



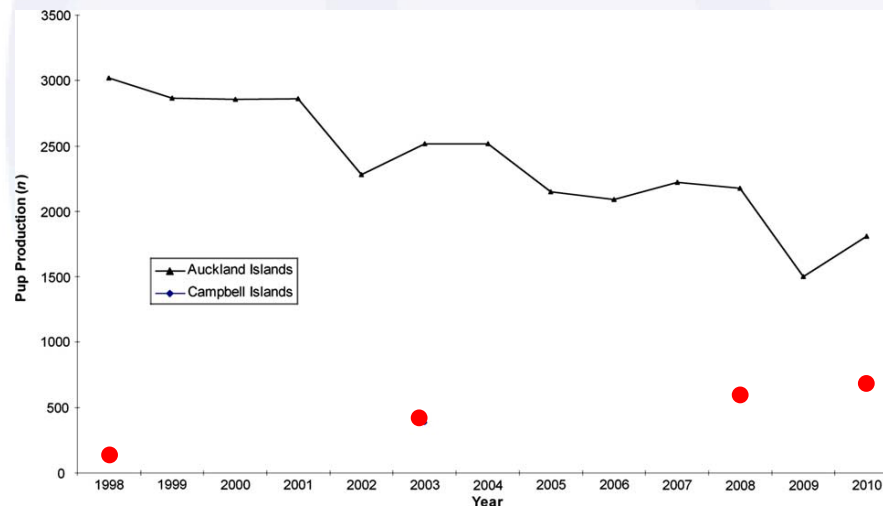
New Zealand sea lion Campbell Island Project 2014/15

Simon Childerhouse

www.blueplanetmarine.com

1.0 Introduction

- NZSL Campbell island Project 2014/15
- Funded by Deep Water Group, MPI and WWF
- Only significant breeding site outside the Auckland Islands estimated at 27% of total pup production in 2010



1.1 Project details

- Survey data suggests that pup production is increasing at Campbell despite high levels of pup mortality
- The aims of the research are broadly to:
 - ▶ Estimate total pup production for Campbell Island
 - ▶ Ensure comparability with previous surveys in 2008 and 2010 to allow for direct comparisons
 - ▶ Identify and estimate causes and magnitude of pup mortality
 - ▶ Install mitigation measures (e.g. ramps) to prevent and reduce pups dying in holes

1.2 Project outputs

- Completed data collection forms, photographs, and any other hard copy data.
- An electronic copy of data collected in a format suitable for upload into the New Zealand sea lion database
- Autopsy samples for further analysis of causes of pup mortality
- A technical report detailing the methods used, a summary of data collected and estimates of New Zealand sea lion pup production at Campbell Island presented to MPI AEWG

2.0 Methodology

- Closely following previous surveys of NZSL at Campbell Island to ensure compatibility between abundance estimates:
 - ▶ Maloney et al. (2009, 2012¹)
 - ▶ Childerhouse et al. (2005²)



1. Maloney et al. (2009). Distribution, pup production and mortality of New Zealand sea lion *Phocartos hookeri* on Campbell Island / Motu Ihupuku, 2008. *New Zealand Journal of Ecology* 33; Maloney et al (2012). Increasing pup production of New Zealand sea lions at Campbell Island/ Motu Ihupuku: can it continue? *New Zealand Journal of Zoology* 39: 19-29.

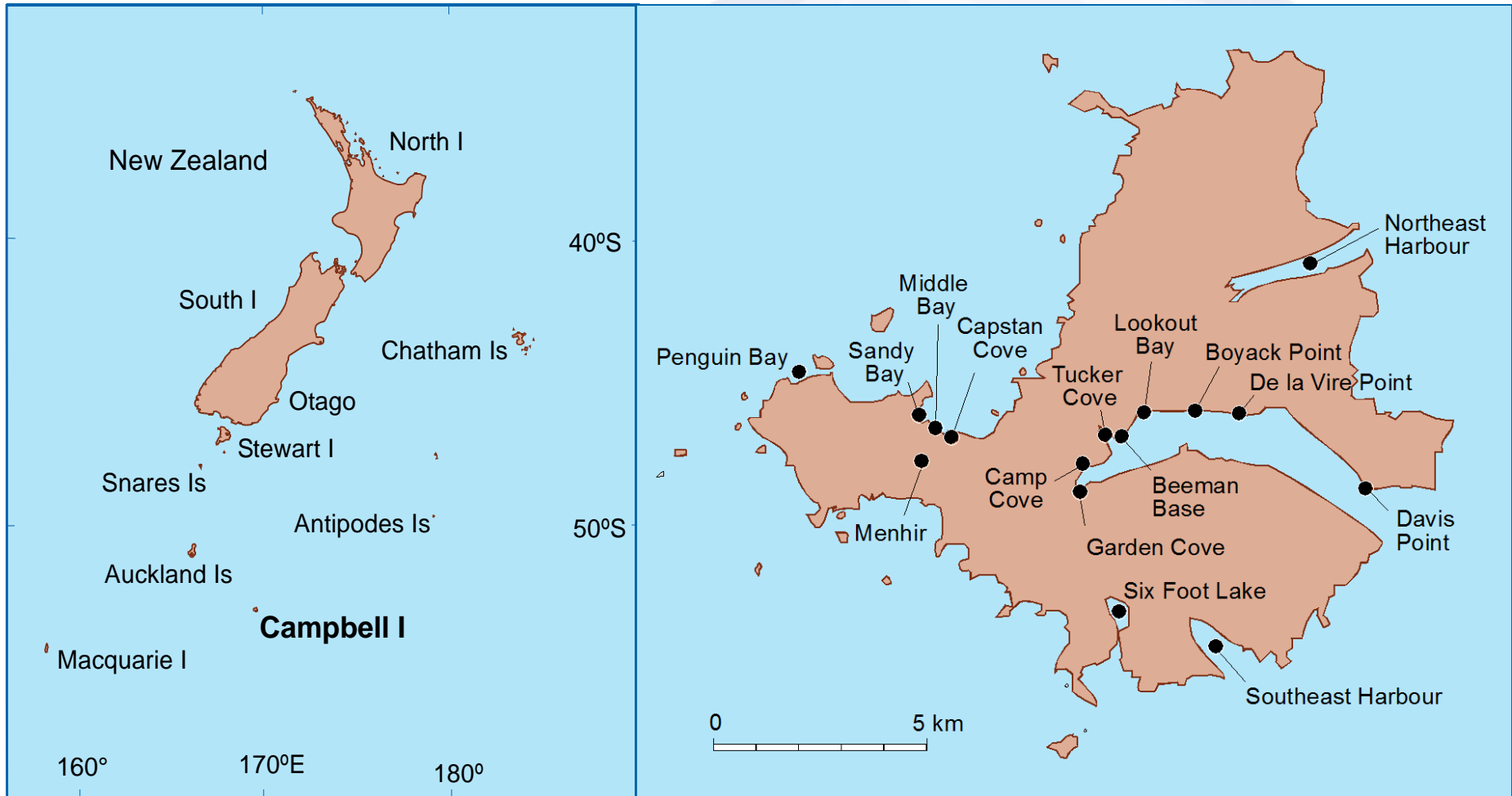
2. Childerhouse et al (2005). Distribution, abundance and growth of New Zealand sea lion *Phocartos hookeri* pups on Campbell Island. *NZ Journal of Marine and Freshwater Research* 39: 889-898.

2.1 Area of operation

- Campbell Island (53°S, 168°E), New Zealand
 - ▶ Davis Point
 - ▶ Paradise Point
 - ▶ Norwest Bay
 - ▶ Perseverance Harbour



2.2 Location



2.3 General methods

- Departs Bluff 16 Dec 2015 aboard Evohe
- Returns to Bluff on 31 Jan 2015 aboard Tiama
- 4 person team including one person from 2008 and 2010 surveys and one vet
- All live pups found double flipper tagged
- All tag resightings recorded
- Davis Point and Paradise Point visited 1-2 time per week each
- The rest of Campbell surveyed last two weeks in Jan

2.4 Assessment methods

- Live
 - ▶ One-off direct counts & daily direct counts
 - ▶ All pups found will be tagged
 - ▶ Potential: Mark-recapture estimates
- Dead
 - ▶ Direct dead counts (single or multiple counter)
 - ▶ Dead pups counted and discarded in holes to prevent recounting

3. Tag resighting

- As per previous survey work at Auckland Islands by Childerhouse (2013)
- Resighting of tags and brands



4. Management of tag data

- Data are collected in an accurate and robust fashion and these data are provided in an electronic format suitable for upload into the New Zealand sea lion database
- As per previous survey work by Childerhouse (2013)
- Working with Dragonfly to develop minor revisions to the New Zealand sea lion database for use this season

5. Acknowledgements

- Deepwater Group and MPI for funding, in particular Richard Wells and Vicky Reeve
- DOC including Igor Debski, Katie Clemens-Seely, Paul Crozier
- Andy Maloney for advice on previous surveys
- Evohe and Tiama



6. Comments?

- Simon Childerhouse
 - ▶ Mob +64-27-641-0164
 - ▶ Email simon.childerhouse@blueplanetmarine.com

