

**TRIP REPORT: BRAND RESIGHTS OF STELLER SEA LIONS IN
SOUTHEAST ALASKA AND NORTHERN BRITISH COLUMBIA FROM
13 JUNE – 3 JULY, 2001**

By
Kim Raum-Suryan

Objective

The primary purpose of the trip was to conduct an extensive survey of rookeries and haulout sites throughout Southeast Alaska (SE) and Northern British Columbia (BC) to resight Steller sea lions (*Eumetopias jubatus*) branded as pups at the Forrester Island complex during 1994 and 1995. A secondary objective included collecting resight data on Steller sea lions branded as pups at Sugarloaf and Marmot Islands during June 2000 and on Steller sea lions branded as juveniles during a capture trip during May 2001 in SE Alaska.

Study Area

We surveyed 19 haulout and rookery sites in Southeast Alaska from Glacier Bay to the Canadian border (Fig. 1). In northern British Columbia, we surveyed 10 haulout and rookery sites along the East Coast of the Queen Charlotte Islands and the eastern side of Hecate Straits (Fig. 1).

Charter Vessel

U.S. Fish and Wildlife Service vessel M/V *Curlew* (Captain Joe Spiccianni).

Research Crew 1 (13 June – 23 June 2001)

Kim Raum-Suryan, Ken Pitcher, Tom Gelatt, Dennis McAllister, Chris Curgus, Kelly Hastings, Andrew Trites.

Research Crew 2 (23 June – 4 July 2001)

Kim Raum-Suryan, Ken Pitcher, Chris Curgus, Mike Rehberg, Wendy Dunlap-Harding, Kevin White, Andrea Hunter. Park Warden, Richard Lamy, joined us while in Gwaii Haanas Park and Preserve from 25 June – 28 June.

METHODS

Personnel in small boats (22' and 17' Boston Whalers) observed Steller sea lions at each haulout or rookery site. Haulouts were approached at a slow speed and initially surveyed from a distance to allow sea lions to become accustomed to the boat. All sea lions were counted and observers used binoculars (8 X to 14 X) to read brands. Once a branded animal was detected, the boat approached closer to the haulout and if possible, digital photographs were taken of the animal. An attempt was made to photograph each branded animal several times and once out of the field, one to four of the best photographs were saved. When a branded animal was observed, the brand number, side of the animal branded, quality of the brand, independence of sighting, and if applicable, the tag number or color was recorded (Appendix 1). Additional information recorded included: photo taken, sex, reproductive/age status, and comments (Appendix 1). If not all sea lions could be adequately surveyed by boat, observers went ashore and surveyed

from a high point above the haulout or rookery. If a branded individual was observed suckling a female or nursing a pup or juvenile, that was recorded as well.

The location, date, observers, photographer, start and end time, total count, and weather data was recorded at each site. Any unusual sightings of other pinnipeds or injured sea lions were recorded. An attempt was made to photograph all sea lions with any injuries, rope, net scars, or entanglements, and other species of pinnipeds on the haulouts or rookeries. Photographs of most haulout sites also were taken for future reference.

RESULTS

Brands

Branded Steller sea lions were observed at 15 (52%) of the 29 locations surveyed (Table 1). We resighted sea lions branded as pups at Forrester Island in 1994 and 1995, branded as pups at Marmot and Sugarloaf Islands in June 2000 and branded as juveniles (11 – 23 months) at three haulout sites in SE Alaska during May 2001. A total of 104 Forrester brands, four Sugarloaf brands, five Marmot brands, and eight SE capture trip brands were observed during the 22-day trip (Table 1, 2, 3, 4). Of the 104 branded Forrester individuals resighted, 82 (79%) brands were readable and 22 (21%) were unidentifiable due to scarring (Table 2). Although tags were applied to the foreflippers of all sea lions branded during 1994 (n = 399), no tags were observed. Of the 104 Forrester brand resights, only nine individuals (9%) were observed for the first time since branding (Table 2). Most branded individuals (n = 99, 95%) were observed at haulouts and rookeries in SE. More than half (n = 54, 52%) of these were seen at Forrester Island complex, where they were branded as pups. Only 5 (5%) branded individuals were observed in BC waters.

Two (one male, and one unreadable brand of unknown sex) individuals were each observed at two different locations during brand resight observations. Brand F4M (last two unreadable digits resembled an “M”) was observed first at White Sisters rookery on 15 June then again at North Rocks-Forrester Island (rookery) on 21 and 22 June (distance = 357 km). Brand 343 was first observed at Cape Addington on 18 June then again at West Rock – Forrester Island on 21 June and North Rocks-Forrester Island on 22 June (distance = 74 km).

Tag

We observed one individual at Graves Rocks on 15 June with a readable tag (810) attached to the left front foreflipper. This was a male tagged on Chowiet Island (western stock) on 28 June 1998 with white Allflex tags.

Independent Sightings/Brand Misidentification

Whenever possible, two or more observers read the brand on an individual independently. These independent observations accounted for 74 (71%) of the Forrester brands observed and seven (78%) of the nine Sugarloaf and Marmot brands observed. Digital photographs also provided a tool of independence. In seven cases, brands that were unreadable or questionable were later given positive brand identifications using several sources (photographs, original brand database, past brand resight data, sex of individual observed). The digital photographs continue to be an important tool in brand clarification.

Photographs

An attempt was made to photograph most branded sea lions. Of the unique Forrester brands observed, 94 individuals (90%) were photographed (Table 2). Seventy-six (93%) of the 82 readable brands and 18 (82%) of the 22 unreadable brands were photographed. Three of the four branded juveniles from Sugarloaf and four of the five branded juveniles from Marmot were photographed (Table 3). All juveniles that were branded during the May 2001 capture trip were photographed (Table 4). The best one to four photographs of each branded individual were saved. If a brand was unidentifiable, several photographs from different angles were saved for future reference. Other marks on the body, such as fungal patches, scars, and spots aided in confirming identification of individuals that were photographed on separate occasions when the brand was difficult to read. Several Steller sea lions with net and rope scars and entanglements or other injuries also were photographed.

Counts

Sea lions were observed at 28 of the 29 sites surveyed (Table 1). Approximate counts were conducted at most haulouts and rookeries. Because counts were usually conducted from skiffs, some animals in low-lying areas of large haulouts could not be observed. Therefore, counts at large haulouts and rookeries are low. Within SE, excluding Forrester Island, approximately 4005 non-pup sea lions were counted at rookeries and haulouts (Table 1). Within BC waters, approximately 2574 sea lions were counted (Table 1).

The presence of pups was noted for each rookery and haulout site (Table 1). As the population of Steller sea lions had increased in Southeast Alaska, the number of pups born on sites north of Forrester Island complex also has increased. Ten years ago, no pups were observed on Graves Rocks. However, during June 2000, we counted a minimum of 30 pups at Graves Rocks and during June 2001, we counted a minimum of 49 pups. At Biali Rocks, also a haulout, we counted a minimum of 21 pups during June 2000 and 27 pups during June 2001.

Females with pups and juveniles

Seventeen Forrester branded females were observed nursing pups (Table 2). Most (n =12, 71%) were observed at Forrester Island complex. However, five females also were observed nursing pups at Hazy Island (136 km away). Five of the females were seven-years-old, 11 were six-years-old and one brand was unreadable as to branding year. Of the 17, four had not been seen since they were branded as pups. Only 2 of the 17 had been observed with pups in previous years and both were in 2000. These females were observed at the same rookery sites in both years.

Four Forrester branded females (two in SE and two in BC) also were observed nursing yearlings. Three of the four were observed at Forrester Island complex nursing pups during June 2000. The other female was last observed with a confirmed pup during 1999 and observed with a possible juvenile at Sea Lion Rocks-Forrester Island in 2000 (but the juvenile was not observed suckling). Therefore, it is possible that this female may have been nursing a two-year-old during 2001.

Of the four juveniles branded at Sugarloaf Island, we observed one juvenile (X86) suckling from its mother on Graves Rock (Table 3). A second juvenile (X42) appeared to be with its mom (nuzzling, lying on top of female) but we did not observe suckling behavior.

Entanglement/Injury

Of the 29 haulouts surveyed, 13 haulouts had at least one individual with some type of fisheries entanglement (Table 5). A total of 18 Steller sea lions were observed with fisheries entanglements such as net, line, and/or flashers (Table 5). All of the individuals with line or packing bands around their necks had deep wounds cutting into the blubber of the neck. Eight individuals had flashers near the lip, indicating they had swallowed a hook and the line attached to the flasher was inside the mouth. Photographs were taken of 15 of the 18 individuals above.

One individual was observed at Cape Addington with a severed rear right flipper (severed at the right ankle). We observed four adult females with injuries to the flesh of the back (unknown causes), one adult female with an eye injury, one juvenile with a growth on the right rear flipper, and several adult males with various bite wounds and scars. Photographs were taken of most of these individuals.

Scat

Scat (n = 545 in SE; n = 275 in BC) was collected at 19 of the 29 sites (Table 1). We did not disturb pups on rookeries to collect scat this year. A separate ADF&G research project was conducted one-week after visiting Forrester and Hazy Island rookeries. This project involved branding pups and because it was necessary to disturb pups during this project, scats were collected then.

Additional Marine Mammal Sightings

In addition to observations of Steller sea lions, we observed three other pinniped species (harbor seal, *Phoca vitulina*; fur seal, *Callorhinus ursinus*; and California sea lion, *Zalophus californianus*). Harbor seals were commonly observed at several haulouts. We observed five fur seals at Hazy Islands, one California sea lion at Sea Lion Island and one California sea lion at Kaiuchali Island. Additionally, we observed a lone sea otter *Enhydra lutris* off of Anthony Island (southern tip of the Queen Charlotte Islands). This was the first confirmed and photo-documented observation of a sea otter in these waters in the past 100 years.

Table 1. Date, location of haulout or rookery, non-pup counts from which branded animals were observed, pup counts, number of brands (F-Forrester, X-Sugarloaf, T-Marmot, = - ADFG captures), and number of scats collected at each haulout or rookery from 14 June to 3 July 2001.

Date	Location	Latitude (N)	Longitude (W)	Est. # Non-pups	Est. # Pups	# Brands				# Scat
						F	X	T	=	
14 June	South Marble Is.	58°38.838	136°02.805	256+	0	1	1	0	0	51
	North Inian Is.	58°16.300	136°4.000	36	0	0	0	0	0	0
	Graves Rocks ^a	58°14.188	136°5.421	360+	49	2	3	2	0	0
15 June	Graves Rocks ^a	58°14.188	136°45.421	367+	49	2(1)	(2)	1	0	67
	White Sisters ^a	57°38.095	136°15.162	613+	^b	9	0	1	0	53
16 June	White Sisters ^a	57°38.095	136°15.162	613+	^b	(5)	0	1	0	0
	Sea Lion Island	57°17.000	135°53.00	60	0	0	0	0	0	0
17 June	Kaiuchali Is.	56°49.967	135°33.820	88	0	0	0	0	0	0
	Jacob's Rock	56°47.349	135°30.002	131	1	0	0	0	0	60
	Biali Rock	56°42.600	135°20.400	298	27	3	0	0	0	0
	Sea Lion Rocks (Puffin Bay)	56°15.012	134°49.962	49	0	0	0	0	0	0
	Cape Ommaney	56°10.549	134°42.406	315	0	1	0	0	0	60
18 June	Hazy Is.	55°52.002	134°34.332	915	^b	8	0	0	3	0
	Cape Addington	55°26.400	133°49.200	521+	2	10	0	0	0	30
	Timbered Is.	55°41.482	133°48.011	356	0	5	0	0	0	26
20 June	Forrester Is. Complex:									
	Sea Lion Rks ^a	55°32.377	133°32.280	-	^b	8	0	0	0	0
	East Rk ^a	54°51.663	133°31.634	-	^b	1	0	0	0	0
	Lowrie Is. ^a	54°51.819	133°32.447	-	^b	5	0	0	0	0
21 June	Sea Lion Rks ^a	55°32.377	133°32.280	180+	^b	1(3)	0	0	0	0
	Cape Horn Rks ^a	54°50.840	133°33.224	210+	^b	17	0	0	0	0
	East Rk ^a	54°51.663	133°31.634	140+	^b	(3)	0	0	0	0
	West Rk	54°51.657	133°33.064	-	0	1(1)	0	0	0	0
	North Rk ^a	54°52.478	133°33.749	-	^b	3(2)	0	0	0	0
22 June	North Rk ^a	54°52.478	133°33.749	-	^b	2(5)	0	0	0	0
	NE Rk	54°52.476	133°33.131	-	0	1(1)	0	0	0	0
	West Rk	54°51.657	133°33.064	-	0	1(1)	0	0	0	0
	Lowrie Is. ^a	54°51.819	133°32.447	-	^b	3	0	0	0	0
	Cape Horn Rks ^a	54°50.840	133°33.224	-	^b	6(10)	0	0	0	0
	East Rk ^a	54°51.663	133°31.634	-	^b	(2)	0	0	0	0
	Sea Lion Rks ^a	55°32.377	133°32.280	-	^b	3(5)	0	0	0	0
23 June	Cape Horn Rks ^a	54°50.840	133°33.224	-	^b	(3)	0	0	0	0
	West Rk	54°51.657	133°33.064	-	0	1	0	0	0	0
	NE Rk	54°52.476	133°33.131	-	0	1	0	0	0	0
25 June	Skedans Is., BC	52°57.173	131°33.146	0	0	0	0	0	0	0
	Reef Is., BC	52°52.220	131°29.121	185	1	0	0	0	0	42

^a Indicates site is a rookery.

^b Indicates no dedicated pup counts were conducted.

() Indicates individual(s) were observed on a previous day.

Table 1. Continued.

Date	Location	Latitude (N)	Longitude (W)	Est. # Non- pups	Est. # Pups	# Brands				# Scat
						F	X	T	=	
26 June	Garcin Rks, BC	52°12.579	130°58.078	111	0	0	0	0	0	0
	Cape St. James, BC ^a	51°55.313	131°00.208	475	^b	1	0	0	0	0
27 June	Cape St. James, BC ^a	51°55.313	131°00.208	688	294 +	0	0	0	0	7
	Anthony Is., BC	52°04.911	131°13.777	162	1	0	0	0	0	9
28 June	McInness Is., BC	52°15.113	128°43.052	101	0	0	0	0	0	39
	Steele Rk, BC	52°27.875	129°22.152	79	0	0	0	0	0	31
29 June	North Danger Rks, BC ^a	53°15.091	130°20.731	341	-	0	0	0	0	36
	Bonilla Rks, BC	53°26.625	130°36.115	132	2	1	0	0	0	53
30 June	Warrior Rks, BC	54°03.858	130°51.134	300+	0	3	0	0	0	58
	West Rk	54°48.694	131°29.992	581+	-	3	0	0	0	62
1 July	Grindall Is.	55°26.414	132°06.582	70	0	0	0	0	0	57
2 July	Easterly Is.	55°53.720	132°05.484	174	0	0	0	0	0	0
3 July	Yasha Is.	56°57.600	133°33.480	207	0	0	0	0	0	39
	SW Brothers Is.	57°16.034	133°52.577	233	1	1	0	0	5	40

^a Indicates site is a rookery.

^b Indicates no dedicated pup counts were conducted

() Indicates individual(s) were observed on a previous day.

Table 2. Steller sea lions branded as pups at Forrester Island complex during 1994 and 1995 and resighted from 14 June to 3 July 2001. Location, date, Forrester brand identification number (*italics* indicate resight of brand observed earlier during resight trip), sex (F = female, M = male), age (yr), association (assoc.) of female observed nursing a pup (w/pup) or juvenile (w/juv), photo taken (Y = yes, N = no), and if the animal was observed for the first time since branding.

Location	Month	Day	Year	Brand	Sex	Age	Assoc.	Photo	New 2001
Graves Rocks	6	14	2001	F604	M	6.0		Y	
	6	14	2001	F7?2		6.0		Y	
S. Marble Is.	6	14	2001	F291	M	7.0		Y	
Graves Rocks	6	15	2001	F(7or2) blob6				Y	
	6	15	2001	<i>F604</i>	M	6.0		Y	
	6	15	2001	F805	M	6.0		Y	
White Sisters	6	15	2001	F446	M	7.0		N	
	6	15	2001	F496	M	7.0		Y	
	6	15	2001	F4M^a	F	7.0		Y	
	6	15	2001	F4star1		7.0		Y	
	6	15	2001	F5X		7.0		Y	
	6	15	2001	F768	M	6.0		Y	
	6	15	2001	F833	F	6.0		Y	
	6	15	2001	F953	M	6.0		Y	Y
	6	15	2001	F961	M	6.0		Y	
White Sisters	6	16	2001	<i>F446</i>	M	7.0		Y	
	6	16	2001	<i>F4M</i>	F	7.0		Y	
	6	16	2001	<i>F4star1</i>		7.0		N	
	6	16	2001	<i>F5X</i>		7.0		N	
	6	16	2001	<i>F833</i>	F	6.0		N	
Biali Rocks	6	17	2001	F270	M	7.0		Y	
	6	17	2001	F443	M	7.0			
	6	17	2001	F528	F	7.0		Y	
Cape Ommaney	6	17	2001	FM5				Y	
Cape Addington	6	18	2001	F298?		7.0		Y	
	6	18	2001	F343^b	M	7.0		Y	
	6	18	2001	F432	F	7.0		Y	
	6	18	2001	F544	M	7.0		Y	
	6	18	2001	F574		7.0		Y	
	6	18	2001	F621	F	6.0		Y	Y
	6	18	2001	F72blob		6.0		Y	
	6	18	2001	F787	F	6.0		Y	
	6	18	2001	F827	F	6.0		Y	
	6	18	2001	F941	F	6.0		Y	

^a Indicates individual F4M was observed at more than one haulout site during brand resight trip.

^b Indicates individual F343 was observed at more than one haulout site during brand resight trip.

Table 2. Continued.

Location	Month	Day	Year	Brand	Sex	Age	Assoc.	Photo	New 2001
Hazy Is.	6	18	2001	F209	F	7.0		Y	
	6	18	2001	F559	F	7.0		N	
	6	18	2001	F614	M	6.0		Y	
	6	18	2001	F657	F	6.0	w/pup	Y	
	6	18	2001	F875	F	6.0		Y	
	6	18	2001	F980	F	6.0	w/pup	Y	
	6	18	2001	F982	F	6.0	w/pup	Y	
	6	18	2001	FBOWTIE3	F		w/pup	Y	
Timbered Is.	6	18	2001	F490	M	7.0		Y	
	6	18	2001	F583?	M	7.0		Y	
	6	18	2001	F637	M	6.0		N	
	6	18	2001	F744	F	6.0		Y	
	6	18	2001	F912	M	6.0		Y	Y
Forrester Island Complex:									
East Rock - Forrester	6	20	2001	F856	F	6.0	w/pup	Y	Y
Lowrie Is.	6	20	2001	F280	F	7.0		N	
	6	20	2001	F50?		7.0		N	
	6	20	2001	F525	M	7.0		N	Y
	6	20	2001	F674	F	6.0	w/pup	Y	
	6	20	2001	F784	F	6.0		Y	
Sea Lion Rocks - Forrester	6	20	2001	F501	F	7.0		Y	
	6	20	2001	F509	F	7.0		Y	
	6	20	2001	F522	F	7.0		Y	Y
	6	20	2001	F5351	F	7.0	w/juv	Y	
	6	20	2001	F623	F	6.0		Y	
	6	20	2001	F6461	M	6.0		Y	
	6	20	2001	F699?		6.0		Y	
	6	20	2001	F966	F	6.0		Y	
Cape Horn Rocks - Forrester	6	21	2001	F???				N	
	6	21	2001	F267	F	7.1		Y	
	6	21	2001	F355	F	7.1		Y	
	6	21	2001	F463	F	7.1	w/pup	Y	
	6	21	2001	F561	F	7.1	w/pup	Y	
	6	21	2001	F576	M	7.1		Y	
	6	21	2001	F5unsure4	M	7.1		Y	
	6	21	2001	F612	F	6.1		N	
	6	21	2001	F613	F	6.1		Y	
	6	21	2001	F619	F	6.1		N	
	6	21	2001	F625	F	6.1		Y	
	6	21	2001	F645	M	6.1		N	

^a Indicates individual F4M was observed at more than one haulout site during brand resight trip.

^b Indicates individual F343 was observed at more than one haulout site during brand resight trip.

Table 2. Continued.

Location	Month	Day	Year	Brand	Sex	Age	Assoc.	Photo	New 2001
Cape Horn Rocks - Forrester	6	21	2001	F6621	F	6.1		Y	
	6	21	2001	F686	F	6.1		N	
	6	21	2001	F687	F	6.1		Y	
	6	21	2001	F733	F	6.1		Y	Y
	6	21	2001	F780	F	6.1	w/pup	Y	Y
East Rock - Forrester	6	21	2001	F280	F	7.1		Y	
	6	21	2001	F525	M	7.1		Y	
	6	21	2001	F856	F	6.1	w/pup	Y	
North Rocks - Forrester	6	21	2001	F351	M	7.1		Y	
	6	21	2001	F3bowtie		7.1		Y	
	6	21	2001	F4M ^a		7.1	?	Y	
	6	21	2001	F6461	M	6.1		Y	
	6	21	2001	F996	F	6.1	w/pup	Y	
Sea Lion Rocks - Forrester	6	21	2001	F509	F	7.1	w/pup	Y	
	6	21	2001	F5351	F	7.1	w/juv	Y	
	6	21	2001	F954	M	6.1		Y	
	6	21	2001	F966	F	6.1		Y	
West Rock - Forrester	6	21	2001	F343 ^b	M	7.1		Y	
	6	21	2001	F746	M	6.1		Y	
Cape Horn Rocks - Forrester	6	22	2001	F207	F	7.1		Y	
	6	22	2001	F267	F	7.1			
	6	22	2001	F349	F	7.1		N	
	6	22	2001	F468	M	7.1		Y	
	6	22	2001	F561	F	7.1	w/pup		
	6	22	2001	F576	M	7.1		Y	
	6	22	2001	F579	M	7.1		Y	
	6	22	2001	F612	F	6.1		Y	
	6	22	2001	F613	F	6.1	w/pup		
	6	22	2001	F619	F	6.1		Y	
	6	22	2001	F625	F	6.1			
	6	22	2001	F6621	F	6.1			
	6	22	2001	F686	F	6.1		Y	
	6	22	2001	F687	F	6.1			
	6	22	2001	F780	F	6.1		Y	
	6	22	2001	F792	F	6.1		Y	Y
East Rock - Forrester	6	22	2001	F280	F	7.1		Y	
	6	22	2001	F856	F	6.1	w/pup		
Lowrie Is.	6	22	2001	F527	F	7.1		Y	
	6	22	2001	F661	F	6.1		Y	
	6	22	2001	F766	F	6.1	w/pup	Y	

^a Indicates individual F4M was observed at more than one haulout site during brand resight trip.^b Indicates individual F343 was observed at more than one haulout site during brand resight trip.

Table 2. Continued.

Location	Month	Day	Year	Brand	Sex	Age	Assoc.	Photo	New 2001
North Rocks - Forrester	6	22	2001	F?44				N	
	6	22	2001	F343^b	M	7.1			
	6	22	2001	F396	F	7.1		Y	
	6	22	2001	F3bowtie		7.1			
	6	22	2001	F4M^a		7.1		N	
	6	22	2001	F6461	M	6.1		Y	
	6	22	2001	F847	M	6.1		Y	
Northeast Rock - Forrester	6	22	2001	F351	M	7.1		Y	
	6	22	2001	F712	M	6.1		Y	
Sea Lion Rocks - Forrester	6	22	2001	F2461	F	7.1		Y	
	6	22	2001	F522	F	7.1	w/pup	N	
	6	22	2001	F5351	F	7.1			
	6	22	2001	F623	F	6.1			
	6	22	2001	F699?		6.1			
	6	22	2001	F706	M	6.1		N	
	6	22	2001	F956	F	6.1	w/pup	Y	
	6	22	2001	F966	F	6.1		Y	
West Rock - Forrester	6	22	2001	F4461	M	7.1		Y	
	6	22	2001	F746	M	6.1			
Cape Horn Rocks - Forrester	6	23	2001	F619	F	6.1		Y	
	6	23	2001	F625	F	6.1		Y	
	6	23	2001	F6621	F	6.1		Y	
Northeast Rock-Forrester	6	23	2001	F72rainbow	M	6.1		Y	
West Rock - Forrester	6	23	2001	F220	M	7.1		Y	
Cape St. James, BC	6	26	2001	F4??		7.1		N	
Bonilla Rocks, BC	6	29	2001	F882	F	6.1	w/juv	Y	
Warrior Rock, BC	6	30	2001	F(8?)64		6.1		Y	
	6	30	2001	F4(1?)(7?)	F	7.1	w/juv	Y	
	6	30	2001	F984	M	6.1		Y	
West Rock (Dixon Entrance)	6	30	2001	F361	M	7.1		Y	
	6	30	2001	F977	F	6.1	w/juv	Y	
	6	30	2001	FJTH	F			Y	
Southwest Brothers Is.	7	3	2001	F957	F	6.1		Y	

^a Indicates individual F4M was observed at more than one haulout site during brand resight trip.

^b Indicates individual F343 was observed at more than one haulout site during brand resight trip.

Table 3. Steller sea lions branded as pups at Sugarloaf and Marmot Islands during June 2001 and resighted in Southeast Alaska during June 2001. Location, date, Sugarloaf (X) or Marmot (T) brand identification number (italics indicate resight of brand observed earlier during resight trip), sex (F = female, M = male), age (yr), association (assoc.) of juvenile suckling from its mother (w/mom), photo taken (Y = yes, N = no), and straight-line distance from natal rookery to brand resight haulout or rookery.

Location	Brand	Sex	Month	Day	Year	Age (yr)	Assoc.	Photo	Distance (km)
South Marble Is.	X89	F	6	14	2001	1		N	923
Graves Rock	X42	F	6	14	2001	1	Possibly w/mom	Y	887
	X86	M	6	14	2001	1	w/mom	Y	887
	X144	F	6	14	2001	1		Y	887
	T23	F	6	14	2001	1		Y	879
	T33	F	6	14	2001	1		Y	879
Graves Rock	<i>X42</i>	F	6	15	2001	1		Y	
	<i>X144</i>	F	6	15	2001	1		Y	
	T25	M	6	15	2001	1		N	879
White Sisters	T27	M	6	16	2001	1		Y	918
	T60	M	6	15	2001	1		Y	918

Table 4. Steller sea lions branded as juveniles at haulouts in Southeast Alaska from 3 – 11 May 2001 and resighted in Southeast Alaska from June - July 2001. Location, date, brand identification number, sex (F = female, M = male), age (yr), association (assoc.) of juvenile suckling from its mother (w/mom), photo taken (Y = yes, N = no), and if resight was first since capture.

Location	Month	Day	Year	Brand	Sex	Age (yr)	Assoc.	Photo	New Resight
Hazy Is.	6	18	2001	=170	M	1.1	w/mom	Y	
Hazy Is.	6	18	2001	=178	F	1.1	w/mom	Y	
Hazy Is.	6	18	2001	=183	M	1.1	w/mom	Y	Y
Southwest Brothers Is.	7	3	2001	=168	M	1.1		Y	
Southwest Brothers Is.	7	3	2001	=181	F	1.1		Y	Y
Southwest Brothers Is.	7	3	2001	=185	F	1.1	w/mom	Y	
Southwest Brothers Is.	7	3	2001	=191	F	2.1		Y	
Southwest Brothers Is.	7	3	2001	=199	F	1.1		Y	

Table 5. Steller sea lions observed with some type of fishery gear entanglement during 2001 brand resight trip. Date, location, number of observed Steller sea lions with fisheries entanglements, and type of entanglement observed on each individual.

Date	Location	Latitude (N)	Longitude (W)	# Entanglements	Type of Entanglement
14 June	Graves Rocks	58°14.188	136°45.421	2	Neck – band, line
15 June	White Sisters	57°38.095	136°15.162	2	Mouth - flasher (2)
17 June	Kaiuchali Is.	56°49.967	135°33.820	1	Mouth - flasher
17 June	Jacob's Rock	56°47.349	135°30.002	2	Mouth - flasher (2)
17 June	Biali Rock	56°42.600	135°20.400	1	Mouth – flasher
17 June	Cape Ommaney	56°10.549	134°42.406	1	Neck - line
18 June	Hazy Is.	55°52.002	134°34.332	2	Neck – line; Hook and line
18 June	Cape Addington	55°26.400	133°49.200	1	Mouth - flasher
18 June	Timbered Is.	55°41.482	133°48.011	2	Flasher; Neck - netting
21 June	Forrester-Cape Horn Rks	54°50.840	133°33.224	1	Neck - line
26 June	Garcin Rks, BC	52°12.579	130°58.078	1	Neck - line
29 June	North Danger Rks, BC	53°15.091	130°20.731	1	Mouth - line
29 June	Bonilla Rks, BC	53°26.625	130°36.115	1	Neck - line

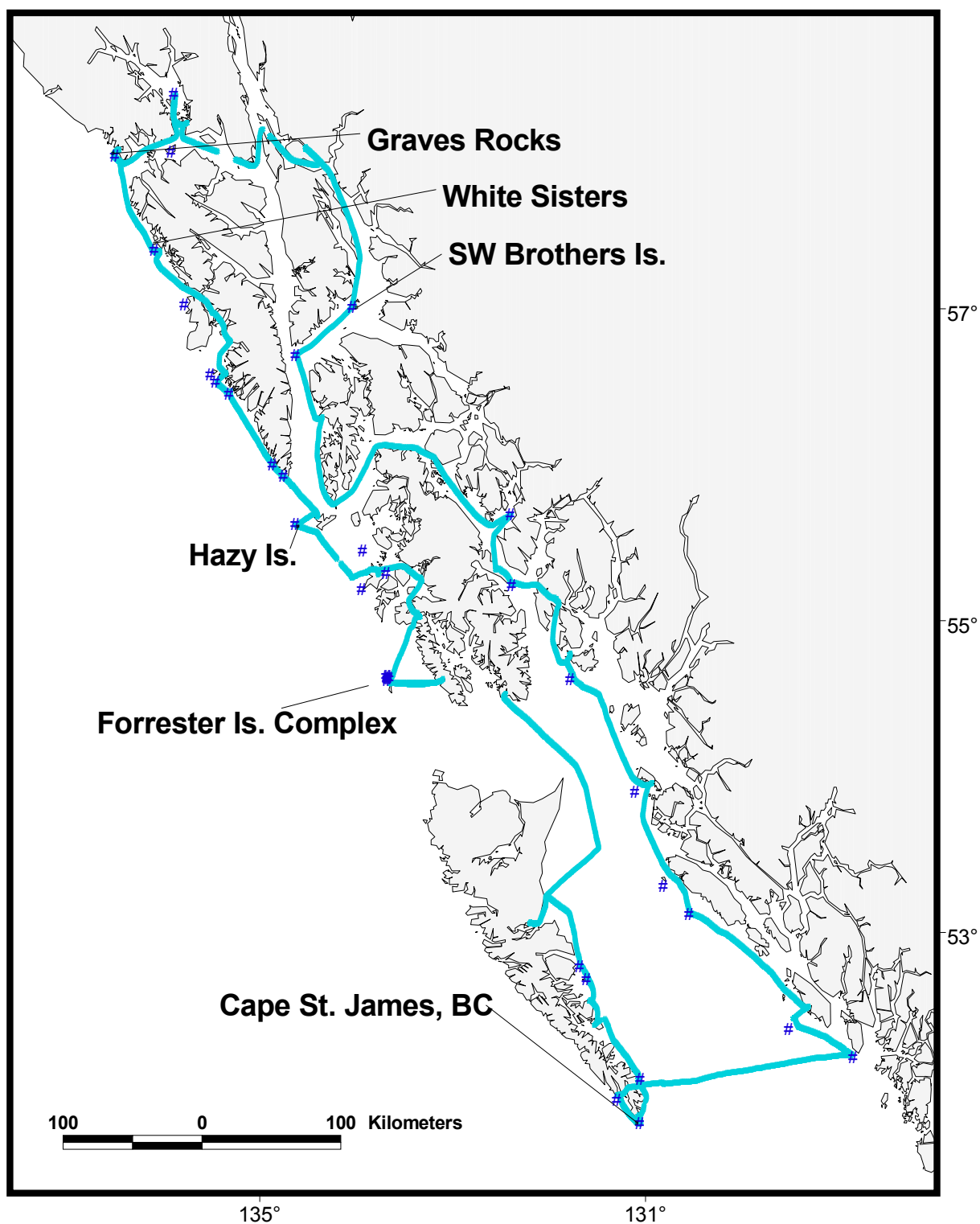


Figure 1. Trackline of brand resight cruise aboard the *M/V Curlew* during 13 June – 4 July 2001. Dots depict haulouts and rookeries visited.

Steller Sea Lion Brand/Tag Observation Form

Location: Location of rookery or haul-out (please be as specific as possible, especially if haul out is named “sea lion rocks” or “seal rocks”, please write: sea lion rocks off of Forrester Island, and give latitude and longitude if at all possible).

Area: Please be as specific as possible as to location on site, 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: Full name. **Photographer:** Full name. Indicate # of observers if > 1 per form.

Start and 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

Sky:	0	clear	Swell:	0	< 4 feet	Precip:	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.

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

Brand Side: Location of brand on animal: **RS** Right Shoulder **LS** Left Shoulder

Brand Quality: Score each digit using the following criteria (e.g. brand F103, quality +0-+)

- + If the digit is easily readable (Numbers are clear w/o scarring or hair coverage).
- 0 If the digit is readable, but takes some time to discern with naked eye, binoculars or spotting scope, not easy to determine right away, not a clear brand.
- If the digit is difficult to read because of scarring, hair or smeared numbers. Use this if you are unable to determine what the digit is. Note problem in comments.
- \$ If the digit is obscured, angled away from the observer – so the digit may be quite readable, the observer just cannot see it.

✓ **(Check):** Record a “Y” for yes or “N” for no for brand verification after it was recorded (e.g., you read the brand, noted it in your notebook, read it a second time, and checked against your first recording).

Ind.: Independent reading of brand by more than one observer.

Tag Number/color: Record the number of the flipper tag, e.g., 103 and the color; if the tag is not readable, leave blank.

Tag Present: L = left flipper tag present; R = right flipper tag present; N = flipper seen but no tag present;

U = unknown status

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 the sex of the animal only if 100% confident (must see ventrum), e.g., M = male; F = female; U = unknown.

Repro/Age Status: Record reproductive and/or age status using the following codes:
TB – Territorial Bull **AM** – Adult Male **AF** – Adult Female **SAM** – Subadult male
J – Juvenile **P** – pup **WP** – Branded adult female nursing pup **WJ** – Branded adult female nursing juvenile **PS** – Branded pup suckling **JS** – Branded juvenile suckling

Comments: Notes on brand condition (scarred, over-branded, under-branded); describe unreadable brands. Note any tags read, behavioral information, if brand obscured.