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**TAG RETURNS IN 1991-  
UNITED STATES HIGH SEAS SALMON TAGGING**

by

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# TAG RETURNS IN 1991 - UNITED STATES HIGH SEAS SALMON TAGGING

## ABSTRACT

Eighteen recoveries (5 sockeye, 10 chum, and 3 pink salmon) of tagged fish released during U.S. tagging operations in 1964 (1 fish) and 1966 (1 fish) and U.S.S.R.-U.S. tagging operations in 1989 (1 fish) and 1990 (15 fish) are reported. The fish were recovered in coastal and freshwater areas of Asia (10 fish) and North America (8 fish). All ten Asian fish were chum salmon released in 1990 and recovered in Hokkaido, Japan, in 1990. The known range of maturing chum salmon from Japan was extended eastward in the Bering Sea from 168°51'W, 53°25'N to 165°39'W, 54°48'N by the recovery in Hokkaido of two chum salmon that were tagged in the Bering Sea-Unimak Pass area. In addition, two of the Hokkaido recoveries were chum salmon that had been tagged in the area southwest of 46°N, 175°W in late April. The five sockeye salmon were from 1990 releases, and all were recovered in Bristol Bay, Alaska, in 1990 (4 fish) and 1991 (1 fish). Two of the sockeye salmon recovered in 1990 were from a large catch (587 fish caught, 545 fish tagged) that was made in INPFC area E7546 (179°34'E, 47°18'N) in late April 1990. Ten recoveries of Bristol Bay sockeye salmon from this same tagging operation were reported to INPFC in 1990. The three pink salmon, which were tagged at various release sites in the Gulf of Alaska in 1989, 1966, and 1964, were recovered in Cook Inlet, Prince of Wales I., and Kodiak I., Alaska. None of these recoveries extended the known ocean ranges North American salmon.

## INTRODUCTION

This is a report of all recoveries of high seas salmon tags released during U.S. and cooperative U.S.S.R.-U.S. tagging operations and returned between 1 September 1990 and 31 August 1991. The tagging experiments conducted in 1964, 1966, 1989, and 1990 are summarized by Hartt et al. (1966, 1967) and Walker et al. (1989, 1990).

## RESULTS AND DISCUSSION

Eighteen recoveries (5 sockeye, 10 chum, and 3 pink salmon) of tagged fish released during U.S. tagging operations in 1964 and 1966 and U.S.S.R.-U.S. tagging operations in 1989 and 1990 are reported (Table 1). The fish were recovered in coastal and freshwater areas of Asia (10 fish) and North America (8 fish).

### *Asian Recoveries*

#### Chum salmon

Ten chum salmon released during U.S.S.R.-U.S. tagging operations in 1990 were recovered in various areas of Hokkaido, Japan, in 1990 (Table 1, Fig. 1). Two of these fish (Tag. nos. AA-0004 and AA-0082, Table 1) were tagged in the area southwest of 46°N, 175°W in late April. The known range of maturing chum salmon from Japan was extended

eastward in the Bering Sea from 168°51'W, 53°25'N to 165°39'W, 54°48'N by the recovery in Hokkaido of two chum salmon that were tagged in the Bering Sea-Unimak Pass area (Tag nos. AA-0248 and AA-0250, Table 1, Fig. 1).

### *North American Recoveries*

#### Sockeye salmon

Five sockeye salmon, all from 1990 releases, were recovered in Bristol Bay, Alaska, in 1990 (4 fish) and 1991 (1 fish) (Table 1, Fig. 2). Two of the sockeye salmon recovered in 1990 were from a large catch (587 fish caught, 545 fish tagged) in INPFC area E7546 (179°34' E, 47°18' N) in late April 1990. Ten recoveries of Bristol Bay sockeye salmon from this same tagging operation were reported to INPFC in 1990 (Myers 1990). None of these recoveries extend the known ocean ranges of immature or maturing Bristol Bay sockeye salmon (Fig. 2).

#### Pink salmon

Three pink salmon, which were tagged at various release sites in the Gulf of Alaska, in 1989, 1966, and 1964 were recovered in Cook Inlet, Prince of Wales I., and Kodiak I., Alaska (Table 1, Fig. 3). None of these recoveries extend the known ocean ranges of central or southeast Alaska pink salmon (Fig. 3).

## ACKNOWLEDGMENTS

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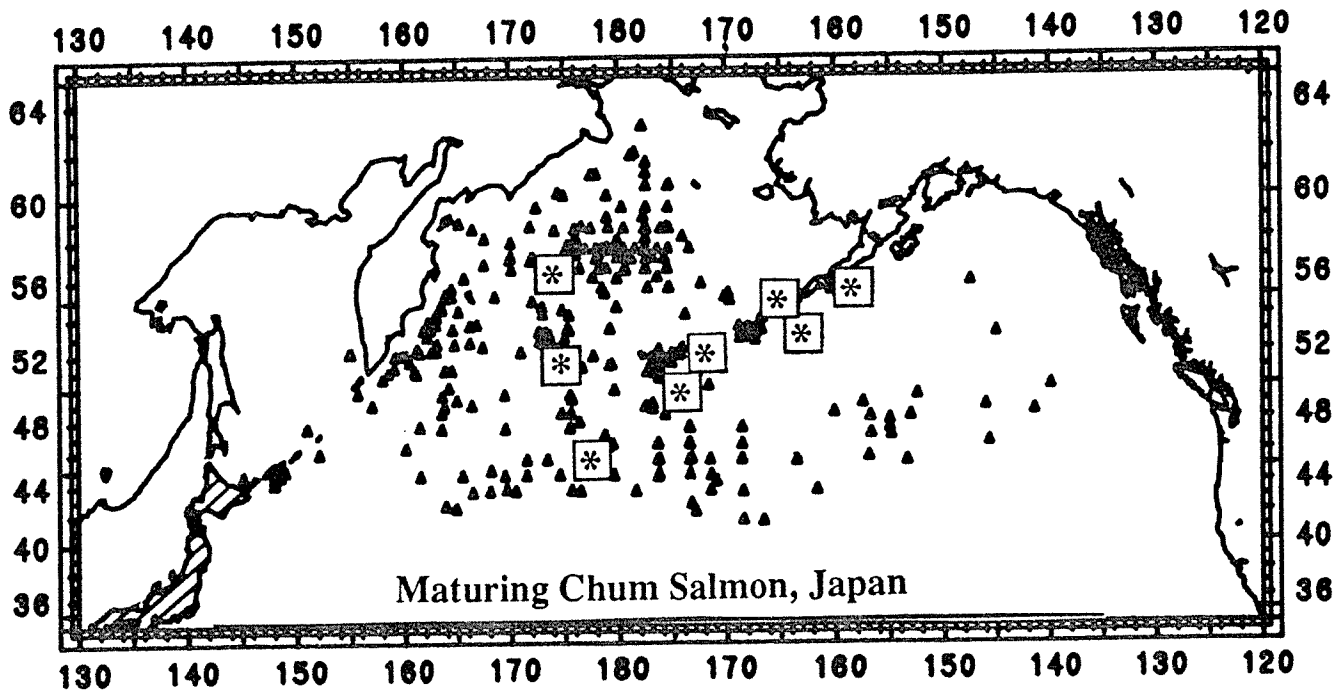


Fig. 1. Known ocean range of maturing Japanese chum salmon (▲) as shown by high seas tagging experiments, 1956-1989 (Myers et al. 1990), and high seas release locations (\*) of chum salmon released during U.S.S.R.-U.S. tagging operations in 1990 and recovered in coastal and freshwater areas of Hokkaido, Japan, in 1990.

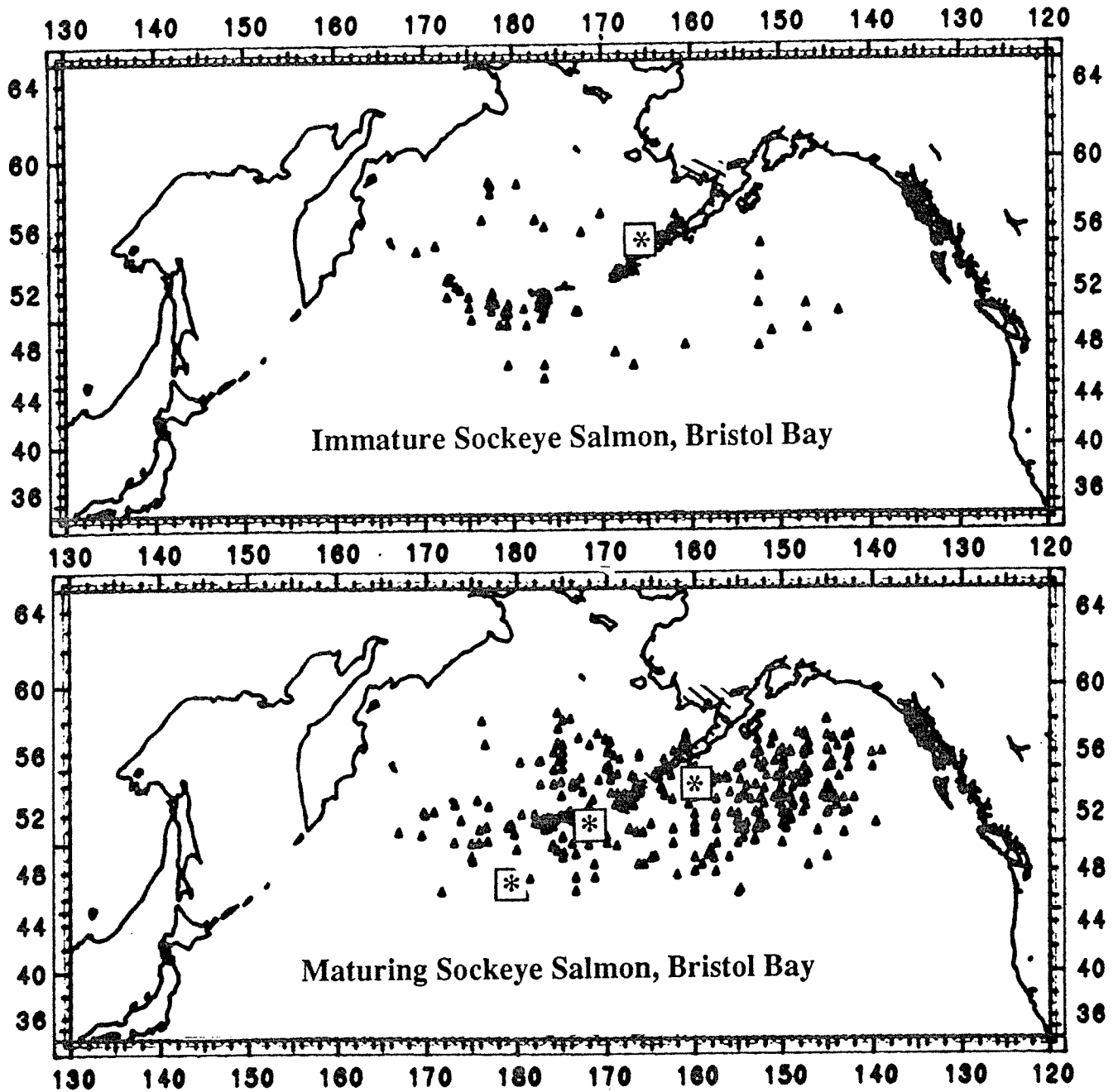


Fig. 2. Known ocean range of immature and maturing Bristol Bay sockeye salmon ( $\blacktriangle$ ) as shown by high seas tagging experiments, 1956-1989 (Myers et al. 1990), and high seas release locations ( $*$ ) of sockeye salmon released during U.S.S.R.-U.S. tagging operations in 1990 and recovered in coastal and freshwater areas of Bristol Bay in 1990-91.

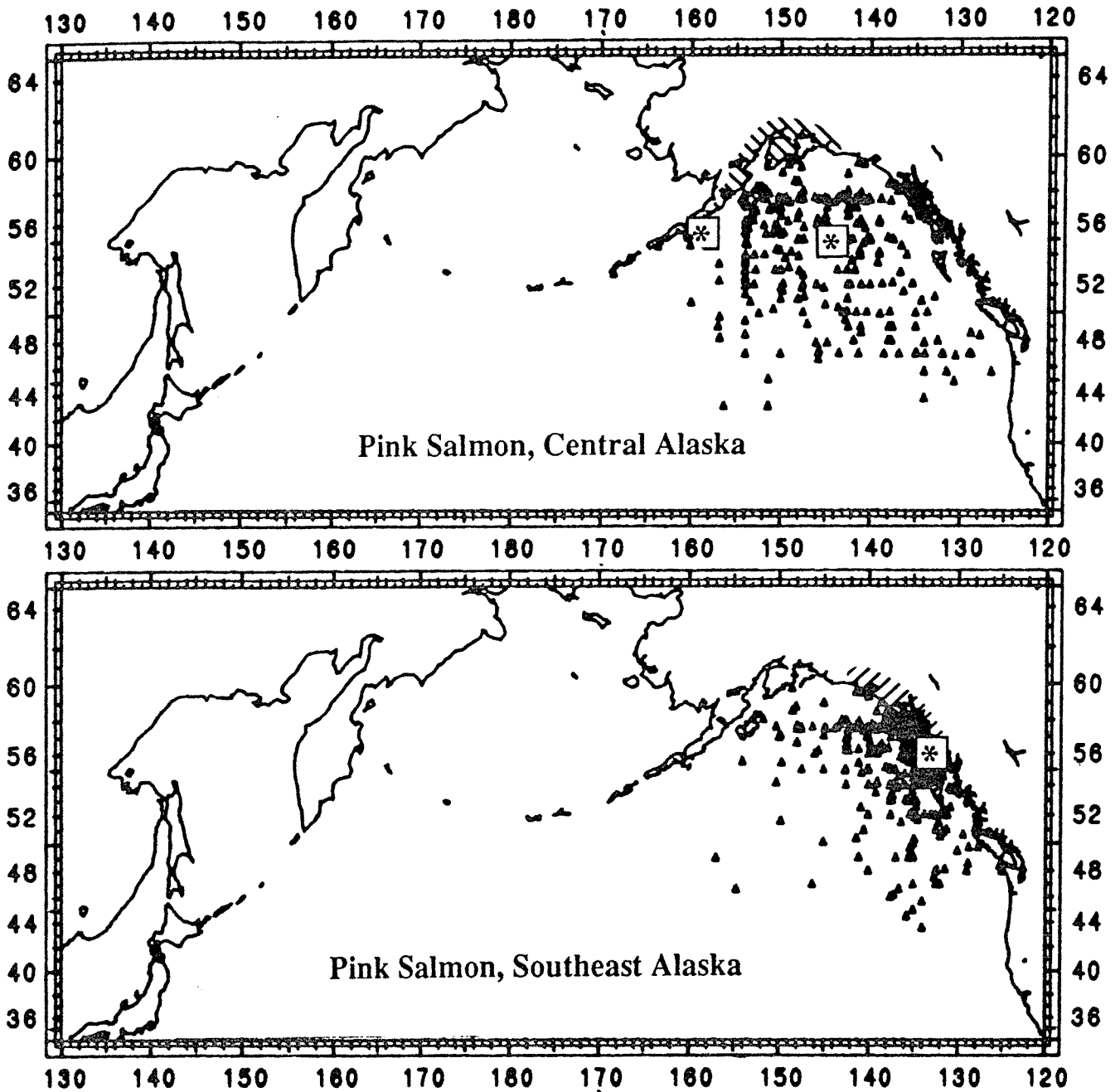


Fig. 3. Known ocean ranges of central and southeast Alaskan pink salmon (▲) as shown by high seas tagging experiments, 1956-1989 (Myers et al. 1990), and high seas release locations (\*) of pink salmon released during U.S.S.R.-U.S. tagging operations in 1989 and U.S. tagging operations in 1964 and 1966, and recovered in coastal and freshwater areas of central and southeast Alaska.

Table 1. Release and recovery information for U.S. and U.S.S.R.-U.S. tags returned 1 September 1990 to 31 August 1991.

Tag <sup>1</sup> no.	Species	Release/ Recovery	Date (mo/day)	INPFC <sup>2</sup> area	N. lat. (°-')	Long. (°-')	Set Gear	Set no.	Age <sup>3</sup>	Fork length (mm)	Sex	Body weight (g)	Description of recovery area
<u>1991 Recoveries of 1990 Releases</u>													
A- 00282	Sock- eye	Release Recovery	07/05 07/12	W7054 48-1	54-43 58-13	165-43W 157-22W	Seine -	N-32	2.1	360 -	- F	-	Egegik R., (above Egegik Village) Bristol Bay, Alaska
<u>1990 Recoveries of 1990 Releases</u>													
W- 497	Sock- eye	Release Recovery	04/24 07/11	E7546 48-0	47-18 58-12	179-34E 157-26W	Seine Setnet	N-04	2.3 2.3	570 -	- M	-	Egegik, (Coffee Pt.) Bristol Bay, Alaska
W- 776	Sock- eye	Release Recovery	04/24 ??/??	E7546 51-	47-18 58-00	179-34E 158-00W	Seine -	N-04	2.2	530 -	- -	-	Bristol Bay, Alaska
AA- 0004	Chum	Release Recovery	04/26 09/27	W8044 02-1	45-31 41-46	177-06E 140-44E	Seine Setnet	N-06	0.4	630 -	- M	- 3200	Yunohama- cho of Hakodate City, Hokkaido (Tsugaru Strait), Japan
AA- 0082	Chum	Release Recovery	04/26 09/21	W8044 02-0	45-31 44-04	177-06E 145-12E	Seine Trapnet	N-06	0.3	570 -	- -	-	Rausu, Hokkaido, (Nokke Strait), Japan
AA- 0193	Chum	Release Recovery	06/05 10/20	W7548 02-2	49-25 44-18	174-40W 143-28E	Seine Trapnet	N-16	0.3 0.3	510 540	- M	- 1400	Monbetsu, Hokkaido, (Okhotsk sea coast), Japan
AA- 0198	Chum	Release Recovery	06/05 09/21	W7548 02-0	49-25 43-32	174-40W 145-19E	Seine Trapnet	N-16	0.3 0.3	530 570	- M	- 2200	Bekkai, Hokkaido, (Nokke Strait), Japan
AA- 0213	Sock- eye	Release Recovery	06/07 07/??	W7550 48-0	51-36 58-13	172-15W 157-31W	Seine Gillnet	N-17	2.2	560 -	- -	-	Egegik, Bristol Bay, Alaska
AA- 0237	Chum	Release Recovery	06/08 10/08	W6552 02-0	53-13 43-44	163-36W 145-06E	Seine Trapnet	N-18	0.3	530 -	- F	- 2600	Shibetsu, Hokkaido, (Nokke Strait), Japan
AA- 0239	Sock- eye	Release Recovery	06/09 07/09	W6556 48-0	54-08 58-13	160-07W 157-31W	Seine	N-19	X.2	550 -	- -	-	Egegik, Bristol Bay, Alaska

Table 1 -cont'd.

Tag no.	Species	Release/ Recovery	Date (mo/day)	INPFC area	N. lat. (°-')	Long. (°-')	Gear	Set no.	Age	Fork length (mm)	Sex	Body weight (g)	Description of recovery area
<u>1990 Recoveries of 1990 Releases - (cont'd)</u>													
AA-0248	Chum	Release Recovery	06/19 10/06	W7054 02-2	54-48 43-56	165-39W 144-27E	Seine Trapnet	N-20	0.3 0.3	600 700	- M	- 3200	Shari, Hokkaido, (Okhotsk sea coast), Japan
AA-0250	Chum	Release Recovery	06/19 ??/??	W7054 02-0	54-48 44-04	165-39W 145-12E	Seine Trapnet	N-20	0.3 0.3	540 -	- M	- 2000	Shibetsu, Hokkaido, (Nokke Strait), Japan
AA-0303	Chum	Release Recovery	06/25 09/12	E7050 02-0	51-48 43-30	174-26E 145-19E	Seine Trapnet	N-25	0.3 0.3	570 630	- M	- 2500	Bekkai, Hokkaido, (Nokke Strait), Japan
AA-0324	Chum	Release Recovery	06/28 11/25	E7056 02-1	56-34 42-35	173-51E 141-55E	Seine Setnet	N-29	0.4	540 -	- F	- -	Mukawa R. mouth, Hokkaido, (Pacific Coast), Japan
AA-0390	Chum	Release Recovery	07/07 09/21	W6054 02-0	55-27 44-04	158-57W 145-12E	Seine	N-34	0.3	640 -	- -	- -	Rausu, Hokkaido, (Nokke Strait), Japan
<u>1989 Recovery of 1989 Release</u>													
W-390	Pink	Release Recovery	07/02 08/10	W6054 57-1	55-30 59-26	159-05W 151-23E	Seine Rod	N-32	0.1	460 470	- M	- -	Tutka Lagoon, (Cook Inlet), Alaska
<u>1966 Recovery of 1966 Release</u>													
83087	Pink	Release Recovery	08/22	W3556 65-0	56-06 55-53	133-49W 132-37W	Seine	H-85	0.1	525 -	- -	- -	Found in Ratz Creek , NE Coast, Prince of Wales I., Alaska
<u>1964 Recovery of 1964 Release</u>													
37586	Pink	Release Recovery	06/25	W5054 56-0	55-00 57-12	145-03W 153-18W	Long- line	C-50	0.1	500 -	- -	- -	Found in Barling Creek, east side of Kodiak I. near Old Harbor, Alaska

## Table 1 -cont'd.

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<sup>1</sup>Tag no. A-00282 was a 1 3/4-in red anchor (tube-type) tag. All other tags reported were 3/4-in diameter red-and-white disc tags.

<sup>2</sup>2°X5° release area; general and sub-area recovery code.

<sup>3</sup>Age was determined by visual examination of scale patterns. A blank indicates that no scale sample was enclosed with the recovery