

 <p>Agreement on the Conservation of Albatrosses and Petrels</p>	<p style="text-align: center;">Fourth Meeting of the Population and Conservation Status Working Group</p> <p style="text-align: center;"><i>Wellington, New Zealand, 7 – 8 September 2017</i></p> <p style="text-align: center;">Northern giant petrel population estimates and trends in New Zealand</p> <p style="text-align: center;"><i>Graham Parker and Mike Bell</i></p>
---	--

SUMMARY

This paper summarises recent research to estimate the population size of northern giant petrels across their breeding range in New Zealand.

A complete census at Motuhara (Forty-Fours), in the Chatham Islands, was undertaken in December 2016. Using correction methods based on breeding success at Macquarie Island we estimated a breeding population of 1,935 pairs.

Surveys at the Auckland Islands in 2015/16 found northern giant petrels chicks on eight out of 15 islands visit. Using correction methods based on breeding success at Macquarie Island we estimated a breeding population of 340 pairs. A variable proportion of Northern giant petrel adults take breeding sabbaticals (15–47%; Voisin 1988; Hunter 1984), so the size of the breeding population may change markedly between years. We can gain some insight into inter-annual variability in the Auckland Island Northern giant petrel population from three counts conducted in the following breeding season, 2016–2017. The three 2016–7 count areas represented 62% of the population in 2015–2016 and those counts do not suggest the 2015–16 whole-island count was an overestimate.

Northern giant petrels also breed at the Campbell and Antipodes Islands. The only population estimates available for these sites date back to 2000 and 2003, of 234 breeding pairs and 230 breeding pairs, respectively.

1. MOTUHARA (FORTY-FOURS): NORTHERN GIANT PETREL POPULATION ESTIMATE

1.1. Abstract

A field team of three (Dave Bell, Dave Boyle and Hamish Tuanui-Chisholm) camped on the island from Dec 5th until Dec 9th, 2016. A full census of the island counted 1,235 Northern Giant Petrel chicks. Applying a correction factor using breeding data from Macquarie Island the breeding population on Motuhara is estimated to be 1,935 breeding pairs (range 1,769-2,217 breeding pairs). There is no previous full island census to determine population trends.

1.1. Citation

Bell, M.D.; Bell, D.J.; Boyle, D.P.; Tuanui-Chisholm, H. 2017. Motuhara Seabird research: December 2016. Report prepared by Wildlife Management International Limited for the New Zealand Department of Conservation, Wellington. 14p.

Full paper available at: <http://www.doc.govt.nz/our-work/conservation-services-programme/csp-reports/2016-17/seabird-census-forty-fours-2016>

2. NORTHERN GIANT PETREL BREEDING POPULATION SURVEY, AUCKLAND ISLANDS

2.1. Abstract

The contemporary size and the population trends of Northern giant petrels on New Zealand islands are not known. Records of their numbers in the Auckland Islands are based solely on anecdotal evidence, and the most recent summary dates to the 1980s. We estimated the size of the Northern giant petrel breeding population in the Auckland Islands was estimated and their spatial distribution described.

Surveys counted 216 Northern giant petrel chicks on eight of the 15 islands visited in December 2015 and January 2016. Enderby Islands had the largest breeding population, with 96 chicks counted. This represents a large increase in the population on Enderby Island compared to the only historic comprehensive count, in 1988, when just two Northern giant petrel chicks were counted. The second and third-largest populations were on Disappointment (38) and Dundas Islands (32). No breeding Northern giant petrels were reported from Rose and Friday Islands, where the species has previously been recorded breeding. Chicks were counted at two locations previously not reported to support breeding Northern giant petrels, at French's Island and Crozier Point on the main Auckland Island.

Applying crude correction factors based on breeding success at the nearest Northern giant petrel colony where these data have been collected, Macquarie Island, we estimate the breeding population in the Auckland Islands 2015-2016 to be approximately 340 (range 310-390) breeding pairs. We recommend future monitoring of the Auckland Island Northern giant petrel breeding population. Ideally island-wide surveys would be repeated at regular 3-5 year intervals. Enderby Island would be the ideal location for regular, annual counts of breeding birds.

2.2. Citation

Parker, G.C., Muller, C.G., Rexer-Huber, K. 2016. Northern giant petrel *Macronectes halli* breeding population survey, Auckland Islands, December 2015 – February 2016. Report prepared by Parker Conservation for the New Zealand Department of Conservation, Wellington. 16p.

Full paper available at: <http://www.doc.govt.nz/our-work/conservation-services-programme/csp-reports/2015-16/northern-giant-petrel-survey-auckland-islands-2015-16/>