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REPORT OF INCIDENCE OF CODED-WIRE TAGGED SALMONIDS
IN CATCHES OF FOREIGN COMMERCIAL AND RESEARCH VESSELS
OPERATING IN THE NORTH PACIFIC OCEAN AND BERING SEA
DURING 1982-1983

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REPORT OF INCIDENCE OF CODED-WIRE TAGGED SALMONIDS
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INTRODUCTION

During the annual meeting of the International North Pacific Fisheries Commission (INPFC) in Anchorage, Alaska, in November 1980, a representative from the Pacific Marine Fisheries Commission (PMFC) requested the INPFC coordinate efforts to examine potentially coded-wire tagged salmonids in convention waters. The matter was referred to the standing Committee on Biology and Research which subsequently referred the matter to the subcommittee on salmon. The following are excerpts from the reports of the two groups which appeared in the Proceedings of the 27th Annual Meeting.

Subcommittee on Salmon

"In response to a request from the Pacific Marine Fisheries Commission and subsequent recommendation by this subcommittee to accommodate that request, the United States will greatly increase efforts to examine salmonids sampled on the high seas for missing adipose fins which may indicate the presence of coded-wire tags. U.S. observers on board motherships, foreign trawl and longline vessels, as well as on U.S. salmon research vessels will insofar as possible examine salmonids caught purposely or incidentally for missing adipose fins, and return snouts of these fish and accompanying recovery information in accordance with procedures to be determined at the upcoming meeting of the Ad Hoc Salmon Research Coordinating Group."

Standing Committee on Biology and Research

"The subcommittee considered a request from the Pacific Marine Fisheries Commission of the United States for Japanese salmon research vessels to examine routinely all catches for adipose fin clips that may indicate the presence of coded-wire tags. It was agreed that such

cooperation in coded-wire tag recovery effort could lead to significant new information on ocean distributions of salmonids. The subcommittee, therefore, RECOMMENDED that the appropriate research and observer programs of all three national sections include efforts, insofar as possible, to examine catches for salmonids missing the adipose fin. The committee ENDORSES this recommendation." During early March 1981, the Ad Hoc Salmon Research Coordinating Group of the Subcommittee on salmon met in Tokyo and discussed procedures for sampling. Dahlberg (1981) described the procedures agreed to by member countries.

This report summarizes the results of sampling by U.S. observers on board Japanese salmon motherships in 1983, by Japanese and U.S. scientists on board Japanese research vessels from January 1982-August 1983, and by U.S. observers on board foreign groundfish vessels operating off the U.S. Pacific coast from January 1982-August 1983. Dahlberg (1981, 1982) summarized coded-wire tag recoveries in these fisheries for 1980 and 1981, and presented partial information for 1982. The tables of coded-wire tags in this report include and complete the partial listings of recoveries for 1982 given in Dahlberg (1982).

Japanese Mothership Fishery

The Japanese fleet commanders were asked to request catcher boat crews to look for salmon with missing adipose fins and direct them to four U.S. salmon observers on board the motherships. No fish with missing adipose fins were brought to the attention of the U.S. observers by the Japanese. The observers themselves examined 26,814 salmonids for missing adipose fins in 1983 (Table 1). They found eight salmon without adipose fins; no coded-wire tags were detected in these fish (Table 1).

Japanese Research Vessels

A total of 138,898 salmon and steelhead were landed on Japanese research vessels in 1982 (Table 2). Among these fish, Japanese and U.S. scientists observed 25 without adipose fins. Coded-wire tags were

detected in nine of these fish: five coho and four steelhead (Table 2). To date in 1983, an additional three coded-wire tags have been recovered from steelhead landed on Japanese research vessels. Complete 1983 catch data are not yet available.

Release and recovery data for all coded-wire tags recovered from Japanese research vessels in 1982 and through August 1983 are included in Table 6 (coho salmon) and Table 7 (steelhead trout). Two tags represent westward range extensions for North American steelhead trout. A tag (Agency 23, Data 06/06) from the Clearwater River, an Idaho tributary to the Columbia River, was recovered from a steelhead at 48°02'N latitude, 173°28'E longitude (Table 7). Another tag (Agency WH, Data DB/WH) from the Methow River, a Washington tributary to the Columbia River was recovered from a steelhead trout at 48°30'N latitude, 171°21'E longitude.

Foreign Groundfish Fishery

In calendar year 1982, U.S. groundfish observers examined 11,727 salmon for missing adipose fins; 135 were found to have missing adipose fins (Table 3). From these samples, 127 tags were detected and decoded, all from chinook salmon (Table 3). Through August 1983, an additional 23 tags have been recovered from salmon sampled on foreign groundfish vessels, including 21 chinook and 2 coho salmon. Complete 1983 catch data are not yet available.

Release and recovery data for all coded-wire tags recovered in the foreign groundfish fishery in 1982 as well as those recovered through August 1983 are shown in Table 5 (chinook salmon) and Table 6 (coho salmon). Several tags represent range extensions for chinook salmon stocks from particular regions of the eastern Pacific rim. A tag (Agency 02, Data 20/00) from the Babine River, British Columbia was recovered from a fish samples at 54°21'N latitude, 167°11'W longitude (Table 5), and is a western range extension for British Columbia chinook salmon stocks. A tag (Agency 07, Data 22/43) from the Elk River,

southern Oregon was recovered from a fish sampled at 165°45'W longitude (Table 5), and is a western range extension for chinook salmon stocks from south of the Columbia River. This recovery location is in Unimak Pass, and is the first indication that Pacific northwest chinook stocks may move through the Aleutians into the Bering Sea. A tag (Agency 4, Data 20/34) from Crooked Creek, a tributary of the Kasilof River on the Kenai Peninsula, southcentral Alaska was recovered from a fish sampled in the Bering Sea at 55°26'N latitude, 167°58'W longitude (Table 5) and is a definitive range extension of southcentral Alaska chinook stocks into the Bering Sea.

REFERENCES

Pacific Marine Fisheries Commission Regional Mark Processing Center.

1982. Releases of coded-wire tagged salmon and steelhead from Pacific coast streams through 1981. 145 p.

Dahlberg, M. L. 1981. Report of incidence of coded-wire tagged salmonids in catches of foreign commercial and research vessels operating in the North Pacific Ocean during June and July 1980-1981. (Document submitted to annual meeting of the International North Pacific Fisheries Commission, Vancouver, British Columbia, Canada, November 1981. 6 pp. Northwest and Alaska Fisheries Center, National Marine Fisheries Service., National Oceanic Atmospheric Administration, Auke Bay Laboratory, P. O. Box 155, Auke Bay, Alaska 99821.)

Dahlberg, M. L. 1982. Report of incidence of coded-wire tagged salmonids in catches of foreign commercial and research vessels operating in the North Pacific Ocean and Bering Sea 1980-1982. (Document submitted to annual meeting of the International North Pacific Fisheries Commission, Tokyo, Japan, November 1982. 11 pp. Northwest and Alaska Fisheries Center, National Marine Fisheries Service., National Oceanic Atmospheric Administration, Auke Bay Laboratory, P. O. Box 155, Auke Bay, Alaska 99821.)

Table 1.--Incidence of coded-wire tagged salmonids in landings of salmon observed by U.S. observers on board Japanese salmon motherships within the U.S. FCZ in 1983.

<u>Number of Fish:</u>	<u>Species</u>						<u>Total</u>
	<u>Sockeye</u>	<u>Chum</u>	<u>Pink</u>	<u>Coho</u>	<u>Chinook</u>	<u>Steelhead</u>	
Examined	5,439	5,384	5,569	3,799	6,615	8	26,814
Missing adipose fin	2	2	1	1	0	0	8
Coded-wire tagged	0	0	0	0	0	0	0

Table 2.--Incidence of coded-wire tagged salmonids in landings of salmon observed by Japanese and U.S. scientists on Japanese research vessels in the North Pacific Ocean and Bering Sea in 1982.

<u>Number of Fish:</u>	Species						Total
	Sockeye	Chum	Pink	Coho	Chinook	Steelhead	
Examined	19,812	45,447	56,705	14,472	1,702	760	138,898
Missing adipose fin	0	0	0	16	4	5	25
Coded-wire tagged	0	0	0	5	0	4	9

Table 3.--Incidence of coded-wire tagged salmonids in the incidental catch of salmon sampled by U.S. observers on board foreign groundfish vessels within the U.S. FCZ in 1982^{1/}.

<u>Number of Fish:</u>	<u>Species</u>						<u>Total</u>
	<u>Sockeye</u>	<u>Chum</u>	<u>Pink</u>	<u>Coho</u>	<u>Chinook</u>	<u>Steelhead</u>	
WASHINGTON, OREGON, CALIFORNIA							
Examined	1	39	0	204	6,336	1	6,581
Missing adipose fin	0	0	0	0	127	0	127
Coded-wire tagged	0	0	0	0	120	0	120
GULF OF ALASKA							
Examined	1	185	2	32	1,232	0	1,452
Missing adipose fin	0	0	0	0	6	0	6
Coded-wire tagged	0	0	0	0	5	0	5
BERING SEA, ALEUTIANS							
Examined	1	1,186	4	49	2,456	1	3,697
Missing adipose fin	0	0	0	0	2	0	2
Coded-wire tagged	0	0	0	0	2	0	2

1 Source: J. Wall, National Marine Fisheries Service, Northwest and Alaska Fisheries Center, personal communication.

Table 4.--Abbreviations of tagging agencies which released coded-wire tagged salmonids recovered in foreign commercial and research vessel catches, January 1982 to August 1983.

Tagging agency code	Agency name
ADFG	Alaska Department of Fish and Game
ANAD	Anadromous, Inc.
BCFW	British Columbia Fish and Wildlife
BHSR	Burnt Hill Salmon Ranch
CDFG	California Department of Fish and Game
CFSO	Canada Department of Fisheries and Oceans - Operations
ELWA	Elwah Indian Tribe
FWS	U.S. Fish and Wildlife Service
HOH	Hoh Indian Tribe
IDFG	Idaho Department of Fish and Game
MIC	Metlakatla Indian Community
NMFS	National Marine Fisheries Service
OAF	Oregon Aqua-Foods, Inc.
ODFW	Oregon Department of Fish and Wildlife
SUQ	Suquamish Indian Tribe
UW	College of Fisheries, University of Washington
WDF	Washington Department of Fisheries

Table 5.--Release and recovery information for coded-wire tagged chinook salmon recovered from the North Pacific Ocean in 1982 and 1983. TSFT = fish length measured from tip of snout to fork of tail; -- = not available; Res. gillnet = research gillnet; Com. gillnet = commercial gillnet.

RELEASE ¹							RECOVERY							
Agency Data 1 Data 2	Brood year	Release site	State or Province	Last month planted	Number tagged	Agency ²	Date	Latitude N	Longitude	Length TSFT (mm)	Body weight (g)	Gonad weight (g)	Sex	Gear
-1982-														
ND Sa	1978	Columbia River	OR-WA Border	5/80	33,641	NMFS	6/03	46°38'	124°18'W	640	3,450	--	F	Trawl
02 20 00	1978	Babine River	British Col.	7/79	67,741	CFSO	6/27	53°05'	167°11'W	615	2,500	3	F	Trawl
04 20 34	1980	Crooked Creek	Alaska	3/81	51,500	ADFG	10/28	54°37'	158°44'W	470	1,350	<5	F	Trawl
04 20 34	1980	Crooked Creek	Alaska	3/81	51,500	ADFG	11/8	55°26'	167°58'W	505	1,800	--	F	Trawl
05 04 33	1978	Columbia River	Washington	5/79	140,948	NMFS	6/29	47°---	124°---W	--	--	--	-	Trawl
05 05 27	1979	Snake River	Idaho	6/80	58,100	FWS	10/01	48°16'	124°12'W	640	3,470	15	F	Trawl
05 06 42	1979	Spring Creek	Washington	8/80	23,563	NMFS	9/01	48°18'	125°00'W	670	4,060	110	F	Trawl
05 06 49	1979	Columbia River	OR-WA Border	5/80	103,319	NMFS	4/26	44°08'	124°21'W	785	5,500	--	M	Trawl
05 07 46	1980	Columbia River	OR-WA Border	4/81	150,544	FWS	9/25	47°34'	124°46'W	527	1,970	<5	M	Trawl
06 48 12	1978	Sacramento R.	California	10/79	36,610	CDFG	7/04	48°--	125°---W	820	6,800	95	F	Trawl
06 58 22	1980	Vallejo	California	6/81	39,871	CDFG	5/20	40°34'	124°38'W	430	1,100	<10	F	Trawl
06 59 02	1979	Klamath River	California	11/80	91,000	CDFG	5/10	40°48'	124°25'W	510	1,600	-	M	Trawl
06 59 02	1979	Klamath River	California	11/80	91,000	CDFG	5/10	40°50'	124°26'W	560	2,100	<10	M	Trawl
06 59 02	1979	Klamath River	California	11/80	91,000	CDFG	5/10	40°50'	124°26'W	480	1,230	<10	F	Trawl
06 59 02	1979	Klamath River	California	11/80	91,000	CDFG	5/20	40°28'	124°32'W	560	2,220	--	F	Trawl
06 59 02	1979	Klamath River	California	11/80	91,000	CDFG	5/21	40°40'	124°31'W	520	1,560	--	M	Trawl
06 59 02	1979	Klamath River	California	11/80	91,000	CDFG	5/11	40°59'	124°32'W	480	1,360	--	M	Trawl
06 59 02	1979	Klamath River	California	11/80	91,000	CDFG	5/11	40°56'	124°33'W	520	1,580	--	F	Trawl
06 59 03	1979	Klamath River	California	6/80	189,420	CDFG	5/20	40°32'	124°37'W	470	1,340	10	F	Trawl
06 59 03	1979	Klamath River	California	6/80	189,420	CDFG	4/14	41°27'	124°26'W	555	1,980	--	-	Trawl
06 59 03	1979	Klamath River	California	6/80	189,420	CDFG	5/06	40°53'	124°22'W	490	2,500	--	M	Trawl
06 59 03	1979	Klamath River	California	6/80	189,420	CDFG	5/17	40°45'	124°29'W	570	2,400	<10	F	Trawl
06 59 03	1979	Klamath River	California	6/80	189,420	CDFG	5/12	41°15'	124°27'W	521	1,840	<100	F	Trawl
06 59 03	1979	Klamath River	California	6/80	189,420	CDFG	5/15	41°04'	124°30'W	590	2,400	-	M	Trawl
06 59 03	1979	Klamath River	California	6/80	189,420	CDFG	5/20	40°28'	124°34'W	580	2,400	-	M	Trawl
06 59 03	1979	Klamath River	California	6/80	189,420	CDFG	5/15	41°04'	124°30'W	540	1,630	-	F	Trawl
06 59 03	1979	Klamath River	California	6/80	189,420	CDFG	5/15	41°04'	124°33'W	550	1,680	-	F	Trawl
06 59 13	1980	Upper Klamath River	California	10/81	1,800	CDFG	5/15	41°--	124°33'W	330	380	-	F	Trawl
06 60 18	1980	Battle Creek	California	2/81	46,548	CDFG	6/01	46°30'	124°18'W	240	n/a	-	M	Trawl
06 61 09	1981	Trinity River	California	10/80	90,995	CDFG	5/20	40°34'	124°38'W	530	2,000	-	F	Trawl
06 61 09	1981	Trinity River	California	10/80	90,995	CDFG	4/25	44°	124°	762	n/a	<100	F	Trawl
06 61 09	1981	Trinity River	California	10/80	90,995	CDFG	5/06	40°50'	124°26'W	500	1,400	<100	F	Trawl
06 61 09	1981	Trinity River	California	10/80	90,995	CDFG	5/12	41°15'	124°27'W	595	1,510	<100	M	Trawl
06 61 09	1981	Trinity River	California	10/80	90,995	CDFG	5/18	40°45'	124°30'W	500	1,250	-	F	Trawl
06 61 09	1981	Trinity River	California	10/80	90,995	CDFG	5/11	40°56'	124°33'W	520	1,640	-	M	Trawl
06 61 10	1978	Lower Trinity R.	California	6/79	187,800	CDFG	5/15	41°	124°33'W	810	2,400	-	F	Trawl
06 61 15	1978	Trinity River	California	3/80	156,020	CDFG	5/15	41°	124°33'W	640	2,800	-	F	Trawl
06 61 15	1978	Trinity River	California	3/80	156,020	CDFG	5/08	40°45'	124°30'W	720	3,600	-	F	Trawl
06 61 17	1979	Willow Creek	California	6/80	193,897	CDFG	5/06	40°52'	124°22'W	530	1,790	10	F	Trawl
06 61 17	1979	Willow Creek	California	6/80	193,897	CDFG	5/06	40°52'	124°21'W	510	1,800	-	F	Trawl
06 61 17	1979	Willow Creek	California	6/80	193,897	CDFG	5/14	41°27'	124°26'W	530	1,800	-	M	Trawl
06 61 17	1979	Willow Creek	California	6/80	193,897	CDFG	5/20	40°38'	124°34'W	550	2,100	<10	M	Trawl
06 61 17	1979	Willow Creek	California	6/80	193,897	CDFG	5/20	40°38'	124°34'W	500	1,630	-	F	Trawl

Table 5.--continued.

Tag code:		RELEASE ¹					RECOVERY									
AGENCY	DATA 1	DATA 2	Brood year	Release site	State or Province	Last	Number tagged	Agency ²	Date	Latitude		Length TSFT (mm)	Body weight (g)	Gonad weight (g)	Sex	Gear
						month planted				N	Longitude					
06	61	17	1979	Willow Creek	California	6/80	193,897	CDFG	5/11	40°57'	124°22'W	470	1,100	<10	F	Trawl
06	61	17	1979	Willow Creek	California	6/80	193,897	CDFG	5/19	40°54'	124°20'W	520	1,750	<10	F	Trawl
06	61	17	1979	Willow Creek	California	6/80	193,897	CDFG	5/04	41°40'	124°21'W	510	1,300	<10	F	Trawl
06	61	17	1979	Willow Creek	California	6/80	193,897	CDFG	5/07	40°50'	124°23'W	460	1,000	<50	F	Trawl
06	61	17	1979	Willow Creek	California	6/80	193,897	CDFG	5/09	40°47'	124°27'W	530	1,600	<50	F	Trawl
06	61	17	1979	Willow Creek	California	6/80	193,897	CDFG	5/17	40°57'	124°36'W	510	1,480	-	F	Trawl
06	61	17	1979	Willow Creek	California	6/80	193,897	CDFG	5/09	40°47'	124°27'W	500	1,300	<50	M	Trawl
06	61	17	1979	Willow Creek	California	6/80	193,897	CDFG	5/21	40°32'	124°36'W	510	1,620	-	F	Trawl
06	61	17	1979	Willow Creek	California	6/80	193,897	CDFG	5/11	40°59'	124°32'W	580	2,050	-	M	Trawl
06	61	20	1979	Trinity River	California	6/81	82,982	CDFG	5/22	40°45'	124°28'W	460	1,210	1	M	Trawl
06	61	20	1979	Trinity River	California	6/81	82,982	CDFG	5/22	43°04'	124°35'W	470	1,400	-	F	Trawl
06	61	20	1979	Trinity River	California	6/81	82,982	CDFG	5/20	40°35'	124°38'W	510	1,700	<10	F	Trawl
06	61	20	1979	Trinity River	California	6/81	82,982	CDFG	5/09	40°47'	124°27'W	440	1,100	<50	M	Trawl
06	61	20	1979	Trinity River	California	6/81	82,982	CDFG	5/04	41°40'	124°21'W	520	1,400	<10	M	Trawl
06	61	20	1979	Trinity River	California	6/81	82,982	CDFG	4/28	44°04'	124°24'W	490	1,400	-	M	Trawl
06	61	20	1979	Trinity River	California	6/81	82,982	CDFG	5/02	44°	124°	490	1,650	<100	F	Trawl
06	61	20	1979	Trinity River	California	6/81	82,982	CDFG	5/01	43°54'	124°18'W	490	1,540	<100	M	Trawl
06	61	20	1979	Trinity River	California	6/81	82,982	CDFG	5/21	40°30'	124°35'W	510	1,680	-	M	Trawl
06	61	20	1979	Trinity River	California	6/81	82,982	CDFG	5/11	40°59'	124°32'W	400	1,390	-	M	Trawl
06	61	21	1980	Trinity River	California	9/81	104,160	CDFG	5/02	43°58'	124°15'W	306	370	<100	M	Trawl
06	61	21	1980	Trinity River	California	9/81	104,160	CDFG	5/02	43°58'	124°15'W	333	500	<100	F	Trawl
06	61	32	1979	Trinity River	California	6/80	187,494	CDFG	5/02	41°	124°	460	1,200	-	F	Trawl
06	61	33	1979	Willow Creek	California	6/80	181,134	CDFG	5/10	40°48'	124°25'W	560	2,100	-	M	Trawl
06	61	33	1979	Willow Creek	California	6/80	181,134	CDFG	5/06	40°50'	124°26'W	520	1,820	-	F	Trawl
06	61	33	1979	Willow Creek	California	6/80	181,134	CDFG	5/11	40°59'	124°32'W	550	2,100	-	M	Trawl
06	61	34	1979	Trinity River	California	10/80	86,594	CDFG	5/06	40°52'	124°21'W	560	1,700	-	M	Trawl
06	61	34	1979	Trinity River	California	10/80	86,594	CDFG	5/10	40°48'	124°25'W	400	1,700	-	F	Trawl
06	61	34	1979	Trinity River	California	10/80	86,594	CDFG	5/10	40°48'	124°25'W	490	1,600	-	F	Trawl
06	61	34	1979	Trinity River	California	10/80	86,594	CDFG	5/11	40°05'	124°32'W	510	1,420	-	F	Trawl
06	61	34	1979	Trinity River	California	10/80	86,594	CDFG	5/11	40°56'	124°33'W	520	1,600	-	M	Trawl
06	61	34	1979	Trinity River	California	10/80	86,594	CDFG	5/10	40°45'	124°33'W	510	2,150	-	M	Trawl
06	61	36	1979	Trinity River	California	3/81	35,666	CDFG	5/06	40°53'	124°22'W	440	950	-	F	Trawl
06	61	36	1979	Trinity River	California	3/81	35,666	CDFG	5/05	41°28'	124°28'W	470	1,380	<100	F	Trawl
06	61	36	1979	Trinity River	California	3/81	35,666	CDFG	5/19	40°32'	124°36'W	510	1,780	-	F	Trawl
07	18	41	1978	Willamette River	Oregon	5/79	283,783	ODFW	6/03	46°32'	124°21'W	910	9,400	10	M	Trawl
07	18	54	1978	Rogue River	Oregon	3/80	24,394	ODFW	5/01	40°59'	124°32'W	540	1,860	50	F	Trawl
07	19	34	1978	Rogue River	Oregon	10/79	29,631	ODFW	5/10	40°45'	124°33'W	480	1,360	-	M	Trawl
07	19	36	1978	Rogue River	Oregon	12/79	29,447	ODFW	5/06	40°53'	124°22'W	700	4,150	-	F	Trawl
07	20	55	1979	Willamette River	Oregon	6/80	282,039	ODFW	6/15	46°50'	124°55'W	610	2,700	9	F	Trawl
07	20	55	1979	Willamette River	Oregon	6/80	282,039	ODFW	6/08	47°18'	124°25'W	650	3,800	-	F	Trawl
07	21	60	1979	Big Creek	Oregon	5/80	143,385	ODFW	7/02	48°57'	124°55'W	700	4,200	50	F	Trawl
07	21	60	1979	Big Creek	Oregon	5/80	143,285	ODFW	7/04	47°21'	124°44'W	670	4,200	-	M	Trawl
07	22	09	1979	Rogue River	Oregon	10/80	31,710	ODFW	4/17	41°29'	124°37'W	520	1,750	-	F	Trawl
07	22	09	1979	Rogue River	Oregon	10/80	31,710	ODFW	4/18	41°30'	124°39'W	530	2,000	-	F	Trawl
07	22	09	1979	Rogue River	Oregon	10/80	31,710	ODFW	5/11	40°57'	124°25'W	520	1,800	<10	F	Trawl
07	22	10	1979	Rogue River	Oregon	10/80	31,878	ODFW	5/20	40°34'	124°38'W	500	1,600	<10	M	Trawl
07	22	15	1979	Rogue River	Oregon	10/80	33,132	ODFW	5/11	40°59'	124°32'W	500	1,320	-	F	Trawl
07	22	16	1979	Rogue River	Oregon	10/80	32,105	ODFW	5/10	40°50'	124°26'W	530	1,950	<10	F	Trawl

Table 5.--continued.

RELEASE ¹										RECOVERY				
Tag code: AGENCY DATA 1 DATA 2	Brood year	Release site	State or Province	Last month planted	Number tagged	Agency ¹	Date	Latitude		Length TSFT (mm)	Body weight (g)	Gonad weight (g)	Sex	Gear
								N	Longitude					
07 22 26	1979	Willamette River	Oregon	11/80	28,379	ODFW	11/12	58°37'	148°21'W	635	3,400	10	F	Trawl
07 22 28	1979	N. Umpqua River	Oregon	10/80	23,723	ODFW	5/04	41°40'	124°21'W	560	2,000	<10	F	Trawl
07 22 29	1979	Rock Creek (Siletz)	Oregon	2/81	24,364	ODFW	5/02	43°47'	124°17'W	501	1,840	<100	F	Trawl
07 22 29	1979	Rock Creek (Siletz)	Oregon	2/81	24,364	ODFW	6/14	46°53'	124°28'W	580	2,500	20	F	Trawl
07 22 31	1979	Rogue River	Oregon	3/81	24,446	ODFW	5/19	40°45'	124°30'W	510	1,580	-	F	Trawl
07 22 35	1979	Rogue River	Oregon	10/80	32,041	ODFW	5/06	40°57'	124°22'W	540	2,250	-	F	Trawl
07 22 35	1979	Rogue River	Oregon	10/80	32,041	ODFW	5/12	40°49'	124°30'W	500	1,500	-	F	Trawl
07 22 39	1979	Salmon River	Oregon	10/80	22,741	ODFW	11/14	54°56'	157°26'W	600	2,900	3	F	Trawl
07 22 43	1979	Elk River	Oregon	9/80	25,945	ODFW	5/09	54°21'	165°45'W	520	1,700	2	F	Trawl
07 22 44	1979	Elk River	Oregon	10/80	26,173	ODFW	5/22	43°00'	124°40'W	550	2,000	-	M	Trawl
07 22 46	1979	Chetco River	Oregon	11/80	28,141	ODFW	5/01	40°59'	124°32'W	510	1,700	-	F	Trawl
07 23 07	1979	Willamette River	Oregon	3/81	31,681	ODFW	6/01	46°29'	124°12'W	480	1,500	-	M	Trawl
07 23 35	1979	Rogue River	Oregon	10/80	32,169	ODFW	9/16	46°56'	124°36'W	570	2,250	15	M	Trawl
07 23 40	1979	Chetco River	Oregon	9/80	26,797	ODFW	5/12	41°15'	124°27'W	500	1,550	<100	F	Trawl
07 23 40	1979	Chetco River	Oregon	9/80	26,797	ODFW	9/06	48°04'	125°19'W	764	6,600	250	M	Trawl
07 23 44	1980	Tanner Creek	Oregon	5/81	51,818	ODFW	9/25	47°33'	124°47'W	541	1,890	<5	M	Trawl
07 25 05	1980	Salmon River	Oregon	8/81	27,107	ODFW	11/29	54°43'	158°09'W	520	1,750	-	F	Trawl
07 25 09	1980	Rogue River	Oregon	9/81	31,297	ODFW	5/02	43°58'	124°15'W	327	450	<100	M	Trawl
11 16 18	1978	Portage Bay	Washington	5/79	53,537	UW	7/18	48°25'	124°56'W	--	--	--	-	Trawl
60 33 59	1980	Coos Bay	Oregon	9/81	16,682	OAF	9/20	47°04'	124°45'W	668	2,230	7	F	Trawl
62 17 03	1979	Coos Bay	Oregon	8/80	16,721	ANAD	9/14	43°12'	124°40'W	714	3,750	6	F	Trawl
62 17 03	1979	Coos Bay	Oregon	8/80	16,721	ANAD	9/20	46°57'	124°39'W	627	3,650	20	F	Trawl
62 17 04	1979	Pacific Ocean	Oregon	9/80	18,214	BHSR	5/20	40°34'	124°38'W	580	2,600	<10	F	Trawl
62 17 04	1979	Pacific Ocean	Oregon	9/80	18,214	BHSR	5/20	40°57'	124°27'W	560	2,050	<10	M	Trawl
62 18 08	1980	Pacific Ocean	Oregon	10/81	11,090	BHSR	5/20	40°59'	124°32'W	510	1,240	-	F	Trawl
62 51 04	1980	Coos Bay	Oregon	9/81	3,374	ANAD	5/02	43°58'	124°15'W	312	400	<100	M	Trawl
63 17 45	1977	Columbia River	Washington	6/78	146,696	WDF	7/02	47°57'	124°55'W	950	11,800	150	F	Trawl
63 20 42	1979	Friday Creek	Washington	5/80	100,514	WDF	7/18	48°25'	124°56'W	540	2,280	15	F	Trawl
63 20 42	1979	Friday Creek	Washington	5/80	100,514	WDF	6/30	45°15'	124°09'W	680	4,500	-	M	Trawl
63 20 47	1979	Hopp Springs	Washington	3/81	48,514	WDF	9/19	48°23'	124°12'W	536	1,950	8	M	Trawl
63 21 01	1979	Friday Creek	Washington	5/80	106,037	WDF	8/23	48°20'	124°56'W	670	2,900	2	M	Trawl
63 21 02	1979	Friday Creek	Washington	5/80	103,023	WDF	7/05	48°27'	124°56'W	580	2,500	50	F	Trawl
63 21 02	1979	Friday Creek	Washington	5/80	103,023	WDF	8/07	48°15'	124°58'W	530	1,850	<10	M	Trawl
63 22 08	1979	Lewis River	Washington	6/80	24,468	WDF	7/07	48°24'	124°56'W	570	2,500	50	F	Trawl
H6 01 01	1980	Sacramento River	California	2/81	35,905	CDFG	9/20	47°04'	124°45'W	621	3,090	12	F	Trawl

Table 5.--continued.

Tag code:		RELEASE ¹										RECOVERY			
AGENCY DATA 1 DATA 2	Brood year	Release site	State or Province	Last month planted	Number tagged	Agency ²	Date	Latitude		Length TSFT (mm)	Body weight (g)	Gonad weight (g)	Sex	Gear	
								N	Longitude						
-1983-															
02 18 41	1980	Little Nitnat River	Brit. Col.	5/81	78,857	CFSO	3/16	56°51'	155°55'W	---	1,300	-	F	Trawl	
02 20 01	1979	Kitimat River	Brit. Col.	5/80	39,114	CFSO	2/20	57°37'	155°12'W	800	7,000	10	M	Trawl	
04 20 39	1979	Ketchikan Creek	Alaska	5/81	15,204	ADFG	2/03	57°47'	154°08'W	542	1,720	-	M	Trawl	
05 06 48	1979	Columbia River	OR-WA Border	5/80	102,928	NMFS	6/18	47°25'	124°48'W	920	8,900	20	M	Trawl	
05 10 23	1981	Lower Granite Dam	Washington	6/82	80,425	IDFG	7/29	47°19'	124°40'W	470	1,250	-	F	Trawl	
05 10 47	1981	Grovers Creek	Washington	5/82	47,471	SUQ	8/27	48°17'	124°56'W	460	1,000	-	M	Trawl	
05 10 51	1981	Columbia River	Washington	4/82	38,854	NMFS	8/29	48°10'	124°56'W	580	1,350	-	F	Trawl	
06 58 21	1980	San Francisco Bay	California	6/81	46,271	CDFG	5/16	45°31'	124°21'W	520	1,700	<10	M	Trawl	
06 58 25	1980	Vallejo	California	8/81	43,103	CDFG	5/16	45°30'	124°28'W	630	4,400	50	F	Trawl	
06 60 19	1980	Sacramento River	California	2/81	49,766	CDFG	5/08	44°41'	124°34'W	690	4,400	<10	M	Trawl	
06 60 31	1981	Sacramento River	California	5/82	44,540	CDFG	7/12	47°16'	124°40'W	460	1,500	10	F	Trawl	
06 61 09	1979	Trinity River	California	10/80	90,995	CDFG	7/09	47°30'	124°48'W	710	4,200	40	M	Trawl	
06 61 21	1980	Trinity River	California	9/81	104,160	CDFG	5/19	45°49'	124°40'W	620	3,200	<20	F	Trawl	
07 23 05	1979	Willamette River	Oregon	3/81	29,928	ODFW	2/03	57°52'	154°00'W	519	1,430	10	F	Trawl	
07 24 10	1981	Big Creek	Oregon	6/82	96,798	ODFW	8/26	48°22'	124°51'W	445	1,050	-	-	Trawl	
07 25 09	1980	Rogue River	Oregon	9/81	31,297	ODFW	5/19	45°51'	124°39'W	500	2,400	-	F	Trawl	
07 25 14	1980	Rogue River	Oregon	8/81	30,076	ODFW	5/19	45°51'	124°39'W	---	1,400	-	F	Trawl	
07 25 39	1980	Chetco River	Oregon	9/81	27,190	ODFW	6/20	47°38'	124°54'W	580	2,500	-	M	Trawl	
63 19 44	1979	Big Soos Creek	Washington	5/80	119,913	WDF	7/03	47°37'	125°00'W	760	5,210	-	F	Trawl	
63 20 05	1979	Elokamin River	Washington	6/80	20,500	WDF	7/03	47°37'	125°00'W	750	4,980	-	F	Trawl	
63 21 34	1980	Cowlitz River	Washington	4/82	24,014	WDF	7/09	47°29'	124°47'W	520	1,620	<20	M	Trawl	

1/ Release data were obtained from Pacific Marine Fisheries Commission Regional Mark Processing Center.

2/ See Table 4 for tagging agencies.

Table 6.--Release and recovery information for coded-wire tagged coho salmon recovered from the North Pacific Ocean in 1982 and 1983. TSFT = fish length measured from tip of snout to fork of tail; -- = not available; Res. gillnet = research gillnet; Com. gillnet = commercial gillnet.

RELEASE ¹										RECOVERY				
Tag code:										Length TSFT (mm)	Body weight (g)	Gonad weight (g)	Sex	Gear
AGENCY DATA 1	DATA 2	Brood year	Release site	State or Province	Last month planted	Number tagged	Agency ²	Date	Latitude N Longitude					
-1982-														
03 17 21		1978	Toledo Harbor	Alaska	5/81	2,399	NMFS	7/23	55°00' 143°00'W	598	2,780	76	F	Res. gillnet
03 17 44		1980	Little Port Walter	Alaska	5/82	8,738	NMFS	7/25	56°28' 135°19'W	190	85	--	-	Res. gillnet
03 17 45		1980	Little Port Walter	Alaska	5/82	9,950	NMFS	7/25	56°28' 135°19'W	211	97	--	-	Res. gillnet
03 17 45		1980	Little Port Walter	Alaska	5/82	9,950	NMFS	7/25	56°28' 135°19'W	201	105	--	-	Res. gillnet
47 16 01		1980	Ketchikan Cr.	Alaska	5/82	31,508	MIC	7/25	56°28' 135°19'W	208	99	--	-	Res. gillnet
-1983-														
07 25 50		1980	Cedar River	Oregon	4/82	26,426	ODFW	6/20	47°38' 124°54'W	530	1,700	20	F	Trawl
63 23 54		1980	Voight Creek	Washington	6/82	11,063	WDF	6/20	47°38' 124°54'W	490	1,540	--	M	Trawl

¹ Release data were obtained from Pacific Marine Fisheries Commission Regional Mark Processing Center.

² See Table 4 for tagging agencies.

Table 7.--Release and recovery information for coded-wire tagged steelhead salmon recovered from the North Pacific Ocean in 1982 and 1983. TSFT = fish length measured from tip of snout to fork of tail; -- = not available; Res. gillnet = research gillnet; Com. gillnet = commercial gillnet.

RELEASE ¹										RECOVERY				
Tag code: AGENCY DATA 1 DATA 2	Brood year	Release site	State or Province	Last month planted	Number tagged	Agency ²	Date	Latitude		Length TSFT (mm)	Body weight (g)	Gonad weight (g)	Sex	Gear
								N	Longitude					
-1982-														
05 07 37	1980	Elwha R.	Washington	4/81	18,239	ELWA	6/17	43°54'	179°56'W	572	2,280	11	M	Res. gillnet
05 07 55	1980	Hoh R.	Washington	3/81	17,568	HOH	7/17	44°45'	177°45'W	578	1,920	8	F	Res. gillnet
10 21 61	1979	N. Fk. Clearwater	Idaho	4/80	49,200	IDFG	6/17	43°53'	179°53'W	778	5,200	19	F	Res. gillnet
12 18 24	1979	Robertson Cr.	British Col.	5/80	6,236	BCFW	7/23	55°00'	143°00'W	740	4,550	11	M	Res. gillnet
-1983-														
12 17 53	1982	Robertson Cr.	British Col.	--	--	BCFW	7/5	55°00'	147°30'W	270	180	1	F	Res. gillnet
23 06 06	1980	Clearwater R.	Idaho	4/82	29,838	NMFS	8/3	48°02'	173°28'E	620	2,640	2	M	Res. gillnet
MH DB WH	1981	Methow R.	Washington	4/82	25,004	NMFS	8/4	48°30'	171°21'E	655	3,200	3	F	Res. gillnet

¹ Release data were obtained from Pacific Marine Fisheries Commission Regional Mark Processing Center.

² See Table 4 for tagging agencies.