364	518335	26.56	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0.03
H	1994 070924	Fall Creek	Fall Cr	02/07/96	26,364	518335	26.56	0	0	0	0	0	0	0	0	0	0	0	0	7	1	8	0	0	0.06
H	1994 075337	Fall Creek	Fall Cr	02/07/96	26,364	518335	26.56	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0.02
H	1995 091733	Fall Creek	Fall Cr	03/17/97	27,481	148000	31.72	0	0	0	0	1	0	0	0	0	0	0	0	0	61	0	0	0	0.23
H	1995 091734	Fall Creek	Fall Cr	04/15/97	27,001	250214	36.58	0	0	0	0	6	2	0	0	0	0	0	0	0	154	0	0	0	0.60
H	1995 091735	Fall Creek	Fall Cr	05/15/97	28,271	249391	42.39	0	0	0	0	7	0	0	0	0	0	0	0	0	249	0	0	0	0.91
H	1995 091736	Fall Creek	Fall Cr	06/02/97	28,764	300260	46.28	0	0	0	0	3	5	0	0	0	0	0	0	0	179	0	0	0	0.65
H	1996 092015	Fall Creek	Fall Cr	04/17/98	26,852	99809	37.18	0	0	0	0	0	0	0	0	0	0	0	0	0	16	92	0	0	0.42
H	1996 092006	Fall Creek	Fall Cr	05/16/98	27,454	78780	43.20	0	0	0	0	0	0	0	0	0	0	0	0	0	6	42	0	0	0.18
ALSEA RIVER WILD																									
Alsea River & tribs (excluding Fall Creek):																									
N	1989 074911	Fall Creek	Fall Cr	05/01/91	27,813	29249	39.44	0	0	2	0	0	0	0	0	22	54	3	13	4	32	0	0	0	0.47

Appendix Table 1. Continued.

STOCK GROUP, stock, (source H, N, M), brood, tagcode Hatchery	Release Site	Release Date	Number Released CWT	Size Total (gm)	Ocean Catch										Freshwater Recoveries											
					AK	NCBC	WCVI	GST	PS	Oregon Areas					CA	2	3	4	5	6+	Surv.					
										WA	1&2	3	4	5								6&7				
ALSEA RIVER WILD (Continued)																										
Alsea River & tribs (excluding Fall Creek):																										
N 1989 074913	Fall Creek	Fall Cr	26,178	28079	39.44	0	0	0	0	0	0	2	6	19	63	3	16	7	27	0	0	0	0	0	0.55	
N 1991 075953	Fall Creek	Fall Cr	7,795	8197	39.78	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0.10
N 1992 076035	Fall Creek	Fall Cr	43,889	93370	34.10	0	0	0	0	0	1	0	0	0	0	0	2	8	24	0	0	0	0	0	0	0.08
BIG CREEK																										
Big Creek:																										
H 1989 075426	Big Creek	Big Cr	24,442	181324	46.28	0	0	8	0	0	0	38	16	34	145	152	3	14	29	396	0	0	0	0	0	3.42
H 1989 075427	Big Creek	Big Cr	25,062	339661	31.49	0	0	0	0	0	42	10	12	125	128	0	0	2	286	0	0	0	0	0	0	2.41
H 1990 075616	Big Creek	Big Cr	26,774	195943	46.30	0	0	6	0	4	27	0	0	0	0	0	5	1	66	0	0	0	0	0	0	0.41
H 1990 075617	Big Creek	Big Cr	27,209	357982	30.60	0	0	0	0	0	0	0	0	3	3	0	0	0	21	0	0	0	0	0	0	0.10
H 1991 071517	Big Creek	Big Cr	27,612	366320	31.06	0	0	7	0	0	0	0	0	0	0	0	0	0	158	0	0	0	0	0	0	0.60
H 1991 071516	Big Creek	Big Cr	27,295	193856	47.74	0	0	28	5	0	0	0	0	0	0	0	0	0	396	0	0	0	0	0	0	1.57
H 1992 070256	Big Creek	Big Cr	25,880	301630	32.63	0	0	18	0	0	9	3	0	0	0	0	0	0	72	0	0	0	0	0	0	0.39
H 1992 070257	Big Creek	Big Cr	25,887	164360	45.81	0	0	5	0	0	45	10	0	0	0	0	0	0	293	0	0	0	0	0	0	1.36
H 1993 070137	Big Creek	Big Cr	27,418	130654	43.99	0	0	0	0	0	13	2	0	0	0	0	0	0	166	0	0	0	0	0	0	0.72
H 1993 070138	Big Creek	Big Cr	26,424	403203	41.20	0	0	0	0	0	3	5	0	0	0	0	0	0	2	197	0	0	0	0	0	0.78
H 1994 070958	Big Creek	Big Cr	28,110	141056	32.29	0	0	0	0	0	1	0	0	0	0	0	0	0	4	88	0	0	0	0	0	0.33
H 1994 070959	Big Creek	Big Cr	27,957	402510	36.79	0	0	0	0	0	7	0	0	0	0	0	0	0	4	301	0	0	0	0	0	1.12
H 1995 070842	Big Creek	Big Cr	27,589	146067	35.16	0	0	0	0	0	7	2	0	0	0	0	0	0	18	206	0	0	0	0	0	0.84
H 1995 070946	Big Creek	Big Cr	27,762	389635	37.49	0	0	0	0	0	4	0	0	0	0	0	0	0	1	120	0	0	0	0	0	0.45
H 1996 092254	Big Creek	Big Cr	24,952	146064	36.58	0	0	0	0	0	3	3	2	2	0	0	0	0	26	196	0	0	0	0	0	0.93
H 1996 092255	Big Creek	Big Cr	26,632	355130	39.10	0	0	0	0	0	1	0	0	0	0	0	0	0	7	79	0	0	0	0	0	0.33
H 1997 092420	Big Creek	Big Cr	26,478	142730	38.76	0	0	0	0	0	4	7	2	6	4	0	0	0	27	364	0	0	0	0	0	1.57
H 1997 092419	Big Creek	Big Cr	26,349	382612	39.10	0	0	0	0	0	18	8	0	14	15	0	0	0	9	349	0	0	0	0	0	1.57
H 1998 092434	Big Creek	Big Cr	26,286	145353	38.44	0	0	0	0	0	49	7	2	11	2	0	3	110	722	0	0	0	0	0	0	3.54
H 1998 092431	Big Creek	Big Cr	25,995	398106	39.10	0	0	0	0	0	26	15	0	13	2	0	0	150	1188	0	0	0	0	0	0	5.46
H 1999 092731	Big Creek	Big Cr	27,026	145147	36.00	0	0	0	0	0	0	0	0	0	0	0	0	0	122	0	0	0	0	0	0	0.45
H 1999 092732	Big Creek	Big Cr	27,067	392038	37.18	0	0	0	0	0	0	0	0	0	0	0	0	0	92	0	0	0	0	0	0	0.34
BONNEVILLE																										
Tanner Creek:																										
H 1989 075550	Bonneville	Tanner Cr	26,352	812205	32.63	0	0	0	0	0	28	5	6	19	18	0	0	1	77	0	0	0	0	0	0	0.58
H 1989 075551	Bonneville	Tanner Cr	21,331	629299	31.49	0	0	12	0	0	51	26	28	125	76	0	0	1	488	0	0	0	0	0	0	3.78
H 1989 075549	Bonneville	Tanner Cr	21,680	282901	42.38	0	0	10	0	0	51	9	15	84	51	4	2	3	300	0	0	0	0	0	0	2.44
H 1990 075748	Bonneville	Tanner Cr	26,749	819660	36.90	0	0	11	0	0	16	13	3	6	9	0	5	7	252	0	0	0	0	0	0	1.20
H 1990 075747	Bonneville	Tanner Cr	28,692	345410	41.60	0	0	0	0	0	89	26	3	13	5	14	44	60	441	0	0	0	0	0	0	2.42
H 1990 075749	Bonneville	Tanner Cr	27,001	1011595	30.60	0	0	0	0	0	3	5	0	0	0	0	2	0	15	0	0	0	0	0	0	0.09
H 1991 071533	Bonneville	Tanner Cr	27,011	344180	31.94	3	0	6	0	0	2	0	0	0	0	0	0	10	688	0	0	0	0	0	0	2.62

Appendix Table 1. Continued.

STOCK GROUP,	stock, (source H, N, M),	brood, tagcode Hatchery	Release Site	Release Date	Number Released	Size (gm)	Ocean Catch											6+ Surv.									
							CWT	Total	Oregon Areas						Freshwater Recoveries												
									AK	NCBC	WCVI	GST	PS	WA	1&2	3	4		5	6&7	CA	2	3	4	5		
BONNEVILLE (Continued)																											
Tanner Creek:																											
H	1991 071534	Bonneville	Tanner Cr	06/08/93	28,042	767584	33.10	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.09
H	1992 074936	Bonneville	Tanner Cr	04/19/94	26,606	871511	28.52	0	0	0	0	8	3	0	0	0	0	0	0	2	6	65	0	0	0	0	0.32
H	1992 075130	Bonneville	Tanner Cr	05/31/94	11,937	165957	38.11	0	0	18	0	0	5	3	0	0	0	0	0	0	2	86	0	0	0	0	0.96
H	1993 075445	Bonneville	Tanner Cr	04/26/95	26,529	274691	33.35	0	0	0	0	8	6	0	0	0	0	0	0	4	18	227	0	0	0	0	0.99
H	1993 075446	Bonneville	Tanner Cr	06/09/95	25,407	1004506	40.50	0	0	3	0	2	6	0	0	0	0	0	0	0	0	200	0	0	0	0	0.83
H	1994 075413	Bonneville	Tanner Cr	02/12/96	23,615	332739	29.92	0	0	0	0	0	0	0	0	0	0	0	0	0	1	14	0	0	0	0	0.06
H	1994 075414	Bonneville	Tanner Cr	06/07/96	25,080	887011	36.19	0	0	0	0	6	2	0	0	0	0	0	0	0	0	472	0	0	0	0	1.91
H	1995 091817	Bonneville	Tanner Cr	04/24/97	28,785	332386	40.49	0	0	0	0	10	2	0	0	0	0	0	0	0	11	324	0	0	0	0	1.22
H	1995 091819	Bonneville	Tanner Cr	05/12/97	27,904	782863	31.06	0	0	0	0	3	0	0	0	0	0	0	0	0	0	56	0	0	0	0	0.21
H	1996 092307	Bonneville	Tanner Cr	04/30/98	21,198	292480	45.36	0	0	0	0	20	4	0	5	1	0	0	0	4	248	0	0	0	0	0	1.38
H	1996 092303	Bonneville	Tanner Cr	06/04/98	22,839	698556	37.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63	0	0	0	0	0.29
H	1997 092418	Bonneville	Tanner Cr	04/30/99	25,588	377983	35.16	0	0	0	0	14	11	1	12	8	0	0	0	0	11	529	0	0	0	0	2.33
H	1997 092421	Bonneville	Tanner Cr	06/01/99	25,961	938448	32.39	0	0	0	0	6	2	0	2	3	0	0	0	0	0	297	0	0	0	0	1.20
H	1998 092726	Bonneville	Tanner Cr	05/02/00	26,384	394966	34.89	0	0	0	0	42	26	6	10	10	0	0	0	0	42	715	0	0	0	0	3.26
H	1998 092715	Bonneville	Tanner Cr	06/02/00	26,977	781116	37.80	0	0	0	0	145	63	16	15	42	0	0	0	0	9	1753	0	0	0	0	7.60
H	1999 093012	Bonneville	Tanner Cr	04/30/01	24,679	416801	35.72	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0.08
H	1999 092733	Bonneville	Tanner Cr	05/31/01	26,680	832854	32.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
COOS RIVER																											
Coos River:																											
H	1989 075238	Butte Falls	Noble Cr	04/05/91	20,207	33305	34.89	0	0	0	0	0	0	0	2	41	91	12	34	2	113	0	0	0	0	0	1.46
N	1989 075428	Cole Rivers	Noble Cr	04/23/91	25,509	25509	35.99	0	0	12	0	0	0	0	4	37	52	4	30	9	101	0	0	0	0	0	0.98
M	1990 075610	Noble Creek	Noble Cr	04/27/92	20,645	31005	38.76	0	0	9	0	0	2	4	2	11	16	3	54	99	44	0	0	0	0	0	1.18
M	1991 076006	Butte Falls	Noble Cr	04/09/93	20,792	86030	42.78	0	0	20	0	4	0	0	0	0	0	0	0	0	3	86	0	0	0	0	0.54
M	1992 070247	Butte Falls	Noble Cr	04/13/94	24,986	41836	35.43	0	0	0	0	0	0	0	0	0	0	0	0	0	3	100	0	0	0	0	0.41
M	1993 075250	Noble Creek	Noble Cr	03/30/95	23,877	70871	34.86	0	0	4	0	2	0	0	0	0	0	0	0	6	5	41	0	0	0	0	0.24
M	1994 075332	Noble Creek	Noble Cr	03/26/96	25,348	65298	37.40	0	0	0	0	3	0	0	0	0	0	0	0	0	2	37	0	0	0	0	0.17
M	1995 071356	Cole Rivers	Noble Cr	03/31/97	26,211	70540	37.17	0	0	0	0	4	0	0	0	0	0	0	0	0	30	29	0	0	0	0	0.24
M	1996 092001	Noble Creek	Noble Cr	03/31/98	26,861	73799	39.10	0	0	0	0	3	0	0	0	0	3	0	0	0	1	94	0	0	0	0	0.38
M	1997 091921	Noble Creek	Noble Cr	03/30/99	25,624	118648	36.28	0	0	0	0	0	0	0	0	2	2	0	0	0	6	23	0	0	0	0	0.13
M	1998 092335	Noble Creek	Noble Cr	04/05/00	28,133	122350	41.24	0	0	0	0	0	0	0	2	0	8	0	0	0	61	215	0	0	0	0	1.02
H	1999 092955	Noble Creek	Noble Cr	03/30/01	26,343	119024	38.77	0	0	0	0	0	0	0	0	0	0	0	0	0	119	0	0	0	0	0	0.45
COQUILLE RIVER																											
Coquille River:																											
H	1989 075239	Bandon	Coquille R	04/25/91	24,237	95497	40.86	0	0	0	0	0	0	0	0	6	2	3	13	1	6	0	0	0	0	0	0.13
H	1990 075612	Bandon	Ferry Cr	04/29/92	26,175	49075	44.00	0	0	0	0	5	0	0	3	5	7	60	39	264	0	0	0	0	0	0	1.46
H	1991 076004	Butte Falls	Coquille R	05/06/93	25,565	43932	39.78	0	0	0	0	0	0	0	0	0	0	0	0	2	30	0	0	0	0	0	0.13

Appendix Table 1. Continued.

STOCK GROUP,		Ocean Catch																												
stock, (source H, N, M),		Release Date	Release Site	Number Released	Size (gm)	AK	NCBC	WCVI	GST	PS	WA	Oregon Areas					Freshwater Recoveries													
brood, tagcode Hatchery												CA	2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.						
COQUILLE RIVER (Continued)																														
Coquille River:																														
H	1992 070245	Bandon	Coquille R	23,398	49153	43.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.03		
H	1993 075248	Butte Falls	Sevemmile Cr	23,819	93545	37.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
M	1994 075736	Butte Falls	Sevemmile Cr	20,727	23575	39.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.03	
M	1995 070944	Bandon	Coquille R	23,361	26299	39.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.37	
M	1996 091962	Bandon	Ferry Cr	26,325	57731	38.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.90	
M	1997 091919	Butte Falls	Ferry Cr	27,751	28751	42.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.98	
M	1998 092435	Bandon	Ferry Cr	24,945	26207	41.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.15	
M	1999 092957	Bandon	Ferry Cr	25,688	25737	37.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.04	
EAST FORK TRASK RIVER																														
Trask River:																														
H	1989 074819	Trask R Pond	EF of SF Trask R	27,472	722883	32.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.36	
H	1990 075750	Trask R Pond	EF of SF Trask R	26,139	630346	35.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.59	
H	1991 074923	Trask R Pond	EF of SF Trask R	26,985	683133	37.17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.38	
H	1992 075137	Trask R Pond	EF of SF Trask R	25,234	844161	41.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.47	
EEL LAKE																														
Eel Lake:																														
H	1989 075432	Butte Falls	Eel Lk	23,060	86141	18.66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.04	
H	1989 075431	Butte Falls	Eel Lk	25,070	101567	32.86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.39	
H	1990 075614	Butte Falls	Eel Lk	26,129	100465	15.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.21	
H	1990 075613	Butte Falls	Eel Lk	26,276	83241	38.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.55	
H	1991 076005	Butte Falls	Eel Lk	24,316	120978	31.06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.04	
H	1992 070246	Butte Falls	Eel Lk	26,200	122950	34.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
KLASKANINE RIVER																														
Klaskanine River:																														
H	1989 074222	Klaskanine	Klaskanine R, NF	10,010	419711	40.13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.44	
H	1989 074517	Klaskanine	Klaskanine R, NF	10,228	419730	40.13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.72	
H	1989 074518	Klaskanine	Klaskanine R, NF	9,921	419456	40.13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.55	
H	1990 074520	Klaskanine	Klaskanine R, NF	10,874	341002	33.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.47	
H	1990 074644	Klaskanine	Klaskanine R, NF	10,627	340755	33.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.32	
H	1990 074645	Klaskanine	Klaskanine R, NF	9,640	339701	33.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.33	
H	1991 074832	Klaskanine	Klaskanine R, NF	25,977	848853	33.35	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.32	
H	1992 070362	Klaskanine	Klaskanine R, NF	26,574	831887	37.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.32	
H	1994 075415	Klaskanine	Klaskanine R, NF	24,974	837355	44.88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.52	
Kalama River:																														
H	1993 075262	Klaskanine	Klaskanine R, NF	26,279	1201313	43.99	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.51

Appendix Table 1. Continued.

STOCK GROUP,		Ocean Catch																								
stock, (source H, N, M),		Release Date	Number Released	Size (gm)	AK	NCBC	WCVI	GST	PS	WA	Oregon Areas					Freshwater Recoveries										
brood, tagcode	Hatchery										Release Site	Total	CA	2	3	4	5	6&7	CA	2	3	4	5	6+ Surv.		
METHOW RIVER																										
Tanner Creek:																										
H	1998 092721	Winthrop NFH	Methow R (WA)	05/15/00	26,523	199763	26.68	0	0	0	29	5	2	9	5	0	0	0	1	102	--	--	--	--	0.58	
H	1999 093011	Leavenworth NFH	Methow R (WA)	05/15/01	25,576	26083	23.87	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--	--	0.00	
NEHALEM RIVER																										
Fishhawk Lake (Nehalem River) :																										
H	1990 074932	Nehalem	Nehalem R, N Fk	02/14/92	26,918	137075	23.70	0	0	0	24	6	3	1	4	12	38	85	71	0	0	0	0	0	0.91	
H	1990 074935	Nehalem	Nehalem R, N Fk	04/13/92	26,918	626476	35.20	0	4	35	0	0	69	22	2	17	8	12	69	43	150	0	0	0	0	1.60
H	1993 075251	Nehalem	Nehalem R, N Fk	01/30/95	26,823	214335	25.31	0	0	0	7	0	0	0	0	0	0	0	1	26	0	0	0	0	0	0.13
H	1993 075252	Nehalem	Nehalem R, N Fk	04/15/95	26,559	575648	31.05	0	0	6	0	0	13	3	0	0	3	13	191	0	0	0	0	0	0	0.87
H	1996 092003	Nehalem	Nehalem R, N Fk	03/31/98	25,142	76980	32.63	0	0	0	0	6	2	0	4	1	0	0	118	142	0	0	0	0	--	1.09
H	1996 092002	Nehalem	Nehalem R, N Fk	04/24/98	24,164	63749	31.72	0	0	0	0	0	0	0	0	1	0	9	62	171	0	0	0	0	--	1.01
H	1999 092960	Nehalem	Nehalem R, N Fk	03/15/01	24,643	76472	29.65	0	0	0	0	0	0	0	0	0	0	0	107	--	--	--	--	--	--	0.43
H	1999 092961	Nehalem	Nehalem R, N Fk	04/16/01	24,777	77197	32.17	0	0	0	0	0	0	0	0	0	0	0	77	--	--	--	--	--	--	0.31
North Fork Nehalem & tribs:																										
H	1989 075424	Nehalem	Nehalem R, N Fk	03/04/91	27,549	171905	32.16	0	3	4	0	0	16	2	3	38	49	14	14	31	68	0	0	0	0	0.88
H	1989 075425	Nehalem	Nehalem R, N Fk	04/11/91	27,086	563940	31.06	0	0	6	0	0	15	0	21	48	53	6	25	12	93	0	0	0	0	1.03
H	1991 074918	Nehalem	Nehalem R, N Fk	03/03/93	27,486	130299	26.99	0	0	0	0	0	0	0	0	0	0	0	0	0	46	0	0	0	0	0.17
H	1991 074920	Nehalem	Nehalem R, N Fk	04/13/93	26,938	565166	31.06	0	0	6	0	0	0	0	0	0	0	0	0	0	170	0	0	0	0	0.65
H	1992 070316	Nehalem	Nehalem R, N Fk	02/28/94	26,148	212527	31.71	3	0	0	0	3	3	0	0	0	0	4	6	57	0	0	0	0	0	0.29
H	1992 070317	Nehalem	Nehalem R, N Fk	04/15/94	26,169	626987	31.94	0	0	0	0	4	3	0	0	0	0	9	1	88	0	0	0	0	0	0.40
H	1994 075339	Nehalem	Nehalem R, N Fk	03/15/96	26,472	136681	30.53	0	0	0	0	1	0	0	0	0	0	4	9	70	0	0	0	0	0	0.32
H	1994 075410	Nehalem	Nehalem R, N Fk	04/15/96	25,233	499838	31.61	0	0	0	0	5	0	0	0	0	0	0	6	113	0	0	0	0	0	0.49
H	1995 071331	Nehalem	Nehalem R, N Fk	03/14/97	25,556	113282	31.72	0	0	0	0	0	0	0	0	0	0	0	1	49	0	0	0	0	0	0.20
H	1995 091732	Nehalem	Nehalem R, N Fk	04/15/97	25,989	462874	32.87	0	0	0	0	0	0	0	0	0	0	0	6	2	92	0	0	0	0	0.39
H	1997 091924	Nehalem	Nehalem R, N Fk	03/15/99	26,387	77743	31.49	0	0	0	0	0	2	1	2	2	0	0	6	58	0	--	--	--	--	0.27
H	1997 091925	Nehalem	Nehalem R, N Fk	04/15/99	26,780	83015	35.16	0	0	0	0	0	1	0	0	1	0	0	1	60	0	--	--	--	--	0.24
H	1998 092723	Nehalem	Nehalem R, N Fk	03/15/00	25,691	78430	30.24	0	0	0	0	0	13	9	0	3	4	0	5	50	453	--	--	--	--	2.09
H	1998 092724	Nehalem	Nehalem R, N Fk	04/12/00	26,126	79036	32.87	0	0	0	0	5	31	2	0	3	7	0	0	36	708	--	--	--	--	3.03
NESTUCCA RIVER																										
Trask River:																										
H	1990 075731	Cedar Creek	Three R	05/21/92	23,847	42824	42.80	0	0	0	0	3	1	4	7	3	0	15	0	39	0	0	0	0	0	0.30
NORTH UMPQUA RIVER																										
Umpqua River:																										
H	1989 075242	Rock Creek	Rock Cr	04/19/91	27,758	75881	40.49	0	0	0	0	12	0	10	84	125	13	38	0	74	0	0	0	0	0	1.28
H	1989 075241	Rock Creek	Rock Cr	05/15/91	27,150	151981	46.28	0	0	44	0	3	0	8	64	217	12	50	1	115	0	0	0	0	0	1.89
M	1990 074937	Rock Creek	Rock Cr	04/04/92	26,151	77713	45.40	0	0	9	0	0	26	5	3	25	23	26	162	8	172	1	0	0	0	1.76

Appendix Table 1. Continued.

STOCK GROUP,		Ocean Catch																							
stock, (source H, N, M),		Release Date	Number Released	Size (gm)	Oregon Areas										Freshwater Recoveries %										
brood, tagcode	Hatchery				Release Site	CWT	Total	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.
NORTH UMPQUA RIVER (Continued)																									
Umpqua River:																									
M	1990 074938	Rock Creek	Rock Cr	25,964	77480	45.40	0	0	0	0	0	7	0	0	10	14	7	39	0	61	0	0	0	0.53	
H	1991 071422	Rock Creek	Rock Cr	25,267	76916	43.19	0	6	0	0	0	0	0	0	0	0	0	0	0	208	0	0	0	0	0.85
H	1991 071423	Rock Creek	Rock Cr	25,763	76685	46.28	0	8	0	0	0	0	0	0	0	0	0	0	0	96	0	0	0	0	0.40
H	1992 070319	Rock Creek	Rock Cr	27,419	75382	40.13	0	4	0	0	4	0	0	1	0	0	0	0	5	125	0	0	0	0	0.51
H	1992 070320	Rock Creek	Rock Cr	26,532	73758	44.03	0	6	0	0	2	3	0	0	0	0	0	0	6	0	61	0	0	0	0.29
H	1993 075260	Rock Creek	Rock Cr	25,380	69180	45.31	0	4	0	0	2	2	0	0	0	0	0	0	2	33	0	0	0	0	0.17
H	1993 075261	Rock Creek	Rock Cr	25,252	63313	46.71	0	1	0	0	4	0	0	0	0	1	0	4	0	34	0	0	0	0	0.17
H	1994 075411	Rock Creek	Rock Cr	23,623	77743	44.88	0	0	0	0	0	0	0	0	7	0	0	7	2	74	0	0	0	0	0.38
H	1994 075412	Rock Creek	Rock Cr	25,097	76075	45.33	0	0	0	0	0	0	0	0	0	0	0	3	1	49	1	0	0	0	0.22
H	1995 091811	Rock Creek	Rock Cr	24,700	52321	45.35	0	0	0	0	6	0	0	0	0	0	0	4	9	112	0	0	0	0	0.53
H	1995 091812	Rock Creek	Rock Cr	24,930	52452	45.35	0	0	0	0	1	0	0	0	0	5	0	0	5	105	0	0	0	0	0.47
H	1996 092004	Rock Creek	Rock Cr	27,017	73804	45.36	0	0	0	0	4	3	1	16	4	0	11	20	180	0	0	0	0	0	0.88
H	1996 092005	Rock Creek	Rock Cr	27,426	69761	45.82	0	0	0	0	6	0	0	0	0	2	0	0	4	68	0	0	0	0	0.29
H	1997 091926	Rock Creek	Rock Cr	28,181	42896	42.78	0	0	0	0	5	3	0	27	4	0	0	7	45	0	0	0	0	0	0.32
H	1997 091918	Rock Creek	Rock Cr	28,595	71242	45.35	0	0	0	0	15	12	0	34	26	3	0	8	96	0	0	0	0	0	0.68
H	1998 092725	Rock Creek	Rock Cr	25,578	52353	46.28	0	0	0	0	29	14	4	8	35	0	9	0	27	0	0	0	0	0	0.49
H	1998 092661	Butte Falls	Rock Cr	23,718	65350	45.82	0	0	0	0	3	18	0	2	14	0	0	4	6	0	0	0	0	0	0.20
M	1999 093208	Rock Creek	Rock Cr	24,929	50219	36.58	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.00
ROGUE RIVER																									
Rogue River:																									
H	1989 075531	Cole Rivers	Rogue R	26,184	47850	31.28	0	0	0	0	3	0	1	0	14	3	12	12	128	0	0	0	0	0	0.66
H	1990 075615	Cole Rivers	Rogue R	27,154	208340	42.80	0	0	0	0	0	0	0	0	0	3	14	5	81	0	0	0	0	0	0.38
H	1991 071527	Cole Rivers	Rogue R	51,398	52721	44.46	0	6	0	0	0	0	0	0	0	0	0	144	1507	0	0	0	0	0	3.22
H	1991 071528	Cole Rivers	Rogue R	51,413	52576	44.90	0	0	0	0	0	0	0	0	0	0	0	3	151	1567	2	0	0	0	3.35
H	1991 071526	Cole Rivers	Rogue R	50,706	52682	47.74	0	0	0	0	0	0	0	0	0	0	0	2	212	1573	0	0	0	0	3.52
H	1991 075950	Cole Rivers	Rogue R	26,269	28894	46.75	0	0	0	0	0	0	0	0	0	0	0	5	101	732	0	0	0	0	3.19
H	1992 076356	Cole Rivers	Rogue R	25,477	26306	42.79	0	0	0	0	3	0	0	0	0	0	0	6	0	136	1090	0	0	0	4.85
H	1992 076357	Cole Rivers	Rogue R	25,150	25904	42.79	0	0	0	0	0	0	0	0	0	0	0	6	106	1071	0	0	0	0	4.70
H	1992 076358	Cole Rivers	Rogue R	23,816	24530	42.79	0	0	0	0	0	0	0	0	1	0	0	8	100	1045	0	0	0	0	4.85
H	1992 076354	Cole Rivers	Rogue R	25,626	26571	43.20	0	0	0	0	1	4	0	1	0	0	0	14	88	1038	0	0	0	0	4.47
H	1992 076355	Cole Rivers	Rogue R	25,555	26497	43.20	0	0	0	0	0	0	0	0	0	0	0	4	88	930	0	0	0	0	4.00
H	1992 076359	Cole Rivers	Rogue R	24,911	25622	45.82	0	0	0	0	0	0	0	0	1	0	2	7	91	1085	0	0	0	0	4.76
H	1992 076360	Cole Rivers	Rogue R	25,712	26447	45.82	0	0	0	0	0	0	0	0	0	0	3	11	105	1145	0	0	0	0	4.92
H	1993 070643	Cole Rivers	Rogue R	25,624	25988	43.61	0	0	0	0	0	0	0	0	0	0	0	4	83	1019	0	0	0	0	4.32
H	1993 070644	Cole Rivers	Rogue R	26,143	26514	43.61	0	0	0	0	0	0	0	0	0	0	0	0	80	917	0	0	0	0	3.81
H	1993 070641	Cole Rivers	Rogue R	25,224	26220	44.04	0	0	0	0	1	0	0	0	0	0	3	0	93	1014	0	0	0	0	4.40
H	1993 070642	Cole Rivers	Rogue R	25,529	26537	44.04	0	0	0	0	0	0	0	0	0	0	0	0	97	872	0	0	0	0	3.80

Appendix Table 1. Continued.

STOCK GROUP,		Ocean Catch																						
stock, (source H, N, M),		Release Date	Number Released	Size (gm)	AK	NCBC	WCVI	GST	PS	WA			1&2			Oregon Areas			Freshwater Recoveries			% Surv.		
brood, tagcode	Hatchery									Release Site	CWT	Total	CA	2	3	4	5	6&7	3	4	5		6+	
ROGUE RIVER (Continued)																								
Rogue River:																								
H	1993 070646	Cole Rivers	Rogue R	26,783	26907	43.20	0	0	0	0	2	0	0	0	0	3	6	69	1005	0	0	0	4.05	
H	1993 070640	Cole Rivers	Rogue R	25,485	26015	44.91	0	0	0	0	0	0	0	0	0	0	0	107	938	1	0	0	4.10	
M	1994 071221	Cole Rivers	Rogue R	104,419	107441	41.98	0	0	0	0	0	0	0	0	2	7	7	408	3947	1	0	0	4.19	
M	1994 071116	Cole Rivers	Rogue R	96,712	96922	39.23	0	0	0	0	3	0	0	0	0	8	27	301	3454	0	0	0	3.92	
M	1995 071044	Cole Rivers	Rogue R	26,907	166790	43.20	0	0	0	0	0	0	0	0	0	0	0	114	350	0	0	0	1.72	
H	1996 092263	Cole Rivers	Rogue R	28,012	187896	45.36	0	0	0	0	0	0	0	0	0	0	4	102	522	0	0	--	2.25	
H	1997 092541	Cole Rivers	Rogue R	25,859	180994	44.46	0	0	0	0	0	0	0	0	7	0	4	108	987	0	--	--	4.28	
M	1998 092910	Cole Rivers	Rogue R	26,262	146457	43.20	0	0	0	0	0	0	0	3	10	0	0	339	1	--	--	--	1.34	
M	1999 093150	Cole Rivers	Rogue R	26,956	182876	44.47	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--	--	--	0.00
SALMON RIVER																								
Salmon River:																								
H	1989 074831	Salmon River	Salmon R	26,235	505175	35.16	0	0	4	0	0	6	0	6	15	14	0	3	3	27	0	0	0	0.30
H	1990 074922	Salmon River	Salmon R	27,226	255933	38.10	0	0	6	0	11	5	1	15	2	7	11	27	74	0	0	0	0	0.58
H	1991 076008	Salmon River	Salmon R	25,548	405164	39.78	0	0	10	0	0	0	0	0	0	0	0	0	70	0	0	0	0	0.31
H	1992 070260	Salmon River	Salmon R	19,553	403118	42.78	0	0	0	0	5	4	0	0	0	0	2	13	25	0	0	0	0	0.25
H	1993 075253	Salmon River	Salmon R	25,050	316281	42.35	0	0	8	0	2	0	0	0	0	0	0	4	87	0	0	0	0	0.40
H	1994 075331	Salmon River	Salmon R	25,993	322200	40.43	0	0	0	0	0	0	0	0	0	0	0	8	52	0	0	0	0	0.23
H	1995 071240	Salmon River	Salmon R	21,399	200206	50.96	2	0	0	0	6	0	0	0	0	0	0	10	109	0	0	0	0	0.59
H	1996 091960	Salmon River	Salmon R	25,045	118361	48.77	0	0	0	0	6	2	0	7	0	0	0	18	152	0	0	--	--	0.74
SANDY RIVER																								
Sandy River:																								
H	1989 075540	Sandy	Cedar Cr	25,450	64209	29.07	0	5	4	0	0	13	0	10	6	22	0	0	6	67	0	0	0	0.52
H	1989 075541	Sandy	Cedar Cr	26,963	63346	29.64	0	0	3	0	0	6	6	8	6	26	0	2	7	66	0	0	0	0.48
H	1989 075543	Sandy	Cedar Cr	26,586	55261	30.23	0	0	0	0	0	90	30	32	242	136	3	2	13	655	0	0	0	4.52
H	1989 075547	Sandy	Cedar Cr	25,863	58240	30.44	0	0	3	3	0	87	30	31	222	128	6	4	8	579	0	0	0	4.26
H	1990 075720	Sandy	Cedar Cr	28,699	29130	29.80	0	0	10	0	62	30	3	4	3	0	18	3	139	0	0	0	0	0.95
H	1990 075724	Sandy	Cedar Cr	28,368	28797	29.80	0	0	3	0	0	71	21	1	12	2	4	10	2	145	0	0	0	0.96
H	1990 075725	Sandy	Cedar Cr	28,377	355669	30.00	0	0	0	0	0	0	0	0	1	0	0	0	0	3	0	0	0	0.01
H	1990 075726	Sandy	Cedar Cr	27,553	369409	30.00	0	0	0	0	6	0	0	0	0	0	0	0	0	2	0	0	0	0.03
H	1991 075951	Sandy	Cedar Cr	52,320	247121	30.44	0	0	27	4	0	0	0	0	0	0	0	5	1	473	0	0	0	0.97
H	1991 071531	Sandy	Cedar Cr	27,473	259210	30.23	0	0	13	4	0	0	0	0	0	0	0	0	0	219	0	0	0	0.86
H	1991 071532	Sandy	Cedar Cr	27,003	260055	30.23	0	0	23	0	0	0	0	0	0	0	0	0	0	197	0	0	0	0.81
H	1992 075126	Sandy	Cedar Cr	22,071	54611	22.68	0	0	0	0	11	3	0	0	0	0	0	0	0	50	0	0	0	0.29
H	1992 074933	Sandy	Cedar Cr	23,758	170622	24.00	0	0	0	0	7	3	2	0	0	0	0	0	1	49	0	0	0	0.26
H	1992 070239	Sandy	Cedar Cr	48,070	272188	30.23	0	0	20	0	0	24	0	0	0	0	0	0	1	65	0	0	0	0.23
H	1992 074934	Sandy	Cedar Cr	22,862	59590	30.44	0	0	29	0	0	25	4	0	0	0	0	0	0	120	0	0	0	0.78

Appendix Table 1. Continued.

STOCK GROUP,		Ocean Catch																					
stock, (source H, N, M),		Release Date	Number Released	Size (gm)	AK	NCBC	WCVI	GST	PS	Oregon Areas			Freshwater Recoveries			% Surv.							
brood, tagcode	Hatchery									Release Site	CWT	Total	WA	1&2	3		4	5	6&7	CA	2	3	4
SANDY RIVER (Continued)																							
Sandy River:																							
H	1992 075127	Sandy	Cedar Cr	23,046	241271	30.85	0	0	24	0	0	25	0	0	0	0	109	0	0	0	0	0.69	
H	1993 070552	Sandy	Cedar Cr	50,982	54686	32.87	0	0	4	0	0	22	0	0	0	0	12	259	0	0	0	0.58	
H	1993 070551	Sandy	Cedar Cr	55,510	57924	30.04	0	0	0	0	0	6	0	0	0	0	0	49	0	0	0	0.10	
H	1994 070839	Sandy	Cedar Cr	27,601	70156	30.53	0	0	0	0	0	0	2	0	0	0	9	36	0	0	0	0.17	
H	1994 070840	Sandy	Cedar Cr	27,221	69120	31.17	0	0	0	0	0	0	0	0	0	0	3	7	38	0	0	0.18	
H	1994 070837	Sandy	Cedar Cr	27,133	124717	30.53	0	0	0	0	0	0	0	0	0	4	0	13	106	0	0	0.45	
H	1994 070838	Sandy	Cedar Cr	27,393	124797	31.38	0	0	0	0	0	6	0	0	0	0	16	131	0	0	0	0.56	
H	1995 070843	Sandy	Cedar Cr	27,492	194817	29.26	0	0	0	0	0	2	0	0	0	0	4	141	0	0	0	0.53	
H	1995 070844	Sandy	Cedar Cr	27,516	195252	29.45	0	0	0	0	0	6	7	0	0	0	4	161	0	0	0	0.65	
H	1995 091838	Sandy	Cedar Cr	29,353	233740	30.03	0	0	0	0	0	2	7	0	0	0	1	211	0	0	0	0.75	
H	1996 092332	Sandy	Cedar Cr	29,251	135391	29.65	0	0	0	0	0	14	5	0	2	0	0	14	147	0	0	0.62	
H	1996 092333	Sandy	Cedar Cr	29,827	120211	31.28	0	0	0	0	0	11	3	0	0	2	0	1	68	0	0	0.29	
H	1997 092432	Sandy	Cedar Cr	26,816	364796	30.44	0	0	0	0	0	47	15	0	23	9	0	23	476	0	0	2.25	
H	1997 092433	Sandy	Cedar Cr	27,760	232964	31.71	0	0	0	0	0	11	20	0	2	3	0	9	351	0	0	1.43	
H	1998 092727	Sandy	Cedar Cr	26,306	402526	30.24	0	0	0	0	0	80	26	5	10	19	0	19	613	0	0	2.94	
H	1998 092728	Sandy	Cedar Cr	26,491	332020	30.77	0	0	0	0	0	110	35	2	25	32	0	11	662	0	0	3.31	
H	1999 093218	Sandy	Cedar Cr	26,532	365588	30.65	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0.04	
H	1999 093221	Sandy	Cedar Cr	26,462	254724	31.50	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0.01	
SILETZ RIVER																							
Siletz River:																							
H	1989 074829	Salmon River	Rock Cr, L	25,229	528833	30.85	0	0	5	0	0	5	0	0	30	15	0	9	0	41	0	0	0.42
H	1989 074830	Salmon River	Siletz R	24,505	458606	32.63	0	0	0	0	0	7	0	1	7	5	0	6	0	2	0	0	0.11
H	1990 074921	Salmon River	Rock Cr, L	26,985	403303	31.30	0	0	0	0	0	9	4	7	1	10	0	31	7	91	0	0	0.59
H	1990 074919	Salmon River	Siletz R	26,460	376541	30.90	0	0	0	0	0	0	0	0	0	0	3	6	0	3	0	0	0.05
H	1991 071519	Salmon River	Rock Cr, L	24,852	371014	31.06	0	0	4	0	0	0	0	0	0	0	0	0	45	0	0	0	0.20
H	1991 071520	Salmon River	Siletz R	25,560	374192	31.06	0	0	3	0	0	0	0	0	0	0	0	0	5	0	0	0	0.03
H	1992 070259	Salmon River	Rock Cr, L	25,062	420338	35.16	0	0	0	0	0	0	0	0	0	0	0	1	34	0	0	0	0.14
H	1992 070258	Salmon River	Rock Cr, L	24,402	400492	38.11	0	0	0	0	0	0	0	1	0	0	0	0	6	0	0	0	0.03
H	1993 075254	Salmon River	Rock Cr, L	25,878	312144	39.75	0	0	0	0	0	0	0	0	0	0	0	5	0	23	0	0	0.11
SILETZ RIVER, SALMON RIVER RELEASE																							
Siletz River:																							
H	1996 092150	Salmon River	Salmon & Siletz	11,092	112378	42.79	0	0	0	0	0	0	0	0	0	0	0	4	6	57	0	0	0.60
H	1996 092151	Salmon River	Salmon R	15,986	162282	53.36	0	0	0	0	0	10	0	2	2	0	0	16	130	0	0	0	1.00
H	1997 091923	Salmon River	Salmon R	26,089	85402	41.45	0	0	0	0	0	0	0	0	6	5	0	4	50	0	0	0.25	
H	1998 092722	Salmon River	Salmon R	9,318	9626	51.54	0	0	0	0	0	0	0	0	3	6	0	8	142	0	0	1.71	
H	1999 092959	Salmon River	Salmon R	24,146	173834	43.20	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0.01	

Appendix Table 1. Continued.

STOCK GROUP,		Ocean Catch										Freshwater Recoveries														
stock, (source H, N, M),		Release Date	Number Released	Size (gm)	CWT	Total	AK	NCBC	WCVI	GST	PS	Oregon Areas					Freshwater Recoveries									
brood, tagcode Hatchery												Release Site	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.	
SIUSLAW RIVER																										
Tabkenitch Lake:																										
N	1990 075817	Fall Creek	Siusslaw R	02/24/92	26,081	27360	31.50	0	6	0	0	9	11	2	6	2	4	36	2	31	0	0	0	0	0	0.42
N	1991 076009	Fall Creek	Siusslaw R	03/22/93	25,013	54782	27.49	0	0	0	0	0	0	0	0	0	0	0	0	1	14	0	0	0	0	0.06
N	1992 070363	Fall Creek	Siusslaw R	02/17/94	24,585	51319	28.34	0	3	0	0	5	0	2	0	0	11	7	8	0	0	0	0	0	0	0.15
N	1993 070763	Fall Creek	Siusslaw R	02/09/95	25,273	54407	31.48	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.00
N	1994 075338	Fall Creek	Siusslaw R	03/07/96	25,091	48758	29.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
Siusslaw River:																										
H	1995 076113	Fall Creek	Siusslaw R	02/18/97	29,181	45670	31.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
SMITH RIVER																										
Umpqua River:																										
N	1990 075019	Gardiner Cr	Gardiner Cr	03/11/92	14,671	14671	50.39	0	0	0	0	5	5	0	7	8	0	12	0	27	0	0	0	0	0	0.44
H	1991 074453	Gardiner Cr	Gardiner Cr	03/17/93	12,140	12201	45.36	0	5	0	0	0	0	0	0	0	0	0	1	19	0	0	0	0	0	0.21
Smith River:																										
M	1994 070451	Gardiner Cr	Gardiner Cr	04/08/96	10,336	10438	56.69	0	0	0	0	0	0	0	0	0	0	7	0	3	0	0	0	0	0	0.10
M	1995 092125	Gardiner Cr	Gardiner Cr	04/15/97	12,674	12674	45.35	0	0	0	0	3	0	0	0	0	0	0	0	59	0	0	0	0	0	0.49
SOUTH UMPQUA RIVER																										
Umpqua River:																										
H	1989 075240	Butte Falls	Umpqua R, S Fk	04/10/91	25,075	142487	39.78	0	0	0	0	7	0	18	59	101	10	35	0	12	0	0	0	0	0	0.97
M	1990 075609	Butte Falls	Umpqua R, S Fk	04/23/92	26,287	133916	45.40	0	2	0	0	13	2	0	11	9	3	27	0	31	0	0	0	0	0	0.37
Cow Creek (South Umpqua):																										
M	1991 076007	Butte Falls	Umpqua R, S Fk	05/07/93	27,462	132234	44.46	0	3	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	0.09
M	1992 070248	Butte Falls	Umpqua R, S Fk	05/13/94	24,893	129253	44.46	0	0	0	0	5	0	0	0	0	0	0	0	14	0	0	0	0	0	0.08
M	1993 075249	Butte Falls	Umpqua R, S Fk	05/10/95	22,051	130153	43.99	0	0	0	0	0	2	0	0	0	0	4	0	34	0	0	0	0	0	0.18
M	1994 070533	Butte Falls	Umpqua R, S Fk	05/07/96	21,216	123367	39.72	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0.08
M	1995 070945	Butte Falls	Umpqua R, S Fk	05/07/97	23,329	134006	45.82	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0.01
M	1996 091963	Butte Falls	Umpqua R, S Fk	05/08/98	28,005	131897	44.47	0	0	0	0	0	0	0	0	2	0	0	1	5	0	0	0	0	0	0.03
M	1997 091920	Butte Falls	Umpqua R, S Fk	05/07/99	28,417	68472	47.24	0	0	0	0	9	0	0	10	11	0	0	4	20	0	0	0	0	0	0.19
M	1998 092436	Butte Falls	Umpqua R, S Fk	05/05/00	25,103	62624	44.04	0	0	0	0	5	2	2	2	5	13	0	3	0	10	0	0	0	0	0.17
TRASK RIVER																										
Trask River:																										
H	1989 075556	Trask	Trask R	04/22/91	25,964	167089	37.48	0	4	0	0	9	0	18	53	31	13	18	11	95	0	0	0	0	0	0.97
H	1989 075557	Trask	Trask R	05/07/91	24,235	176594	41.23	0	10	0	0	19	10	7	34	56	8	10	4	74	0	0	0	0	0	0.96
H	1990 075752	Trask	Trask R	04/20/92	25,404	201631	43.20	0	4	0	0	29	7	1	4	10	0	27	22	102	0	0	0	0	0	0.81
H	1990 075751	Trask	Trask R	05/08/92	24,679	205964	45.40	0	0	0	0	5	5	0	3	3	0	29	7	47	0	0	0	0	0	0.40
H	1991 074927	Trask	Trask R	04/20/93	27,004	202093	45.35	0	0	0	0	0	0	0	0	0	0	1	3	126	0	0	0	0	0	0.48
H	1991 074924	Trask	Trask R	05/10/93	26,597	206125	46.75	0	3	0	0	0	0	0	0	0	0	0	2	113	0	0	0	0	0	0.44

Appendix Table 1. Continued.

STOCK GROUP,		Ocean Catch																				
stock, (source H, N, M),		Release Date	Number Released	Size (gm)	AK	NCBC	WCVI	GST	PS	Oregon Areas					Freshwater Recoveries			% Surv.				
brood, tagcode	Hatchery									Release Site	CWT	Total	WA	1&2	3	4	5		6&7	CA	2	3
TRASK RIVER (Continued)																						
Trask River:																						
H	1992 075138	Trask	Trask R	25,506	205293	44.90	0	0	0	0	32	11	0	0	0	2	7	253	0	0	0	1.20
H	1992 075139	Trask	Trask R	25,073	202255	43.61	0	0	0	3	0	0	0	0	0	0	1	115	0	0	0	0.47
H	1993 070853	Trask	Trask R	214,790	216610	44.42	0	5	0	0	13	2	7	0	0	0	201	902	0	0	0	0.53
H	1994 071137	Trask	Trask R	26,357	201098	44.44	0	0	0	3	0	0	0	0	0	0	25	132	0	0	0	0.61
H	1995 071318	Trask	Trask R	23,229	144533	47.25	0	0	0	11	0	0	0	0	0	0	41	229	0	0	0	1.21
H	1996 091961	Trask	Trask R	25,918	212525	45.36	4	0	0	12	5	1	4	7	0	0	95	432	0	0	0	2.21
H	1997 091917	Trask	Trask R	26,220	189230	50.39	0	0	0	19	15	4	22	13	0	0	122	516	0	0	0	2.71
H	1998 092304	Trask	Trask R	26,664	196385	47.75	0	0	0	4	64	36	17	13	23	0	8	736	1986	0	0	10.87
H	1999 092954	Trask	Trask R	27,151	194634	50.97	0	0	0	0	0	0	0	0	0	0	110	0	0	0	0	0.43
TROJAN POND																						
Sandy River:																						
H	1989 075539	Trojan Pond	Columbia R-1	27,206	120655	27.65	0	0	0	6	2	4	15	7	0	0	3	18	0	0	0	0.20
H	1991 076126	Trojan Pond	Columbia R-1	27,809	263571	32.16	0	0	16	0	2	0	0	0	0	0	0	41	0	0	0	0.21
TUALATIN RIVER																						
Big Creek:																						
H	1991 076025	Big Creek	Tualatin R	26,885	60052	30.85	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0.04
H	1992 075154	Big Creek	Tualatin R	26,533	60239	29.45	0	0	0	1	4	0	0	0	0	0	0	1	0	0	0	0.02
H	1993 075263	Big Creek	Tualatin R	26,303	59250	32.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1994 075334	Big Creek	Tualatin R	26,426	59919	32.06	0	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0.09
H	1995 091813	Big Creek	Tualatin R	25,272	60000	31.72	0	0	0	1	2	0	0	0	0	0	0	2	0	0	0	0.02
H	1996 092417	Big Creek	Tualatin R	27,719	60152	32.40	0	0	0	0	0	0	2	0	0	0	0	15	0	0	0	0.06
UMATILLA RIVER																						
Tanner Creek:																						
H	1989 075535	Cascade	Umatilla R	24,584	152974	29.45	0	0	0	15	2	0	11	2	0	0	4	15	0	0	0	0.20
H	1989 075533	Cascade	Umatilla R	25,407	377967	27.16	0	0	0	10	2	0	9	0	0	0	3	15	0	0	0	0.15
H	1989 075534	Cascade	Umatilla R	25,338	378485	27.16	0	0	0	4	0	0	10	3	0	0	8	18	0	0	0	0.17
H	1990 075622	Cascade	Umatilla R	27,458	244550	28.70	0	0	4	0	4	19	1	0	3	6	0	18	3	149	0	0.75
H	1990 075621	Cascade	Umatilla R	27,705	244615	28.90	0	0	0	0	42	8	2	9	12	10	18	1	193	0	0	1.06
H	1990 075620	Cascade	Umatilla R	27,908	472221	29.40	0	0	3	0	16	12	0	1	14	4	11	2	134	0	0	0.71
H	1991 071522	Cascade	Umatilla R	27,821	218618	25.92	0	0	0	0	0	0	0	0	0	0	0	2	71	0	0	0.26
H	1991 071523	Cascade	Umatilla R	27,984	219266	25.92	0	4	0	0	2	0	0	0	0	0	0	43	0	0	0	0.18
H	1991 071521	Cascade	Umatilla R	28,273	454794	25.77	0	0	0	0	0	0	0	0	0	0	2	54	0	0	0	0.20
H	1992 070337	Cascade	Umatilla R	27,166	418222	25.06	0	0	5	0	6	0	0	0	0	0	4	47	0	0	0	0.23
H	1992 070339	Cascade	Umatilla R	27,010	232778	26.52	0	0	0	0	5	6	0	0	0	0	3	42	0	0	0	0.21
H	1992 070338	Cascade	Umatilla R	27,452	233105	26.68	0	0	0	0	16	0	0	0	0	0	4	62	0	0	0	0.30

Appendix Table 1. Continued.

STOCK GROUP,		Ocean Catch																
stock, (source H, N, M),		Release Date	Number Released	Size (gm)	AK	NCBC	WCVI	GST	PS	Oregon Areas			Freshwater Recoveries			% Surv.		
brood, tagcode	Hatchery									Release Site	CWT	Total	WA	1&2	3		4	5
UMATILLA RIVER (Continued)																		
Tanner Creek:																		
H	1993 070559	Cascade	Umatilla R	26,498	497449	31.26	0	0	0	0	0	0	0	0	0	0	0	0.04
H	1993 070557	Cascade	Umatilla R	26,421	250970	30.83	0	0	0	0	0	0	0	0	0	0	0	0.06
H	1993 070558	Cascade	Umatilla R	26,381	251135	30.83	0	0	0	0	0	0	0	0	0	0	0	0.09
H	1994 071150	Oxbow	Umatilla R	26,860	465769	25.07	0	0	0	0	0	0	0	0	0	0	0	0.02
H	1994 071146	Cascade	Umatilla R	26,319	500005	24.93	0	0	0	0	0	0	0	0	0	0	0	0.07
H	1994 071145	Cascade	Umatilla R	25,878	511609	24.13	0	0	0	0	0	0	0	0	0	0	0	0.07
H	1995 071361	Klaskanine	Umatilla R	11,107	31921	25.06	0	0	0	0	0	0	0	0	0	0	0	0.04
H	1995 071362	Klaskanine	Umatilla R	2,693	8209	25.06	0	0	0	0	0	0	0	0	0	0	0	0.15
H	1995 071363	Klaskanine	Umatilla R	7,950	22889	25.06	0	0	0	0	0	0	0	0	0	0	0	0.01
H	1995 091805	Klaskanine	Umatilla R	7,923	10503	25.06	0	0	0	0	0	0	0	0	0	0	0	0.03
H	1995 091753	Gnat Creek	Umatilla R	26,892	853688	29.64	0	0	0	0	0	0	0	0	0	0	0	0.49
H	1996 092308	Oxbow	Umatilla R	26,759	528360	27.83	0	0	0	0	0	0	0	0	0	0	0	0.20
H	1996 092309	Cascade	Umatilla R	26,791	526082	27.00	0	0	0	0	0	0	0	0	0	0	0	0.32
H	1996 092313	Cascade	Umatilla R	26,020	525304	27.00	0	0	0	0	0	0	0	0	0	0	0	0.62
H	1997 092423	Cascade	Umatilla R	26,693	465314	28.70	0	0	0	0	0	0	0	0	0	0	0	0.26
H	1997 092424	Cascade	Umatilla R	27,211	477588	25.20	0	0	0	0	0	0	0	0	0	0	0	0.33
H	1997 092425	Cascade	Umatilla R	26,800	505650	25.62	0	0	0	0	0	0	0	0	0	0	0	0.20
H	1998 092717	Pendelton Acc	Umatilla R	26,528	513288	27.00	0	0	0	0	0	0	0	0	0	0	0	0.72
H	1998 092718	Cascade	Umatilla R	26,112	222462	27.00	0	0	0	0	0	0	0	0	0	0	0	0.39
H	1998 092719	Cascade	Umatilla R	26,370	798210	29.84	0	0	0	0	0	0	0	0	0	0	0	1.69
H	1999 093007	Cascade	Umatilla R	26,599	478739	25.92	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1999 093009	Cascade	Umatilla R	26,058	223025	25.92	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1999 093008	Cascade	Umatilla R	26,474	745497	33.11	0	0	0	0	0	0	0	0	0	0	0	0.00
Umatilla River:																		
H	1995 071360	Oxbow	Umatilla R	24,942	438153	28.34	3	0	0	0	0	0	0	0	0	0	0	0.28
WAHKEENA POND																		
Sandy River:																		
H	1992 071529	Wahkeena Pond	Columbia R-2	23,472	1503732	23.14	0	0	0	0	0	0	0	0	0	0	0	0.03
Tanner Creek:																		
H	1989 074861	Wahkeena Pond	Wahkeena Pond	10,154	366918	23.74	0	0	0	0	0	0	0	0	0	0	0	0.03
H	1989 074862	Wahkeena Pond	Wahkeena Pond	9,794	366539	23.74	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1989 074863	Wahkeena Pond	Wahkeena Pond	10,027	366787	23.74	0	0	0	0	0	0	0	0	0	0	0	0.03
H	1990 074045	Wahkeena Pond	Wahkeena Pond	9,456	633436	28.90	0	0	0	0	0	0	0	0	0	0	0	0.42
H	1990 074046	Wahkeena Pond	Wahkeena Pond	9,241	633211	28.90	0	0	0	0	0	0	0	0	0	0	0	0.24
H	1990 074047	Wahkeena Pond	Wahkeena Pond	9,376	633353	28.90	0	0	0	0	0	0	0	0	0	0	0	0.38
H	1991 073728	Wahkeena Pond	Columbia R-2	11,910	749707	25.20	0	0	0	0	0	0	0	0	0	0	0	0.32
H	1991 074853	Wahkeena Pond	Columbia R-2	12,535	750071	25.20	0	0	0	0	0	0	0	0	0	0	0	0.40

Appendix Table 1. Concluded.

STOCK GROUP,		Ocean Catch																								
stock, (source H, N, M),		Release Date	Number Released	Size (gm)	AK	NCBC	WCVI	GST	PS	WA	Oregon Areas					Freshwater Recoveries										
brood, tagcode	Hatchery										Release Site	Total	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.		
WENATCHEE RIVER																										
Tanner Creek:																										
H	1998 092720	Leavenworth NFH	Icicle Cr	05/24/00	26,367	498716	23.87	0	0	0	0	29	26	3	5	12	0	0	0	0	136	--	--	--	0.80	
YAKIMA RIVER																										
Tanner Creek:																										
H	1989 075538	Cascade	Yakima R	03/06/91	25,267	252022	23.50	0	0	0	0	8	6	0	16	0	0	0	0	0	14	0	0	0	0	0.17
H	1989 075537	Cascade	Yakima R	03/07/91	25,882	246908	25.06	0	0	0	0	3	0	0	3	0	0	0	0	0	6	0	0	0	0	0.05
H	1989 075536	Cascade	Yakima R	03/08/91	26,783	191501	25.77	0	4	0	0	5	9	3	14	8	0	0	0	0	25	0	0	0	0	0.25
H	1990 075625	Cascade	Yakima R	03/09/92	27,289	154219	29.10	0	0	0	0	5	2	2	0	4	0	1	0	12	0	0	0	0	0	0.10
H	1990 075624	Cascade	Yakima R	03/10/92	27,249	223344	27.50	0	0	0	0	5	6	3	1	0	0	4	0	17	0	0	0	0	0	0.13
H	1990 075623	Cascade	Yakima R	03/12/92	28,255	320244	27.30	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0.02
H	1991 071524	Cascade	Yakima R	03/17/93	27,423	214419	23.14	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0.07
H	1991 071525	Cascade	Yakima R	03/17/93	27,754	214601	23.14	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0.01
H	1991 071530	Cascade	Yakima R	03/17/93	28,091	214821	23.14	0	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0.07
H	1992 070340	Cascade	Yakima R	05/06/94	25,468	269107	31.94	0	0	0	0	9	4	0	0	0	0	0	0	13	0	0	0	0	0	0.10
H	1992 070341	Cascade	Yakima R	05/06/94	25,985	269408	31.94	0	0	0	0	10	3	0	0	0	0	0	0	16	0	0	0	0	0	0.11
H	1992 070342	Cascade	Yakima R	05/06/94	26,901	172059	35.99	0	6	0	0	33	6	0	0	0	0	0	0	12	0	0	0	0	0	0.21
H	1993 070554	Cascade	Yakima R	04/26/95	22,851	186464	31.48	0	0	0	0	3	0	0	0	0	0	4	0	13	0	0	0	0	0	0.09
H	1993 070555	Cascade	Yakima R	04/26/95	20,031	183732	31.48	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0.08
H	1993 070556	Cascade	Yakima R	04/26/95	19,133	195420	31.48	0	0	0	0	5	0	0	0	0	0	0	0	13	0	0	0	0	0	0.09
H	1994 071147	Cascade	Yakima R	04/30/96	26,733	193628	29.92	0	0	0	0	1	0	0	0	0	0	0	0	21	0	0	0	0	0	0.08
H	1994 071148	Cascade	Yakima R	04/30/96	26,135	193275	29.92	0	0	0	0	0	0	0	0	0	0	0	0	34	0	0	0	0	0	0.13
H	1994 071149	Cascade	Yakima R	04/30/96	26,538	193476	29.92	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0.03
H	1996 092310	Cascade	Yakima R	05/16/98	27,046	224253	41.23	0	0	0	0	13	5	2	0	0	0	0	0	28	0	0	0	0	0	0.18
H	1996 092311	Cascade	Yakima R	05/16/98	26,932	224137	41.23	0	0	0	0	3	0	0	0	2	0	0	1	25	0	0	0	0	0	0.12
H	1996 092312	Cascade	Yakima R	05/16/98	26,930	224082	41.23	0	0	0	0	13	5	0	3	0	0	0	0	45	0	0	0	0	0	0.25
H	1997 092426	Cascade	Yakima R	05/17/99	26,639	204017	26.68	0	0	0	0	11	5	0	12	5	0	12	5	1	51	0	0	0	0	0.32
H	1997 092427	Cascade	Yakima R	05/17/99	26,054	247724	26.68	0	0	0	0	3	11	0	14	9	0	14	9	0	97	0	0	0	0	0.52
YAQUINA RIVER																										
Siletz River:																										
H	1993 075255	Salmon River	Yaquina R	04/15/95	25,432	306402	42.75	0	0	0	0	7	3	0	0	0	0	7	9	250	0	0	0	0	0	1.09
H	1994 071224	Salmon River	Yaquina R	04/18/96	19,559	263167	43.57	0	0	0	0	2	0	0	0	0	0	3	8	132	0	0	0	0	0	0.74
H	1994 075416	Salmon River	Yaquina R	05/20/96	21,377	276214	44.88	0	0	0	0	3	0	0	0	0	0	0	6	31	0	0	0	0	0	0.19
H	1995 091714	Salmon River	Yaquina R	05/05/97	20,055	216654	51.54	0	0	0	0	2	9	0	0	0	0	3	4	83	0	0	0	0	0	0.50
H	1995 091713	Salmon River	Yaquina R	05/05/97	20,339	193889	53.36	0	0	0	0	0	2	0	0	0	0	0	13	92	0	0	0	0	0	0.53

Appendix Table 2. Coded-wire-tagged chinook salmon released for stock assessment, release and recovery data, 1987-1999 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 5.

STOCK GROUP,	stock, (source H, N, M), brood, tagcode Hatchery	Release Site	Release Date	Number Released	Size Total (gm)	Ocean Catch											% 6+ Surv.							
						AK	NCBC	WCVI	GST	PS	WA	Oregon Areas				Freshwater Recoveries								
												1&2	3	4	5	6&7		CA	2	3	4	5	6+	
FALL CHINOOK SALMON																								
ALSEA RIVER																								
Fall Creek (Alsea River):																								
H	1991 075801	Fall Creek	Fall Cr	08/10/92	21,100	101,587	31.10	3	17	0	0	0	0	0	0	0	0	0	11	11	3	0	0.23	
H	1992 076028	Fall Creek	Fall Cr	08/27/93	23,089	103,583	34.62	53	12	0	0	0	2	0	0	0	0	6	29	43	0	0	0.63	
H	1994 070416	Fall Creek	Fall Cr	08/18/95	24,562	103,214	38.11	36	23	0	0	0	3	0	0	0	0	2	13	3	0	0	0.33	
H	1995 071349	Fall Creek	Fall Cr	08/15/96	29,121	100,278	41.17	107	18	0	0	2	0	3	0	0	0	0	29	67	0	0	0.78	
CHETCO RIVER, JACK CREEK																								
Chetco River:																								
M	1988 074804	Jack Creek	Jack Cr	06/15/89	27,579	98,868	7.56	0	0	0	0	0	0	0	0	5	2	10	5	0	2	1	0	0.09
M	1989 074824	Jack Creek	Jack Cr	07/04/90	27,487	31,255	9.07	0	0	0	0	0	0	17	0	4	6	0	1	0	0	0	0	0.10
M	1990 074925	Jack Creek	Jack Cr	06/28/91	23,514	24,665	8.40	0	0	0	0	3	0	0	78	13	29	84	12	19	12	1	0	1.12
CHETCO RIVER																								
Chetco River:																								
M	1987 074417	Elk River	Chetco R	09/29/88	26,957	32,116	36.57	0	0	0	4	0	0	0	12	238	20	107	31	18	21	1	0	2.09
M	1988 074837	Elk River	Chetco R	09/01/89	26,140	33,469	28.89	0	0	0	0	0	0	0	0	9	2	2	20	5	7	1	0	0.18
M	1988 074834	Elk River	Chetco R	09/29/89	27,027	300,746	34.36	0	0	0	0	0	0	0	3	0	3	4	2	0	3	0	0	0.06
M	1988 074835	Elk River	Chetco R	10/04/89	27,823	96,637	38.76	0	0	0	0	0	0	0	0	0	0	0	7	1	6	1	0	0.05
M	1988 074836	Elk River	Chetco R	10/23/89	25,931	32,412	40.86	0	25	0	0	0	2	14	5	7	2	12	6	10	0	0	0	0.34
M	1989 075420	Elk River	Chetco R	09/14/90	25,470	37,990	31.28	0	0	0	0	0	3	22	0	6	14	6	11	9	0	0	0	0.28
M	1989 075422	Elk River	Chetco R	09/17/90	26,922	400,327	34.10	0	0	0	0	3	0	0	19	3	23	0	9	5	11	0	0	0.27
M	1989 075421	Elk River	Chetco R	10/16/90	26,037	35,750	36.28	0	0	0	0	0	0	0	16	0	2	19	1	0	7	0	0	0.17
M	1990 075605	Elk River	Chetco R	09/19/91	25,143	165,654	39.78	0	0	0	0	2	0	0	18	0	11	20	0	7	2	1	0	0.24
M	1990 075606	Elk River	Chetco R	09/20/91	25,648	36,773	33.35	0	0	0	0	0	0	0	28	0	24	15	2	5	2	0	0	0.30
M	1990 075607	Elk River	Chetco R	10/17/91	25,605	191,526	40.13	0	2	0	0	1	0	0	12	0	23	11	1	2	2	2	0	0.25
H	1991 075807	Elk River	Chetco R	10/06/92	22,981	236,360	39.10	0	0	0	0	0	0	0	21	0	54	23	1	0	25	0	0	0.56
H	1991 075808	Elk River	Chetco R	11/05/92	23,236	153,149	41.23	0	0	0	0	0	0	0	15	0	51	14	0	3	14	0	0	0.43
M	1992 076034	Elk River	Chetco R	10/15/93	24,669	357,829	41.23	0	0	0	0	0	0	0	85	3	53	48	1	17	16	0	0	0.92
M	1993 075245	Elk River	Chetco R	10/06/94	25,933	330,254	37.15	0	0	0	0	0	0	0	39	3	53	9	0	2	7	5	0	0.46
M	1994 070123	Elk River	Chetco R	09/28/95	24,971	165,717	41.61	0	0	0	0	2	0	4	14	20	42	0	1	5	0	0	0	0.35
M	1995 071330	Elk River	Chetco R	09/28/96	24,109	226,309	40.43	0	0	0	0	0	0	0	0	3	35	13	0	2	3	0	0	0.23
M	1996 091847	Elk River	Chetco R	09/26/97	25,050	233,621	35.43	0	0	0	0	0	0	0	3	0	4	0	0	0	1	0	--	0.03
M	1997 091858	Elk River	Chetco R	09/30/98	26,994	158,208	37.80	0	0	0	0	2	0	0	5	15	55	17	1	0	1	--	--	0.36
M	1998 091907	Elk River	Chetco R	09/28/99	24,594	164,741	35.43	0	0	0	0	0	0	0	0	0	7	0	0	0	--	--	--	0.03

Appendix Table 2. Continued.

STOCK GROUP,		Ocean Catch																					
stock, (source H, N, M),		Number Released		Size		Oregon Areas										Freshwater Recoveries							
brood, tagcode Hatchery		Release Date	Ad+CWT	Total	(gm)	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.				
Release Site		FALL CHINOOK SALMON (Continued)																					
CHETCO RIVER (Continued)																							
Chetco River:																							
M	1999 092355	Elk River	Chetco R	09/20/00	24,916	158,150	34.89	0	0	0	0	0	0	0	0	0	0	0	0	0.00			
COOS RIVER																							
Coos River:																							
N	1987 074349	Butte Falls	Morgan Cr	09/25/88	26,119	70,166	33.10	12	9	13	0	0	0	0	0	15	8	24	19	0	0.39		
N	1988 074839	Butte Falls	Morgan Cr	09/13/89	25,755	56,029	28.52	12	44	28	0	0	0	0	5	7	21	37	1	1	0.63		
N	1989 075224	Noble Creek	Noble Cr	05/22/90	52,328	272,125	5.78	15	27	0	0	0	0	6	4	0	28	3	11	3	0	0.19	
N	1989 075237	Butte Falls	Noble Cr	09/12/90	26,099	63,490	27.65	3	27	35	0	5	2	0	0	19	21	9	5	1	0.57		
M	1990 075529	Priorli Cr	Morgan Cr	06/03/91	52,274	177,232	5.15	11	15	14	0	0	0	0	0	11	2	15	17	0	0.17		
M	1990 074820	Priorli Cr	Morgan Cr	09/27/91	26,732	75,638	45.44	8	12	28	0	0	4	0	0	22	0	5	14	7	0	0.42	
M	1991 076002	Cole Rivers	Noble Cr	10/02/92	25,335	51,946	36.57	13	16	16	0	0	0	17	12	0	0	7	18	50	8	0	0.62
M	1992 075943	Noble Creek	Noble Cr	05/29/93	52,672	52,848	6.30	34	0	5	0	0	0	0	3	0	83	79	32	12	0	0.48	
M	1992 070249	Cole Rivers	Noble Cr	10/08/93	26,724	50,835	42.78	32	3	0	0	0	0	4	17	0	0	91	80	69	22	1	1.22
M	1993 074957	Noble Creek	Noble Cr	06/19/94	55,429	516,882	6.45	33	17	0	0	0	0	0	2	0	0	19	37	37	9	0	0.28
M	1993 075244	Cole Rivers	Morgan Cr	09/22/94	26,153	92,850	50.34	52	37	0	0	0	2	0	5	9	0	2	10	11	5	2	0.56
M	1994 070352	Noble Creek	Noble Cr	06/11/95	50,812	394,655	5.34	17	12	0	0	0	0	0	0	0	9	10	15	6	0	0.14	
M	1994 070647	Cole Rivers	Morgan Cr	09/24/95	26,045	103,534	39.78	24	9	2	0	0	4	0	0	0	5	2	9	4	0	0.23	
M	1995 070821	Noble Creek	Noble Cr	06/19/96	53,620	399,167	8.80	11	10	0	0	0	0	1	0	0	20	30	68	11	2	0.29	
M	1995 071334	Cole Rivers	Morgan Cr	09/29/96	23,556	94,405	44.44	27	3	0	0	0	0	0	0	3	0	7	6	19	7	0	0.31
M	1996 071141	Noble Creek	Noble Cr	06/14/97	53,725	409,066	7.43	8	2	0	0	1	0	0	3	0	0	8	19	24	1	--	0.12
M	1996 091846	Cole Rivers	Morgan Cr	09/17/97	24,059	98,963	50.39	27	0	0	0	0	0	0	5	0	0	1	19	20	3	--	0.31
M	1997 070922	Noble Creek	Noble Cr	06/27/98	54,163	425,100	9.07	30	5	0	0	0	11	0	0	0	56	105	71	--	--	0.52	
M	1997 091855	Priorli Cr	Morgan Cr	09/27/98	24,943	103,618	45.36	25	0	0	0	3	0	0	3	0	0	14	28	37	--	--	0.44
M	1998 092026	Noble Creek	Noble Cr	07/08/99	53,453	397,075	12.96	23	0	0	0	1	0	0	0	2	0	85	110	--	--	0.41	
M	1998 091906	Priorli Cr	Morgan Cr	09/30/99	25,343	91,496	46.28	12	3	3	0	5	0	0	7	0	0	34	23	--	--	0.34	
M	1999 092027	Noble Creek	Noble Cr	06/19/00	53,409	506,989	9.65	0	0	0	0	0	0	0	2	0	0	105	--	--	--	0.20	
M	1999 091915	Priorli Cr	Morgan Cr	09/26/00	29,293	95,480	44.47	0	0	0	0	0	0	0	0	0	47	--	--	--	--	0.16	
COQUILLE RIVER																							
Coquille River:																							
N	1987 074334	Cole Rivers	Ferry Cr	09/14/88	26,940	26,940	45.35	85	73	100	0	0	24	0	0	27	23	46	4	0	1.68		
M	1988 074802	Cole Rivers	Coquille R	09/07/89	27,609	75,035	39.78	42	74	85	0	0	22	0	0	2	0	7	1	0	0	0.89	
M	1990 075611	Bandon	Coquille R	10/07/91	25,570	54,613	37.17	19	5	11	0	0	0	0	0	0	3	0	13	3	0	0.21	
M	1991 076003	Bandon	Ferry Cr	09/15/92	26,605	55,787	31.70	4	0	0	0	0	0	0	0	6	0	0	0	1	0	0.04	
N	1992 070244	Sevenmile	Sevenmile Cr	09/28/93	25,714	53,723	30.23	30	0	0	0	0	0	0	16	13	0	0	1	2	1	0	0.25
N	1993 075247	Butte Falls	Sevenmile Cr	09/17/94	23,420	50,650	28.87	69	15	2	0	0	0	0	10	0	0	0	3	1	0	0	0.43
N	1994 075336	Butte Falls	Sevenmile Cr	09/18/95	22,554	31,960	34.36	69	48	0	0	0	1	0	0	0	0	1	2	0	0	0	0.54

Appendix Table 2. Continued.

STOCK GROUP,		Ocean Catch																											
stock, (source H, N, M),		Release		Number Released		Size		AK NCBC		WCVI		GST		PS		WA		1&2		3		4		5		6+		Surv.	
brood,	tagcode	Hatchery	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)																													
COQUILLE RIVER (Continued)																													
Coquille River:																													
M	1995	070943	Bandon	Coquille R	09/26/96	21,288	48,529	31.38	12	5	0	0	0	0	0	0	0	0	0	0	0	0	4	5	0	0	0.12		
M	1996	091853	Butte Falls	Sevenmile Cr	09/12/97	27,456	54,970	33.35	19	6	3	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0.11		
M	1997	091902	Butte Falls	Sevenmile Cr	09/29/98	28,204	59,405	33.85	62	10	0	0	0	1	0	0	16	3	0	0	2	2	1	--	--	0.34			
M	1998	091914	Butte Falls	Sevenmile Cr	09/09/99	25,928	54,256	28.17	3	3	3	0	0	3	5	2	8	3	0	0	0	1	--	--	--	0.12			
M	1999	091916	Cole Rivers	Sevenmile Cr	10/03/00	28,132	96,200	39.10	0	0	0	0	0	0	0	5	0	0	0	0	0	1	--	--	--	0.02			
ELK RIVER																													
Elk River:																													
H	1987	074415	Elk River	Elk R	09/19/88	25,276	175,235	33.35	3	9	22	0	0	2	0	0	1	16	0	0	1	12	11	8	0	0.34			
H	1988	074833	Elk River	Elk R	09/29/89	27,315	184,617	34.89	8	5	15	0	0	2	0	0	21	17	0	0	3	11	24	6	0	0.41			
H	1989	075423	Elk River	Elk R	10/18/90	25,861	334,809	42.38	4	11	45	0	3	9	0	2	36	78	0	0	49	63	76	35	6	1.61			
H	1990	075663	Elk River	Elk R	10/26/91	37,216	38,923	42.78	2	18	15	0	0	3	0	0	0	30	0	0	38	10	33	21	0	0.46			
H	1990	075701	Elk River	Elk R	10/26/91	35,168	37,136	44.46	19	9	17	0	0	2	0	0	14	44	1	0	65	19	46	28	1	0.75			
H	1990	075702	Elk River	Elk R	10/26/91	33,859	36,472	44.90	14	3	12	0	0	2	0	3	51	42	0	0	26	16	44	39	0	0.74			
H	1990	075703	Elk River	Elk R	10/26/91	34,621	35,512	46.75	8	9	19	0	0	0	0	0	50	36	0	0	10	19	44	32	0	0.67			
H	1990	075608	Elk River	Elk R	10/26/91	25,494	35,103	47.74	8	8	10	0	0	1	0	0	5	24	0	0	21	13	44	29	2	0.65			
H	1990	075704	Elk River	Elk R	10/26/91	34,753	35,688	48.25	10	0	6	0	0	1	0	0	24	19	0	0	5	10	42	81	5	0.58			
H	1991	074009	Elk River	Elk R	09/30/92	32,302	43,604	32.86	12	4	12	0	0	0	0	0	3	36	3	0	24	30	48	15	0	0.58			
H	1991	074951	Elk River	Elk R	09/30/92	31,716	43,265	33.84	14	7	7	0	0	0	0	4	0	41	1	0	15	20	102	25	4	0.76			
H	1991	074953	Elk River	Elk R	09/30/92	34,807	44,497	35.71	12	3	6	0	0	4	0	0	6	34	3	2	9	20	115	24	2	0.69			
H	1991	074948	Elk River	Elk R	10/21/92	27,672	34,560	39.44	12	4	0	0	0	0	0	9	36	2	0	15	25	38	20	1	0.59				
H	1991	074010	Elk River	Elk R	11/01/92	30,898	35,961	42.38	3	4	0	0	0	0	0	3	23	1	4	12	11	22	7	1	0.29				
H	1991	075806	Elk River	Elk R	11/01/92	11,737	18,905	45.35	0	0	0	0	0	0	0	0	4	19	0	0	9	5	20	4	0	0.52			
H	1992	070425	Elk River	Elk R	11/16/93	32,475	37,098	50.39	48	5	0	0	2	0	0	7	74	102	7	0	75	78	58	26	5	1.51			
H	1992	070426	Elk River	Elk R	11/17/93	34,191	35,693	51.54	14	8	8	0	0	0	0	0	53	89	11	0	44	61	46	32	5	1.09			
H	1992	070424	Elk River	Elk R	11/22/93	35,468	37,902	49.84	3	4	7	3	0	2	0	0	106	56	4	0	23	63	32	26	4	0.98			
H	1992	076033	Elk River	Elk R	11/28/93	26,665	36,301	52.73	23	5	0	0	0	0	0	2	40	65	1	0	43	49	43	14	7	1.14			
H	1992	070422	Elk River	Elk R	11/29/93	35,509	36,954	52.73	29	3	6	0	0	4	0	1	128	95	4	0	20	50	48	31	3	1.22			
H	1992	070423	Elk River	Elk R	11/29/93	36,278	36,967	53.35	58	7	3	0	0	0	0	0	129	132	3	0	48	136	94	31	1	1.82			
H	1993	070522	Elk River	Elk R	10/26/94	37,690	44,431	48.72	133	31	5	0	0	3	0	0	29	338	0	0	64	65	158	86	1	2.44			
H	1993	075246	Elk River	Elk R	10/26/94	23,419	98,070	48.72	76	31	0	0	0	7	0	3	23	111	3	0	58	51	99	66	2	2.26			
H	1993	070521	Elk River	Elk R	10/26/94	38,190	44,589	49.25	132	26	16	0	0	4	0	5	48	223	0	0	117	48	121	85	1	2.16			
H	1993	070523	Elk River	Elk R	10/26/94	36,060	42,546	49.25	57	34	0	0	3	2	0	0	30	195	0	0	85	78	97	47	3	1.75			
H	1993	070524	Elk River	Elk R	10/26/94	36,155	48,066	49.25	124	28	2	0	0	10	0	0	34	201	0	0	46	75	181	124	6	2.30			
H	1993	070525	Elk River	Elk R	10/26/94	39,120	50,898	49.79	117	70	11	0	0	11	0	0	28	223	2	0	26	87	210	105	10	2.31			
H	1994	070854	Elk River	Elk R	10/11/95	194,243	325,889	49.84	327	110	3	0	5	23	0	2	36	563	0	3	155	112	602	395	23	1.22			
H	1995	070951	Elk River	Elk R	09/15/96	174,479	321,567	36.49	330	83	32	0	0	23	0	8	18	972	2	0	276	579	1315	258	4	2.24			

Appendix Table 2. Continued.

STOCK GROUP,		Ocean Catch												Freshwater Recoveries												
stock, (source H, N, M),		Release Date	Number Released	Size (gm)	AK	NCBC	WCVI	GST	PS	Oregon Areas					Freshwater Recoveries											
brood, tagcode Hatchery										Release Site	Ad+CWT	Total	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.	
FALL CHINOOK SALMON (Continued)																										
ELK RIVER (Continued)																										
Elk River:																										
H	1986 092148	Elk River	Elk R	09/14/97	175,967	322,931	30.64	94	19	12	0	0	5	0	1	0	171	0	0	53	112	191	56	--	0.41	
H	1997 091857	Elk River	Elk R	10/13/98	25,504	44,455	52.74	51	25	7	0	0	11	2	0	30	134	0	2	60	118	223	--	--	2.63	
H	1997 092449	Elk River	Elk R	10/13/98	163,690	283,815	52.74	416	203	86	0	3	147	15	65	203	1065	2	5	390	862	1078	--	--	2.81	
H	1998 092810	Elk River	Elk R	10/27/99	193,648	350,870	54.64	48	31	30	0	0	160	9	112	295	369	2	4	493	504	--	--	--	1.08	
H	1999 093052	Elk River	Elk R	10/20/00	198,583	328,032	48.46	0	0	0	0	0	0	0	0	0	3	0	0	0	310	--	--	--	--	0.16
HUNTER CREEK																										
Hunter Creek & tribs:																										
N	1989 074826	Hunter Creek	Hunter Cr	07/03/90	17,460	17,460	4.32	0	0	4	0	0	1	0	0	0	22	0	0	0	0	1	2	1	0	0.18
M	1992 070355	Elk River	Hunter Cr	12/01/93	19,182	21,357	52.73	3	0	5	0	0	6	0	0	221	29	25	72	10	6	11	2	0	2.07	
M	1993 070759	Elk River	Hunter Cr	10/28/94	25,340	26,867	47.69	3	0	0	0	0	2	0	0	60	37	2	26	0	2	12	3	0	0.58	
M	1994 070932	Elk River	Hunter Cr	10/18/95	23,918	26,944	60.47	0	0	0	0	0	2	0	1	42	26	2	0	0	5	5	4	0	0.39	
M	1995 071355	Elk River	Hunter Cr	10/18/96	21,288	24,115	54.73	3	0	0	0	0	6	0	0	5	9	2	12	1	1	6	0	0	0.21	
NECANICUM RIVER																										
Trask River:																										
H	1997 091862	Nehalem	Necanicum R	08/25/98	27,582	27,900	24.00	40	22	0	0	0	0	0	5	0	0	0	0	0	0	0	0	--	--	0.24
H	1998 091912	Nehalem	Necanicum R	08/23/99	25,640	26,995	27.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--	0.00
H	1999 092712	Nehalem	Necanicum R	08/25/00	25,293	25,989	24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--	--	0.00
NESTUCCA RIVER																										
Nestucca River:																										
H	1991 074821	Cedar Creek	Three R	07/09/92	25,308	144,550	18.50	0	10	0	0	0	0	0	0	0	0	0	0	0	0	5	4	2	0	0.08
H	1992 076027	Cedar Creek	Nestucca R	08/26/93	24,520	115,830	22.68	36	0	0	0	0	0	0	8	0	0	0	0	1	8	26	4	0	0.34	
PISTOL RIVER																										
Pistol River & tribs:																										
N	1988 074805	Pistol River	Pistol R	07/21/89	8,244	10,852	11.33	0	0	10	0	0	0	0	3	3	0	0	0	1	2	0	1	0	0.66	
N	1989 075243	Pistol River	Pistol R	10/02/90	23,817	29,524	37.48	0	0	31	0	0	11	0	2	84	3	4	20	2	7	17	3	0	0.77	
M	1991 071462	Elk River	Pistol R	11/04/92	21,967	22,273	55.31	4	0	4	0	0	4	0	0	77	0	25	27	3	5	11	0	0	0.80	
M	1992 070360	Elk River	Pistol R	12/02/93	18,877	19,480	56.69	0	0	0	0	0	1	0	0	165	27	24	77	7	18	12	1	0	1.81	
M	1993 070760	Elk River	Pistol R	11/01/94	25,368	35,734	41.96	0	0	0	0	0	0	0	0	60	24	8	11	4	4	5	2	0	0.49	
M	1994 071057	Elk River	Pistol R	10/12/95	5,166	6,343	49.30	0	0	0	0	0	0	0	0	5	3	0	0	0	0	0	1	0	0.17	

Appendix Table 2. Continued.

STOCK GROUP,		Ocean Catch																		
stock, (source H, N, M),		Release Date	Number Released	Size (gm)	AK	NCBC	WCVI	GST	PS	WA	Oregon Areas					Freshwater Recoveries				
brood, tagcode Hatchery											Release Site	Ad+CWT	Total	CA	1&2	3	4	5	6&7	CA
FALL CHINOOK SALMON (Continued)																				
ROGUR RIVER, COLUMBIA RIVER, BIG CREEK RELEASE																				
Rogue River:																				
H	1987 073535	Big Creek	Big Cr	10,829	11,197	5.74	0	0	0	0	0	0	0	0	0	0	0	0	0.09	
H	1987 073536	Big Creek	Big Cr	9,730	10,061	5.74	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1987 073537	Big Creek	Big Cr	10,486	10,843	5.74	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1987 073538	Big Creek	Big Cr	10,373	10,726	5.74	0	0	0	2	2	0	4	4	0	0	1	0	0.13	
H	1987 073539	Big Creek	Big Cr	10,433	10,788	5.74	0	0	0	0	0	0	0	0	0	0	0	0	0.04	
H	1987 074141	Big Creek	Big Cr	10,350	10,728	34.36	0	0	0	0	0	0	0	0	0	0	0	0	2.61	
H	1987 074142	Big Creek	Big Cr	10,088	10,456	34.36	0	0	0	0	0	0	0	0	0	0	0	0	2.59	
H	1987 074143	Big Creek	Big Cr	10,052	10,419	34.36	0	0	0	0	0	0	0	0	0	0	0	0	2.62	
H	1987 074144	Big Creek	Big Cr	10,143	10,513	34.36	0	2	0	0	0	0	0	0	0	0	0	0	2.27	
H	1987 074145	Big Creek	Big Cr	9,982	10,346	34.36	0	0	0	0	0	0	0	0	0	0	0	0	2.51	
H	1987 074136	Big Creek	Big Cr	9,433	9,777	44.90	0	0	0	0	0	4	4	28	104	3	3	18	4.80	
H	1987 074137	Big Creek	Big Cr	9,157	9,491	44.90	0	0	0	0	0	0	0	0	0	0	0	0	3.81	
H	1987 074138	Big Creek	Big Cr	9,244	9,581	44.90	0	0	0	0	0	0	0	0	0	0	0	0	4.75	
H	1987 074139	Big Creek	Big Cr	9,225	9,562	44.90	0	0	0	0	0	0	0	0	0	0	0	0	4.34	
H	1987 074140	Big Creek	Big Cr	9,046	9,376	44.90	0	0	0	0	0	0	0	0	0	0	0	0	4.32	
H	1988 073346	Big Creek	Big Cr	10,923	10,970	6.39	0	0	0	0	0	0	0	0	0	0	0	0	0.01	
H	1988 073540	Big Creek	Big Cr	10,402	10,446	6.39	0	0	0	0	0	0	0	0	0	0	0	0	0.02	
H	1988 074159	Big Creek	Big Cr	10,117	10,160	6.39	0	0	0	0	0	0	0	0	0	0	0	0	0.05	
H	1988 074160	Big Creek	Big Cr	10,261	10,305	6.39	0	0	0	0	0	0	0	0	0	0	0	0	0.03	
H	1988 074161	Big Creek	Big Cr	10,070	10,113	6.39	0	0	0	0	0	0	0	0	0	0	0	0	0.05	
H	1988 074162	Big Creek	Big Cr	10,409	10,440	35.43	0	0	0	0	0	0	0	0	0	0	0	0	2.38	
H	1988 074163	Big Creek	Big Cr	10,779	10,811	35.43	0	0	0	0	0	0	0	0	0	0	0	0	1.66	
H	1988 074201	Big Creek	Big Cr	10,556	10,588	35.43	0	0	0	0	0	0	0	0	0	0	0	0	1.89	
H	1988 074202	Big Creek	Big Cr	10,808	10,840	35.43	0	0	0	0	0	0	0	0	0	0	0	0	1.94	
H	1988 074203	Big Creek	Big Cr	9,914	9,944	35.43	0	0	0	0	0	0	0	0	0	0	0	0	1.90	
H	1988 074204	Big Creek	Big Cr	10,452	10,483	35.43	0	0	0	0	0	0	0	0	0	0	0	0	1.87	
H	1988 074205	Big Creek	Big Cr	10,300	10,331	35.43	0	0	0	0	0	0	0	0	0	0	0	0	1.79	
H	1988 074206	Big Creek	Big Cr	9,635	9,664	35.43	0	0	0	0	0	0	0	0	0	0	0	0	2.76	
H	1988 074207	Big Creek	Big Cr	10,382	10,413	35.43	0	0	0	0	0	0	0	0	0	0	0	0	2.06	
H	1988 074208	Big Creek	Big Cr	10,326	10,357	35.43	0	0	0	0	0	0	0	0	0	0	0	0	2.51	
H	1989 074338	Big Creek	Big Cr	10,067	27,703	7.31	0	0	0	0	0	0	0	0	0	0	0	0	0.23	
H	1989 074339	Big Creek	Big Cr	10,132	27,770	7.31	0	0	0	0	0	0	0	0	0	0	0	0	0.19	
H	1989 074340	Big Creek	Big Cr	10,040	27,676	7.31	0	0	0	0	0	0	0	0	0	0	0	0	0.15	
H	1989 074341	Big Creek	Big Cr	9,859	27,490	7.31	0	0	0	0	0	0	0	0	0	0	0	0	0.14	
H	1989 074342	Big Creek	Big Cr	10,058	27,695	7.31	0	0	0	0	0	0	0	0	0	0	0	0	0.17	
H	1989 074343	Big Creek	Big Cr	9,904	27,537	7.31	0	0	0	0	0	0	0	0	0	0	0	0	0.15	
H	1989 074344	Big Creek	Big Cr	9,841	27,471	7.31	0	0	0	0	0	0	0	0	0	0	0	0	0.25	

Appendix Table 2. Continued.

STOCK GROUP,		Ocean Catch																						
stock, (source H, N, M), brood, tagcode Hatchery	Release Site	Release Date	Number Released Ad+CWT	Size Total (gm)	AK	NCBC	WCVI	GST	PS	WA			1&2			Oregon Areas			Freshwater Recoveries					
										CA	2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.		
FALL CHINOOK SALMON (Continued)																								
ROGUR RIVER, COLUMBIA RIVER, BIG CREEK RELEASE (Continued)																								
Rogue River:																								
H 1989 074345	Big Creek	06/05/90	10,167	27,807	7.31	0	0	0	0	0	4	0	0	0	6	1	1	2	0	0	0	0.20		
H 1989 074346	Big Creek	06/05/90	10,547	28,198	7.31	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0.06	
H 1989 074511	Big Creek	08/17/90	10,176	22,184	31.28	0	0	0	0	5	2	0	62	3	0	0	10	23	33	4	0	1.40		
H 1989 074512	Big Creek	08/17/90	10,387	22,397	31.28	0	0	3	0	15	4	5	100	3	0	0	15	28	24	1	0	1.91		
H 1989 074513	Big Creek	08/17/90	10,561	22,574	31.28	0	0	3	3	0	16	2	10	90	3	0	2	7	44	4	1	0	2.13	
H 1989 074514	Big Creek	08/17/90	10,583	22,596	31.28	0	3	5	0	0	22	0	3	98	0	0	10	12	49	31	1	0	2.21	
H 1989 074515	Big Creek	08/17/90	10,392	22,402	31.28	0	0	0	0	0	32	0	4	97	9	0	10	14	45	35	3	0	2.40	
H 1989 074516	Big Creek	08/17/90	9,977	21,982	31.28	0	0	0	0	14	0	0	63	2	0	6	12	32	17	3	0	1.49		
H 1990 075650	Big Creek	07/05/91	51,183	249,042	12.22	0	0	0	0	15	3	0	44	7	0	6	24	39	35	6	0	0.35		
H 1990 075651	Big Creek	08/12/91	50,783	300,645	25.06	0	0	0	0	20	4	0	83	0	0	5	39	96	93	16	0	0.70		
H 1990 075652	Big Creek	08/23/91	51,043	236,247	35.71	0	0	0	0	15	7	0	214	0	3	14	51	147	183	22	0	1.33		
H 1991 075716	Big Creek	08/06/92	52,014	217,625	20.90	0	0	0	0	0	0	0	7	0	0	10	10	43	66	0	0	0.26		
H 1991 075717	Big Creek	08/14/92	52,017	297,258	23.70	0	0	4	0	0	0	0	21	0	0	15	9	74	108	2	0	0.45		
H 1991 075653	Big Creek	08/26/92	51,786	248,504	30.60	0	0	4	0	0	0	0	2	39	0	2	19	125	208	3	0	0.80		
H 1992 075737	Big Creek	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	Big Creek	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	Big Creek	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	Big Creek	08/22/94	54,317	250,878	29.82	0	1	0	0	1	0	0	89	12	0	36	53	69	119	4	0	0.71		
H 1994 070540	Big Creek	08/11/95	26,051	166,503	22.12	0	0	0	0	3	0	0	20	16	0	0	5	21	27	1	0	0.37		
H 1994 070541	Big Creek	08/11/95	26,215	166,707	22.23	0	4	0	0	0	0	0	18	6	0	0	5	19	27	9	0	0.34		
H 1994 070542	Big Creek	08/29/95	26,881	175,032	29.45	0	0	0	0	0	0	0	22	2	0	0	0	20	44	2	0	0.35		
H 1994 070543	Big Creek	08/30/95	26,178	500,356	29.07	0	0	0	0	0	0	0	3	23	9	0	6	12	18	4	0	0.29		
H 1995 071352	Big Creek	08/26/96	26,791	521,952	31.49	0	0	0	0	0	0	2	0	7	8	0	1	9	19	0	0	0.17		
ROGUR RIVER, COLUMBIA RIVER, KLASKANINE RIVER RELEASE																								
Rogue River:																								
H 1995 071353	Klaskanine	07/31/96	25,322	26,178	20.22	0	0	0	0	1	0	0	0	2	4	0	0	1	19	23	1	0	0.20	
H 1996 092143	Klaskanine	10/31/97	9,593	195,247	32.86	0	0	0	0	1	0	0	0	0	0	0	0	1	18	2	--	0.23		
H 1996 092144	Klaskanine	10/31/97	27,222	408,713	32.86	0	1	0	0	0	0	0	0	2	8	0	3	0	30	68	6	--	0.45	
H 1997 092517	Klaskanine	09/30/98	26,701	216,635	25.77	0	0	10	0	0	14	0	14	31	2	0	0	5	66	142	--	1.08		
H 1997 092518	Klaskanine	11/04/98	26,571	445,342	28.17	0	0	0	0	0	0	0	4	0	0	0	0	3	16	--	0.09			
H 1998 092760	Klaskanine	09/28/99	25,977	208,232	27.49	0	0	0	0	7	5	34	60	17	0	4	6	107	--	--	--	0.99		
H 1998 092759	Klaskanine	11/03/99	25,124	494,968	32.63	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--	0.00		
H 1999 093048	Klaskanine	08/24/00	27,239	202,783	23.50	0	0	0	0	0	0	0	0	0	0	0	60	--	--	--	--	0.22		
H 1999 093049	Klaskanine	09/26/00	26,762	205,709	28.89	0	0	0	0	0	0	0	0	0	0	0	17	--	--	--	--	0.06		

Appendix Table 2. Continued.

STOCK GROUP,		Ocean Catch										Freshwater Recoveries											
stock, (source H, N, M),		Release Date	Number Released	Size (gm)	AK	NCBC	WCVI	GST	PS	Oregon Areas					Recoveries								
brood, tagcode Hatchery										Release Site	Ad+CWT	Total	WA	1&2	3	4	5	6&7	CA	2	3	4	5
FALL CHINOOK SALMON (Continued)																							
ROGUE RIVER																							
Rogue River:																							
H	1988 075140	Indian Cr Pd	Rogue R	25,193	96,458	22.68	0	0	0	0	0	2	3	0	3	26	0	2	9	0	0	0.45	
Lower Rogue:																							
N	1988 075141	Indian Cr Pd	Indian Cr	53,193	69,000	30.23	0	0	0	0	0	12	9	3	12	0	3	18	0	0	0	0.13	
N	1989 074827	Indian Cr Pd	Lobster Cr	27,025	27,278	9.07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
N	1989 074828	Indian Cr Pd	Indian Cr	26,908	42,996	26.68	0	0	0	0	0	13	0	0	17	3	6	3	1	0	0	0	0.16
N	1991 075129	Indian Cr Pd	Rogue R	25,476	30,240	30.20	0	0	0	0	0	17	0	1	180	5	58	21	0	0	0	0	1.11
M	1992 076120	Indian Cr Pd	Rogue R	13,638	14,236	38.11	0	0	0	0	0	29	6	5	91	20	34	11	0	0	0	0	1.53
H	1993 070761	Indian Cr Pd	Rogue R	27,081	28,855	27.13	0	0	0	0	0	30	13	3	41	20	10	16	0	0	0	0	0.49
M	1994 075417	Indian Cr Pd	Rogue R	22,910	53,817	28.70	0	0	0	0	0	8	0	3	9	8	29	2	0	0	0	0	0.26
M	1995 075335	Indian Cr Pd	Rogue R	24,037	39,546	34.00	0	0	0	0	0	10	0	10	5	0	18	0	0	0	0	0	0.19
M	1996 092154	Indian Cr Pd	Rogue R	10,559	25,638	22.68	0	0	0	0	0	0	0	0	3	15	0	13	0	0	0	0	0.29
M	1996 092153	Indian Cr Pd	Rogue R	11,176	22,799	28.34	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0.08
M	1996 092152	Indian Cr Pd	Rogue R	9,898	22,707	34.36	0	0	0	0	0	0	0	5	0	3	0	5	0	0	0	0	0.13
M	1997 091861	Indian Cr Pd	Rogue R	22,569	23,137	22.68	0	0	0	0	0	4	42	9	92	99	7	1	--	--	--	--	1.13
M	1997 092636	Indian Cr Pd	Rogue R	24,000	24,672	25.77	0	0	0	0	0	16	54	8	39	87	4	1	--	--	--	--	0.89
M	1997 092637	Indian Cr Pd	Rogue R	24,531	26,358	37.80	0	0	0	0	6	10	22	3	38	80	6	2	--	--	--	--	0.70
M	1998 091910	Indian Cr Pd	Rogue R	16,483	19,476	22.68	0	0	0	0	0	5	42	0	37	5	2	--	--	--	--	--	0.55
M	1998 092543	Indian Cr Pd	Rogue R	20,429	21,348	28.34	0	0	0	0	2	2	8	6	12	1	2	--	--	--	--	--	0.16
M	1998 092818	Indian Cr Pd	Rogue R	26,036	27,241	39.44	0	0	0	0	0	10	19	3	3	9	1	--	--	--	--	--	0.17
M	1999 092710	Indian Cr Pd	Rogue R	25,876	27,884	17.51	0	0	0	0	0	0	0	0	0	0	8	--	--	--	--	--	0.03
M	1999 093054	Indian Cr Pd	Rogue R	22,512	24,259	28.35	0	0	0	0	0	0	0	0	0	0	1	--	--	--	--	--	0.00
M	1999 093055	Indian Cr Pd	Rogue R	26,799	28,662	34.89	0	0	0	0	0	0	0	0	0	0	1	--	--	--	--	--	0.00
SALMON RIVER																							
Salmon River:																							
H	1987 074629	Salmon River	Salmon R	38,126	39,567	32.39	56	46	32	0	0	6	0	2	0	0	48	90	156	117	0	0	1.45
H	1987 074635	Salmon River	Salmon R	37,394	38,808	32.39	60	57	54	0	0	2	4	0	0	0	35	24	132	158	7	0	1.46
H	1987 074636	Salmon River	Salmon R	38,362	39,812	32.39	45	80	69	0	0	2	0	5	0	0	124	58	108	155	1	0	1.69
H	1987 074637	Salmon River	Salmon R	39,718	41,219	32.39	70	94	65	4	8	13	0	3	3	0	66	65	118	174	6	0	1.75
H	1987 074638	Salmon River	Salmon R	39,869	41,376	32.39	54	103	65	8	0	11	0	14	0	0	88	44	144	199	4	0	1.84
H	1988 075131	Salmon River	Salmon R	31,653	34,094	33.84	18	23	30	0	0	5	0	2	0	0	17	20	96	29	0	0	0.76
H	1988 075132	Salmon River	Salmon R	28,922	33,856	33.84	2	10	34	0	0	2	0	2	0	0	4	5	11	7	0	0	0.27
H	1988 075133	Salmon River	Salmon R	27,015	33,511	33.84	13	18	45	0	0	0	0	0	0	0	8	21	47	20	6	0	0.66
H	1988 075134	Salmon River	Salmon R	29,325	33,764	33.84	20	46	33	0	0	0	0	2	0	0	4	15	41	37	9	0	0.71
H	1988 075135	Salmon River	Salmon R	28,200	33,335	33.84	14	20	21	0	0	0	0	0	0	0	58	5	48	31	1	0	0.71
H	1988 075136	Salmon River	Salmon R	27,241	33,568	33.84	16	10	35	0	0	0	0	0	0	0	6	56	17	1	0	0	0.52
H	1989 075458	Salmon River	Salmon R	39,099	41,531	28.70	41	97	47	0	0	3	0	12	0	0	7	42	77	114	4	0	1.14

Appendix Table 2. Continued.

STOCK GROUP,		Ocean Catch																						
stock, (source H, N, M),		Freshwater Recoveries																						
brood, tagcode Hatchery		Release Date	Number Released	Size	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6+	Surv.								
		Release Site	Ad+CWT	Total (gm)							CA	2	3	4	5	6+								
FALL CHINOOK SALMON (Continued)																								
SALMON RIVER (Continued)																								
Salmon River:																								
H	1989 075461	Salmon River	Salmon R	41,509	43,010	28.70	42	103	94	0	0	0	0	0	59	116	88	140	11	1.61				
H	1989 075462	Salmon River	Salmon R	41,699	41,889	28.70	44	135	75	0	5	0	0	0	14	91	53	154	24	1.45				
H	1989 075459	Salmon River	Salmon R	38,685	41,956	28.70	46	81	63	0	0	0	0	0	22	41	68	121	8	1.17				
H	1989 075460	Salmon River	Salmon R	42,370	43,097	28.70	59	104	74	0	0	4	0	9	8	0	53	72	80	159	9	1.49		
H	1990 075705	Salmon River	Salmon R	40,225	42,776	31.06	114	175	59	0	0	6	0	22	0	0	161	113	274	312	8	3.09		
H	1990 075706	Salmon River	Salmon R	41,394	44,019	31.06	88	159	49	0	0	2	0	12	3	0	1	0	120	167	417	323	33	3.33
H	1990 075707	Salmon River	Salmon R	37,516	39,896	31.06	104	141	81	0	0	0	0	12	2	0	0	75	114	368	292	7	3.20	
H	1990 075708	Salmon River	Salmon R	39,382	41,880	31.06	117	139	77	0	0	0	0	15	1	0	0	11	183	380	387	7	3.35	
H	1990 075709	Salmon River	Salmon R	25,592	27,215	31.06	67	58	61	0	0	0	0	0	0	0	0	61	66	234	225	11	3.06	
H	1991 071559	Salmon River	Salmon R	36,151	38,888	32.40	13	4	0	0	0	0	0	3	0	0	0	10	37	18	0	0.24		
H	1991 071560	Salmon River	Salmon R	37,763	39,080	32.40	21	4	6	0	0	0	0	0	0	0	0	11	21	29	1	0.25		
H	1991 071561	Salmon River	Salmon R	38,597	40,195	32.40	28	0	0	0	0	0	0	0	0	0	0	29	63	38	0	0.41		
H	1991 071562	Salmon River	Salmon R	39,060	40,335	32.40	12	0	3	0	0	0	0	0	47	0	0	0	25	7	47	25	0	0.42
H	1991 071563	Salmon River	Salmon R	33,341	34,686	32.40	55	10	0	0	0	0	0	0	0	0	0	3	22	10	26	0	0.38	
H	1992 070417	Salmon River	Salmon R	34,476	40,325	30.03	72	19	0	0	0	0	0	16	4	0	0	3	86	159	89	119	5	1.66
H	1992 070418	Salmon River	Salmon R	32,518	40,711	30.03	70	13	0	0	0	0	0	14	0	0	0	0	49	145	122	98	8	1.63
H	1992 070419	Salmon River	Salmon R	33,634	40,652	30.03	72	17	3	0	0	0	0	8	0	0	0	29	189	141	71	18	1.63	
H	1992 070420	Salmon River	Salmon R	28,386	40,658	30.03	41	8	0	0	0	0	0	4	0	0	0	52	164	116	99	0	1.76	
H	1992 070421	Salmon River	Salmon R	40,339	42,829	30.03	80	12	0	0	0	0	0	5	0	0	0	35	152	137	113	0	1.37	
H	1993 070461	Salmon River	Salmon R	37,513	41,109	32.38	184	46	0	0	0	0	7	0	26	0	0	0	77	111	247	186	8	2.38
H	1993 070462	Salmon River	Salmon R	38,497	42,187	32.38	211	72	0	0	0	0	0	8	0	0	0	111	132	292	169	13	2.62	
H	1993 070459	Salmon River	Salmon R	32,486	40,990	32.38	238	22	3	0	0	0	0	22	0	0	0	107	142	453	178	0	3.59	
H	1993 070460	Salmon River	Salmon R	36,872	40,992	32.38	263	83	2	0	0	5	0	32	5	0	0	0	226	211	467	314	0	4.37
H	1993 070463	Salmon River	Salmon R	38,686	41,296	32.38	233	50	3	0	0	0	0	23	0	0	3	0	162	136	405	197	0	3.17
H	1994 070962	Salmon River	Salmon R	172,256	205,215	30.23	378	231	0	0	0	0	0	30	0	0	0	48	155	659	621	10	1.24	
H	1995 071252	Salmon River	Salmon R	171,301	186,780	32.29	197	43	3	0	0	2	0	24	0	0	0	48	210	400	253	1	0.69	
H	1996 092149	Salmon River	Salmon R	194,096	203,986	31.49	238	75	0	0	0	7	1	19	2	0	0	145	368	724	80	--	0.86	
H	1997 092447	Salmon River	Salmon R	179,888	205,489	34.89	448	102	12	0	0	6	0	88	10	4	0	279	1008	719	--	--	1.49	
H	1998 092817	Salmon River	Salmon R	190,423	198,979	33.84	42	12	0	0	0	5	0	32	12	0	0	0	170	229	--	--	--	0.27
H	1999 093053	Salmon River	Salmon R	196,302	199,089	40.00	0	0	0	0	0	0	0	0	0	0	0	0	40	--	--	--	--	0.02
TRASK RIVER																								
Trask River:																								
H	1987 074149	Trask	Trask R	10,656	62,356	9.30	9	8	8	0	0	0	0	0	0	0	0	2	2	3	0	0.30		
H	1987 074150	Trask	Trask R	9,896	61,584	9.30	21	9	3	0	0	0	0	4	0	0	0	3	1	4	0	0.45		
H	1987 074151	Trask	Trask R	10,480	62,177	9.30	20	13	13	0	0	0	0	3	0	0	0	4	6	9	0	0.97		
H	1987 074152	Trask	Trask R	10,493	62,190	9.30	10	10	16	0	0	0	0	6	0	0	1	0	3	7	0	0.51		

Appendix Table 2. Continued.

STOCK GROUP,		Ocean Catch																					
stock, (source H, N, M),		Release Date	Number Released	Size (gm)	AK	NCBC	WCVI	GST	PS	Oregon Areas					Freshwater Recoveries					% Surv.			
brood, tagcode	Hatchery									Release Site	Ad+CWT	Total	WA	1&2	3	4	5	6&7	CA		2	3	4
FALL CHINOOK SALMON (Continued)																							
TRASK RIVER (Continued)																							
Trask River:																							
H	1987 074153	Trask	Trask R	10,659	62,359	9.30	12	4	3	0	0	0	0	0	0	0	0	4	5	7	0	0.33	
H	1987 074154	Trask	Trask R	9,654	21,966	22.45	15	0	15	0	0	2	0	0	0	0	0	0	8	11	11	0	0.66
H	1987 074155	Trask	Trask R	10,153	22,474	22.45	21	22	16	0	0	0	0	0	0	0	0	10	8	11	0	0.87	
H	1987 073726	Trask	Trask R	14,335	90,990	31.71	10	13	40	0	0	0	0	0	0	0	0	3	7	8	0	0.57	
H	1988 074212	Trask	Trask/Necanicum	9,414	83,642	9.07	5	0	14	0	0	0	0	0	0	0	0	1	4	0	0	0	0.25
H	1988 074213	Trask	Trask/Necanicum	9,981	84,254	9.07	0	8	9	0	0	0	0	0	0	0	0	2	8	0	0	0	0.27
H	1988 074214	Trask	Trask/Necanicum	9,610	83,854	9.07	2	3	3	0	0	0	3	0	0	0	0	0	2	0	0	0	0.14
H	1988 074215	Trask	Trask R	9,403	20,870	19.30	8	15	14	0	0	0	0	0	0	0	0	3	9	0	0	0	0.57
H	1988 074216	Trask	Trask R	9,192	20,640	19.30	14	5	5	0	0	0	0	0	0	0	0	2	8	19	3	0	0.63
H	1988 074217	Trask	Trask R	9,721	17,705	32.86	19	53	39	0	0	0	0	7	0	0	0	1	5	28	0	0	1.56
H	1988 074218	Trask	Trask R	9,813	17,801	32.86	22	33	30	0	0	0	0	14	0	0	0	2	3	28	1	0	1.36
H	1989 074519	Trask	Trask R	8,883	29,328	16.92	3	14	13	0	0	0	0	2	0	0	0	0	3	0	2	0	0.42
H	1989 074903	Trask	Trask R	9,002	29,463	16.92	3	17	3	0	0	0	0	0	0	0	0	4	2	4	0	0	0.37
H	1989 073727	Trask	Trask R	15,189	50,314	29.84	5	0	6	0	0	0	0	0	0	0	0	1	0	5	0	0	0.11
H	1989 074905	Trask	Trask R	8,666	43,219	29.84	3	9	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.17
H	1989 074906	Trask	Trask R	9,082	43,672	29.84	5	0	6	0	0	0	0	0	0	0	0	0	1	0	0	0	0.13
H	1990 075744	Trask	Trask R	22,288	56,529	18.44	39	12	9	0	0	0	0	0	0	0	0	1	17	11	2	0	0.41
H	1990 075745	Trask	Trask R	22,474	97,941	31.28	27	29	12	0	0	0	0	9	0	0	0	0	1	8	10	6	0.45
H	1991 074917	Trask	Trask R	9,878	30,096	13.70	3	1	3	0	0	0	0	2	0	0	0	0	0	3	8	1	0.21
H	1991 075039	Trask	Trask R	9,858	30,076	13.70	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	0	0.10
H	1991 074048	Trask	Trask R	9,489	44,635	27.70	10	10	0	0	0	0	0	10	0	0	0	1	9	17	0	0	0.60
H	1991 074049	Trask	Trask R	9,630	44,779	27.70	4	4	0	0	0	0	0	3	0	0	0	0	10	13	0	0	0.35
H	1992 070242	Trask	Trask R	26,168	62,601	17.05	46	4	0	0	0	0	0	16	0	0	0	1	21	56	4	1	0.55
H	1992 070241	Trask	Trask R	25,593	95,360	31.06	64	4	0	0	0	0	0	27	0	0	0	23	107	13	2	0	0.94
H	1993 070458	Trask	Trask R	22,304	61,072	21.18	37	4	0	0	0	0	0	0	0	0	0	13	11	5	1	0	0.32
H	1994 075418	Trask	Trask R	24,881	58,217	27.16	62	22	0	0	0	0	0	12	0	0	0	3	36	20	1	0	0.64
H	1995 070960	Trask	Trask R	24,372	82,655	28.95	24	19	6	0	0	0	0	2	0	0	0	12	34	12	1	0	0.45
H	1996 091850	Trask	Trask R	25,695	66,986	26.99	32	2	0	0	0	0	0	2	0	0	0	1	9	12	6	--	0.28
H	1997 091863	Trask	Trask R	26,289	53,296	25.77	73	18	3	0	0	0	0	19	0	0	0	5	59	51	--	--	0.88
H	1998 091911	Trask	Trask R	26,232	66,190	25.62	3	0	0	0	0	0	0	2	0	0	0	3	1	18	--	--	0.10
H	1999 092711	Trask	Trask R	25,775	61,814	25.34	0	0	0	0	0	0	0	0	0	0	0	5	--	--	--	--	0.02
UMPQUA RIVER, LOWER																							
Cow Creek (South Umpqua):																							
N	1991 075761	Rock Creek	Umpqua R	23,457	91,713	39.80	8	5	4	0	0	0	0	5	4	8	0	2	0	1	0	0	0.16
M	1992 076032	Rock Creek	Umpqua R	23,743	103,539	45.35	47	7	2	0	0	1	0	4	30	8	0	0	0	0	1	0	0.42
M	1993 070333	Rock Creek	Umpqua R	25,593	75,662	47.69	34	30	6	0	0	2	0	2	17	5	0	0	1	0	1	0	0.39

Appendix Table 2. Continued.

STOCK GROUP,		Ocean Catch																								
stock, (source H, N, M),		Release Date	Number Released	Size (gm)	AK	NCBC	WCVI	GST	PS	Oregon Areas					Freshwater Recoveries			% Surv.								
brood, tagcode Hatchery										Release Site	Ad+CWT	Total	WA	1&2	3	4	5		6&7	CA	2	3	4	5	6+	
FALL CHINOOK SALMON (Continued)																										
UMPQUA RIVER, LOWER																										
Cow Creek (South Umpqua):																										
M	1994 075117	Rock Creek	Umpqua R	24,598	51,920	46.28	33	16	0	0	0	0	0	0	0	0	10	3	0	0.34						
M	1995 070534	Gardiner Cr	Gardiner Cr	31,239	31,549	5.67	45	14	0	0	3	0	0	2	0	0	1	5	7	0	0.25					
M	1995 071118	Gardiner Cr	Winchester Bay	48,758	49,240	22.23	166	113	9	0	14	0	0	7	11	0	3	23	13	3	0.76					
M	1995 070752	Rock Creek	Umpqua R	80,680	84,739	52.19	132	44	5	0	9	1	6	11	14	2	0	3	20	10	5	1	0.34			
M	1996 074859	Gardiner Cr	Gardiner Cr	13,901	14,127	7.69	16	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.15		
M	1996 092123	Gardiner Cr	Winchester Bay	71,372	72,978	7.69	18	0	4	0	0	3	2	0	3	7	0	0	1	0	0	11	0	0.07		
Smith River:																										
N	1997 070941	Gardiner Cr	Winchester Bay	24,617	75,381	7.56	52	12	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.28		
N	1998 091908	Gardiner Cr	Winchester Bay	38,632	38,632	11.63	27	6	0	0	17	0	1	7	0	0	0	0	0	0	0	0	0	0	0.16	
N	1999 093050	Gardiner Cr	Winchester Bay	63,527	85,207	26.68	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0.01	
UMPQUA RIVER, SOUTH FORK																										
Cow Creek (South Umpqua):																										
N	1987 074331	Umpqua R	Cow Cr	25,670	36,515	4.16	8	0	5	0	0	0	0	0	8	23	0	0	1	0	0	1	0	0	0.19	
N	1988 074612	Rock Creek	Cow Cr	25,391	96,328	2.37	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01
N	1989 075457	Rock Creek	Umpqua R	54,124	60,000	2.27	2	5	12	0	0	0	0	0	11	0	0	0	1	0	0	0	0	0	0.06	
N	1990 074243	Umpqua R	Umpqua R, S Fk	59,954	72,619	1.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
M	1991 075813	Rock Creek	Umpqua R, S Fk	43,321	98,330	5.19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
H	1992 076031	Rock Creek	Umpqua R, S Fk	25,753	26,050	7.52	4	0	0	0	0	0	4	4	0	0	0	0	2	2	0	2	0	0	0.07	
M	1993 070332	Rock Creek	Umpqua R, S Fk	25,741	129,898	4.83	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	
M	1994 075447	Rock Creek	Umpqua R, S Fk	25,692	200,612	5.58	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0.01	
M	1999 093051	Canyonville	Canyon Cr	30,162	74,596	6.89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
WINCHUCK RIVER																										
Winchuck River & tribs:																										
N	1988 074803	Winchuck R	Winchuck R	19,908	35,411	10.08	0	0	0	0	0	0	2	3	1	5	6	0	0	1	1	0	1	0	0.10	
N	1989 074823	Winchuck R	Winchuck R	27,192	40,891	5.15	0	0	0	0	0	0	0	42	3	0	16	1	1	4	0	0	0	0	0.25	
M	1991 071463	Elk River	Winchuck R	21,731	22,375	53.35	0	0	0	0	0	0	0	40	0	69	29	0	3	17	0	0	0	0	0.78	
M	1992 070359	Elk River	Winchuck R	9,021	9,537	44.46	0	0	0	0	0	0	0	40	3	16	9	1	1	8	0	0	0	0	0.86	
YAQUINA RIVER																										
Yaquina River:																										
N	1996 092147	Yaquina Bay	Yaquina R	24,388	123,743	40.49	50	4	3	0	0	0	1	0	0	0	0	0	8	8	1	0	0	0	0.33	
N	1997 091856	Yaquina Bay	Yaquina R	26,099	103,831	28.00	119	46	3	0	2	0	21	0	0	0	0	0	15	19	0	0	0	0	0.92	
N	1998 091909	Salmon River	Yaquina R	26,032	93,980	22.68	14	3	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0.07	
N	1999 092709	Salmon River	Yaquina R	25,331	26,480	30.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	

Appendix Table 2. Continued.

STOCK GROUP,		Ocean Catch																						
stock, (source H, N, M),		Release Date	Number Released	Size (gm)	Oregon Areas										Freshwater Recoveries						% Surv.			
brood, tagcode Hatchery					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																								
COQUILLE RIVER																								
Coquille River:																								
N	1988 074838	Butte Falls	Coquille R	26,442	42,243	37.48	0	0	0	0	4	2	0	37	25	0	54	0	2	3	1	0	0	0.49
M	1989 075236	Butte Falls	Coquille R, S Fk	26,044	32,500	45.35	0	0	0	0	0	0	2	24	35	0	0	0	5	5	0	0	0	0.27
M	1990 075738	Bandon	Coquille R, S Fk	15,643	15,643	36.87	0	0	0	0	0	0	0	8	0	0	11	0	0	0	0	0	0	0.12
N	1991 074854	Butte Falls	Coquille R, S Fk	12,308	13,028	34.10	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0.02
EAST FORK TRASK RIVER																								
Trask River:																								
H	1993 070336	Trask R Pond	Trask & Wilson R	25,561	172,229	42.35	19	6	0	0	0	0	8	11	2	0	0	1	2	47	25	2	0	0.48
H	1994 070957	Trask R Pond	Trask R	25,438	91,539	48.25	17	0	0	0	0	0	11	0	4	0	0	0	4	15	42	4	0	0.40
H	1995 071138	Trask R Pond	Wilson & Trask R	26,215	199,685	37.71	8	0	0	0	0	0	2	2	0	0	0	0	1	20	5	0	0	0.16
H	1996 091814	Trask R Pond	Wilson & Trask R	26,002	194,552	38.76	3	0	4	0	0	3	0	0	0	0	0	0	5	7	3	--	--	0.10
H	1997 091816	Trask R Pond	Wilson & Trask R	25,934	206,468	32.40	3	0	3	0	0	0	2	4	0	0	0	1	1	5	--	--	--	0.07
H	1998 091904	Trask R Pond	Trask R	25,153	150,875	50.39	6	0	3	0	5	0	0	0	2	0	0	1	5	--	--	--	--	0.09
H	1999 092951	Trask R Pond	Trask R	26,280	144,799	44.91	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--	--	--	0.00
NORTH UMPQUA RIVER																								
Umpqua River:																								
H	1987 074332	Rock Creek	Rock Cr	25,537	159,694	48.77	0	0	0	0	0	0	0	0	4	0	0	0	0	2	0	0	0	0.02
H	1987 074333	Rock Creek	Rock Cr	25,027	102,788	82.46	0	0	0	3	0	0	3	7	114	7	21	0	4	13	4	0	0	0.74
H	1988 074727	Rock Creek	Rock Cr	24,652	170,469	50.96	0	0	3	0	0	0	5	15	6	0	0	0	2	1	0	0	0	0.13
H	1988 074801	Rock Creek	Rock Cr	23,088	157,522	65.73	0	2	4	0	5	12	0	0	51	5	0	15	0	5	14	7	0	0.52
H	1989 075234	Rock Creek	Rock Cr	26,238	156,465	56.00	0	0	4	0	0	0	0	0	11	0	0	0	1	1	0	0	0	0.06
H	1989 075235	Rock Creek	Rock Cr	26,927	153,391	75.59	6	3	5	0	9	0	3	156	4	0	3	0	2	33	11	0	0	0.87
M	1990 074914	Rock Creek	Rock Cr	20,146	162,318	55.99	0	0	0	0	4	0	0	0	21	0	0	5	0	1	6	2	0	0.21
M	1990 074916	Rock Creek	Rock Cr	22,579	165,633	78.20	2	2	15	0	2	0	0	0	47	10	0	2	0	1	7	6	0	0.45
M	1991 075763	Rock Creek	Rock Cr	25,495	149,643	60.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
M	1991 075762	Rock Creek	Rock Cr	20,432	148,134	78.19	0	0	0	0	0	0	4	5	0	0	2	0	2	2	0	0	0	0.07
H	1992 076030	Rock Creek	Rock Cr	24,502	155,003	58.14	0	0	0	0	0	0	0	0	13	0	0	0	0	2	0	0	0	0.06
H	1992 076029	Rock Creek	Rock Cr	24,170	147,185	76.87	0	0	0	0	2	0	2	200	15	2	8	0	3	5	1	0	0	1.03
H	1993 070357	Rock Creek	Rock Cr	25,150	67,539	57.34	9	0	0	4	0	0	1	23	0	0	0	0	1	1	0	0	0	0.16
H	1993 070358	Rock Creek	Rock Cr	24,029	235,551	76.75	0	0	2	0	0	0	0	0	77	17	0	10	0	1	4	0	0	0.46
H	1994 075448	Rock Creek	Rock Cr	25,512	66,477	57.41	0	0	0	0	0	0	0	0	14	0	0	0	0	3	0	0	0	0.07
H	1994 075863	Rock Creek	Rock Cr	25,240	232,367	74.80	6	0	0	0	2	0	0	0	47	22	0	10	0	3	4	0	0	0.38
H	1995 071332	Rock Creek	Rock Cr	25,849	73,826	56.81	6	0	0	0	2	0	1	0	0	0	0	0	0	1	0	0	0	0.04
H	1995 071333	Rock Creek	Rock Cr	25,360	234,644	32.06	7	3	3	0	0	0	0	3	7	0	6	0	0	4	1	0	0	0.13
H	1996 091849	Rock Creek	Rock Cr	23,652	100,352	56.69	0	0	0	0	14	0	0	3	10	0	1	0	1	9	0	--	--	0.16
H	1996 091848	Rock Creek	Rock Cr	23,538	147,308	75.60	0	0	0	0	8	0	0	6	39	2	8	0	13	39	0	--	--	0.49

Appendix Table 2. Continued.

STOCK GROUP,		Ocean Catch																						
stock, (source H, N, M),		Release		Number Released		Size		Oregon Areas											Freshwater Recoveries					
brood, tagcode Hatchery		Release Site	Date	Ad+CWT	Total	(gm)	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.	%			
SPRING CHINOOK SALMON (Continued)																								
NORTH UMPQUA RIVER (Continued)																								
Umpqua River:																								
H	1997 091859	Rock Creek	Rock Cr	24,965	151,050	57.42	0	0	4	0	4	18	38	0	4	0	3	3	--	--	0.32			
H	1997 091860	Rock Creek	Rock Cr	26,526	27,710	68.71	0	0	10	0	17	87	69	4	3	0	3	3	--	--	0.82			
H	1998 091928	Rock Creek	Rock Cr	26,819	251,282	67.70	0	0	7	5	5	122	37	0	1	0	--	--	--	--	0.79			
H	1998 091927	Rock Creek	Rock Cr	27,284	148,656	56.69	0	0	0	8	0	18	49	11	2	5	0	--	--	--	0.40			
H	1999 091937	Rock Creek	Rock Cr	24,537	146,958	52.74	0	0	0	0	0	0	0	0	0	0	--	--	--	--	0.00			
H	1999 091936	Rock Creek	Rock Cr	26,645	277,495	61.29	0	0	0	0	0	0	0	0	0	0	--	--	--	--	0.00			
NESTUCCA RIVER																								
Nestucca River:																								
H	1991 074822	Cedar Creek	Nestucca R	26,389	139,112	27.20	0	2	0	0	0	13	0	0	0	0	1	7	5	1	0.11			
H	1992 076026	Cedar Creek	Nestucca R	21,947	73,096	41.23	5	0	0	0	0	27	0	0	0	0	3	18	17	0	0.33			
H	1993 070530	Cedar Creek	Nestucca R	25,440	102,442	36.85	3	2	0	0	2	0	13	0	0	2	7	28	10	0	0.26			
H	1994 075453	Cedar Creek	Nestucca R	25,997	126,327	36.57	5	0	0	0	3	0	4	0	0	0	3	23	7	1	0.18			
H	1995 071143	Cedar Creek	Nestucca R	25,702	112,312	33.00	19	0	0	0	6	0	2	4	0	0	4	25	4	0	0.25			
H	1996 091815	Cedar Creek	Nestucca R	25,658	120,651	35.99	23	2	4	0	7	0	1	4	0	0	3	14	18	6	--	0.32		
H	1997 091852	Cedar Creek	Nestucca R	26,283	122,222	35.72	5	2	9	0	2	0	0	3	0	0	7	2	14	--	0.17			
H	1998 091905	Cedar Creek	Nestucca R	25,604	119,800	32.86	3	0	0	0	3	0	0	12	0	0	2	11	--	--	0.12			
H	1999 092953	Cedar Creek	Nestucca R	25,533	113,401	31.72	0	0	0	0	0	0	0	0	0	13	--	--	--	--	0.05			
ROGUE RIVER																								
Rogue River:																								
H	1987 074615	Cole Rivers	Rogue R	10,463	41,884	34.36	0	0	0	0	0	0	4	51	8	0	7	14	1	0	0.89			
H	1987 074613	Cole Rivers	Rogue R	10,543	42,624	35.43	0	0	0	0	0	0	23	4	15	2	3	20	1	0	0.64			
H	1987 074614	Cole Rivers	Rogue R	10,591	42,361	35.99	0	0	0	0	0	0	8	30	0	10	0	5	20	1	0.70			
H	1987 074618	Cole Rivers	Rogue R	9,928	42,030	50.39	0	0	0	0	0	0	0	12	3	2	1	3	5	2	0.28			
H	1987 074617	Cole Rivers	Rogue R	9,829	42,320	50.96	0	0	0	0	0	0	3	5	0	8	0	1	4	1	0.22			
H	1987 074616	Cole Rivers	Rogue R	9,850	41,897	53.35	0	0	0	0	0	0	0	3	4	6	1	2	10	4	0.65			
H	1987 074621	Cole Rivers	Rogue R	10,499	42,042	65.73	0	0	0	0	0	0	6	21	2	37	2	3	24	1	0.93			
H	1987 074620	Cole Rivers	Rogue R	10,510	41,848	67.69	0	0	0	0	0	0	1	28	3	7	0	1	20	1	0.58			
H	1987 074619	Cole Rivers	Rogue R	9,997	42,523	69.77	0	0	0	0	0	0	0	15	1	16	1	1	15	0	0.49			
H	1988 072336	Cole Rivers	Rogue R	10,394	182,209	33.10	0	0	0	0	0	0	6	1	3	18	2	6	8	4	0.46			
H	1988 073758	Cole Rivers	Rogue R	10,358	182,296	33.10	0	0	0	0	0	0	0	7	0	21	6	9	5	0	0.55			
H	1988 072337	Cole Rivers	Rogue R	10,510	182,208	33.35	0	0	0	0	0	0	8	0	7	11	2	4	10	6	0.46			
H	1988 074230	Cole Rivers	Rogue R	9,770	137,843	50.96	0	0	0	0	0	0	3	7	0	7	2	3	5	5	0.70			
H	1988 074233	Cole Rivers	Rogue R	10,342	138,066	50.96	0	0	0	0	0	0	0	17	0	8	1	2	3	11	0.41			
H	1988 074229	Cole Rivers	Rogue R	9,076	137,697	52.13	0	0	0	0	0	0	3	24	0	8	1	9	4	6	0.61			
H	1988 073643	Cole Rivers	Rogue R	9,949	179,190	70.86	0	0	0	0	0	0	5	10	3	15	1	7	6	13	0.94			

Appendix Table 2. Continued.

STOCK GROUP,		Ocean Catch		Freshwater Recoveries																			
stock, (source H, N, M), brood, tagcode Hatchery		Release Date	Number Released	Size (gm)	AK	NCBC	WCVI	GST	PS	WA	1&2	3	4	5	6&7	CA	2	3	4	5	6+	Surv.	
		Date	Ad+CWT	Total																			
SPRING CHINOOK SALMON (Continued)																							
ROGUE RIVER (Continued)																							
Rogue River:																							
H	1988 074234	Cole Rivers	Rogue R	10/17/89	10,225	179,210	70.86	0	0	0	0	0	0	0	0	0	4	0	1	4	15	0	0.45
H	1988 074236	Cole Rivers	Rogue R	10/17/89	10,342	179,105	70.86	0	0	0	0	0	3	0	0	0	9	0	5	6	12	0	0.34
H	1989 075144	Cole Rivers	Rogue R	08/16/90	9,866	53,869	37.48	0	0	0	0	0	8	0	0	0	0	1	5	51	2	0	0.68
H	1989 075142	Cole Rivers	Rogue R	08/16/90	9,602	54,581	38.76	0	0	0	0	0	21	0	0	0	0	2	0	41	0	0	0.67
H	1989 075143	Cole Rivers	Rogue R	08/16/90	9,975	54,010	39.10	0	0	0	0	0	11	0	0	0	0	1	44	0	0	0	0.56
H	1989 075147	Cole Rivers	Rogue R	09/14/90	10,237	45,339	52.73	0	0	0	0	0	8	3	0	0	0	1	45	0	0	0	0.56
H	1989 075146	Cole Rivers	Rogue R	09/14/90	10,074	45,167	53.99	0	0	0	0	0	16	0	0	0	10	0	1	43	0	0	0.69
H	1989 075145	Cole Rivers	Rogue R	09/14/90	9,888	45,155	54.64	0	0	0	0	0	2	0	0	4	1	3	43	1	0	0	0.55
H	1989 075150	Cole Rivers	Rogue R	10/16/90	9,625	40,845	70.86	0	0	0	0	0	5	0	0	8	0	0	65	0	0	0	0.81
H	1989 075149	Cole Rivers	Rogue R	10/16/90	9,538	41,112	73.15	0	0	0	0	0	22	0	0	5	0	2	40	1	0	0	0.73
H	1989 075148	Cole Rivers	Rogue R	10/16/90	9,625	41,218	74.35	0	0	0	0	0	11	0	0	4	0	1	52	2	0	0	0.73
H	1990 075313	Cole Rivers	Rogue R	08/13/91	10,462	207,311	32.39	0	0	0	0	0	0	0	0	6	4	33	22	12	0	0	0.74
H	1990 075312	Cole Rivers	Rogue R	08/13/91	10,566	208,244	34.10	0	0	0	0	0	7	0	0	11	4	35	10	5	0	0	0.68
H	1990 075314	Cole Rivers	Rogue R	08/13/91	9,996	207,326	35.99	0	0	0	0	0	18	3	0	13	5	19	13	16	0	0	0.87
H	1990 075320	Cole Rivers	Rogue R	09/10/91	9,793	43,167	56.69	0	0	0	0	0	0	39	0	0	6	0	11	19	10	1	0.88
H	1990 075319	Cole Rivers	Rogue R	09/11/91	10,384	43,342	55.99	0	0	0	0	0	18	0	0	19	5	5	13	9	0	0	0.66
H	1990 075318	Cole Rivers	Rogue R	09/12/91	10,376	43,256	55.99	0	0	0	0	0	31	9	0	22	6	20	10	10	0	0	1.04
H	1991 075907	Cole Rivers	Rogue R	08/18/92	10,489	10,637	28.70	0	0	0	0	0	0	0	0	88	16	4	296	11	0	0	3.96
H	1991 075906	Cole Rivers	Rogue R	08/18/92	10,448	10,536	31.71	0	0	0	0	0	0	0	0	69	12	10	309	25	0	0	4.14
H	1991 075908	Cole Rivers	Rogue R	08/18/92	10,527	10,576	32.39	0	0	0	0	0	17	0	0	101	11	7	316	22	0	0	4.50
H	1991 075909	Cole Rivers	Rogue R	09/08/92	10,220	10,364	45.81	0	0	0	0	0	0	0	3	0	61	4	9	266	17	0	3.52
H	1991 075910	Cole Rivers	Rogue R	09/09/92	10,134	10,609	44.03	0	0	0	0	0	3	0	0	52	7	1	220	18	0	0	2.97
H	1991 075911	Cole Rivers	Rogue R	09/10/92	10,135	10,574	47.74	0	0	0	0	0	0	14	0	4	8	6	160	17	0	0	2.10
H	1991 075912	Cole Rivers	Rogue R	10/13/92	10,252	10,597	66.69	0	0	0	0	0	14	0	0	22	5	4	189	22	1	0	2.55
H	1991 075913	Cole Rivers	Rogue R	10/13/92	10,235	10,542	67.69	0	0	0	0	0	5	0	0	39	4	4	199	24	0	0	2.69
H	1991 075914	Cole Rivers	Rogue R	10/13/92	9,775	10,523	71.99	0	0	0	0	0	0	0	0	37	2	0	186	15	0	0	2.46
H	1992 076344	Cole Rivers	Rogue R	08/18/93	10,000	56,561	28.52	0	0	0	0	0	15	0	3	11	3	50	112	15	0	0	2.09
H	1992 076343	Cole Rivers	Rogue R	08/18/93	10,316	55,862	28.70	0	0	0	0	5	56	0	0	25	3	61	122	17	0	0	2.84
H	1992 076342	Cole Rivers	Rogue R	08/18/93	10,160	56,770	29.45	0	0	0	0	0	14	0	0	34	5	62	110	10	0	0	2.31
H	1992 076347	Cole Rivers	Rogue R	09/20/93	10,170	90,150	48.77	0	0	0	0	0	32	0	2	11	1	25	107	31	1	0	2.10
H	1992 076346	Cole Rivers	Rogue R	09/21/93	10,288	90,089	47.74	0	0	0	0	0	27	0	0	15	2	32	109	28	0	0	2.16
H	1992 076348	Cole Rivers	Rogue R	09/22/93	9,841	90,077	49.30	0	0	0	0	0	20	0	0	41	0	23	108	22	0	0	2.17
H	1992 076349	Cole Rivers	Rogue R	10/20/93	9,235	10,554	56.69	0	0	0	0	0	52	0	0	34	2	19	104	25	1	0	2.57
H	1992 076350	Cole Rivers	Rogue R	10/20/93	8,897	10,596	58.14	0	0	0	0	0	33	1	0	19	2	20	128	31	0	0	2.68
H	1992 076345	Cole Rivers	Rogue R	10/20/93	9,830	10,454	65.73	0	0	0	0	0	14	3	0	30	1	18	108	29	0	0	2.07
H	1993 070630	Cole Rivers	Rogue R	08/15/94	10,356	10,407	35.41	0	0	0	0	0	12	0	0	57	3	27	187	30	1	0	3.06
H	1993 070629	Cole Rivers	Rogue R	08/16/94	10,425	10,479	39.75	0	0	0	0	0	15	3	0	46	2	21	169	33	0	0	2.77

Appendix Table 2. Continued.

STOCK GROUP, stock, (source H, N, M), brood, tagcode Hatchery		Release Site	Release Date	Number Released Ad+CWT	Size Total (gm)	Ocean Catch											Freshwater Recoveries							
						Rogue R	Cole R	WA	Oregon Areas			CA					3	4	5	6+	Surv.			
									AK	NCBC	WCVI	GST	PS	1&2	3	4						5	6&7	
SPRING CHINOOK SALMON (Continued)																								
ROGUE RIVER (Continued)																								
Rogue River:																								
H	1993	070628	Cole Rivers	Rogue R	08/17/94	10,310	10,358	37.45	0	0	0	0	0	0	0	0	17	3	13	151	24	0	2.10	
H	1993	070639	Cole Rivers	Rogue R	09/19/94	10,320	10,418	58.08	0	0	0	0	0	0	0	0	6	1	4	105	33	0	1.54	
H	1993	070638	Cole Rivers	Rogue R	09/20/94	10,156	10,407	55.25	0	0	0	0	0	0	0	0	13	0	9	99	32	1	1.57	
H	1993	070637	Cole Rivers	Rogue R	09/21/94	10,131	10,421	55.25	0	0	0	0	0	0	0	0	16	3	5	97	30	1	1.64	
H	1993	070636	Cole Rivers	Rogue R	10/12/94	10,269	10,408	73.04	0	0	0	0	0	0	0	0	17	0	7	125	43	1	2.04	
H	1993	070634	Cole Rivers	Rogue R	10/12/94	10,247	10,343	78.07	0	0	0	0	0	0	0	0	5	12	4	143	54	0	2.32	
H	1993	070635	Cole Rivers	Rogue R	10/13/94	10,401	10,449	76.75	0	0	0	0	0	0	0	0	16	1	5	100	39	1	1.72	
H	1994	075959	Cole Rivers	Rogue R	08/21/95	10,096	56,444	35.34	0	0	0	0	0	0	0	0	4	3	7	25	3	0	0.44	
H	1994	075962	Cole Rivers	Rogue R	08/21/95	10,157	56,351	36.79	0	0	0	0	0	0	0	0	4	0	7	14	4	0	0.33	
H	1994	075956	Cole Rivers	Rogue R	08/21/95	10,289	56,319	38.03	0	0	0	0	0	0	0	0	3	0	7	24	3	0	0.36	
H	1994	075963	Cole Rivers	Rogue R	09/13/95	9,396	143,704	48.21	0	0	0	0	0	0	0	0	4	0	2	12	6	0	0.27	
H	1994	075955	Cole Rivers	Rogue R	09/13/95	10,127	143,657	51.29	0	0	0	0	0	0	0	0	4	0	1	10	3	0	0.30	
H	1994	075961	Cole Rivers	Rogue R	09/13/95	10,042	143,787	51.29	0	0	0	0	0	0	0	0	3	2	5	9	3	0	0.22	
H	1994	076001	Cole Rivers	Rogue R	10/18/95	10,087	56,261	71.47	0	0	0	0	0	0	0	0	7	0	5	27	6	0	0.51	
H	1994	075958	Cole Rivers	Rogue R	10/19/95	10,054	56,241	69.47	0	0	0	0	0	0	0	0	0	0	5	21	8	0	0.40	
H	1994	075321	Cole Rivers	Rogue R	10/19/95	9,738	55,840	72.04	0	0	0	0	0	0	0	0	0	0	1	19	3	1	0.26	
H	1995	071052	Cole Rivers	Rogue R	08/14/96	9,652	56,915	34.52	0	0	0	0	0	0	0	0	3	1	2	9	60	11	0	0.92
H	1995	071054	Cole Rivers	Rogue R	08/14/96	10,382	56,553	34.52	0	0	0	0	0	0	0	0	3	1	9	65	14	0	0.89	
H	1995	071053	Cole Rivers	Rogue R	08/15/96	10,073	56,430	34.26	0	0	0	0	0	0	0	0	8	0	4	52	15	0	0.78	
H	1995	071061	Cole Rivers	Rogue R	09/11/96	9,988	128,491	47.90	0	0	0	0	0	0	0	0	0	0	10	68	23	0	1.01	
H	1995	071055	Cole Rivers	Rogue R	09/11/96	10,280	128,454	53.94	0	0	0	0	0	0	0	0	3	1	4	78	34	0	1.18	
H	1995	071056	Cole Rivers	Rogue R	09/12/96	10,302	128,519	53.75	0	0	0	0	0	0	0	0	0	0	9	50	39	0	1.00	
H	1995	071062	Cole Rivers	Rogue R	10/13/96	10,217	56,379	70.79	0	0	0	0	0	0	0	0	0	0	16	130	58	0	2.10	
H	1995	071343	Cole Rivers	Rogue R	10/14/96	10,236	56,683	64.39	0	0	0	0	0	0	0	0	0	0	11	116	50	0	1.82	
H	1995	071063	Cole Rivers	Rogue R	10/14/96	10,207	56,489	67.79	0	0	0	0	0	0	0	0	4	5	0	21	104	57	0	1.97
H	1996	070145	Cole Rivers	Rogue R	08/15/97	9,847	215,990	35.43	0	0	0	0	0	0	0	0	5	1	4	34	0	--	0.45	
H	1996	070146	Cole Rivers	Rogue R	08/15/97	10,411	281,177	35.60	0	0	0	0	0	0	0	0	5	1	5	30	0	--	0.39	
H	1996	070147	Cole Rivers	Rogue R	08/15/97	9,412	280,358	36.93	0	0	0	0	0	0	0	0	0	0	5	26	0	--	0.48	
H	1996	092142	Cole Rivers	Rogue R	09/11/97	10,611	192,881	48.82	0	0	0	0	0	0	0	0	0	0	1	13	0	--	0.13	
H	1996	092140	Cole Rivers	Rogue R	09/11/97	10,497	192,338	50.79	0	0	0	0	0	0	0	0	0	0	1	18	0	--	0.22	
H	1996	092141	Cole Rivers	Rogue R	09/11/97	10,512	193,501	52.01	0	0	0	0	0	0	0	0	0	0	0	14	0	--	0.14	
H	1996	092139	Cole Rivers	Rogue R	10/12/97	10,251	56,674	69.13	0	0	0	0	0	0	0	0	0	0	0	27	0	--	0.27	
H	1996	092138	Cole Rivers	Rogue R	10/12/97	10,243	56,560	73.38	0	0	0	0	0	0	0	0	11	0	0	24	0	--	0.34	
H	1996	070620	Cole Rivers	Rogue R	10/13/97	10,070	56,359	69.34	0	0	0	0	0	0	0	0	0	0	2	29	0	--	0.34	
H	1997	092459	Cole Rivers	Rogue R	08/11/98	10,494	245,440	33.85	0	0	0	0	0	0	0	0	0	0	3	68	0	--	1.01	
H	1997	092458	Cole Rivers	Rogue R	08/12/98	10,385	245,352	32.87	0	0	0	0	0	0	0	0	3	0	0	57	0	--	0.73	
H	1997	092460	Cole Rivers	Rogue R	08/13/98	10,583	245,454	34.10	0	0	0	0	0	0	0	0	1	0	1	71	0	--	0.85	

Appendix Table 2. Continued.

STOCK GROUP,		Ocean Catch										Freshwater Recoveries											
stock, (source H, N, M),		Release Date	Number Released	Size (gm)	AK	NCBC	WCVI	GST	PS	Oregon Areas					Freshwater Recoveries								
brood, tagcode Hatchery										Release Site	Ad+CWT	Total	WA	1&2	3	4	5	6&7	CA	2	3	4	5
SPRING CHINOOK SALMON (Continued)																							
ROGUE RIVER (Continued)																							
Rogue River:																							
H	1997 092462	Cole Rivers	Rogue R	10,401	200,417	52.74	0	0	0	0	0	0	2	18	4	6	1	30	1	--	--	0.60	
H	1997 092461	Cole Rivers	Rogue R	10,530	199,463	53.36	0	0	0	0	0	0	6	12	0	12	1	43	0	--	--	0.70	
H	1997 092463	Cole Rivers	Rogue R	10,388	199,466	51.54	0	0	0	0	0	0	5	4	0	15	4	27	0	--	--	0.53	
H	1997 092503	Cole Rivers	Rogue R	10,531	54,637	70.87	0	0	0	0	0	0	4	12	0	20	0	32	0	--	--	0.68	
H	1997 092502	Cole Rivers	Rogue R	10,524	54,612	69.78	0	0	0	0	0	4	7	18	0	12	2	32	0	--	--	0.71	
H	1997 092501	Cole Rivers	Rogue R	10,157	54,551	69.78	0	0	0	0	0	0	10	20	0	7	1	26	2	--	--	0.65	
H	1998 092804	Cole Rivers	Rogue R	10,440	245,820	40.10	0	0	0	3	0	0	0	0	0	2	3	0	--	--	--	0.08	
H	1998 092805	Cole Rivers	Rogue R	10,332	245,538	40.67	0	0	0	0	0	0	0	4	3	11	6	1	--	--	--	0.24	
H	1998 092806	Cole Rivers	Rogue R	10,220	246,109	41.23	0	0	0	0	0	5	6	0	0	12	2	0	--	--	--	0.24	
H	1998 092801	Cole Rivers	Rogue R	10,393	152,149	50.28	0	0	0	0	0	0	2	0	0	3	1	0	--	--	--	0.06	
H	1998 092802	Cole Rivers	Rogue R	10,552	151,676	50.67	0	0	0	0	0	0	0	3	0	0	1	0	--	--	--	0.04	
H	1998 092803	Cole Rivers	Rogue R	10,390	151,673	53.61	0	0	0	0	0	0	2	7	0	3	3	0	--	--	--	0.14	
H	1998 092761	Cole Rivers	Rogue R	10,516	54,202	72.45	0	0	0	0	0	5	0	29	0	4	5	0	--	--	--	0.41	
H	1998 092763	Cole Rivers	Rogue R	10,269	54,328	71.08	0	0	0	4	0	0	2	3	2	4	7	0	--	--	--	0.21	
H	1998 092762	Cole Rivers	Rogue R	10,492	53,961	71.99	0	0	0	0	0	0	0	16	0	13	3	0	--	--	--	0.35	
H	1999 093046	Cole Rivers	Rogue R	56,876	420,214	51.37	0	0	0	0	0	0	0	7	3	0	0	--	--	--	--	0.02	
H	1999 093044	Cole Rivers	Rogue R	33,078	34,170	62.22	0	0	0	0	0	0	0	0	0	0	0	--	--	--	--	0.00	
H	1999 093045	Cole Rivers	Rogue R	32,085	33,570	81.73	0	0	0	0	0	0	0	0	0	0	0	--	--	--	--	0.00	
SOUTH UMPQUA RIVER																							
Umpqua River:																							
H	1989 074239	Rock Creek	Umpqua R, S Fk	37,910	39,082	5.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
H	1989 074240	Rock Creek	Umpqua R, S Fk	36,256	37,377	5.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
M	1990 075809	Umpqua R	Umpqua R, S Fk	15,076	43,951	1.84	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.01
M	1990 075810	Umpqua R	Umpqua R, S Fk	14,078	42,916	1.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
M	1991 075718	Rock Creek	Umpqua R, S Fk	46,610	56,753	5.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
M	1991 075719	Rock Creek	Umpqua R, S Fk	18,370	22,368	5.10	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.01
H	1992 070449	Rock Creek	Umpqua R, S Fk	81,984	84,825	6.98	0	0	0	0	0	0	4	0	0	0	0	3	0	1	0	0	0.01
TRASK RIVER																							
Trask River:																							
H	1987 074418	Trask	Trask R	24,066	90,909	33.84	18	9	0	0	3	0	8	11	0	0	0	1	20	16	2	0.38	
H	1988 074807	Trask	Trask R	26,588	62,519	27.65	6	6	0	0	2	0	0	5	0	0	0	6	17	10	0	0.20	
H	1988 074806	Trask	Trask R	26,076	71,825	43.61	14	4	17	0	5	0	0	5	0	0	1	14	17	1	0.30		
H	1989 075435	Trask	Trask R	25,504	134,955	16.37	3	0	2	0	0	0	8	0	0	0	0	2	6	8	0	0.11	
H	1989 074909	Trask	Trask R	9,087	16,056	34.89	3	0	0	0	2	0	0	3	0	0	0	0	7	9	1	0.28	
H	1989 074910	Trask	Trask R	8,752	15,699	34.89	3	2	0	0	0	0	0	3	0	0	0	1	4	1	0	0.16	

Appendix Table 2. Continued.

STOCK GROUP,		Ocean Catch																									
stock, (source H, N, M),		Release Date	Number Released	Size (gm)	AK	NCBC	WCVI	GST	PS	WA	Oregon Areas			Freshwater Recoveries			% Surv.										
brood, tagcode Hatchery											Release Site	Ad+CWT	Total	CA	2	3		4	5	6&7	CA	2	3	4	5	6+	
TRASK RIVER (Continued)																											
Trask River:																											
H	1989 074912	Trask	Trask R	9,514	15,347	57.41	3	0	3	0	0	2	0	8	3	0	0	0	0	0	0	4	5	0	0.29		
H	1989 074915	Trask	Trask R	9,294	15,110	57.41	3	0	0	0	0	0	0	0	4	0	0	0	0	0	0	1	1	3	0	0.13	
H	1990 074928	Trask	Trask R	23,757	88,366	23.14	7	0	0	0	0	0	0	7	0	0	0	0	0	0	0	1	10	9	0	0.14	
H	1990 073119	Trask	Trask R	20,670	30,131	35.43	2	0	0	0	2	0	0	3	4	0	0	0	0	0	0	3	12	7	0	0.16	
H	1990 071703	Trask	Trask R	19,762	30,444	59.67	7	0	0	0	0	0	0	7	0	0	0	0	0	0	1	2	16	22	0	0.28	
H	1991 075802	Trask	Trask R	26,396	119,857	20.30	4	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	2	1	0	0.04	
H	1991 075803	Trask	Trask R	24,521	29,279	28.30	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0.03	
H	1991 075804	Trask	Trask R	25,554	29,844	49.80	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12	9	0	0.10	
H	1992 071424	Trask	Trask R	22,528	98,851	18.44	10	2	0	0	0	0	0	0	0	0	0	0	0	0	4	2	4	15	7	0	0.20
H	1992 070348	Trask	Trask R	9,593	14,104	26.99	4	4	0	0	0	0	0	6	3	0	0	0	0	0	4	0	1	8	4	0	0.35
H	1992 070347	Trask	Trask R	9,140	14,074	28.34	2	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1	6	5	4	0	0.30
H	1992 070350	Trask	Trask R	9,147	13,562	38.11	5	0	0	0	0	0	0	5	5	0	0	0	0	0	1	1	5	3	2	0	0.30
H	1992 070349	Trask	Trask R	9,088	13,626	40.13	6	0	0	0	0	0	0	6	7	0	0	0	0	0	1	1	6	6	0	0.36	
H	1993 070334	Trask	Trask R	19,416	28,259	43.16	6	0	0	0	0	0	0	9	0	0	0	0	0	0	1	4	13	10	0	0.22	
H	1993 070335	Trask	Trask R	21,132	29,934	52.08	11	0	0	0	0	0	0	0	5	0	0	0	0	0	0	1	14	5	0	0.17	
H	1994 070427	Trask	Trask R	26,600	29,938	42.38	0	0	0	0	0	0	0	2	6	0	0	0	0	0	0	0	1	5	0	0.05	
H	1994 070762	Trask	Trask R	20,435	22,821	43.19	3	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	4	6	1	0.08	
H	1995 071329	Trask	Trask R	21,506	23,352	42.74	8	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	6	4	0	0.10	
H	1995 071239	Trask	Trask R	28,872	31,116	46.27	0	0	0	0	0	0	0	4	2	0	0	0	0	0	0	1	11	9	0	0.09	
H	1996 091844	Trask	Trask R	22,681	23,657	44.90	6	0	0	0	2	0	0	6	0	0	0	0	0	0	0	0	13	1	--	0.12	
H	1996 092024	Trask	Trask R	28,738	30,570	49.30	3	0	0	0	0	0	0	4	0	0	0	0	0	0	0	2	7	0	--	0.06	
H	1997 091854	Trask	Trask R	26,316	38,367	52.14	3	0	3	0	0	2	0	8	17	0	0	0	0	0	0	6	18	--	--	0.22	
WILSON RIVER																											
Trask River:																											
H	1990 074931	Tuffy Creek	Wilson R	23,524	90,960	38.43	5	0	3	0	0	7	0	44	2	0	0	0	0	0	1	2	14	13	0	0.39	
H	1991 074825	Tuffy Creek	Wilson & Kilchis	26,516	102,935	36.30	9	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	7	4	0	0.09	
H	1992 070353	Tuffy Creek	Wilson R	21,674	88,778	38.43	3	2	0	0	0	0	0	5	12	0	0	4	0	0	0	6	11	7	2	0.25	
H	1993 070331	Tuffy Creek	Wilson R	19,351	80,402	45.31	11	0	0	0	0	2	0	2	0	0	0	0	0	0	0	2	10	18	0	0.23	
H	1994 070956	Tuffy Creek	Wilson R	26,639	109,083	34.89	6	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	10	12	0	0.12	
H	1998 091903	Tuffy Creek	Wilson R	24,873	104,138	40.49	0	0	3	0	0	0	0	2	4	0	0	0	0	0	0	3	--	--	--	0.05	
H	1999 092952	Tuffy Creek	Wilson R	23,797	101,784	44.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--	--	0.00	

Appendix Table 2. Concluded.

STOCK GROUP,		Ocean Catch																							
stock, (source H, N, M),		Release		Number Released		Size		Oregon Areas										Freshwater Recoveries						% Surv.	
brood, tagcode Hatchery		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.	
WINTER CHINOOK SALMON																									
TRASK RIVER																									
Trask River:																									
H	1987 073724	Trask	09/15/88	14,701	47,969	22.34	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.03
H	1988 073757	Trask	10/19/89	5,803	5,891	40.13	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.14
H	1990 074926	Trask	09/17/91	26,406	43,562	23.02	29	22	3	0	0	0	0	24	0	0	0	0	0	0	1	11	12	0	0.39
H	1991 075805	Trask	09/15/92	24,619	46,661	21.90	12	4	0	0	0	0	0	8	0	0	0	0	0	0	5	15	21	0	0.26
H	1992 070243	Trask	09/15/93	26,207	51,877	24.38	59	6	0	0	0	0	0	13	0	0	0	0	0	1	25	92	8	0	0.78
H	1993 070740	Trask	08/18/94	27,579	47,598	22.88	64	14	0	0	0	0	0	8	0	0	0	0	0	0	27	14	44	2	0.64
H	1994 075419	Trask	08/09/95	22,074	50,383	19.98	35	2	0	0	0	0	0	0	0	0	0	0	0	0	4	13	4	0	0.26
H	1995 071319	Trask	08/15/96	26,185	35,719	21.17	27	11	0	0	0	0	0	4	0	0	0	0	0	0	7	39	11	0	0.38
H	1996 091851	Trask	08/19/97	25,801	49,100	20.71	9	5	0	0	0	0	0	0	0	0	0	0	0	0	4	13	15	--	0.20
H	1997 091901	Trask	08/18/98	26,707	49,381	23.14	70	5	0	0	0	0	0	7	0	0	0	0	0	4	21	54	--	--	0.62
H	1998 091913	Trask	08/16/99	24,779	38,222	22.56	0	0	0	0	0	0	0	0	0	0	0	0	0	2	21	--	--	--	0.09
H	1999 092909	Trask	08/17/00	26,625	41,900	20.25	0	0	0	0	0	0	0	0	0	0	0	0	0	1	--	--	--	--	0.00