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**TAGS RELEASED DURING U.S.S.R. HIGH SEAS  
SALMONID TAGGING OPERATIONS IN 1987  
AND DURING THE FINAL LEGS OF  
U.S.S.R.-U.S. COOPERATIVE CRUISES  
IN 1988 AND 1989**

by

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# TAGS RELEASED DURING U.S.S.R. HIGH SEAS SALMONID TAGGING OPERATIONS IN 1987 AND DURING THE FINAL LEGS OF U.S.S.R.-U.S. COOPERATIVE CRUISES IN 1988 AND 1989

## ABSTRACT

Data is provided to the Commission on tag releases that have not been previously reported from 1987, 1988, and 1989 U.S.S.R.-U.S. cruises. In 1987 the U.S.S.R. released 1,782 salmon tagged with red-and-white disk tags provided by the U.S. Fish were released between 40°N and 57°N and between 147°E and 164°E from April through August. In the final leg of the 1988 U.S.S.R.-U.S. cooperative tagging cruise, 573 tagged salmon were released between 42°N and 46°N and between 156°E and 172°E from mid-June to early July. In the final leg of the 1989 U.S.S.R.-U.S. cooperative tagging cruise, 4 tagged salmon were released in mid-July in the vicinity of 49°N, 161°E.

## INTRODUCTION

The United States and the U.S.S.R. have cooperated in a high seas salmonid sampling and tagging program since 1983 (Harris 1983, 1984, 1985; Kautsky and Harris 1986; Walker et al. 1988, 1989). This document presents information not previously reported on tags released in 1987, 1988, and 1989. Data were provided by the U.S.S.R.'s Pacific Research Institute of Fisheries and Oceanography (TINRO).

In 1987 Soviet research vessels operated in waters of the far western North Pacific, and U.S. scientists did not participate. However, standard INPFC disk tags provided by the Fisheries Research Institute (FRI) were used to tag salmon. These tag releases are reported to INPFC for the first time.

In 1988 and 1989 U.S. scientists participated with Soviet scientists in portions of salmonid sampling and tagging programs in the North Pacific. Data on tag releases and other information from the first portions of those cruises have been reported previously (Walker et al. 1988, 1989). We report here data on tag releases made after U.S. scientists disembarked.

This report provides information promised in previous documents to complete the reports of the 1988 and 1989 surveys, and presents information on the 1987 survey. Information on the vessel, gear, and sampling methods of the 1988 and 1989 cruises are found in the earlier reports; methods used in the 1987 cruise were substantially the same as in other years.

## RESULTS

Table 1 contains basic tag release data for 1987. Salmon were tagged in 37 of the 51 sets made that year. The great majority of fish tagged (1,578 of 1,782) were pink salmon; chum salmon comprised 11% of the total tagged, and one chinook salmon was tagged. Tagging was conducted primarily between 41°N and 44°N, and between 151°E and 164°E from April through June, and at the southwestern and northeastern ends of the Kurile Islands in July and August.

Table 2 presents basic salmonid catch and tag release data from the 21 seine sets of the final (third) cruise of 1988 (16 June-4 July). Overall salmonid CPUE was 44.1 fish/set, including two catches of 352 and 279 fish. The salmonids caught were almost all pink (763) and chum (163) salmon. All 573 releases (481 pink and 92 chum) were made between 42°N and 46°N, and between 156°E and 172°E.

Only two sets were made on the final, fourth leg of the 1989 cruise. Basic salmonid catch and tag release data from these sets are presented in Table 3. Only seven salmon were caught, of which four (1 sockeye, 2 chum, and 1 pink) were tagged.

Figure 1 shows locations of seine sets from each year for the data reported here.

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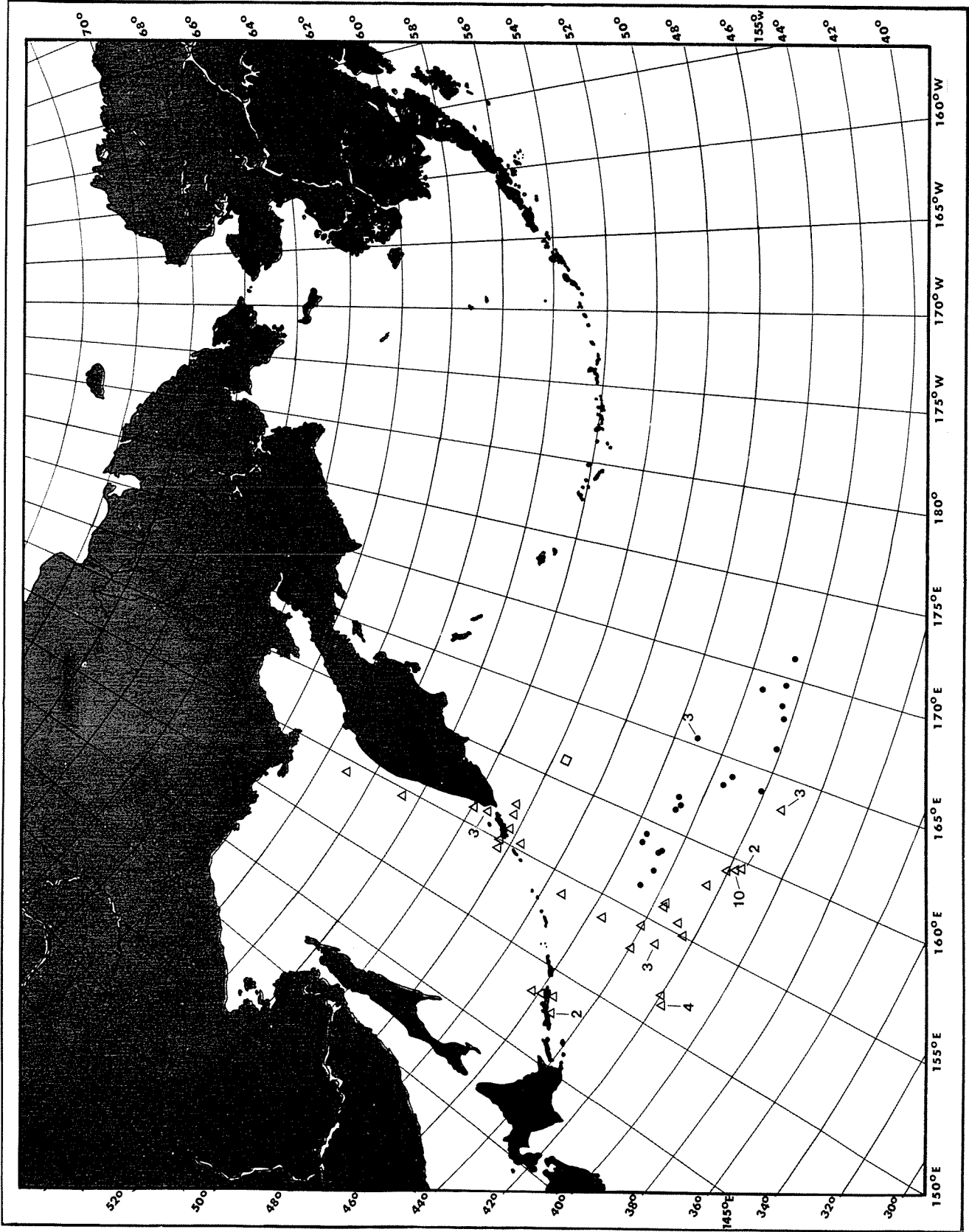


Fig. 1. Seining locations for U.S.S.R. salmon research in 1987 ( $\Delta$ ) and for the final legs of U.S.S.R.-U.S. cooperative cruises in 1988 ( $\bullet$ ) and 1989 ( $\square$ ).





Table 2. Salmonid catches and tag releases by seine net, final leg of U.S.S.R.-U.S. cooperative high seas salmonid research on R/V Nemirov, 1988.

Set No.	Location		Surf. T. (C)	Salmonid catch					Tag releases					Total	Tag serial numbers			
	N. Lat.	Long.		Red	Chum	Pink	Coho	King	Sthd.	Total	Red	Chum	Pink			Coho	King	Sthd.
N16	42-36	171-22E	6.3	0	8	13	0	0	0	21	0	8	12	0	0	0	20	P783-P786, P788-P803
N17	42-31	169-39E	6.3	0	6	19	0	0	0	25	0	6	19	0	0	0	25	P804-P828
N18	42-28	168-15E	5.4	0	1	15	0	0	0	16	0	1	6	0	0	7	P829-P835	
N19	42-09	166-19E	6.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
N20	42-05	163-44E	7.3	0	2	0	0	0	0	2	0	0	0	0	0	0	0	
N21	44-39	161-26E	6.6	0	4	8	0	0	0	12	0	0	0	0	0	0	0	
N22	44-48	161-10E	6.3	0	2	8	0	0	0	10	0	2	6	0	0	0	8	P836-P843
N23	44-53	158-20E	6.3	0	3	349	0	0	0	352	0	3	189	0	0	0	192	P844-P999, U100-U135
N24	44-53	158-20E	6.4	0	3	276	0	0	0	279	0	2	195	0	0	0	197	U136-U332
N25	44-36	157-17E	6.6	0	0	8	0	0	0	8	0	0	8	0	0	0	8	U333-U340
N26	44-56	156-34E	6.4	0	2	4	0	0	0	6	0	2	2	0	0	0	4	U341-U344
N27	45-38	158-05E	5.9	0	3	0	0	0	0	3	0	3	0	0	0	0	3	U345-U347
N28	45-36	159-17E	6.0	0	3	17	0	0	0	20	0	2	11	0	0	0	13	U348-U360
N29	44-37	162-06E	6.9	0	3	5	0	0	0	8	0	3	4	0	0	0	7	U361-U367
N30	43-11	164-03E	8.0	0	10	2	0	0	0	12	0	6	2	0	0	0	8	U368-U375
N31	43-34	163-28E	9.1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	
N32	42-12	167-43E	7.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
N33	43-31	168-58E	7.4	0	16	28	0	0	0	44	0	16	26	0	0	0	42	U376-U417
N34	44-59	165-34E	6.8	1	52	4	0	0	0	57	0	0	0	0	0	0	0	
N35	45-00	165-33E	7.5	0	44	7	0	0	0	51	0	38	1	0	0	0	39	U418-U456
N36	44-59	165-27E	7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cruise 3 totals:				1	163	763	0	0	0	927	0	92	481	0	0	0	573	

Table 3. Salmonid catches and tag releases by seine net, final leg of U.S.S.R.-U.S. cooperative high seas salmonid research on R/V Nemirov, 1989.

Set No.	Location		Surf. T. (C)	Salmonid catch					Tag releases					Total	Tag serial numbers				
	N. Lat.	Long.		Red	Chum	Pink	Coho	King	Sthd.	Total	Red	Chum	Pink			Coho	King	Sthd.	
N35	7/15	data missing	8.5	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	
N36	7/16	49-22 161-10E	8.8	2	4	1	0	0	0	7	1	2	1	0	0	0	4	W410-W411, W414-W415	
Cruise 4 totals:				2	5	1	0	0	0	8	1	2	1	0	0	0	4		