

New Zealand sea lion research Summer 2010/2011

This talk is from
preliminary data



NZ sea lion research objectives

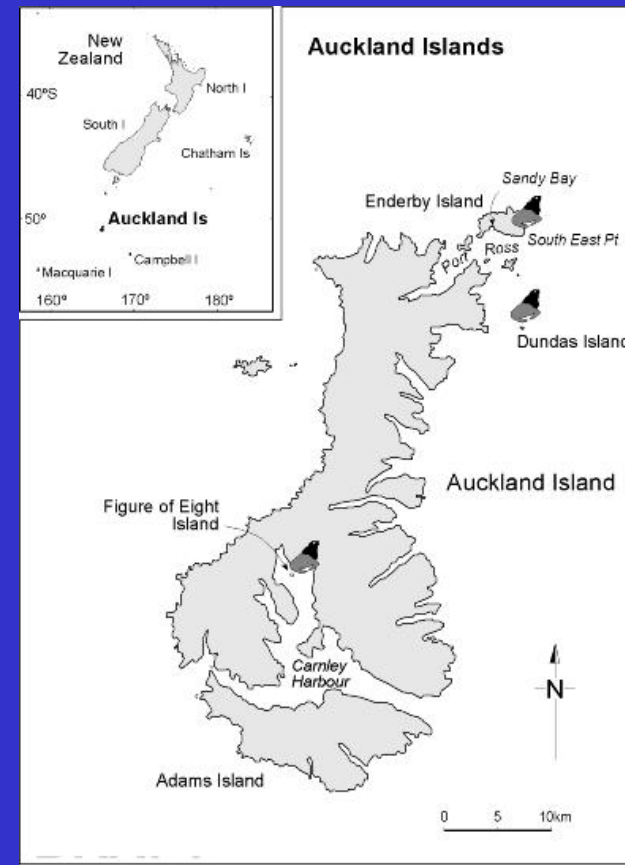
Auckland Islands

- Measure Auckland Islands pup production
- Tag pups produced during 2010/11
- Data to estimate survival and reproduction of previously marked female NZ sea lions
- Maintain and update the NZ sea lion database



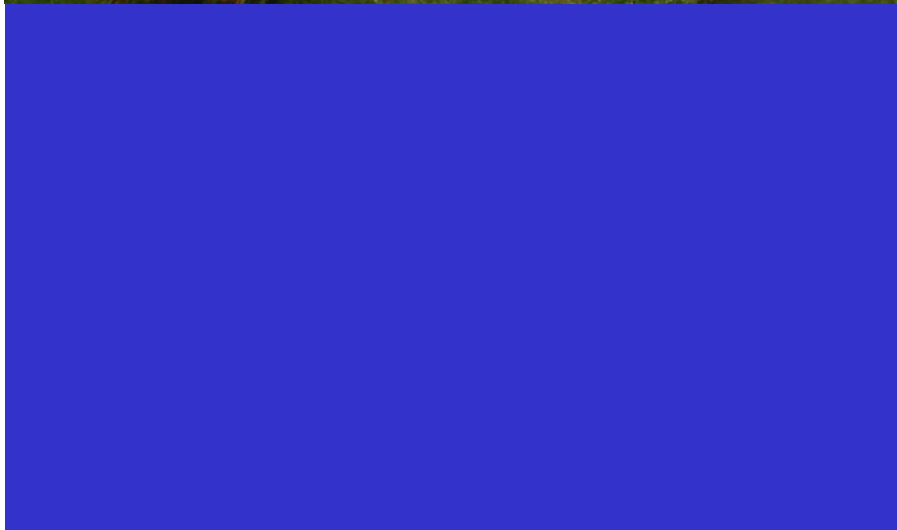
Pup production - methods and date of estimate

- Sandy Bay (Enderby Island) - Mark/Recapture estimate (16/1/11)
- Dundas Island - Mark/Recapture estimate (6/2/11)
- S.E. Point (Enderby Island) - Direct count - daily counts
- Figure of 8 Island - Single direct count - (10/1/11)





The Storm





BEFORE

AFTER



The Result



HOW DEEP!



Differences in M-R methodology for Dundas

- Because the ability to launch and retrieve the large boat was severely impaired from the 17th Jan for the rest of the season – no team could be left on Dundas Island over night
- Therefore the mark-recapture conducted on the 6th of February was undertaken on a single day
- Due to time restrictions and worsen weather 200 caps were placed out on pups rather than 400
- Similarly three people did only two M-R counts each rather than three
- However all M-R assumption were met
 1. All pups were born by mark-recapture dates;
 2. All pups were accessible for marking
 3. All pups were mobile and mixed well after being marked;
 4. Marks were not lost before M-R counts; and
 5. Mortality was negligible in the time between marking and recapturing.



Pup production 2010/11 - Results

- Sandy Bay = 378
 - 359+/-7 live pups
 - 19 dead pups
- Dundas = 1081
 - 944 +/- 40 live pups
 - 137 dead pups
- South East Point = 4
 - 2 unknown pups
 - 2 dead pups
- Figure of 8 = 79
 - 71 live pups
 - 8 dead pups

Total for Auckland Islands =

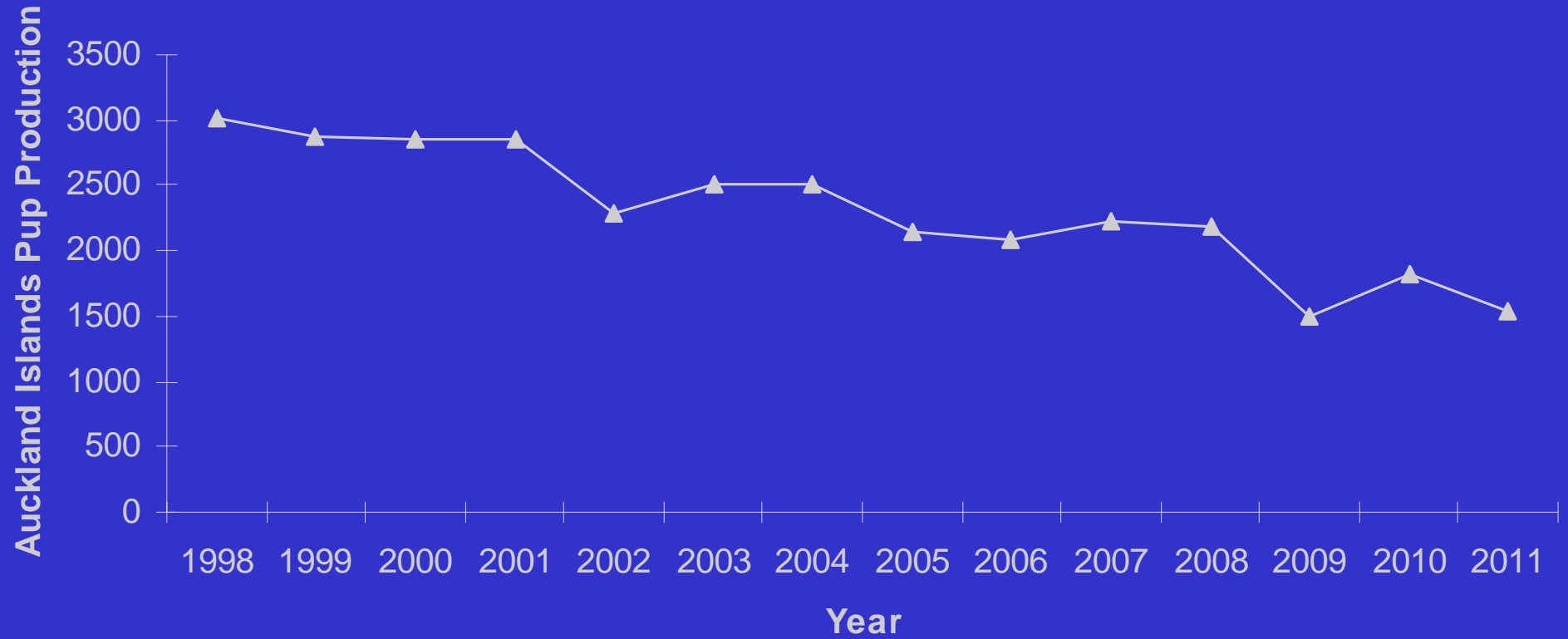
1542 +/- 41 10/11

1814 +/- 39 09/10

1501 +/- 18 08/09

2175 +/- 46 07/08

AUCKLAND ISLANDS PUP PRODUCTION 1997-2011



Pup tagging

- 391 pups were double tagged for population studies. All Enderby Is pups (360) were also PIT tagged.
- Enderby, Dundas, Fig. of 8, Adams, Campbell, Main Auckland Island, Ross and Carnley Harbours searched or reports obtained.



Pup Mortality

