

Report of the survey to assess pup production of New Zealand sea lions on Stewart Island 2019

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The objectives of this project were to survey areas of Stewart Island to investigate the presence and tag pups of NZ sea lion (*Phocarctus hookeri*).

Logistics

The trip was undertaken in association with the Department of Conservation Stewart Island Field Centre on Southernwinds skippered by Chris Pasco and Nick White. Louise Chilvers (Wildbase, Massey University), Phred Dobbins (Stewart Island Field Centre, DOC), Jim Fyfe (Otago, DOC) and Odin Neil (Auckland Zoo) were the survey team. The field trip ran from the 4th to the 12th of March 2018.

Pup tagging

Pups are tagged to provide a pool of known age individuals for the estimation of parameters such as survival, recruitment, movement patterns and reproductive rate if this area can become part of a long-term study. All pups were tagged in both flippers. All live pups seen were tagged with yellow coffin shaped Dalton 'Jumbo' tags. In total 51 pups were tagged (25 females and 26 males – tag numbers listed below). All pups were tagged in Pegasus or one in Broad Bay.

Sighting and resightings of previously marked individuals

There were 31 other tagged sea lions seen this year, all either previously tagged in the Stewart Island area and 2 from Auckland Islands, see list below.

Future Research Recommendations

Continued annual surveys of Stewart Island specifically in the Port Pegasus area is essential as outlined in the NZ TMP as a place of significance importance to understand the abundance of NZ sea lions. Continuing yearly pup tagging is highly recommended. The Animal Ethics permit for this project will be renewed this year and will include an application to PIT tag. Already numerous sightings of Stewart Island tagged animals have been made on mainland NZ, and being able to make the connection between these two populations is highly significant for the NZ sea lion species.

Field teams must be experienced, strong and good in the bush like this years team and a team should preferably be a minimum of four people otherwise serious injuries can occur. The timing of this years trip is the same as has been for all years except last year and is the time of year this trip needs to be held each year.

Acknowledgements

Thank you to the sea lion pup team this year Odin, Jim, Nick and Phred and skippers Chris Pasco and Nick White. I am grateful for the support and willingness Stewart Island DoC always show for this project. I sincerely thank Auckland Zoo Conservation Trust for continuing supporting this research and School of Veterinary Science, Massey University.

Port Pegasus tagged pups 2019

Count	Tag	Tag colour	Sex	Date
1	N377	YY	F	4/03/2019
2	N378	YY	F	4/03/2019
3	N380	YY	F	4/03/2019
4	N381	YY	F	4/03/2019
5	N382	YY	M	4/03/2019
6	N383	YY	F	4/03/2019
7	N384	YY	F	4/03/2019
8	N385	YY	M	4/03/2019
9	N386	YY	F	4/03/2019
10	N387	YY	M	5/03/2019
11	N388	YY	M	5/03/2019
12	N389	YY	F	5/03/2019
13	N390	YY	M	6/03/2019
14	N391	YY	F	6/03/2019
15	N392	YY	F	6/03/2019
16	N393	YY	M	6/03/2019
17	N394	YY	F	6/03/2019
18	N395	YY	F	6/03/2019
19	N396	YY	F	6/03/2019
20	N397	YY	M	6/03/2019
21	N398	YY	F	6/03/2019
22	N399	YY	M	6/03/2019
23	W665	YY	F	6/03/2019
24	W666	YY	M	7/03/2019
25	W667	YY	M	7/03/2019
26	W668	YY	M	7/03/2019
27	W669	YY	M	7/03/2019
28	W670	YY	M	8/03/2019
29	W671	YY	F	8/03/2019
30	W672	YY	M	8/03/2019
31	W673	YY	M	8/03/2019
32	W674	YY	F	8/03/2019
33	W675	YY	M	8/03/2019
34	W676	YY	F	9/03/2019
35	W677	YY	M	9/03/2019
36	W678	YY	M	9/03/2019
37	W679	YY	M	9/03/2019
38	W680	YY	F	9/03/2019
39	W681	YY	F	9/03/2019
40	W682	YY	F	9/03/2019
41	W683	YY	M	9/03/2019
42	W684	YY	M	9/03/2019
43	W685	YY	F	10/03/2019
44	W686	YY	M	10/03/2019
45	W687	YY	F	10/03/2019

46	W688	YY	F	10/03/2019
47	W689	YY	M	10/03/2019
48	W690	YY	F	10/03/2019
49	W691	YY	M	10/03/2019
50	W692	YY	M	10/03/2019
51	W693	YY	M	11/03/2019

Resighting record 2019

Tag number	Tag colour	Sex	Resighting Date	Age	Where tagged
V515	YY	M	4/03/2015	4	Port Pegasus
V551	YY	M	25/12/2018	1	Port Pegasus
N373	YY	M	5/03/2019	1	Port Pegasus
V592	YY	F	5/03/2019	1	Port Pegasus
H050	YY	M	5/03/2019	Unknown	
N374	YY	F	6/03/2019	1	Port Pegasus
E573	WW	M	7/03/2019	Unknown	Port Pegasus
V556	YY	M	6/03/2019	1	Port Pegasus
N322	YY	F	6/03/2019	8	Sandy Bay
V592	YY	F	6/03/2019	2	Port Pegasus
V586	YY	F	6/03/2019	1	Port Pegasus
V562	YY	F	6/03/2019	1	Port Pegasus
V556	YY	M	7/03/2019	1	Port Pegasus
N322	YY	F	7/03/2019	8	Sandy Bay
W657	YY	M	7/03/2019	3	Port Pegasus
V583	YY	M	8/03/2019	1	Port Pegasus
H808	GG	F	8/03/2019	6	Port Pegasus
H817	GG	F	8/03/2019	4	Port Pegasus
W601	YY	F	6/03/2019	8	Port Pegasus
N369	YY	F	9/03/2019	1	Port Pegasus
N375	YY	M	9/03/2019	1	Port Pegasus
V582	YY	M	9/03/2019	1	Port Pegasus
V552	YY	F	10/03/2019	1	Port Pegasus
V594	YY	F	10/03/2019	1	Port Pegasus
V515	YY	F	10/03/2019	1	Port Pegasus
V556	YY	M	10/03/2019	1	Port Pegasus
N373	YY	M	10/03/2019	1	Port Pegasus
P423	YY	F	10/03/2019	5	Port Pegasus
P437	YY	M	10/03/2019	4	Port Pegasus
V519	YY	F	10/03/2019	1	Port Pegasus
V512	YY	F	11/03/2019	1	Port Pegasus