



Research Planning for POP2014-01: New Zealand sea lion population project (Auckland Islands)



Overall Objective

To estimate New Zealand sea lion pup production in the Auckland Islands and collect data to allow the estimation of key demographic parameters

Specific Objectives

1. To estimate New Zealand sea lion pup production at Enderby, Figure of 8 and Dundas Islands
2. To mark New Zealand sea lion pups at Enderby and Dundas Islands following established techniques
3. To conduct a three to five week period of resighting previously marked animals at Enderby Island
4. To update the New Zealand sea lion database



Planning process

1. Review scope and objectives for 2014/15 season
2. Discuss compilation of methodology development project
3. Other matters?



Objective 1.

To estimate New Zealand sea lion pup production at Enderby, Figure of 8 and Dundas Islands

- Same as previous years using a combination of aerial and ground-based methods
- Primary ground methods: M-R (Enderby & Dundas), direct counts (Figure of 8) by colony
- Timing: as last year
- Transport logistics – aerial transfer to Dundas maximising synergies with other research projects (white-capped and Gibson's albatross)



Objective 2.

To mark New Zealand sea lion pups at Enderby and Dundas Islands following established techniques

- Flipper tags (all locations), PIT tags (Enderby)
- Enderby/Dundas/Figure of 8 – number/proportion
- Consider reducing number of flipper tags:

“The effects of reducing the number of pups tagged each year on model estimates of survival for females tagged and resighted at Sandy Bay, Enderby Island” (Jim Roberts, NIWA)



Objective 3.

To conduct a three to five week period of resighting previously marked animals at Enderby Island

- Length/timing of resighting period:
 - Enderby - 5 week period from 10th of Jan as per Mackenzie recommendation
 - Dundas – (see Jim’s work below)
- Refine chip/tag resight methods? (to be defined separately in methodology project)

*“The effects of extending the tag resighting period on survival estimates obtained for females tagged and resighted at Dundas”
(Jim Roberts, NIWA)*



Objective 4.

To update the New Zealand sea lion database

- Continue web hosting
- Trial direct input (methodology development project)



2. Methodology development project

Fieldwork

- Data Collection

Refine/ standardize data forms?

Resighting protocols?

Additional data to be recorded?

Electronic data collection using tablet computers?

- Operational issues (team size, trip duration)
- Incorporate recommendations from 2013/14 field season
- Other matters?