

Stewart Island/Rakiura

2018 NZSL pup survey at Port Pegasus

19 – 27 March 2018



BACKGROUND

The Department of Conservation – Rakiura District Office & National Marine Team have been working in collaboration with Dr Louise Chilvers of Massey University to complete annual pupping surveys in mostly enclosed waters of Port Pegasus near the southern cape of Stewart Island Rakiura (Fig 1.). Survey work has been underway since 2011 (Fig 2.) after the presence of pups was noted and several years of public requests for sightings beginning in 2008 (Chilvers pers. comm). This work fell under the auspices of the New Zealand sea lion/rapoka Threat Management Plan when it was implemented in 2017 with the following objectives:

For Stewart Island/Rakiura:

Aim – facilitate population growth to achieve breeding colony status

- Pup counts remain at a number higher than 35 for 5 years in a row, qualifying Stewart Island/Rakiura as a new breeding colony.
- Continued increase in number of pups born to enable colonial breeding behaviour.
- No deliberate human-caused mortality (eg shootings).
- Increased public interest and involvement in the conservation of sea lions.



Figure 1. Annual NZSL pup surveys occur in the enclosed waters of Port Pegasus harbour made up of the South and North Arms.

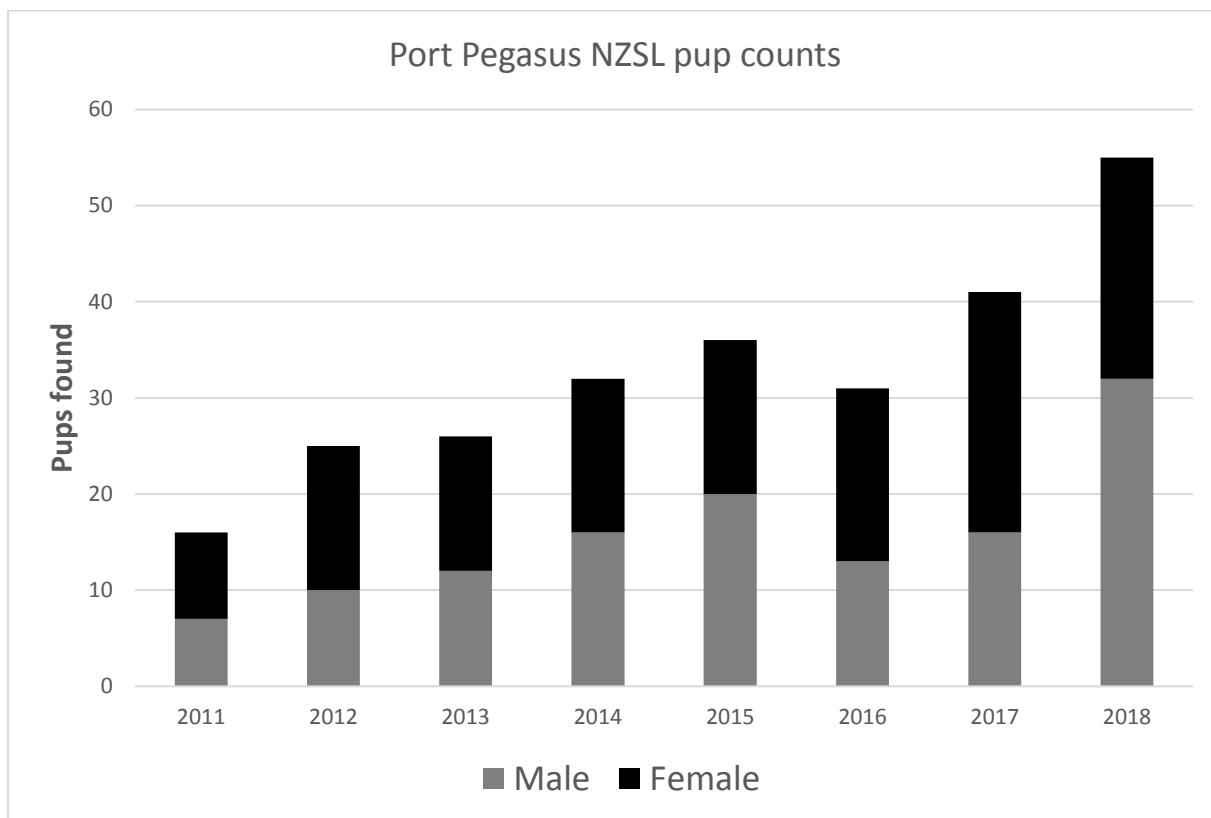


Figure 2. Annual NZSL pup survey results for Port Pegasus showing the sex ratio of pups caught and tagged.

SURVEY RESULTS

55 pups were found and tagged within the traditional survey area (interior coast line of Port Pegasus harbour).

An additional 7 were located beyond Port Pegasus, on the southern exterior coast line including 5 at Broad Bay and 2 at Flour Cask Bay.

12 re-sightings were made during the survey, 11 were animals tagged on Stewart Island between 1 and 6 years ago and a further one of which appears to be a pup tagged in Otago 4 years ago.

MEDIA

DOC was proud to announce the first new breeding colony beyond the sub-Antarctic islands in 150 years, following on from Dr Chilver's 2017 report stating that one further year of a pup count greater than 35 was required to meet breeding colony status at Port Pegasus¹.

RESOURCING

Personnel

A team of 3 rangers from the Southern South Island, 2 vessel skippers and a volunteer from the Auckland Zoo supported Dr Chilvers to complete the counts. The team completed the work in 7 days or 35 person-days, excluding the 2 skippers and 2 days travel. Tane Davis of Ngai Tahu joined the team for several days to support the survey work.

Transport

The team travelled down to Port Pegasus on the *Southern Winds* (Department vessel based in Fiordland). The *Southern Winds* is an important part of the operation as it has the capacity to accommodate survey teams on board and can operate more easily in testing marine conditions should they arise.

Budget

The Rakiura District received salary costs from the Southern South Island regional biodiversity fund to enable local rangers to participate in the survey work. This was bolstered by funding from the NZSL TMP budget which covered the travel and accommodation costs on the *Southern Winds* for up to 10 days.

HEALTH AND SAFETY

The survey work at Port Pegasus consistently targets the first two weeks of March and we book the *Southern Winds* accordingly. This year, however, it was decided to delay the Port Pegasus trip by two weeks to accommodate another trip at short notice. Unfortunately, this resulted in our teams working with much larger pups which were more difficult to handle safely. One of the rangers received a bite to the arm and throat when he was lost his grip on a large pup. The injuries were minor in this case but the potential for serious injury was very high.

It is imperative that the sea lion survey work goes ahead in early March in future years as we cannot risk a repeat incident of this nature. If we are unable to secure the *Southern Winds* for that window then we may need to consider alternative transport and accommodation arrangements which may come at greater cost.

RECOMMENDATIONS FOR FUTURE WORK

- Continued annual pup survey and flipper tagging
- Consider use of PIT tags in addition to flipper tagging
- Secure roving sea lion ranger capacity to continue advocacy work targeting:
 - Titi Island Community
 - Kaitiaki Roopu
 - Rakiura Hunter Camp Trust
 - Sanford fish farm at Big Glory Bay
 - Stewart Island locals
 - Eco tourism operators/guiding concessionaires
- Continue to foster the existing relationship with Massey University and Auckland Zoo and facilitate on-going involvement.
- Continue to facilitate survey involvement for members of our Treaty Partner.
- Introduce an estimate of unit survey effort applied so that total counts can be roughly compared and calibrated in a standardised way.
- Describe possible projected issues as sea lion populations spread north and presumably increase and how these might be managed.
 - Increasing fish farm interactions in Paterson Inlet
 - Increasing interactions on popular walks in and around the Halfmoon Bay township (Ulva Island, Ocean Beach etc)
 - Increasing interactions with recreational water users in Paterson Inlet
 - Increasing interactions on Titi Islands

ACKNOWLEDGEMENTS

A big thank you to the Laura Boren and Enrique Pardo from the National Marine Team for their on-going support and facilitation of the Stewart Island work, Dr Louise Chilvers for her donated technical expertise, recommendations and field survey effort and Phred Dobbins for his on-going involvement in field work over the last 7 years.

1. <http://www.doc.govt.nz/news/media-releases/2018/first-new-nz-sea-lion-breeding-colony-in-more-than-150-years/>