

Toroa / White-capped albatross

Disappointment Island



Graham Parker ¹, Paul Sagar ², David Thompson ², Kalinka Rexer-Huber ^{1,3}

¹ Parker Conservation, ² NIWA, ³ University of Otago



White-capped albatrosses

- 95% on Disappointment Island
- Est. 8,008 caught in NZ 2002 – 2014
 - trawl (6,693)
 - surface longline (955)
 - bottom longline (360) (Abraham and Thompson 2015)
- Most common albatross in South African tuna fisheries
 - 7,000 – 11,000 killed 1998 – 2000 (Ryan et al. 2002)
- South African trawl fisheries
 - estimated 7,000 annually (Watkins et al. 2008)
- Unknown extent in high seas fisheries



Long-term aim:

Estimate demographic parameters

L2 risk assessment: adult survival

Previously five-year study at SW Cape

Limitations

Small colony

122 banded breeding birds

Few resighting visits

Difficult site, with pigs



Objectives at Disappointment Island

- Banded breeding population
- Resightings
- Ground truthing for aerial counts



Visits

- 2015: January 1 - 11
- 2016: January 8 - 12
- 2017: February 13 - 16



Image: Nasa







Logistics

- 2–3 people
- Camped





Bands deployed

- 2015: 150
- 2016: 83
- 2017: 160

Banded population 393 birds



Recaptures

- Resighting rates

21% in 2016 (3 days)

24% in 2017 (2.5 days)



Simulation modelling (Roberts et al. 2015)

- SeaBird demographic modelling software



Simulation modelling (Roberts et al. 2015)

- Survival rate of 0.95
- Banded population of 150 individuals
- Range of survival estimates wide with 5 years resighting
- Became more precise with 10 years of resighting data
- Survival estimates from 600 individuals most precise
and only 5 years of resighting effort



2015 – 2017

- Robust marked population established
- Insufficient recapture histories to allow survival estimates
- Visits short, but encouraging resighting rates (21 – 24%)
- Short duration of visits did not allow changeover mates
- Primary focus to date banding and ground-truthing (not resighting)
- Biennial (-ish) breeder

Recommendations

- One further visit enough to increase banded population > 600 birds
- Plan for at least five days on the island
- Visits ideally during the brood guard stage (February)
 - (1) minimise or eliminate causing breeding failures
 - (2) coincide with high change-over period
 - (3) take pressure off Gibson's programme
- Transport opportunities with AI eradication?

Ground truthing



Incubating vs apparently incubating

2015 and 2016:

- Average incubating 64% (21 transects, 10:00 –15:00, 1469 nests)
- Range 57 – 89%



Incubating vs apparently incubating

2015 and 2016:

- Average incubating 64% (21 transects, 10:00 –15:00, 1469 nests)
- Range 57 – 89%
- Need ground calibration for breeding population estimates



Acknowledgements

- DOC Murihiku
- DOC Stewart Island
- Henk and Ruby on *Tiama*
- Andy and Simon on *Baltazar*

