

 <p>Agreement on the Conservation of Albatrosses and Petrels</p>	<p>Second Meeting of the Population and Conservation Status Working Group <i>Punta del Este, Uruguay, 8 -9 September 2014</i></p> <p>Population estimates, trends and spatial distribution of Salvin's albatross at the Bounty Islands <i>New Zealand</i></p>
---	---

SUMMARY

At the first meeting of the Population and Conservation Status Working Group the priority programmes identified to fill key information gaps included surveying, and collecting tracking information from, Salvin's albatross at the Bounty Islands (New Zealand).

Three studies have since been completed that address these information gaps:

- Salvin's albatross population trend at the Bounty Islands, 1997-2011 (Amey & Sagar 2013)
- 2013 Aerial survey of Salvin's albatross at the Bounty Islands (Baker et al 2014)
- Salvin's albatrosses at the Bounty Islands: at-sea distribution (Thompson et al 2014)

Abstracts from each project are provided here, together with web links to the full papers.

Estimaciones y tendencias poblacionales y distribución espacial del albatros de Salvin en las islas Bounty

Durante la primera reunión del Grupo de Trabajo sobre Población y Estado de Conservación, los programas de prioridades identificados para subsanar vacíos de información clave comprendieron la tarea de relevar y recopilar información de seguimiento del albatros de Salvin en las islas Bounty (Nueva Zelanda).

Desde entonces, se completaron tres estudios que rectifican los siguientes vacíos de información:

- tendencia poblacional del albatros de Salvin en las islas Bounty, 1997-2011 (artículo en inglés: Amey y Sagar, 2013. *Salvin's albatross population trend at the Bounty Islands, 1997-2011*);
- relevamiento aéreo del albatros de Salvin en las islas Bounty, efectuado en 2013 (artículo en inglés: Baker *et al.*, 2014. *2013 Aerial survey of Salvin's albatross at the Bounty Islands*); y
- distribución en el mar del albatros de Salvin en las islas Bounty (artículo en inglés: Thompson *et al.*, 2014. *Salvin's albatrosses at the Bounty Islands: At-sea distribution*).

Se facilitan aquí los resúmenes de cada uno de los proyectos, junto con los vínculos a los documentos completos, disponibles en inglés.

Estimation de population, tendances et répartition spatiale de l'albatros de Salvin sur les îles Bounty

Les programmes prioritaires définis lors de la première réunion du Groupe de travail sur le statut des populations et de la conservation et visant à combler les principales lacunes d'informations comprenaient l'étude et la collecte d'informations de suivi des albatros de Salvin sur les îles Bounty (Nouvelle-Zélande).

Depuis, trois études comblant ces lacunes d'informations ont été réalisées :

- Tendance de la population d'albatros de Salvin sur les îles Bounty, 1997 - 2011 (Amey & Sagar 2013)
- Étude aérienne de 2013 portant sur les albatros de Salvin sur les îles Bounty (Baker et coll. 2014)
- Albatros de Salvin sur les îles Bounty : répartition en mer (Thompson et al 2014)

Le présent document offre un résumé de chaque projet, accompagné des liens hypertextes vers les documents complets.

1. SALVIN'S ALBATROSS POPULATION TREND AT THE BOUNTY ISLANDS, 1997-2011

1.1. Abstract

The Bounty Islands supports about 98.5% of the breeding population of the endemic Salvin's Albatross (*Thalassarche salvini*), but the population had not been counted using methods that can be replicated. Therefore, until now there has been no means to determine population trends over time. To estimate population trend and examine the accuracy of ground counts we completed a whole-island survey of Salvin's Albatross breeding at Proclamation Island, Bounty Islands, New Zealand in November 1997. Repeat counts using the same methods completed in November 2004 and November 2011 suggested that the numbers of Salvin's Albatross nests on Proclamation Island declined by 14% between 1997, and 2004, by 13% between 2004 and 2011, and overall by 30% between 1997 and 2011. Counts of nests on Depot Island decreased by 10% between 2004 and 2011. The scale of change measured in the Salvin's Albatross population on Proclamation and Depot Islands requires urgent investigation of the population and foraging biology of this nationally vulnerable New Zealand endemic species. We recommend that future ground counts be undertaken about 14 September (at the end of egg laying), so reducing any effects of prior breeding failure on estimated totals.

1.2. Citation

Jacinda Amey & Paul Sagar. 2013. Salvin's albatross population trend at the Bounty Islands, 1997-2011. Research report for the Department of Conservation, Wellington, New Zealand.

Full paper available at: <http://www.doc.govt.nz/conservation/marine-and-coastal/conservation-services-programme/csp-reports/2012-13/salvins-albatross-research-population-trend-1997-2011/>

2. 2013 AERIAL SURVEY OF SALVIN'S ALBATROSS AT THE BOUNTY ISLANDS

2.1. Abstract

Salvin's albatrosses *Thalassarche salvini* is an abundant albatross species present throughout the year on all continental shelf areas around New Zealand. This species is essentially endemic to New Zealand, breeding mainly on the Bounty Islands and the Western Chain of The Snares.

The population status of this species is poorly known. In October 2010 and 2013 we completed aerial surveys of the Bounty Islands and photographed all albatross colonies we observed. The photographs were used to compile photo-montages of each colony, and these images were used to count the breeding birds on each island. Ground counts of nesting Salvin's albatrosses were also undertaken on Proclamation Island on 23 October 2013, to determine the proportions of nests containing eggs and non-breeding birds present in the colony. These ground counts indicated that the mean proportion of breeding birds in the colony between 1000 to 1600 hours was 0.74 (range 0.71 — 0.77). The mean proportion of occupied nests that contained eggs over the same period was 0.90 (range 0.88 — 0.91).

Estimated annual counts for all breeding sites in the Bounty Islands were adjusted to account for the presence of non-breeding birds, giving an estimate of the annual breeding pairs in 2013 of 39,995 (95% CI 39,595 — 40,395). For purposes of comparison, we applied the same correction factor to 2010 counts as well, as we have no other basis for determining the proportion of non-breeding birds present in the colony at the time of the 2010 counts. These adjusted figures for 2010 (31,786 annual breeding pairs, 95% CI 31,430 — 32,143) indicate that substantially more birds (26%) were breeding in 2013.

Aerial survey of the Bounty Islands proved to be an effective method of rapidly assessing the population size of Salvin's albatross in the Bounty Islands, and our population estimates of represent the first complete population surveys of the species on the archipelago. The proportion of loafing birds in the colonies (25.8%) was high, but this may be normal at this stage (mid-incubation period) of the albatross breeding cycle. If future aerial counts are to be conducted, consideration could be given to conducting surveys earlier in the breeding cycle when the proportion of non-breeding birds present is likely to be lower.

2.2. Citation

G.Barry Baker, Katrina Jenz & Paul Sagar. 2014. 2013 Aerial survey of Salvin's albatross at the Bounty Islands. Research report for the Department of Conservation, Wellington, New Zealand.

Full paper available at: <http://www.doc.govt.nz/conservation/marine-and-coastal/conservation-services-programme/csp-reports/2013-14/salvins-albatross-research-aerial-survey-2013/>

3. SALVIN'S ALBATROSSES AT THE BOUNTY ISLANDS: AT-SEA DISTRIBUTION

3.1. Abstract

A total of 50 light-based geolocation data-logging devices were deployed on breeding Salvin's albatrosses *Thalassarche salvini* at Proclamation Island, Bounty Islands, in October 2012. In October 2013, a return visit to the Bounty Islands resulted in the retrieval of 23 loggers, with a further six loggers accounted for but missing from the birds on which they were deployed. One additional logger was retrieved from a Salvin's albatross killed as bycatch on a commercial fishing vessel. Twenty loggers remain at large and unaccounted for. Due to technical issues, all loggers had to be returned to the manufacturer in order for location data to be extracted. Of the 24 tags retrieved, data were extracted from 20, and of these seven sets proved to be unusable. The 13 usable data sets ranged in duration from 49 to 371 days, with a mean duration of 161 days. During incubation and chick-rearing, Salvin's albatrosses from the Bounty Islands disperse both north (mostly) and south of the Bounty Islands, remaining towards the east of a line corresponding approximately to 170 degrees west. During the non-breeding period birds traversed the Pacific Ocean to occupy an area off the coast of Chile. Additional, comparative location data were included from Salvin's albatross breeding at the Western Chain in the Snares group. Salvin's albatross from the Western Chain similarly disperse north and south from the breeding site during incubation and chick-rearing, but tend to remain further to the west, approximately to the west of a line corresponding to 170 degrees west. During the non-breeding period, most Western Chain birds were off the coast of Chile, but a second group of birds occupied an area off the coast of Peru further to the north, between 10 and 20 degrees south. Also, one bird from the Western Chain remained in Australasian seas throughout the non-breeding period. The differences in distribution of the two populations of Salvin's albatross in New Zealand waters have clear implications for exposure to risk from commercial fishing operations. However, the relatively small number of data sets acquired from Salvin's albatrosses from the Bounty Islands preclude from drawing firm conclusions with respect to the non-breeding distribution in particular: questions around whether Bounty Islands birds occupy a single zone off Chile during this period, or whether they also occur off Peru and remain in Australasia, remain to be definitely answered.

3.2. Citation

David Thompson, Paul Sagar, Leigh Torres & Matt Charteris. 2014. Salvin's albatrosses at the Bounty Islands: at-sea distribution. Research report for the Department of Conservation, Wellington, New Zealand.

Full paper available at: <http://www.doc.govt.nz/conservation/marine-and-coastal/conservation-services-programme/csp-reports/>