

## **TRIP REPORT:**

### **SIGHTINGS OF BRANDED STELLER SEA LIONS IN SOUTHEAST ALASKA 19 – 28 AUGUST 2002**

#### **Alaska Department of Fish and Game Steller Sea Lion Program**

By Lauri Jemison

#### **OBJECTIVES & STUDY AREA**

The primary objective of this trip was to survey Steller sea lion (*Eumetopias jubatus*) rookeries and haulouts throughout Southeast Alaska (SEA) to observe branded Steller sea lions (SSL) and to determine whether surveying in late August produced observations of branded animals not previously seen during the breeding season survey (5 June – 2 July 2002).

We surveyed 18 sites (14 haulouts and 4 rookeries) from Glacier Bay in the north to the Forrester Island complex near the U.S. – Canadian Border in the south (Figure 1).

#### **VESSEL/RESEARCH CREW**

We used the Alaska Department of Fish and Game vessel *R/V Medeia* (Captain Wade Loofbourrow). Research crew included: Tom Gelatt, Lauri Jemison, Jamie King, Grey Pendleton, Ken Pitcher, Kim Raum-Suryan, Greg Snedgen, and Rob Suryan.

#### **METHODS**

Pups were branded at their natal rookeries in June-July of 1994, 1995, 2001, and 2002 at the Forester Island complex; in 2001 at the Hazy Islands; and in 2002 at White Sisters and Graves Rock. Older pups and juveniles were branded at rookeries and haulouts in SEA during May and August 2001 and June 2002.

The research crew observed SSLs from small boats (22' Boston Whaler and a 22' Safeboat) at each haulout or rookery. Sites were approached at a slow speed and initially surveyed from a distance of >100 meters to allow sea lions to become accustomed to the boat. A count was made of all SSL that could be observed for brands; animals in low-lying areas or otherwise obstructed were not included in this count. Observers used binoculars (8X to 14X) to conduct counts and read brands. When a branded animal was sighted, the boat approached closer to the haulout and digital photographs (Nikon D1X digital camera) were taken of the animal. When possible, each branded animal was photographed several times and once out of the field, one to four of the best photographs were saved. When a branded animal was observed the following data were recorded: brand number, brand quality, brand verification check (observer reads and records brand number, reads brand a second time and verifies the brand number written down), status (*e.g.*, female with pup, pup suckling), tag color and number, and comments (Appendix I). When possible, sex and age class (pup, juvenile, adult) were recorded. At some sites it was difficult to adequately survey all animals from the boat; when conditions allowed, observers went ashore and surveyed from a high point above the haulout or rookery.

Additional data collected at each site included: date, location, observers, photographer, start and end times, weather data, a count of animals observed for brands, and a count of pups (except at

larger rookeries, where accurate pup counts were especially difficult and time consuming to obtain; Appendix I). We recorded and photographed sea lions with injuries, rope/net entanglements, or ingested fishing gear and recorded unusual sightings of other pinnipeds.

## RESULTS

Steller sea lions were observed at 14 of the 18 sites surveyed (Table 1). We counted 5,548 non-pup SSL at these 14 sites. Because counts were usually conducted from skiffs, some animals could not be seen and so counts reflect the number of animals observed for brands not a total count of animals on shore. Overall, we observed 220 unique brands at 11 different sites. Only one site, Coronation Island, was surveyed on two days.

### Brands

#### Adults - branded as pups in 1994 & 1995 at Forrester Island complex ("F")

We made 32 observations of branded adult SSLs during our surveys, representing 4% of the total number branded in 1994 and 1995 (Table 2, Appendix II). Of the 32 brands, 29 (91%) were readable and 3 (9%) were difficult or impossible to read due to scarring. At least one of the unreadable brands was distinct and has been recognized in multiple years.

The 32 unique adults seen during our August 2002 survey included 23 females and 7 males (sex could not be determined for 2 animals). Of the 23 females, three were observed either nursing or with a pup. All but three of the adults were observed at rookeries; the one female observed at a haulout, Biali Rocks, was attending a nursing juvenile.

#### Yearlings - branded as pups in 2001 at natal rookery: F - Forrester complex and H- Hazy Islands

We made 32 observations of Forrester yearlings representing 11% of the pups branded at the Forrester complex in 2001 (Table 2, Appendix III). All brands were readable. Six (19%) of the Forrester yearlings were seen suckling or with a female. Yearlings that were observed with their mothers were seen at either the Forrester Island complex or Biali Rocks.

We made 27 observations of Hazy Island yearlings, representing 13% of the pups branded there in 2001. Two of the brands were difficult to read due to scarring or poor view. Twenty-six percent of the yearlings were observed suckling or with a female; these pairs were seen at Hazy Islands, Biali Rocks, and Coronation Island. One animal, H66, was seen at Coronation Island on 21 August and was seen again at Hazy Islands on 25 August (approximate distance between sites is 19 km).

#### "=" brands - branded as older pups and juveniles in SEA during May & August 2001 and June 2002

We recorded six observations of = brands, three of which were branded in 2001 and three that had been branded in June 2002 (Table 2, Appendix IV). These animals were sighted at the Forrester Island complex, White Sisters, Hazy Islands, Biali Rocks, and Yasha Island.

#### Pups - branded in June-July 2002 at natal rookery: F - Forrester complex, W - White Sisters, and V - Graves Rock):

We observed 123 branded pups. Of these, 44 were branded at Forrester complex (31% of animals branded there in June 2002), 36 at White Sisters (28% of animals branded at that site) and 43 at Graves Rock (86% of animals branded at that site) (Table 2, Appendix V). Overall, we only observed nine of these pups either nursing or with a female. At White Sisters, resighting conditions were poor due to rain and the constant movement of pups in and out of the water. As a result, we

were unable to collect data on pup's association with their mothers, and we were unable to read the brands on a number of the pups. By contrast, sighting conditions were excellent at Graves Rock where, in three hours, we sighted 43 of the 50 pups that were branded earlier in the year and observed seven mother-pup pairs. We only observed one pup that had moved from its natal rookery to a new site. That pup, W83, was branded at White Sisters on 2 July 2002 and resighted at Graves Rock on 27 August, a distance of approximately 80 km. W83 was seen only briefly (although a good photograph was obtained) and so we were unable to determine whether this pup was with its mother.

Only one animal that was initially captured and branded in the western stock by the National Marine Mammal Lab was observed. This animal, E18, was branded as a pup in 2001 at Fish Island in Prince William Sound, and was seen at Graves Rock on 27 August 2002. We did not see this individual during our breeding-season survey in June-July.

### **Comparison of June-July vs. August surveys**

Nine haulouts and all 4 rookeries in SEA (Forrester Island complex, Hazy Islands, White Sisters, Graves Rock) were surveyed during both June-July and August 2002. In June-July, branded animals were seen at all 13 sites whereas branded animals were present at 10 of those 13 sites in August. Coronation Island was the only haulout where animals were present that was surveyed in August but not in June. Excluding pups and juveniles branded in June-July 2002, 94 unique brands were seen in August; 30 of those individuals (32%) were not seen during the June-July trip. Of those 30 animals: 13 were sighted for the first time since branding (all yearlings, eight branded at Forrester Island complex and five branded at Hazy Islands); 10 were sighted for the first time in 2002 (nine adults and one Hazy Island yearling); and seven were not observed during the June-July trip but were seen at other times in 2002 (primarily by biologists stationed at the Lowrie Island camp during summer). Of the nine adults not previously seen in 2002, six were females and three were males. Two of the females were suckling dependent young. All but one of the adults was seen at a rookery (Forrester Island complex, Hazy Islands, Graves Rock).

### **Entanglements**

Ten SSLs were entangled with some type of fishing gear, rope, or packing bands (Table 1). Entangled animals were observed at eight of the 14 sites where animals were present. The ten entanglements were documented in the 5,548 animals observed, resulting in a 0.18% entanglement rate, similar to the estimated entanglement rate of 0.16% observed in SEA during our June-July 2002 survey. Eight individuals had flashers or fishing line hanging from or near their lip indicating they had swallowed some type of fishing gear; six of these were adult males, one was a juvenile, and one was of unknown age/sex. Two individuals (one adult female, one of unknown age/sex) had a line encircling it's neck resulting in a deep wound that cut into the blubber.

### **Other Pinniped Observations**

We observed harbor seals, *Phoca vitulina*, at several haulouts including Hazy Islands and Lowrie Island and one California sea lion, *Zalophus californianus*, at Graves Rock.

## **CONCLUSIONS**

SSL brand-resight surveys conducted outside of the breeding season resulted in important observations of branded animals not previously seen in 2002. New sightings in 2002 included nine

adults (branded in 1994 and 1995), six of which were females (two were with dependent young). All but one of the nine adults were observed at rookeries, suggesting that it may be especially valuable to devote additional time during the month or two after the breeding season to surveying rookeries. One adult female that was nursing a juvenile was observed at Biali Rocks, a site where >20 pups have been born each year since 2000. Of the 13 yearlings observed for the first time since branding, all but three were seen either at Biali Rocks (four animals) or on rookeries.

Surveys in August also provided an opportunity to resight pups that were branded in June-July at their natal rookery. This allowed us to observe the healing progress of the brands and to document early movements by young (2 month old) pups, as well as identifying branded animals. One pup, tagged at White Sisters on 2 July 2002, was seen at Graves Rock on 27 August. Poor weather conditions at one rookery, White Sisters, limited our ability to read brands on pups, document mother-pup associations, and obtain adequate photographs. In the future it may be beneficial to schedule two days at each rookery, and other critical sites, to reduce the chance of having weather conditions limit observations at important sites.

Table 1. Steller sea lion observations in Southeast Alaska from 20-27 August 2002. Date, location, observation (obs) start time and total time, non-pup counts from which branded animals were observed, pup counts, number/type of entanglement (AM=adult male, AF=adult female, juv=juvenile), and number of brands (F-Forrester, H-Hazy Island, =-ADFG captures, W-White Sisters, V-Graves Rock, and E-Fish Island (Prince William Sound)).

Date	Location	Latitude (N)	Longitude (W)	Start obs	Total obs time	Est. # non-pups	Est. # pups	# & type of entanglement	# Brands						
									F	H	=	W	V	E	
20 Aug	Forrester Island Complex:														
	East Rock <sup>a</sup>	54°51.663	133°31.634	1739	18 min	185	<sup>b</sup>	0	3	0	0	0	0	0	0
	NE Rock	54°52.476	133°33.131	0920	10 min	24	1	0	0	0	0	0	0	0	0
	North Rocks <sup>a</sup>	54°52.478	133°33.749	0930	48 min	436	<sup>b</sup>	1 band-neck-AF	4	0	0	0	0	0	0
	Cape Horn Rocks <sup>a</sup>	54°50.840	133°33.224	1111	142 min	321 <sup>c</sup>	<sup>b</sup>	0	24	0	1	0	0	0	0
	Sea Lion Rocks <sup>a</sup>	54°50.624	133°32.218	1427	57 min	537	<sup>b</sup>	1 fishing line	11	0	0	0	0	0	0
	West Rock	54°51.657	133°33.064	1022	40 min	164	0	0	3	0	0	0	0	0	0
	Rocks offshore west Forrester			1502	8 min	21	0	0	1	0	0	0	0	0	0
	Lowrie Island	54°51.819	133°32.447	1430	130 min	~1500+	<sup>b</sup>	0	43	0	0	0	0	0	0
21 Aug	Coronation Island			1745	52 min	128	2	0	1	3	0	0	0	0	0
22 Aug	Coronation Island			1000	32 min	174		0	1	1	0	0	0	0	0
	Patterson Point	56°32.350	134°38.260	1450	5 min	0	0								
	Yasha Island	57°57.776	134°33.657	1740	50 min	368	0	0	1	0	1	0	0	0	0
	Point Lull	57°18.600	134°48.400	2030	5 min	0	0								
24 Aug	Kaiuchali Island	56°49.967	135°33.820	0809	28 min	64	0	0	2	0	0	0	0	0	0
	Jacob Rock	56°47.367	135°30.102	0858	10 min	19	0	1 flasher-juv	0	0	0	0	0	0	0
	Biali Rocks	56°42.600	135°20.400	0940	111 min	346	~35+	1 flasher-AM	10	2	2	0	0	0	0
	Cape Ommaney-Wooded Is.	56°09.677	134°39.546	1706	24 min	103	0	0	0	0	0	0	0	0	0
	Sea Lion Rocks	56°15.012	134°49.962	1801	21 min	37	0	0	1	0	0	0	0	0	0
25 Aug	Hazy Islands <sup>a</sup>	55°52.002	134°34.332	0830	193 min	312	<sup>b</sup>	1 band-neck	5	20	1	0	0	0	0
	Timbered Island	55°41.482	133°48.011	1607	13 min	34	0	0	0	0	0	0	0	0	0
26 Aug	Sea Lion Island	57°16.910	135°53.356	1129	46 min	153	0	0	1	2	0	0	0	0	0
	White Sisters <sup>a, d</sup>	57°38.095	136°15.162	1546	64 min	150	<sup>b</sup>	1 flasher-AM	1	1	1	32	0	0	0
	Cape Cross			1953	9 min	0	0								
27 Aug	Graves Rock	58°14.312	136°45.384	0800	175 min	406	~68	3 flasher-AM	4	0	0	1	43	1 <sup>e</sup>	
	Inian Islands	58°16.300	136°40.000	1411	70 min	66	0	1 flasher-AM	1	0	0	0	0	0	0
	The Sisters			2030	15 min	0	0								

<sup>a</sup> Indicates a rookery

<sup>b</sup> No dedicated pup counts were conducted

<sup>c</sup> Pup and non-pup counts combined

<sup>d</sup> Poor survey conditions due to wind, rain, fog

<sup>e</sup> Branded as a pup in 2001 at Fish Island, Prince William Sound

Table 2. Steller sea lion brand observations in Southeast Alaska during brand-resighting surveys from 20-27 August 2002. Table summarizes, by branding location and branding year, the number of animals initially branded, the number of unique brands observed, and percent of total that the number of unique brands represent. F brands: pups branded at their natal rookery, Forrester Island complex, in 1994, 1995, and 2001; H brands: pups branded at their natal rookery, Hazy Islands, in 2001; = brands: pups and juveniles branded during capture operations at rookeries and haulouts in Southeast Alaska during 2001 (May and August) and 2002 (June); W brands: pups branded at their natal rookery, White Sisters, in June 2002; and V brands: pups branded at their natal rookery, Graves Rock, in June 2002.

	<b>F brands (1994 &amp; 1995)</b>	<b>F brands (2001)</b>	<b>H brands (2001)</b>	<b>= brands (2001)</b>	<b>= brands (2002)</b>	<b>F brands (2002)</b>	<b>W brands (2002)</b>	<b>V brands (2002)</b>	<b>Total</b>
<b>Number initially branded</b>	799	286	212	76	18	141	127	50	1709
<b>Number of unique brands sighted in Aug.</b>	32	32	27	3	3	44	36	43	220
<b>Percent of total resighted</b>	<b>4</b>	<b>11</b>	<b>13</b>	<b>4</b>	<b>17</b>	<b>31</b>	<b>28</b>	<b>86</b>	

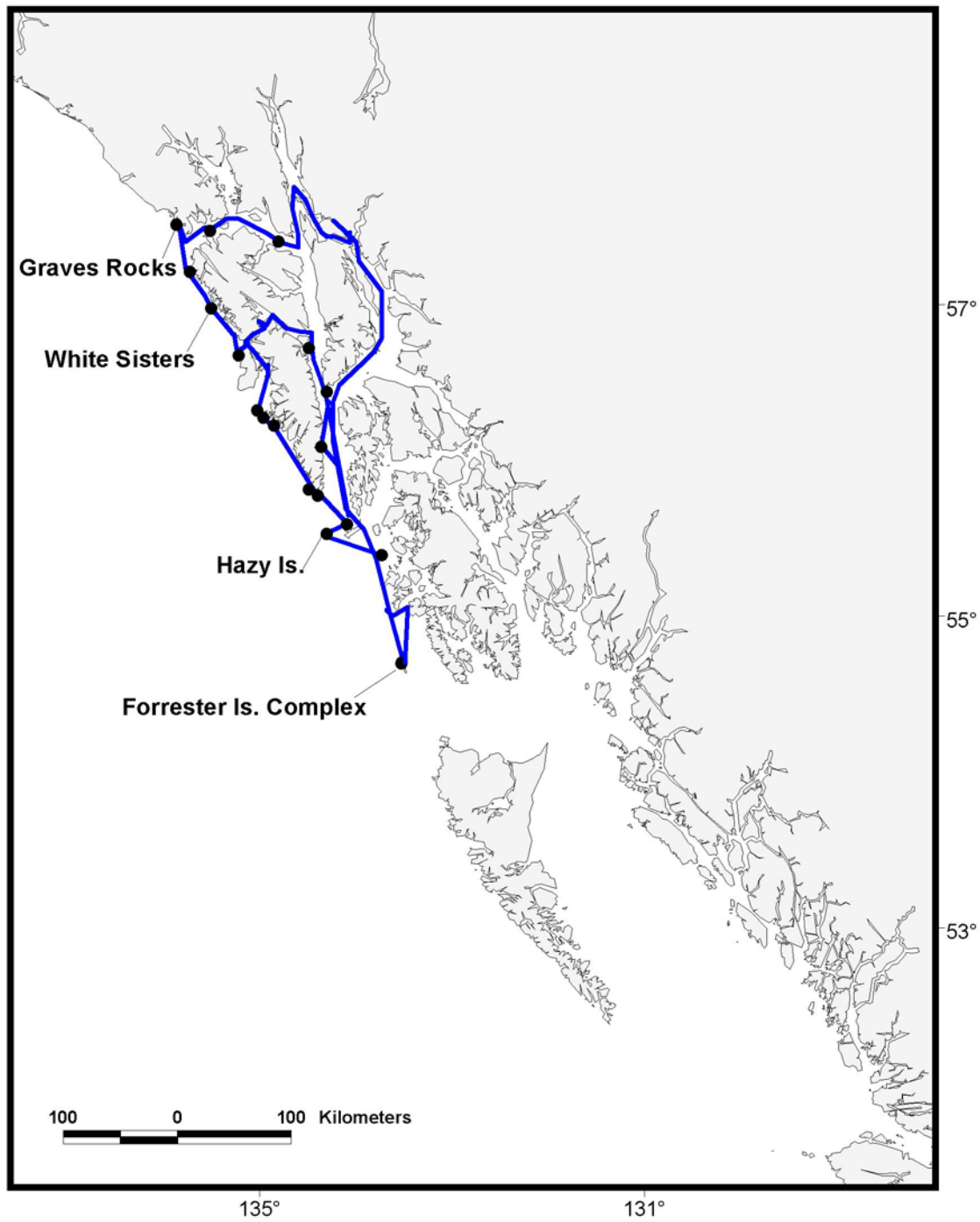


Figure 1. Trackline of brand-resight cruise aboard the *R/V Medeia* from 19 – 28 August 2002. Dots depict haulouts and rookeries visited. Rookeries are labeled.

Appendix I. Steller Sea Lion Brand-Resight Form

Location: \_\_\_\_\_ Area: \_\_\_\_\_ Habitat type: \_\_\_\_\_

Date: \_\_\_\_\_ Observer: \_\_\_\_\_ Photographer: \_\_\_\_\_

Start time: \_\_\_\_\_ End time: \_\_\_\_\_ Count: \_\_\_\_\_

Temp: \_\_\_\_\_ Bar: \_\_\_\_\_ WS: \_\_\_\_\_ Dir: \_\_\_\_\_ Sky: \_\_\_\_\_ Swell: \_\_\_\_\_ Precip: \_\_\_\_\_ CC: \_\_\_\_\_

Comments: \_\_\_\_\_

Brand #	Brand Quality	√	Ind	Tag Color	Tag #		Photo Card/Frame	Age	Sex	Status	Comments
					Left	Right					



## Appendix I. Codes and instructions for Steller Sea Lion Brand-Resight Form

**Location:** Location of rookery or haulout (be as specific as possible, especially if site is named “sea lion rocks” or “seal rocks”, write: sea lion rocks off Forrester Is, give latitude and long. if possible).

**Area:** Be as specific as possible, *e.g.*, Beach 1A on Lowrie Is.

**Habitat Type:** **RC:** Rocky Cove **SB:** Sandy Beach

**Date:** Record date of resight, *e.g.*, 23 June 2000.

**Observer:** If standard crew, use initials, for fill-in crew, use full name.

**Photographer:** Full name. List last names of all observers if > 1.

**Start / End Time:** Indicate time you began searching for branded animals and the time you stop.

**Total Count:** Count the total number of sea lions within your brand resight observation area, *e.g.* there are 150 sea lions on the haul-out, you count 80 from your observation area from which you could see a branded animal, the **total count would be 80**.

**Weather: Temp:** Temperature (indicate °C or °F) **Bar:** Barometric pressure **WS:** Wind Speed **Dir:** wind direction

<b>Sky:</b>	0	clear	<b>Swell:</b>	0	< 4 feet	<b>Precip:</b>	7	drizzle
	1	scattered clouds		1	> 4 feet		8	rain
	2	partly cloudy, broken		2	> 6 feet		9	snow
	3	high overcast		3	> 8 feet		99	hail
	4	low overcast		4	> 10 feet		0	none
	5	lt. Fog						
	6	heavy fog						

**CC:** Cloud cover - In octas (eighths of total sky) *e.g.* 0 = clear, 8 = complete overcast.

**GLARE:** Consider glare when taking photos - none, slight/low, moderate, or severe

**Brand #:** Record the brand number or a resemblance of the mark if the brand is not readable.

**Brand Side:** No longer on data form as nearly all animals branded on left shoulder. This note is a reminder to record in comments and highlight row if you see an animal branded on right side.

**Brand Quality:** Score each digit separately, including the first letter or symbol, using the following criteria

- + The digit is easily readable and is cleanly formed. **You are absolutely certain of the digit you record.**
- 0 The digit is readable but takes some time to discern, or it is not a clear brand. This is unrelated to poor lighting, distance of animal, or angle of view. The “0” indicates the branded digit has some distortion, scarring, smearing, or hair, etc; describe in comments. **You are absolutely certain of the digit you record.**
- The digit is difficult to read because of scarring, distortion, hair, or smeared numbers. You are unable to determine the digit, or **you are uncertain of the digit** but have a best guess. In either case, this digit should be recorded as “?” in the **Brand #**. Describe the digit, and why you are uncertain, in the comments. Sketch, if possible. If the questionable digit is likely a certain number, record that in comments along with your estimate of certainty (70% sure).
- \$ The digit is unreadable because it is obscured by an object, at an odd angle, the lighting is poor, or the animal is too far away. **You are uncertain of the digit**. The digit should be recorded as “?” in the **Brand #**. Describe why you are uncertain in the comments.

Five +++++ can be written in shorthand as a single “+” with a circle around it.

√ (**Check**): Record a “Y” for yes or “N” for no to verify brand reading/recording. This means that you read the brand, recorded it in your notebook, read the brand a second time then verified the number you had written down. This is **unrelated** to how certain you are of a digit; *e.g.*, you could observe then record F3?4, observe this again, and verify that you had written this correctly in your notebook.

## Appendix I. Codes and instructions for Steller Sea Lion Brand Resight Form

- Ind.:** Independent reading of brand by more than one observer. Must individually read the brand, record in notebook, read and confirm (i.e., you are doing the “check” described above) WITHOUT discussing with other observer. Then, compare brand reading and record “B” for yes if brand number is the same, “N” for no. If tag read independently by 2 observers, record “T”. When looking at photos, if brand number is determined from a photograph, record “FP”. When two observers have different readings of brand number, use photo to determine correct number and record “MB” for misread brand; in comments, note problems with the brand reading.
- Tag color:** Record the color of the tag.
- Tag # / Left – Right:** If you see and read a tag on left (or right) flipper, write the tag # in that box. If a tag is present but you can’t read it, record “NR” in appropriate box (left or right). Use “NT” to indicate flipper seen but no tag present (**be very certain of this & document with photos**). Use “NS” to indicate you couldn’t see flipper or couldn’t determine definitively whether there was a tag. “TR” indicates tag rip – be certain of this and document with photo.
- Photo: Card/Frame:** **Y** – Yes (photo taken); **N** – No. Indicate # of digital flash card used and frame number (if standard camera – Roll/Frame #).
- Sex:** Record sex of the animal only if 100% confident (must see ventrum); **M** = male; **F** = female; **U** = unknown.
- Age:** **P** – pup, **J** – Juvenile, **SA** – subadult, **A** - adult
- Status:** Record status using the following codes: **TB** – Territorial Bull, **S** – suckling, **WF** – with female, **NF** – no female, **WP** – with pup, **NP** – no pup, **U** - unknown
- Comments:** Notes on brand condition and description of problematic brands. Notes on tags, behavior, wounds, scars, etc. **Be liberal with comments!**

Appendix II. Steller sea lions branded as pups at Forrester Island complex during 1994 and 1995 and resighted from 20-27 August 2002. Brand number, resight location, resight date, sex (F = female, M = male), age (yr), association (assoc'n.) of female (S = suckling, WP = with pup, juv = juvenile), and if photograph was taken (Y = yes, N = no).

Brand Number	Resight Location	Date	Sex	Age (yr)	Assoc'n	Photo
F209	Hazy I.	25-Aug-02	F	8.2	WP	Y
F267	Lowrie I.	20-Aug-02	F	8.2		N
F343	Graves Rocks	27-Aug-02	M	8.2		Y
F349	Lowrie I.	20-Aug-02	F	8.2		Y
F431	Lowrie I.	20-Aug-02	F	8.2		Y
F469	North Rocks - Forrester	20-Aug-02	F	8.2		Y
F483	Graves Rocks	27-Aug-02	M	8.2		Y
F509	West Rock - Forrester	20-Aug-02	F	8.2		Y
F576	Cape Horn Rocks - Forrester	20-Aug-02	M	8.2		Y
F579	North Rocks - Forrester	20-Aug-02	F	8.2		Y
F619	Biali Rocks	24-Aug-02	F	7.2	S juv	Y
F641	Sea Lion Rocks - Forrester	20-Aug-02	F	7.2		Y
F686	Cape Horn Rocks - Forrester	20-Aug-02	F	7.2		Y
F706	Sea Lion Rocks - Forrester	20-Aug-02	F	7.2		Y
F732	Coronation I.	22-Aug-02	M	7.2		Y
F733	Lowrie I.	20-Aug-02	F	7.2		N
F746	Coronation I.	21-Aug-02	M	7.2		Y
F787	Lowrie I.	20-Aug-02	F	7.2		Y
F792	Cape Horn Rocks - Forrester	20-Aug-02	F	7.2		Y
F805	Graves Rocks	27-Aug-02	M	7.2		Y
F858	White Sisters	26-Aug-02	F	7.2		Y
F860	Lowrie I.	20-Aug-02	F	7.2		Y
F861	North Rocks - Forrester	20-Aug-02	F	7.2		Y
F875	Hazy I.	25-Aug-02	F	7.2		Y
F941	Lowrie I.	20-Aug-02	F	7.2		Y
F961	Graves Rocks	27-Aug-02	M	7.2		Y
F980	Lowrie I.	20-Aug-02	F	7.2		Y
F982	Hazy I.	25-Aug-02	F	7.2	S	Y
F988	West Rock - Forrester	20-Aug-02	F	7.2		Y
F3bowtie	Lowrie I.	20-Aug-02	F	8.2		Y
F417unsure	East Rock - Forrester	20-Aug-02	F	8.2		Y
F836unsure	Sea Lion Rocks - Forrester	20-Aug-02	F	7.2		Y

Appendix III. Steller sea lions branded as pups at Forrester Island complex (“F” brands) and Hazy Islands (“H” brands) during 2001 and resighted from 20-27 August 2002. Brand number, resight location, resight date, association (assoc’n; WF = with female, S = suckling), and whether a photograph was taken (Y = yes, N = no).

Brand Number	Resight Location	Date	Assoc’n	Photo
F1008	Kaiuchali I.	24-Aug-02		N
F1020	Lowrie I.	20-Aug-02	S	Y
F1023	Biali Rocks	24-Aug-02	WF	Y
F1026	Sea Lion Rocks - Forrester	20-Aug-02		Y
F1030	Sea Lion I.	26-Aug-02		Y
F1033	Biali Rocks	24-Aug-02	S	Y
F1034	Lowrie I.	20-Aug-02		Y
F1036	Hazy I.	25-Aug-02		Y
F1071	Cape Horn Rocks - Forrester	20-Aug-02		N
F1075	Lowrie I.	20-Aug-02		Y
F1084	Biali Rocks	24-Aug-02		Y
F1090	Lowrie I.	20-Aug-02	S	Y
F1095	Lowrie I.	20-Aug-02		Y
F1100	Sea Lion Rock-Puffin Bay	24-Aug-02		Y
F1108	Lowrie I.	20-Aug-02	S	Y
F1111	Lowrie I.	20-Aug-02		Y
F1114	Biali Rocks	24-Aug-02	S	Y
F1124	Hazy I.	25-Aug-02		Y
F1135	Biali Rocks	24-Aug-02		Y
F1139	Biali Rocks	24-Aug-02		Y
F1146	Lowrie I.	20-Aug-02		Y
F1162	Biali Rocks	24-Aug-02		Y
F1165	Yasha I.	22-Aug-02		Y
F1194	Cape Horn Rocks - Forrester	20-Aug-02		Y
F1218	Lowrie I.	20-Aug-02		Y
F1220	Biali Rocks	24-Aug-02		Y
F1236	North Rocks - Forrester	20-Aug-02		Y
F1238	Lowrie I.	20-Aug-02		Y
F1240	Sea Lion Rocks - Forrester	20-Aug-02		Y
F1261	Sea Lion Rocks - Forrester	20-Aug-02		Y
F1268	Inian I.	27-Aug-02		Y
F1284	Lowrie I.	20-Aug-02		Y
H3	Sea Lion I.	26-Aug-02		Y
H4	Hazy I.	25-Aug-02		N
H19	Biali Rocks	24-Aug-02	S	Y
H31	Hazy I.	25-Aug-02		Y

Appendix III. Continued.

Brand Number	Resight Location	Date	Assoc'n	Photo
H32	Hazy I.	25-Aug-02		Y
H41	Sea Lion I.	26-Aug-02		Y
H46	Hazy I.	25-Aug-02		Y
H50	Hazy I.	25-Aug-02		Y
H60	Hazy I.	25-Aug-02		Y
H62	Hazy I.	25-Aug-02		Y
H66	Coronation I.	21-Aug-02		Y
H66	Hazy I.	25-Aug-02	WF	Y
H71	Hazy I.	25-Aug-02		Y
H73	Coronation I.	21-Aug-02		Y
H75	Biali Rocks	24-Aug-02	WF	Y
H92	Hazy I.	25-Aug-02		Y
H111	Hazy I.	25-Aug-02		Y
H112	Hazy I.	25-Aug-02		Y
H142	Hazy I.	25-Aug-02	WF	Y
H153	Hazy I.	25-Aug-02		Y
H162	Hazy I.	25-Aug-02		Y
H165	White Sisters	26-Aug-02		Y
H176	Coronation I.	21-Aug-02	WF	Y
H176	Coronation I.	22-Aug-02	WF	Y
H184	Hazy I.	25-Aug-02	S	Y
H201	Hazy I.	25-Aug-02		N
H204	Hazy I.	25-Aug-02		Y
H11unsure	Hazy I.	25-Aug-02	S	Y
H149unsure	Hazy I.	25-Aug-02		Y

Appendix IV. Steller sea lions branded as pups or juveniles at haulouts and rookeries in Southeast Alaska during 2001 (May and August) and 2002 (June) and resighted from 20-27 August 2002. Brand number, year branded, resight location, resight date, sex (F = female, M = male), association (assoc'n; WF = with female, S = suckling), and whether a photograph was taken (Y = yes, N = no).

Brand Number	Yr Branded	Resight Location	Date	Sex	Assoc'n	Photo
=220	2001	White Sisters	26-Aug-02	M		Y
=224	2001	Biali Rocks	24-Aug-02	F		Y
=225	2001	Biali Rocks	24-Aug-02	M	S	Y
=339	2002	Cape Horn Rocks - Forrester	20-Aug-02	F		Y
=343	2002	Yasha I.	22-Aug-02	F		Y
=357	2002	Hazy I.	25-Aug-02	M		Y

Appendix V. Steller sea lions branded as pups at Forrester Island complex (F), White Sisters (W), and Graves Rock (V) during 2002 and resighted from 20-27 August 2002. Brand number, resight location, resight date, association (assoc'n; WF = with female, S = suckling), and whether a photograph was taken (Y = yes, N = no).

Brand Number	Resight Location	Date	Assoc'n	Photo
F2001	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2002	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2004	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2008	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2010	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2011	Cape Horn Rocks - Forrester	20-Aug-02		N
F2018	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2019	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2022	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2023	Lowrie I.	20-Aug-02		Y
F2025	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2026	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2028	Sea Lion Rocks - Forrester	20-Aug-02		Y
F2029	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2036	Lowrie I.	20-Aug-02		Y
F2042	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2048	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2050	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2052	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2053	Lowrie I.	20-Aug-02		N
F2055	Lowrie I.	20-Aug-02		N
F2058	Sea Lion Rocks - Forrester	20-Aug-02		Y
F2060	Sea Lion Rocks - Forrester	20-Aug-02		Y
F2061	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2072	Lowrie I.	20-Aug-02		N
F2075	Lowrie I.	20-Aug-02		Y
F2076	Lowrie I.	20-Aug-02	WF	Y
F2078	Lowrie I.	20-Aug-02	WF	Y
F2084blurry	Lowrie I.	20-Aug-02		Y
F2086	Lowrie I.	20-Aug-02		Y
F2094	Lowrie I.	20-Aug-02		Y
F2099	West Rocks - Forrester	20-Aug-02		Y
F2101	Lowrie I.	20-Aug-02		Y
F2108	Lowrie I.	20-Aug-02		Y
F2110	Lowrie I.	20-Aug-02		N
F2114	Lowrie I.	20-Aug-02		Y
F2126	Lowrie I.	20-Aug-02		N
F2128	Lowrie I.	20-Aug-02		Y
F2131	Lowrie I.	20-Aug-02		Y

Appendix V. Continued

<b>Brand Number</b>	<b>Resight Location</b>	<b>Date</b>	<b>Assoc'n</b>	<b>Photo</b>
F2136	Lowrie I.	20-Aug-02		Y
F2137	Cape Horn Rocks - Forrester	20-Aug-02		Y
F2138	Lowrie I.	20-Aug-02		N
F2140	Lowrie I.	20-Aug-02		Y
F21?5	Cape Horn Rocks - Forrester	20-Aug-02		Y
W6	White Sisters	26-Aug-02		Y
W8	White Sisters	26-Aug-02		N
W15	White Sisters	26-Aug-02		N
W20	White Sisters	26-Aug-02		Y
W21	White Sisters	26-Aug-02		Y
W22	White Sisters	26-Aug-02		Y
W25	White Sisters	26-Aug-02		N
W31	White Sisters	26-Aug-02		Y
W33	White Sisters	26-Aug-02		Y
W34	White Sisters	26-Aug-02		Y
W35	White Sisters	26-Aug-02		Y
W38	White Sisters	26-Aug-02		Y
W46	White Sisters	26-Aug-02		Y
W52	White Sisters	26-Aug-02		Y
W57	White Sisters	26-Aug-02		N
W68	White Sisters	26-Aug-02		Y
W72	White Sisters	26-Aug-02		Y
W75	White Sisters	26-Aug-02		Y
W77	White Sisters	26-Aug-02		Y
W78	White Sisters	26-Aug-02		Y
W83	Graves Rock	27-Aug-02		Y
W87	White Sisters	26-Aug-02		Y
W90	White Sisters	26-Aug-02		N
W97	White Sisters	26-Aug-02		Y
W104	White Sisters	26-Aug-02		Y
W105	White Sisters	26-Aug-02		Y
W107	White Sisters	26-Aug-02		Y
W109	White Sisters	26-Aug-02		N
W117	White Sisters	26-Aug-02		Y
W120	White Sisters	26-Aug-02		Y
W125	White Sisters	26-Aug-02		Y
W39unsure	White Sisters	26-Aug-02		Y
W84unsure	White Sisters	26-Aug-02		Y
W92unsure	White Sisters	26-Aug-02		Y
W99unsure	White Sisters	26-Aug-02		Y
W12?unreadable	White Sisters	26-Aug-02		Y

Appendix V. Continued

<b>Brand Number</b>	<b>Resight Location</b>	<b>Date</b>	<b>Assoc'n</b>	<b>Photo</b>
V1	Graves Rock	27-Aug-02		Y
V2	Graves Rock	27-Aug-02		Y
V3	Graves Rock	27-Aug-02		Y
V4	Graves Rock	27-Aug-02		Y
V5	Graves Rock	27-Aug-02		Y
V6	Graves Rock	27-Aug-02		Y
V7	Graves Rock	27-Aug-02		Y
V9	Graves Rock	27-Aug-02		Y
V10	Graves Rock	27-Aug-02		Y
V11	Graves Rock	27-Aug-02		N
V12	Graves Rock	27-Aug-02		Y
V13	Graves Rock	27-Aug-02		Y
V14	Graves Rock	27-Aug-02		Y
V15	Graves Rock	27-Aug-02		Y
V16	Graves Rock	27-Aug-02		Y
V17	Graves Rock	27-Aug-02		Y
V19	Graves Rock	27-Aug-02	S	Y
V21	Graves Rock	27-Aug-02		N
V22	Graves Rock	27-Aug-02		Y
V23	Graves Rock	27-Aug-02		Y
V24	Graves Rock	27-Aug-02		Y
V25	Graves Rock	27-Aug-02		Y
V26	Graves Rock	27-Aug-02		Y
V27	Graves Rock	27-Aug-02		Y
V28	Graves Rock	27-Aug-02		Y
V29	Graves Rock	27-Aug-02		Y
V30	Graves Rock	27-Aug-02		Y
V32	Graves Rock	27-Aug-02	WF	Y
V33	Graves Rock	27-Aug-02		Y
V36	Graves Rock	27-Aug-02		Y
V37	Graves Rock	27-Aug-02	S	Y
V38	Graves Rock	27-Aug-02		Y
V39	Graves Rock	27-Aug-02	S	Y
V40	Graves Rock	27-Aug-02		Y
V41	Graves Rock	27-Aug-02		Y
V42	Graves Rock	27-Aug-02		Y
V43	Graves Rock	27-Aug-02		Y
V44	Graves Rock	27-Aug-02		Y
V47	Graves Rock	27-Aug-02		Y
V48	Graves Rock	27-Aug-02	WF	Y
V49	Graves Rock	27-Aug-02		Y
V50	Graves Rock	27-Aug-02	S	Y
V46unsure	Graves Rock	27-Aug-02	S	Y



