

 <p>Agreement on the Conservation of Albatrosses and Petrels</p>	<p style="text-align: center;"><b>Ninth Meeting of the Advisory Committee</b> <i>La Serena, Chile, 9 – 13 May 2016</i></p> <p style="text-align: center;"><b>Report of the Population and Conservation Status Working Group</b></p> <p style="text-align: center;"><b><i>Population and Conservation Status Working Group</i></b></p>
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# **Report of the Third Population and Conservation Status Working Group Meeting**

*La Serena, Chile, 5 – 6 May 2016*

## **1. PURPOSE**

This report outlines progress during the intersessional period against the Work Programme of the Population and Conservation Status Working Group (hereafter PaCSWG or WG), agreed at the ACAP Advisory Committee (AC) meeting in 2014 (AC8) and adopted at MoP5 in 2015. The report also reflects discussions and advice resulting from the Third Meeting of the Population and Conservation Status Working Group (PaCSWG3) held from 5 to 6 May, 2016 in La Serena, Chile.

## **2. MEMBERSHIP AND MEETING PARTICIPANTS**

Current PaCSWG membership and PaCSWG3 meeting participants are listed in **ANNEX 1**. Co-convenor of the PaCSWG, Richard Phillips, and Vice-convenor, Flavio Quintana, thanked WG members and observers for attending the meeting, and presented apologies from Rosemary Gales (Co-convenor) and Henri Weimerskirch (Vice-convenor). They also welcomed two new members to the WG, Barbara Wienecke from the Australian Antarctic Division, and Patricia Pereira Serafini from Instituto Chico Mendes de Conservação da Biodiversidade, Brazil.

## **3. ADOPTION OF THE AGENDA**

The WG accepted the proposed agenda and meeting documents (**PaCSWG3 Doc 01 Rev 1** and **PaCSWG3 Doc 02**).

## **4. PROGRESS REPORTS**

### **4.1. Database updates**

The Science Officer thanked all data contributors for their commitment to keeping the ACAP database up to date and advised that there have been no major developments of its underlying structure since PaCSWG2. The interface and functionality of the existing model continue to be amended and improved to meet the needs of the WG. WG members and other users of the database were encouraged to provide feedback to the Secretariat on their experience with the data portal or suggestions for enhancements at any time.

## **4.2. Updates and Reviews of ACAP Species Assessments**

The species assessments summarise current knowledge of biology and conservation of ACAP species, including population trends, distribution and threats, and are published electronically on the ACAP website. The Science Officer advised that some updates had been made to several of these documents, and BirdLife International is in the process of providing new maps of bird distribution and fisheries overlap. However, given time constraints, the revised versions are not yet available. The assessments are a valuable resource for the Agreement and will also be used by BirdLife International in their forthcoming review (to be completed by September 2016) of the IUCN Red List status of all threatened and Near-threatened birds, including ACAP species (see **Section 5.2**). The update of the assessments is therefore a priority for completion in the coming weeks.

## **4.3. Plastic band codes coordination**

The Science Officer reported that lists of the colour and alphanumeric codes on plastic bands used for each ACAP species were provided by France and the UK. Although some of these were initially compiled into a table, the task of further populating the table was suspended due to concerns about the resources needed for ongoing maintenance, and the extensive duplication of plastic band combinations that already exists between studies of the same species at different colonies. In addition, as relatively few researchers band each ACAP species, there is already an efficient network for sharing the details of sightings away from colonies to try to identify the provenance of the banded bird. The WG agreed that a more efficient use of resources would be to ensure there was a current list of contact details of banding authorities to which band resights or recovery details can be submitted. This list is already available on the ACAP website, and is included in the ID Guide for bycaught birds produced by the Secretariat. The WG provided contact details for banding authorities in some regions that were not already listed.

## **4.4. List of researchers with access to tissues from bycaught birds**

The Science Officer advised that Marcela Uhart and colleagues are currently working on protocols for sample collection from bycaught birds for health and other studies. Marcela Uhart agreed to lead an intersessional group to compile a list of researchers from different institutions who would be willing to act as regional nodes, which would provide details of first points of contact to determine the availability of samples. Flavio Quintana, Patricia Serafini, Javier Arata, Eduardo Espinoza and Guillermo Luna-Jorquera offered to assist with this process. The WG agreed with a suggestion that requests for samples at breeding colonies from birds of known provenance would be forwarded to site custodians.

# **5. POPULATION STATUS AND TRENDS**

## **5.1. Current population trends of ACAP species**

**PaCSWG3 Inf 01** reported long-term changes in population size and productivity of Southern Giant Petrels at Signy Island, South Orkney Islands. Counts of the entire island indicated several phases of population change, including a recent decline. The all-island trend did not

always match those within focal study areas, underlining potential pitfalls in inferring trends from part-island counts. There was also a 20% decline in breeding success from 1996/1997 to 2014/2015.

**PaCSWG3 Inf 02** provided updated trends in population sizes of Sooty and Light-mantled albatrosses at Marion Island. Since 2008, Sooty Albatrosses have increased and breeding numbers are now similar to those recorded in the 1990s, and probably the 1970s. In contrast, Light-mantled Albatrosses decreased from 2007 to 2014. Confidence in island-wide counts was low because breeding birds were not always detected, many breeding sites are inaccessible and Sooty Albatrosses were not counted until late in incubation. The paper also noted that breeding numbers of Sooty Albatrosses have increased in recent years at neighbouring Prince Edward Island.

**PaCSWG3 Inf 12 Rev 1** presented results of an aerial census of Black-browed and Grey-headed albatrosses at Diego Ramirez in 2014, which shows a continued increase in population sizes of both species since 2002. This is believed to have resulted mainly from changes in fishing effort and practices since the 1990s, including major reductions in bycatch, particularly of Black-browed Albatrosses. There were differences between island groups in trends. Grey-headed Albatross numbers were apparently stable from 2002 to 2011, but have since increased.

**PaCSWG3 Inf 13** provided an update on a research programme to investigate the population size, foraging distribution, demography and taxonomic status of White-chinned Petrels in New Zealand, part of which was funded by ACAP. Population estimates were obtained for the Auckland Islands (186 000 pairs) and Campbell Island group (20 000 pairs). These error-bound estimates will allow future monitoring of population trends and address a high priority data gap recognised by ACAP.

**PacSWG3 Inf 14** reported on the ongoing recovery of Northern Giant Petrels at Macquarie Island. The Macquarie Island Pest Eradication Project successfully eradicated rabbits *Oryctolagus cuniculus* and rodents from the 12 850 ha sub-Antarctic island, but the initial aerial baiting phase in the winters of 2010 and 2011 resulted in significant mortality of several native seabird species, particularly Northern Giant Petrel. Projections of population trajectories suggest a greater than 50% probability of recovery to pre-poisoning levels of 2009 by 2017.

The WG considered that because Southern Giant Petrels breeding at the South Orkney Islands represent c. 5–10 % of global numbers, continuation of the decreases in population size and breeding success would be of high conservation concern. The WG recognised that the new data on current trends in numbers of Sooty Albatrosses at Marion and Prince Edward islands has implications for the inclusion of this population as one of high conservation concern for ACAP (see **Section 6.4**). The WG welcomed the positive trends for Grey-headed and Black-browed Albatrosses at Diego Ramirez, which contrast with these albatross species in other island groups. The group encouraged the authors to explore the potential causes of these changes, which may relate partly to improvements in food availability.

The Science Officer indicated that there had been minor updates to the ACAP population trends table (**Table 1**), noting that a comprehensive update is scheduled for PaCSWG4.

**Table 1. 2016 Summary of status and trends of ACAP species.**

IUCN Status 2014 <sup>1</sup>	Common name	Number of sites (ACAP) <sup>2</sup>	Single Country Endemic	Annual breeding pairs (ACAP) <sup>3</sup>	Population Trend 1993-2013 <sup>4</sup>	Trend Confidence
CR	Amsterdam Albatross	1	France	46	↑	High
CR	Balearic Shearwater	5	Spain	3,184	↓	Medium
CR	Tristan Albatross	1	UK	1,922	↓	High
CR	Waved Albatross	1	Ecuador	9,615	↓	Low
EN	Atlantic Yellow-nosed Albatross	6	UK	33,650	↔	Low
EN	Grey-headed Albatross	29		98,103	↓	Medium
EN	Indian Yellow-nosed Albatross	6		39,320	↓	Medium
EN	Northern Royal Albatross	5	NZ	5,781	?	-
EN	Sooty Albatross	15		12,103	↓	Very Low
VU	Antipodean Albatross	6	NZ	8,274	↓	Medium
VU	Black Petrel	2	NZ	1,059	↓	Medium
VU	Campbell Albatross	2	NZ	21,648	↔	Low
VU	Chatham Albatross	1	NZ	5,245	↔	Medium
VU	Pink-footed Shearwater	3	Chile	28,041	Not assessed <sup>5</sup>	-
VU	Salvin's Albatross	12	NZ	41,214	↓	Low
VU	Short-tailed Albatross	2		808	↑	High
VU	Southern royal Albatross	4	NZ	7,929	↔	Medium
VU	Spectacled Petrel	1	UK	14,400	↑	High
VU	Wandering Albatross	28		8,176	↓	High
VU	Westland Petrel	1	NZ	2,827	↔	Low
VU	White-chinned Petrel	73		1,202,568	↓	Very Low
NT	Black-browed Albatross	65		691,194	↑	High
NT	Black-footed Albatross	13		69,936	↑	High
NT	Buller's Albatross	10	NZ	29,941	↔	Low
NT	Grey Petrel	17		75,610	↓	Very Low
NT	Laysan Albatross	17		656,091	↔	High
NT	Light-mantled Albatross	71		11,003	↔	Very Low
NT	Shy Albatross	3	Australia	13,834	↓ <sup>6</sup>	Low
NT	White-capped Albatross	5	NZ	95,917	?	-
LC	Northern Giant Petrel	50		10,608	↑	Medium
LC	Southern Giant Petrel	119		47,746	↑	Medium

<sup>1</sup> **IUCN Status:** CR = Critically Endangered, EN = Endangered, VU = Vulnerable, NT = Near Threatened, LC = Least Concern. IUCN 2014. *IUCN Red List of Threatened Species*. <[www.iucnredlist.org](http://www.iucnredlist.org)>.

<sup>2</sup> **Site:** usually an entire, distinct island or islet, or section of a large island

<sup>3</sup> ACAP database. <[data.acap.aq](http://data.acap.aq)>. May 2016.

<sup>4</sup> **ACAP Trend:** ↑ increasing, ↓ declining, ↔ stable, ? unknown

<sup>5</sup> Species not listed in 2014 when the original table was compiled

<sup>6</sup> Trend revised to declining in 2016 based on new data

## 5.2 IUCN Red List updates 2016

The four-yearly update of the IUCN Red List is planned for 2016. Over the next six months, BirdLife International, as the Red List Authority for birds, will be updating the IUCN Species Fact Sheets for all threatened and Near-threatened bird species (c. 2000 species). This involves updating the bibliography of published literature, and data on status, trend and threats, with the assistance of experts and expert groups such as PaCSWG. Species range

maps will also be updated. The update of the ACAP Species Assessments (see **Section 4.2**) will provide a valuable basis for the Red List updates, and BirdLife International requested the assistance of PaCSWG and the ACAP Science Officer in this regard.

BirdLife's role is also to apply the IUCN Red List Criteria to the updated data for each species. Online discussions forums are created in cases where the data suggest there are grounds for a potential change in Red List category, and expert input is sought. The Red List criteria assess population change over three generations. This includes population counts over the longest period available (taking into account data reliability), but can also take into account published literature on past or predicted future population trends, including from demographic models. For the 2016 update, IUCN has also made some changes in the way that it estimates generation length, which will be an opportunity to review these estimates for ACAP species.

The WG offered its support, and the Chair proposed that assistance with the 2016 Red List updates is added to the ACAP work plan for this year.

## 6. THREATS AND PRIORITISATION

### 6.1. Updates on management of land-based threats

**PaSCWG3 Inf 06** evaluated the Macquarie Island Pest Eradication Project (MIPEP). At the time, MIPEP was the largest eradication programme ever attempted for European Rabbits, Ship Rats *Rattus rattus* or House Mice *Mus musculus*. The eradication efforts included aerial toxic baiting (with *brodifacoum*); release of Rabbit Haemorrhagic Disease Virus (Calicivirus or RHDV); removal of rabbit carcasses with the aim of minimising secondary poisoning of scavenging seabird species; and deployment of teams of skilled hunters and specially trained detector dogs to locate and eliminate any remaining introduced mammal species. The eradication was declared successful in April 2014.

The WG welcomed this news and the report on the ongoing recovery of Northern Giant Petrels at Macquarie Island (**PacSWG3 Inf 14**) already considered in **Section 5.1**. The WG requested that any lessons learnt from this programme be incorporated into ACAP's *Guidelines for eradication of introduced mammals from breeding sites of ACAP-listed seabirds*.

The PaCSWG was updated on recent issues and progress relating to land-based threats for ACAP species at other breeding sites.

The eradication programme for rodents at South Georgia (Islas Georgias del Sur)<sup>1</sup> has been completed and a final report should be available soon. This will be submitted to the PaCSWG at the next meeting. The eradication of Reindeer *Rangifer tarandus* on South Georgia (Islas Georgias del Sur)<sup>1</sup> is also complete. Extended and ongoing monitoring for the presence of rodents is now planned on a sub-sampling basis around South Georgia (Islas Georgias del Sur)<sup>1</sup> to determine the success of the eradication campaign.

Javier Arata presented a summary of information prepared by the Wildlife Conservation Society about the sighting of American Mink *Neovison vison* at Albatross Islet, Admiralty

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<sup>1</sup> A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Islas Malvinas), South Georgia and the South Sandwich Islands (Islas Georgias del Sur e Islas Sandwich del Sur) and the surrounding maritime areas

Sound in February 2015. A working plan for eradication was developed; traps to catch the mink, and camera-traps were installed in the past breeding season. Recent visits indicate that the mink remain present, the breeding Black-browed Albatrosses suffered complete breeding failure, and there were impacts on other native birds. Access to the islet is difficult and time on the island is limited by ship calls to no more than three hours.

The WG expressed concern for the future of the albatross colony at this site, and recommended that Chile seek expertise from among ACAP parties on eradication techniques for mink and on biosecurity protocols. Furthermore, the WG strongly encouraged Chile to secure the necessary resources for completing the eradication, ideally prior to the next breeding season, and to implement a follow-up programme to limit the risk of future recolonization.

BirdLife International advised that a consultant was commissioned by BirdLife South Africa to examine the feasibility of mouse eradication on Marion Island. New Zealand informed the WG that a two-year mouse eradication programme is about to commence on the Antipodes Islands; funding was still being sought to undertake the eradication of cats and pigs on Auckland Island. An update on plans to eradicate mice from Gough Island is provided in **Section 6.4**.

Beth Flint reported on recent observations of predation of adult Laysan and Black-footed albatrosses on Sand Island, Midway Atoll, North-western Hawaiian Islands, by introduced House Mice. At least 469 adults (mostly Laysan Albatrosses) had been observed with mouse attack wounds (at least 52 of which died from those injuries), and >70 nests had failed. An immediate response to suppress mouse populations in the local area using traps and rodenticide in bait stations appears to have been successful. An eradication programme is planned for implementation by the end of 2017. Rats were eradicated on Midway Atoll in the mid-1990s using bait stations; at that time, mice were not perceived to be a problem for seabirds. There are now concerns for the impacts of mice on Bulwer's Petrel *Bulweria bulwerii*, Tristram's Storm-petrel *Oceanodroma tristrami* which has recently been found breeding on Midway, and for the more commonly-breeding Bonin Petrel *Pterodroma hypoleuca*.

Jonathon Barrington advised that potential new habitats for breeding seabirds are emerging as a consequence of a substantial recent increase in the size of McDonald Island due to volcanic activity, and retreating glaciers at Heard Island. Cameras have recently been installed on Pedra Branca, Tasmania, to assess the level of competition between Shy Albatrosses and Australasian Gannets *Morus serrator* for breeding sites.

Information on management responses to the threats listed in the database were provided by Parties prior to PaCSWG3, and members of the WG were asked to check these entries and provide updates during the meeting. These highlight that considerable progress has been made by Parties in mitigating or removing some threats, including some recent or ongoing eradication programmes for introduced species (**ANNEX 2**).

## **6.2. Overlap of birds and at-sea threats, including fisheries**

**PaCSWG3 Inf 03** presented information on the non-breeding distribution of Pink-footed Shearwaters. Satellite-tagged Pink-footed Shearwaters exhibited clear affinities for specific wintering areas in Mexico, the USA, and especially Peru. The assessment and mitigation of at-sea threats in Peru was identified as a high priority.



**SBWG7 Inf 01** and **SBWG7 Doc 20** report, respectively, on the foraging distribution of breeding Pink-footed Shearwaters, and on bycatch in artisanal purse seine fisheries. Both the industrial and artisanal purse seine fisheries overlap spatially and temporally with the distribution of breeding Pink-footed Shearwaters.

The WG agreed with the conservation concern raised by this information, as the estimated bycatch of Pink-footed Shearwaters in Peruvian gillnet fisheries alone would represent 1-2% of the breeding population per year. The WG suggested a kernel density distribution could be a useful additional step to determine percentage distribution within each EEZ. Also, a recent ACAP review of artisanal fishing effort might be useful for an overlap analysis. The WG also noted some apparent similarities with the bycatch of Flesh-footed Shearwaters *Puffinus (Ardenna) carneipes* in purse-seine fisheries in Western Australia (**SBWG7 Inf 11**), noting that birds are caught in only one of five sectors in that fishery, only during the day, close to breeding colonies and at a particular time of year.

**SBWG7 Doc 22** outlined a request from Australian scientists to collaborate with ACAP Parties and Range States to compare demographic parameters (breeding probability, breeding success and survival) of Black-browed, Grey-headed, Light-mantled and Wandering albatrosses from Macquarie Island with fisheries effort across their foraging distributions.

The WG welcomed this proposal, and representatives from Argentina, New Zealand, Brazil and the UK committed to making enquiries to facilitate this. A representative from Chile had expressed support at SBWG7. The Executive Secretary welcomed this move towards increased collaborative analyses and capacity building between Parties, and offered to help with the process. Similar analyses of the relationships between fishing effort and demography are already underway for Wandering Albatrosses in the South Atlantic, and are planned for the Waved Albatross. The WG also reflected that the analytical approach described in the document could be applied elsewhere.

**PaCSWG3 Inf 04** evaluated the effectiveness of using species range maps and foraging radii to estimate the at-sea distribution of seabirds. Such estimates have often been used within seabird Ecological Risk Assessments, when tracking data are lacking. The paper estimated distribution of four albatross species, two giant petrels and one petrel from South Georgia (Islas Georgias del Sur)<sup>1</sup> using (i) range maps, (ii) range maps and foraging radii, and (iii) tracking data. Predictions based on range maps and foraging radii failed to estimate densities accurately at a 500 km (or finer) scale.

The WG thanked the authors for this assessment, which highlights the serious shortcomings of using range maps and foraging radii as estimates of albatross and petrel distribution when conducting risk assessments. It was suggested that, within the range/radii approach, it might be appropriate to assume non-breeders are distributed as breeders during the early part of the breeding season. However, it was agreed that while this might slightly reduce the degree to which the non-breeding distribution is over-estimated, the overall shortcomings of using range maps and radii will remain.

Given that Ecological Risk Assessments are an important conservation tool, and that there will almost always be gaps in tracking data availability for many seabird species, the WG agreed that it would be important to continue this work and to see if recommendations can be made on the best approaches that could be used in such situations.

**SBWG7 Inf 20** described a framework of tools being developed by New Zealand to ensure the available knowledge on seabird biology and ecology is adequate to understand and

manage at-sea threats to New Zealand seabirds. Spatial mapping and demographic modelling tools have been made freely available online. These tools include work to describe seabird range maps, and feedback would be welcomed on how to address the challenge of estimating seabird distribution, as highlighted by **PaCSWG Inf 04**. Igor Debski and Richard Phillips agreed to collaborate on comparisons of tracking data and range maps using New Zealand data, and to explore alternative approaches.

The WG asked how the conclusions of **PaCSWG Inf 04** might affect the forthcoming seabird assessment that will be conducted by the International Commission for the Conservation of Atlantic Tuna (ICCAT) in 2016. In its first seabird assessment (2007-2009), ICCAT initially requested BirdLife International to undertake a range-map approach to estimating overlap between ICCAT fisheries and seabird distribution. Given the shortcomings of using range maps, this was later supplemented by an ACAP-funded overlap analysis using tracking data, albeit for a more limited group of seabird species (**SBWG3 Doc 28**). A collaboration involving tracking data owners, ACAP and BirdLife International is currently in progress to update the ICCAT overlap analysis using tracking data, and a first draft of the results will be circulated soon to all those involved, and comments sought from both PaCSWG and SBWG.

### 6.3. Plastic ingestion

**PaCSWG3 Inf 07** provided a summary of a symposium on marine debris impacts on wildlife, where presentations covered (i) using ecological and oceanographic models to measure the risk to wildlife and predict effects, (ii) measuring the scope and intensity of effects across species in the field and via literature reviews, and (iii) analysing wildlife indicators as a basis for regulatory standards for plastic concentration in the environment (sentinel species). The symposium considered that because most plastic pollution comes from local sources, local solutions can be found to substantially reduce the influx of plastics into the marine environment.

**PaCSWG Inf 08** described biochemical protocols for sampling live and dead birds to identify plastics exposure. Necropsy suggests a correlation between ingestion of plastics and presence of indicator compounds in the waxy secretions from the uropygial (preen) gland.

**PaCSWG Inf 09** reported that 80 of 135 seabird species studied between 1962 and 2012 had ingested plastic. Modelling to predict risk of plastic debris exposure to seabird species at the global scale identified that highest expected impact was along the Southern Convergence, especially in the Tasman Sea. Global plastics production continues to grow exponentially, currently doubling every 11 years, and plastic ingestion is predicted to affect 99% of seabird species by 2050.

**PaCSWG3 Inf 10** estimated the current scale of microplastic particles in the oceans at 15-51 trillion particles, although order-of-magnitude discrepancies exist between estimates, and under-estimation is considered likely. The ultimate fate of microplastic particles remains unknown, but potentially involves: fragmentation to undetectable sizes, sinking, deposition on shorelines, and ingestion.

**PaCSWG3 Inf 11** provided the results of a survey of relevant experts on the effects of plastic pollution on marine wildlife, including seabirds. The results suggested that seabirds were consistently the most affected by: (i) entanglement in fishing gear, balloons and plastic bags, (ii) ingestion of plastic bags, utensils and fragments, and (iii) contamination from cigarette butts, hard plastic containers and plastic utensils.

The WG noted the widespread intrusion of both macro and microplastic into the diet and environment of seabirds, and were concerned by forecasts that this will increase. There is a clear need to understand the consequences of microplastics ending up in the food chain, and of the sub-lethal impacts of ingestion, including endocrine disruption.

The WG reflected that there is a difference between level of exposure to plastics and level of threat. Beth Flint noted that the issue was a very popular topic for graduate studies, but that there are very few published studies that show relationships between plastic exposure and morbidity or mortality of individuals, suggesting that population-level effects will be difficult to detect.

The WG acknowledged that designing research that can conclusively pinpoint impacts of plastics on seabirds remains a major challenge. The WG agreed that one immediate role for ACAP could be to advise on appropriate methodologies. It was noted that Myra Finkelstein (University of California Santa Cruz, USA) is currently undertaking research on endocrine disruption in North Pacific albatrosses, and that papers or a report on this work would be useful to the WG.

Views were expressed that the WG should take a precautionary approach to this issue, and that the current lack of evidence of impacts should not preclude action given the projected future increases in marine plastics. On the other hand, available evidence is that other threats (including fisheries bycatch and non-native species) remain of higher immediate importance in driving declines in populations of ACAP species.

In summary, and recalling the marine plastic and microplastic initiatives underway by others including the Convention on Migratory Species (CMS), Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) and International Maritime Organization (IMO), the WG agreed that ACAP could make a contribution to this area through various recommendations, and the production of guidelines to assess the incidence of ingestion of plastics, including microplastics, by ACAP species (see below and **Section 9**).

#### **6.4. Review of high priority species or populations based on trends and threats**

At AC6, a number of high priority populations (at the island group level) were identified that were declining at more than 3% per year, held more than 10% of the global population, and were at risk from fisheries. The aim of identifying the highest priority ACAP populations is that in a situation where resources are scarce, focus is given to the most threatened populations in terms of enhancing collaborative efforts and outcomes. At AC8 there was also agreement that the highest priority populations might be used as flagships to highlight the aims and work of the Agreement. Five such populations were identified at AC6: Wandering and Black-browed albatrosses at South Georgia (Islas Georgias del Sur)<sup>1</sup>, Tristan Albatrosses at Gough, and Sooty Albatrosses at both Crozet and Prince Edward Islands. Additional candidate high priority populations were identified at PaCSWG2, and proposals from WG members and others were submitted to PaCSWG3 for consideration.

The following updates were provided on the existing five high priority populations:

**Wandering Albatross, South Georgia (Islas Georgias del Sur)**<sup>1</sup>: annual monitoring of demography has continued at Bird Island, and of population size and productivity at Albatross and Prion islands. As reported to PaCSWG2, the very rapid decline from the late 1990s to c. 2007 appears to have ceased, and numbers have stabilised subsequently,

although at half the 1960s level. A near all-islands survey was conducted in 2014/15, which confirms that the trend at Bird Island is similar to that elsewhere in the group. Sebastian Jimenez has published two papers on interactions with fisheries of Wandering Albatrosses in the southwest Atlantic; some of this work was conducted during an ACAP-funded secondment. ACAP also funded a secondment involving the analysis of pathogens in this population. Analyses relating demographic changes to fishing and climate are ongoing.

**Black-browed Albatross, South Georgia (Islas Georgias del Sur)<sup>1</sup>:** annual monitoring has continued on Bird Island. Other colonies elsewhere in the island group were also surveyed in 2014.15, and the counts confirm similar rates of decline to those at Bird Island since 2004. Samples from this population were also analysed for potential pathogens as part of the ACAP-funded secondment. Analyses relating demographic changes to fishing and climate are ongoing. Geolocators were deployed on fledglings in April 2016, and when retrieved in a few years, the data will be used to examine distribution of juveniles in relation to fishing effort.

**Tristan Albatross, Gough Island:** annual monitoring continues. Breeding success in 2015 was better than in 2014, but is still very low for a *Diomedea* species, confirming that, alongside bycatch reduction, an eradication of the introduced mice is essential to ensure the species' survival. By 2014-15, the Royal Society for the Protection of Birds (RSPB, the UK BirdLife Partner) had addressed all remaining eradication feasibility issues identified in a previous expert-led study. The Tristan da Cunha Government, acting with RSPB as an implementing agency, is advancing plans for mouse eradication in the austral winter of 2019, with a monitoring programme continuing until 2021. The project is now at a critical stage, with the stated need to secure £7.5 million funding by March 2017. At the last PaCSWG meeting, the WG requested that the ACAP Advisory Committee Chair write to express ACAP's recognition of the high priority of the eradication.

The WG agreed that the eradication of mice from Gough Island was a very high priority, and that, now that a plan and date have been established, and the project is in a critical phase, the WG should make a recommendation to the Advisory Committee to explore ways that ACAP and ACAP Parties could further support this initiative.

**Sooty Albatross, Crozet Islands:** no new information was provided

**Sooty Albatross, Prince Edward Islands:** new information on population status and trend was provided in **PaCSWG3 Inf 02** (see **Section 5.1**), reporting an increase in population size in recent years at Marion and Prince Edward islands. In light of these new data, the population at this island group no longer meets one of the established criteria for inclusion as an ACAP priority population; a decline in numbers of 3% per annum. The WG therefore agreed that this population be removed from the list of high priority populations.

Four documents were submitted to the meeting to propose new high priority populations:

**Grey-headed Albatross, South Georgia (Islas Georgia del Sur)<sup>1</sup>, PaCSWG3 Doc 05:** this population represents 50% of the global total. Counts at Bird Island indicate a decline of 3.6% a year over the last 20 years, and the wider survey in 2014/15 indicated an even steeper decline (5%) elsewhere in the island group. During the breeding season, the population is distributed south of the Antarctic Polar Front, with low overlap with fisheries, but is much more wide-ranging during the non-breeding season. It is a highly oceanic species, with highest concentrations in the southwest Atlantic, southwest Indian Ocean and central region of the southern Indian Ocean. Ringing recoveries indicate clusters south of South Africa and in the southeast Indian Ocean. The Grey-headed Albatross is one of the most

common bycatch species from distant-water pelagic longline vessels operating in those areas, indicating that this may be a factor driving declines.

The WG expressed concern at these declines, and agreed that this qualifies the identified population as a high-priority. One suggestion was that it would be useful to assess the extent to which the bycatch of Grey-headed Albatross reported in pelagic longlines might account for the observed declines.

**Indian Yellow-nosed Albatross, Amsterdam Island, PaCSWG3 Doc 03:** recent counts of Indian Yellow-nosed Albatrosses at Amsterdam Island, which holds more than 50% of the global population, indicate a steep decline from 1984/85 to 2013/14. Recent studies confirm that Avian Cholera causes very high mortality of young chicks, which is reducing recruitment rates and causing the population to decline. In addition, substantial numbers of adult and juvenile Indian Yellow-nosed Albatrosses are killed in longline fisheries in oceanic waters in the central Indian Ocean during the breeding season, and in the southeast Indian Ocean during the non-breeding season.

The WG agreed that this meets the criteria for a high priority population, noting that the disease has had severe long-term impacts. The WG requested an update from France on efforts to mitigate the spread and impact of Avian Cholera at the next PaCSWG meeting.

**Balearic Shearwater, Balearic Islands, PaCSWG3 Doc 06:** Balearic Shearwaters breed only in Spain's Balearic Archipelago in the western Mediterranean, and a recent analysis indicates that birds on one island are declining at about 14% a year. The decline is largely the result of poor adult and juvenile survival, the major cause of which appears to be bycatch in fisheries. Moreover, this decline is highly likely to be a best-case scenario for other islands, as the demographic data were obtained from a predator-free colony, whereas other islands have alien predators. Balearic Shearwaters are known to be caught in demersal longlines, as well as by purse seines, gillnets and trawls. Night setting appears to be an effective means to reduce bycatch in fisheries.

The WG agreed that this meets the criteria for a high priority population. The WG also noted that the decline may be accelerated by the introduction of a limit on discards in European Union fisheries. The WG noted that recent developments on reducing shearwater bycatch in purse seine fisheries (**SBWG7 Doc 20**) may be useful in relation to this population. The WG also noted that with such rapid declines, urgent efforts to reduce threats were needed. This may include providing fishermen with guidance on safe handling and release of live-caught birds, and monitoring whether individuals are caught during hauling. The BirdLife International Partner in Spain (SEO) has an ongoing project to engage with the demersal longline fishery, and to test bycatch mitigation measures.

**Waved Albatross, Española Island, PaCSWG3 Doc 04:** Española Island is home to >99% of the global population of the Waved Albatross. Data from the two principal colonies indicate a 2.9% decline per year over the last 10 years, and a 6% per year decline from 2007 – 2011. Survival of breeding adults, and breeding success, have also declined. The status of the population across the interior of the island is poorly-known, as some colonies disappeared between 1994 and 2001, likely due to the overgrowth of woody vegetation. Other potential threats include climatic variation, Avian Pox virus, and bycatch. Proposed priority actions include continued monitoring of marked birds on Española; undertaking a whole-island population count; evaluating whether existing fisheries observer coverage in the eastern tropical Pacific is sufficient for detecting and quantifying magnitude of seabird bycatch; and

reviewing the existing ACAP Plan of Action for both Ecuador and Peru with the active participation of stakeholders identified in the initial plan, among others (see **AC4 Doc 50**).

The WG agreed that this meets the criteria for a high priority population, and also recognised that ACAP has previously recognised the importance of concerted action on Waved Albatross, in the form of the existing Plan of Action. The WG agreed that ACAP has a role to play through enabling international collaboration, and building links between the fisheries and environment government departments in both Ecuador and Peru. In relation to the Plan of Action, the WG noted that many tasks required further implementation. Steps are being taken to identify new stakeholders. The WG welcomed this and encouraged a report to AC10. It was noted that Ecuador has made efforts to increase protection for this species through the creation of a marine sanctuary in the Galápagos Islands, which increases no-take areas to c. 30% of the waters around the archipelago. Further assessment of the scale of interaction with gillnet fisheries was important. Kate Huyvaert reported that non-breeding tracking data have been collected, and a paper was in preparation. In Chile, there have been observations of Waved Albatrosses in coastal waters from both tour operators and trawlers, not all of which are linked to El Niño events (which were previously believed to explain southerly shifts in distribution in some years).

The WG agreed that it was important to enhance collaborative efforts and conservation outcomes for all the Priority Populations, and recommended that the Advisory Committee consider how to incorporate a greater strategic focus on these populations. The WG also recognised the importance of identifying priority actions and monitoring progress. The mechanism suggested was that Parties should be asked to develop a list of priority research and management actions for each high priority population, and report on progress to each PaCSWG meeting. The Science Officer indicated the intention to increase the profile of the high priority populations on the ACAP website.

#### **RECOMMENDATIONS TO THE ADVISORY COMMITTEE**

The Working Group recommends that the Advisory Committee:

1. recognises the advances that are being achieved in planning and implementing large-scale eradication programmes of non-native species that will ultimately benefit the status of ACAP species;
2. encourages the thorough documentation and dissemination of details of eradication programmes, including non-target impacts and mitigation, so that lessons and benefits can be widely applied in the future;
3. requests that Parties ensure that stringent bio-security protocols are in place, conforming to the ACAP Biosecurity Guidelines, to prevent introductions or re-introductions of non-native species at ACAP breeding sites;
4. explores the means by which ACAP and ACAP Parties could support the eradication of the introduced House Mouse at Gough Island in light of the threat that predation by this species presents to the Critically Endangered Tristan Albatross;
5. requests that Parties collaborate in projects analysing overlap and interactions between birds and fisheries, and relationships between changes in fishing effort and demography, by the provision of high resolution data on fishing effort;

6. encourages research assessing the exposure to, and incidence and impacts of plastics and microplastics in the marine environment on ACAP species;
7. endorses the addition of the Grey-headed Albatross at South Georgia (Islas Georgias del Sur)<sup>1</sup>, Indian Yellow-nosed Albatross at Amsterdam Island, Balearic Shearwater at the Balearic Islands, and Waved Albatross at Española Island to, and the removal of Sooty Albatross at Prince Edward Islands from, the list of ACAP high priority populations, and;
8. requests that ACAP Parties develop a list of actions that identify priority research and conservation activities for each of the high priority populations, and report to each AC meeting on progress in implementing those activities.

## 7. DATA GAPS

### 7.1. Review of key gaps in population data

WG members and meeting participants were asked to review tables that summarise data availability and a variety of data gaps, the final versions of which are provided below (**Tables 2 - 6**).

**Table 2. Island groups** that comprise at least 5% of the species' total global breeding pairs, which have not been monitored at any site within the given island group in at least the last 10 years (since 2005).

Island Group		ACAP Common name	Population estimate for island group	% global population at island group	Latest year of data at any site within island group
Australia	Heard and McDonald Islands	Southern Giant Petrel	3,500	7	2004
Disputed – North Pacific	Senkaku Retto of southern Ryukyu Islands	Short-tailed Albatross	52	8	2002
		Grey Petrel	5,500	7	2005
France	Crozet	Indian Yellow-nosed Albatross	7,030	18	1984
		Grey-headed Albatross	5,940	6	1982
	Kerguelen	Light-mantled Albatross	4,000	25-36*	1987
		Grey-headed Albatross	7,905	8	1985
New Zealand	Campbell Islands	Light-mantled Albatross	1,658	10-15*	1996
United Kingdom	Gough	Grey Petrel	17,500	23	2001

\* Upper range excludes 1972/73 estimates of 5,000 pairs in Aucklands which is not reliable, and is likely to be an overestimate

The only population data gap addressed since the last meeting has been by New Zealand, with surveys of White-chinned Petrels carried out on the Auckland Islands (**PaCSWG3 Inf 13**). All other data gaps identified previously for island groups and breeding sites remain, and a number of new gaps were identified: Southern Giant Petrels on Heard and MacDonald Islands, and on Elephant Cays, as well as Grey-headed Albatross on Isla Bartolome and on Paryadin Peninsula south.

Jonathon Barrington highlighted the logistical difficulties concerning accessing Heard and MacDonald Islands, and advised that census options are being developed for any future visits to the region. Anne Saunders advised that a photographic census of Southern Giant Petrels was recently undertaken at several sites in the Falklands (Islas Malvinas)<sup>1</sup>, including Elephant Cays, and analysis of the images is underway. Surveys of Grey-headed Albatrosses on Paryadin Peninsula south, and of Northern Giant Petrels at Bird Island, South Georgia (Islas Georgias del Sur)<sup>1</sup> have been carried out; once the resulting manuscripts have been accepted, confirming the use of appropriate correction factors, these data will be submitted to ACAP. Cleo Small reported that an aerial survey of the Atlantic Yellow-nosed Albatross had been conducted at Tristan and a report is currently being prepared. Igor Debski advised that census data have been collected for Buller's Albatross on Solander Islands in February 2016 and are now being analysed. New Zealand recognises the key gap in survey data for the Light-mantled Albatross on Adams Island, particularly as numbers are likely to be considerably lower than the previous estimate of 5 000 pairs, and some survey work has been undertaken recently.

A considerable volume of new information has become available on demographic parameters for a number of species since the last meeting (**Table 4**). The following updates were provided on the remaining data gaps.

**Spectacled Petrel:** Inaccessible Island, Tristan da Cunha. No survival data are available for this species. The WG noted that the single breeding site is difficult to access and this data gap is unlikely to be filled for some time.

**Pink-footed Shearwater:** Juan Fernandez and Mocha. Limited data on breeding success have been collected, and Island Conservation offered to see if this could be made available to ACAP.

**Salvin's Albatross:** Western Chain, The Snares, and the Bounty Islands. Insufficient data available on juvenile survival and breeding success. Both breeding sites are difficult to access.

**White-capped Albatross:** Auckland Islands. Some data available from the Southwest Cape colony but not sufficient to permit analysis of juvenile survival. Capture-Mark-Recapture data collection recently commenced on Disappointment Island.

Igor Debski also noted that the use of remote camera systems is planned to improve demographic data collection for some NZ seabird species, and that the PaCSWG will be kept informed of progress.

**Waved Albatross:** Isla de la Plata. Breeding data may become available soon.

The Science Officer invited the WG to suggest any new or alternative ways of presenting data gaps at any time, and these will be followed up prior to the next meeting.



**Table 3. Sites** with >10% of species' global breeding pairs where population estimate has not been conducted in at least the last 10 years, or the data are not yet available (i.e. latest estimate is pre: 2006) (excludes sites where part-site/study colony counts have been conducted).

Island Group	Breeding site	Common name	Population estimate (annual breeding pairs)	% of total known global population	Survey Accuracy	Latest year of population estimate	
Chile	Islas Diego Ramirez	Isla Bartolome	Grey-headed Albatross	10880	11	High	2003
Disputed – South Atlantic	Falkland Islands (Islas Malvinas) <sup>1</sup>	Sandy Cay (Elephant Cays)	Southern Giant Petrel	10936	23	High	2005
	South Georgia (Islas Georgias del Sur) <sup>1</sup>	Bird Island (SGSSI (IGSISS)) <sup>1</sup>	Northern Giant Petrel	2062	19	High	1996
		Paryadin Peninsula south	Grey-headed Albatross	22058	22	High	2004
France	Crozet	Ile aux Cochons	Wandering Albatross	1060	13		1981
	Crozet	Ile de l'Est	Sooty Albatross	1300	11	Unknown	1984
		Ile des Pingouins	Indian Yellow-nosed Albatross	5800	15	High	1984
New Zealand	Solander Islands	Great Solander Island	Buller's Albatross	4579	15		2002
	Auckland Islands	Adams Island*	Light-mantled Albatross	5,000	31-45	Unknown	1973
United Kingdom	Gough	Gough Island	Grey Petrel	10000-25000	13-31	Unknown	2001
	Tristan da Cunha	Tristan da Cunha	Sooty Albatross	2000-3000	14-23	Unknown	1974
		Tristan da Cunha	Atlantic Yellow-nosed Albatross	16000-30000	48-89	Low	1974

\*Count is for all of the Auckland Island group

**Table 4:** Demographic information for all ACAP species

ACAP common name	Number of sites	Number of island groups	Adult survival data sites	Juvenile survival data sites	Breeding success data sites
Amsterdam Albatross	1	1	Plateau des tourbieres	Plateau des tourbieres	Plateau des tourbieres
Antipodean Albatross	6	4	Antipodes Island Adams Island	Antipodes Island Adams Island	Antipodes Island Adams Island
Tristan Albatross	1	2	Gough Island	Gough Island	Gough Island
Wandering Albatross	36	5	Macquarie Island Ile de la Possession Bird Island (SGSSI (IGSISS)) <sup>1</sup> Marion Island Péninsule Courbet	Macquarie Island Ile de la Possession Bird Island (SGSSI (IGSISS)) <sup>1</sup> Marion Island Péninsule Courbet	Macquarie Island Ile de la Possession Bird Island (SGSSI (IGSISS)) <sup>1</sup> Marion Island Albatross Island (SGSSI (IGSISS)) <sup>1</sup> Prion Island Péninsule Courbet
Southern Royal Albatross	4	2	Enderby Island Campbell Island	Campbell Island	Enderby Island Campbell Island
Northern Royal Albatross	5	3	The Forty-fours Taiaroa Head	Taiaroa Head	The Big Sister The Forty-fours The Little (Middle) Sister Taiaroa Head
Short-tailed Albatross	2	8	Torishima	No data	Torishima
Laysan Albatross	17	9	O'ahu Tern Island, French Frigate Shoals Laysan Island Midway Kauai	O'ahu Tern Island, French Frigate Shoals Laysan Island Midway Kauai	O'ahu Midway

ACAP common name	Number of sites	Number of island groups	Adult survival data sites	Juvenile survival data sites	Breeding success data sites
Waved Albatross	2	2	Isla Espanola	Isla Espanola	Isla Espanola
Black-footed Albatross	15	11	Tern Island, French Frigate Shoals Laysan Island Midway Atoll	Tern Island, French Frigate Shoals Laysan Island Midway Atoll	Tern Island French Frigate Shoals Laysan Midway Atoll
Sooty Albatross	15	6	Ile de la Possession Falaise d'Entrecasteaux	Ile de la Possession Falaise d'Entrecasteaux	Ile de la Possession Marion Island Gough Island Falaise d'Entrecasteaux
Light-mantled Albatross	71	9	Macquarie Island Ile de la Possession Jeanne d'Arc Peninsula	Ile de la Possession Jeanne d'Arc Peninsula Macquarie Island	Macquarie Island Ile de la Possession Campbell Island Marion Island Bird Island (SGSSI (IGSISS)) <sup>1</sup> Jeanne d'Arc Peninsula
Buller's Albatross	10	4	North-East Island The Little (Middle) Sister	North-East Island	North-East Island Great Solander Island
Indian Yellow-nosed Albatross	6	5	Falaise d'Entrecasteaux	Falaise d'Entrecasteaux	Falaise d'Entrecasteaux
Shy Albatross	3	1	Albatross Island (AU)	Albatross Island (AU)	Albatross Island (AU) Pedra Branca
Atlantic Yellow-nosed Albatross	6	2	Gough Island Tristan da Cunha	Gough Island	Gough Island Inaccessible Island Tristan da Cunha
Grey-headed Albatross	29	8	Macquarie Island Campbell Island Bird Island (SGSSI (IGSISS)) <sup>1</sup>	Macquarie Island Campbell Island Bird Island (SGSSI (IGSISS)) <sup>1</sup>	Macquarie Island Campbell Island Bird Island (SGSSI (IGSISS)) <sup>1</sup>

ACAP common name	Number of sites	Number of island groups	Adult survival data sites	Juvenile survival data sites	Breeding success data sites
			Marion Island		Marion Island
Chatham Albatross	1	1	The Pyramid	No data	No data
Campbell Albatross	2	1	Campbell Island	Campbell Island	Campbell Island
Black-browed Albatross	65	14	Macquarie Island	Macquarie Island	Macquarie Island
			Jeanne d'Arc Peninsula	Jeanne d'Arc Peninsula	Jeanne d'Arc Peninsula
			Bird Island (SGSSI (IGSISS)) <sup>1</sup>	Bird Island (SGSSI (IGSISS)) <sup>1</sup>	Bird Island (SGSSI (IGSISS)) <sup>1</sup>
			New Island		Saunders Island
					New Island
					Steeple Jason
					West Point Island
Salvin's Albatross	12	4	Toru Islet	No data	No data
White-capped Albatross	5	3	Auckland Island	No data	Auckland Island
Southern Giant Petrel	123	26	Marion Island	Bird Island (SGSSI (IGSISS)) <sup>1</sup>	Isla Arce
			Bird Island (SGSSI (IGSISS)) <sup>1</sup>		Isla Gran Robredo
					Macquarie Island
					Ile de la Possession
					Laurie Island
					Nelson Island
					Marion Island
					Bird Island (SGSSI (IGSISS)) <sup>1</sup>
					Gough Island
					King George Island
					Golden Knob (Elephant Cays)
					Sandy Cay (Elephant Cays)
					Steeple Jason
					Anvers Island

ACAP common name	Number of sites	Number of island groups	Adult survival data sites	Juvenile survival data sites	Breeding success data sites
Northern Giant Petrel	50	11	Ile de la Possession Marion Island Bird Island (SGSSI (IGSISS)) <sup>1</sup> Macquarie Island	Bird Island (SGSSI (IGSISS)) <sup>1</sup>	Signy Island Macquarie Island Ile de la Possession Marion Island
White-chinned Petrel	76	8	Ile de la Possession Golfe du Morbihan	Ile de la Possession Golfe du Morbihan	Ile de la Possession Marion Island Bird Island (SGSSI (IGSISS)) <sup>1</sup> Golfe du Morbihan
Grey Petrel	17	9	Golfe du Morbihan	Golfe du Morbihan	Macquarie Island Marion Island Gough Island Golfe du Morbihan
Spectacled Petrel	1	1	No data	No data	No data
Black Petrel	2	1	Great Barrier Island	Little Barrier Island Great Barrier Island	Little Barrier Island Great Barrier Island
Westland Petrel	1	1	Punakaiki	Punakaiki	Punakaiki
Pink-footed Shearwater	3	2	No data	No data	No data
Balearic Shearwater	5	1	Mallorca Ibiza	Mallorca Ibiza	Mallorca Cabrera Menorca Ibiza

The WG reviewed the priority programmes identified for each ACAP species by jurisdiction, and progress against these priorities since AC8 (2014) (**Table 5**).

**Table 5.** Summary of progress on regional priority programmes.

Priority programmes	Progress since AC8 (September 2014)
<b>ANTARCTICA</b> two species; 50 sites, two of unknown size	
<b>(i)</b> Resurvey Southern Giant Petrel at King George and Nelson Islands, South Shetland Islands	<i>Brazilian researchers supported by the Brazilian Antarctic Programme (Programa Antártico Brasileiro – PROANTAR) maintained programme. Papers on long-term trends in numbers and productivity published in Polar Biology (Petry et al 2015)</i>
<b>(ii)</b> Maintain long-term population and productivity monitoring of Southern Giant Petrels at Signy Island, South Orkney Islands.	<i>Programme maintained. Paper on long-term trends in numbers and productivity published in Polar Biology (Dunn et al 2016)</i>
<b>ARGENTINA:</b> one species (Southern Giant Petrel) at four sites, population size known for all sites but no recent breeding pairs trend data; no survival data; potential impact of introduced species at Isla de los Estados	
<b>(i)</b> Maintain population and productivity monitoring at Isla Arce and Isla Gran Robredo.	<i>Maintained all programmes</i>
<b>(ii)</b> Resurvey the two sites at Isla de los Estados.	<i>No progress reported</i>
<b>AUSTRALIA:</b> eight species at 17 sites in three island groups; 18% of populations of unknown size.	
<b>(i)</b> Maintain long-term demographic, productivity or population monitoring at Macquarie Island (seven ACAP species) and Tasmania (Shy Albatross).	<i>Continued to maintain long term programmes for Macquarie Island (six ACAP species) and Tasmania (Shy Albatross).</i>
<b>(ii)</b> Resurvey Shy Albatross at Mewstone	<i>Photographic survey monitoring of pre-fledging chicks (productivity) on the Mewstone has occurred every year between the 2009/10 and the 2015/16 breeding season (except 2011/12) n = 6. The first repeatable survey (aerial) of breeding adults was conducted in the 2014/15 season and the aim will be to repeat at least every 5 years, subject to logistical constraints</i>
<b>(iii)</b> Resurvey Black-browed and Light-mantled Albatrosses at Heard Island.	<i>None</i>
<b>(iv)</b> Resurvey Black-browed Albatrosses at Bishop and Clerk Islands.	<i>None</i>

Priority programmes	Progress since AC8 (September 2014)
<b>CHILE:</b> four species at 36 sites in nine island groups; no demographic data.	
<b>(i)</b> Begin long-term demographic monitoring of Black-browed and Grey-headed Albatrosses at minimum of one island group.	<i>None</i>
<b>(ii)</b> Resurvey all island groups.	<i>See PaCSWG3 Inf 12 Rev 1, New census of Grey-headed and Black-browed albatrosses</i>
<b>(iii)</b> Re-survey Southern Giant Petrel at Isla Noir.	<i>None</i>
<b>New (iv)</b> Survey Pink-footed Shearwater on Isla Mocha and on at least one of the islands in Juan Fernández archipelago	
<b>New (v)</b> Initiate a long-term demographic monitoring programme for Pink-footed Shearwater in at least one the island groups where it breeds	
<b>DISPUTED – NORTH PACIFIC:</b> two species at two sites; current population trends unknown; no survival data.	
<b>(i)</b> Confirm breeding and begin long-term population monitoring of Short-tailed Albatross at Minami-Kojima in the Senkaku (Diaoyu) Islands.	Initiation of a study to interpret satellite (WorldView-3) imagery of the colonies using simultaneous ground counts to calibrate methodology at Torishima and Midway.
<b>DISPUTED – SOUTH ATLANTIC:</b> seven species at 232 sites; 34% of populations of unknown size; steep declines in Wandering, Black-browed and Grey-headed Albatrosses, and White-chinned Petrel; possible decline in Light-mantled Albatross.	
<b>(i)</b> Maintain long-term demographic or productivity monitoring at Bird Island, South Georgia (Islas Georgias del Sur) <sup>1</sup> (six ACAP species).	<i>Maintained all programmes</i>
<b>(ii)</b> Maintain long-term population (3 species) and productivity monitoring (1 species) at Albatross and Prion islands at South Georgia (Islas Georgias del Sur) <sup>1</sup> (three ACAP species).	<i>Maintained all programmes</i>
<b>(iii)</b> Maintain White-chinned Petrel population monitoring at six sites at South Georgia (Islas Georgias del Sur) <sup>1</sup> .	<i>Five plots resurveyed; 4 on mainland and one on Bird Island</i>
<b>(iv)</b> Maintain long-term demographic monitoring of Black-browed Albatross at two sites in the Falkland Islands (Islas Malvinas) <sup>1</sup> .	<i>Both programmes maintained</i>

Priority programmes	Progress since AC8 (September 2014)
<b>(v)</b> Maintain long-term population monitoring of Black-browed Albatrosses elsewhere in the Falkland Islands (Islas Malvinas) <sup>1</sup> .	<i>None</i>
<b>(vi)</b> Resurvey Southern Giant Petrels at the Falkland Islands (Islas Malvinas) <sup>1</sup> .	<i>Aerial island-wide census conducted during summer 2015/16. Photographs are currently being analysed.</i>
<b>(vii)</b> Resurvey all Wandering Albatross, Black-headed Albatross, Grey-headed Albatross breeding sites at South Georgia (Islas Georgias del Sur) <sup>1</sup> every 10 years	<i>A selection of Black-browed and Grey-headed albatross breeding sites re-surveyed in November 2014. Majority of Wandering Albatross sites re-surveyed in January 2015. Resulting manuscript submitted for publication.</i>
<b>ECUADOR:</b> single endemic species (Waved Albatross) at two sites, declining; no juvenile survival data.	
<b>(i)</b> Survey all of Española, Galapagos Islands.	<i>Sampling design exists. No additional progress.</i>
<b>(ii)</b> Establish demographic monitoring in the interior colonies ('Colonia Central') on Española.	<i>None reported</i>
<b>(iii)</b> Establish long-term population and productivity monitoring at Isla de la Plata.	<i>Preliminary report in progress</i>
<b>FRANCE:</b> 12 species at 99 sites in three island groups; 20% of populations of unknown size; steep declines in Sooty Albatross.	
<b>(i)</b> Maintain long-term demographic or population monitoring at Kerguelen (5 species).	<i>Maintained all programmes</i>
<b>(ii)</b> Maintain long-term demographic or population monitoring at Crozet (6 species).	<i>Maintained all programmes</i>
<b>(iii)</b> Maintain long-term demographic or population monitoring at Amsterdam Island (3 species).	<i>Maintained all programmes</i>
<b>(iv)</b> Resurvey Wandering Albatross at Cochons and Ile de l'Est, Crozet, and western colonies, Kerguelen; Indian Yellow-nosed Albatross at Pingouins and Apotres, Crozet; Grey-headed Albatross at Pingouins, Crozet and Iles Nuageuses, Kerguelen; Sooty and Light-mantled Albatross at Ile de l'Est, Crozet; Northern and Southern Giant Petrels at Cochons and Ile de l'Est, Crozet; White-chinned Petrel at Possession Island, Crozet, and; Grey Petrel at Kerguelen	



Priority programmes	Progress since AC8 (September 2014)
<b>JAPAN:</b> three species; current trend, adult survival and productivity unknown for four populations; no juvenile survival data.	
<b>(i)</b> Establish long-term demographic monitoring at all sites.	<i>Study comparing survival of translocated and hand-reared versus naturally-reared Short-tailed Albatross chicks ongoing.</i>
<b>MEXICO:</b> one species (Laysan Albatross) at four sites; no trend or demographic data.	
<b>(i)</b> Establish demographic monitoring at all sites	<i>Reproductive success on Guadalupe is being assessed each breeding season. Eighty-nine percent of adults are marked with bands, and all of the juveniles have been marked for the past 12 years.</i>
<b>NEW ZEALAND:</b> 16 species (10 endemic) including 98 populations; 27% of populations of unknown size.	
<b>(i)</b> Resurvey Campbell Albatross at Campbell Island.	<i>Further survey work, particularly at Courrejolles Peninsula and Bull Rock, using aerial or ground methods, respectively, would be required to provide greater certainty.</i>
<b>(ii)</b> Survey Salvin's Albatross at Bounty Islands.	<i>Due to uncertainty in the trends described, additional future monitoring of this population will remain a priority.</i>
<b>(iii)</b> Maintain long-term demographic monitoring of Black Petrel at Great Barrier Island.	<i>Programme maintained.</i>
<b>(iv)</b> Maintain long-term demographic monitoring of Antipodean Albatross at Adams Island, Auckland Islands.	<i>Programme maintained.</i>
<b>(v)</b> Maintain long-term demographic monitoring of Buller's Albatross at the Snares, and resurvey Snares and Solander Islands.	<i>Monitoring continued at the Snares during 2015/16. A census of the Solander Islands was completed in 2015/16 and will be reported during 2016.</i>
<b>(vi)</b> Maintain population monitoring of White-capped Albatross at all sites in the Auckland Islands.	<i>Programme maintained. A demographic study site was established on Disappointment Island (Auckland Islands).</i>
<b>(vii)</b> Survey White-chinned Petrel at the Auckland Islands.	<i>A project is underway to collect demographic data from White-chinned Petrels at Adams Island. Population estimates for the Auckland Islands were reported to PaCSWG3.</i>
<b>(viii)</b> Collate existing data on Light-mantled Albatross populations and survey at major breeding sites.	<i>Limited study site counts have been made at Adams Island, Auckland Islands as well as surveys, both aerial and ground-based, at several other areas of the Auckland Islands. Data from Campbell Island are still being sought.</i>
<b>SOUTH AFRICA:</b> 9 species including 17 populations; 18% of populations of unknown size; no survival data for 13 populations.	
<b>(i)</b> Maintain long-term population monitoring of Sooty and Light-mantled Albatrosses at Marion Island.	<i>Programme maintained. Recent trends published (Schoombie et al 2016, African Journal of Marine Science).</i>
<b>(ii)</b> Survey White-chinned and Grey Petrels at Marion and Prince Edward Islands.	<i>The distribution and abundance of White-chinned Petrels at the Prince Edward Islands was documented by Ryan et al. 2012 in Polar Biology</i>

Priority programmes	Progress since AC8 (September 2014)
<b>(iii)</b> Maintain long-term demographic monitoring of Wandering and Grey-headed Albatrosses at Marion Island.	<i>Annual estimates of chicks fledged at Marion Island continue to be made for Wandering Albatross and Grey-headed Albatross. Annual estimates of breeding success are made for these species and the two giant petrels.</i>
<b>(iv)</b> Maintain intermittent population monitoring	<i>Annual estimates of numbers of pairs breeding at Marion Island continue to be made for Wandering, Grey-headed, Light-mantled and Sooty albatrosses and the two giant petrels.</i>
<b>SPAIN:</b> 1 species in one archipelago (Balearics), five island groups within a main archipelago (Balearics).	
<b>(i)</b> Establish long term monitoring programmes in all the major island groups, including ongoing initiatives in Dragonera/Sa Cella (Mallorca group) and Conillera/Bosc (Ibiza). Ensure that these ongoing programmes collect the relevant information necessary to assess demographic trends.	<i>(i) The monitoring work in Dragonera/Sa Cella (Mallorca) and in Conillera/Bosc (Ibiza) has been continued, with protocols incorporating the relevant information for demographic assessment (though information from chick-rearing period is limited in Mallorca). The new monitoring programmes of the Marine Strategies (MSFD 2008/56/EC) include the monitoring of Balearic Shearwater colonies, but so far this has been not implemented and financial support is not secured.</i>
<b>(ii)</b> Recover the available information collected in the last 12 years on behalf of the local administration	<i>(ii) There is a gap between 2005 and 2009, though fieldwork was apparently conducted. This gap appears to be unsolvable. Information from 2010-2014 was compiled from Mallorca, and added to existing data from 1985-2004 to re-assess the status and population trends of the species</i>
<b>UNITED KINGDOM:</b> 6 species including 16 populations on two island groups	
<b>(i)</b> Maintain long-term demographic monitoring of Tristan and Atlantic Yellow-nosed Albatrosses and Southern Giant Petrels at Gough Island.	<i>Maintained all programmes</i>
<b>(ii)</b> Maintain long-term demographic monitoring of Atlantic Yellow-nosed Albatross at Tristan and Nightingale islands.	
<b>(iii)</b> Maintain intermittent population monitoring of Sooty Albatross at Gough Island.	<i>Maintained programme</i>
<b>(iv)</b> Maintain intermittent population monitoring of Spectacled Petrel at Inaccessible Island.	<i>No survey work conducted</i>
<b>(v)</b> Establish intermittent population monitoring of Sooty Albatross at Tristan Island.	<i>Recommendations will be made within the Atlantic Yellow-nosed Albatross survey report, which is currently in preparation [see below]</i>
<b>(vi)</b> Survey Atlantic Yellow-nosed Albatross at Tristan Island.	<i>Aerial photographic survey completed in September 2015. Report in preparation.</i>
<b>(vii)</b> Survey all island and establish intermittent population monitoring in study plots of Grey Petrel at Gough Island.	<i>Productivity monitoring continued. Some monitoring undertaken.</i>

Priority programmes	Progress since AC8 (September 2014)
(viii) Confirm breeding of Grey Petrel at Inaccessible and Tristan islands.	<i>Acoustic monitoring devices deployed on Tristan, with results to be provided in 2017</i>
<b>UNITED STATES:</b> two species, 25 populations, all of known size; few demographic data.	
(i) Maintain long-term demographic monitoring at several sites.	<i>Analyses in progress for all three sites.</i>
(ii) Survey the five breeding sites where not currently monitored, and at all sites at five-year intervals population monitoring.	<i>None reported.</i>

## 7.2. Review of key gaps in tracking data

The WG reported that several of the tracking data gaps have been filled since PaCSWG2. The current regional priorities are summarised in **Table 6**.

Researchers from the Instituto de Investigaciones Marinas y Costeras (Universidad Nacional de Mar del Plata – CONICET, Argentina) are currently undertaking a project which seeks to understand better the spatial distribution and interaction of adult Black-browed Albatrosses and White-chinned Petrels with fisheries on the Patagonian Shelf during their non-breeding season. Results from Black-browed Albatrosses are already published. In collaboration with the Instituto Antártico Argentino, geolocators were deployed on adult Southern Giant Petrels breeding at the South Shetland Islands in summer 2015/16.

A number of tracking gaps have been filled at Tristan da Cunha and Gough islands. GPS loggers were deployed: at Gough Island on breeding Atlantic Yellow-nosed Albatrosses in 2013 (20 birds) and 2014 (20 birds), Sooty Albatrosses in 2013 (13 birds) and 2014 (10 birds), and Tristan Albatrosses in 2014 (18 birds) and 2015 (19 birds); at Tristan Island on breeding Sooty Albatrosses in 2015 (3 birds), and; at Nightingale Island on breeding Atlantic Yellow-nosed Albatrosses in 2015 (20 birds).

The remaining New Zealand sites listed in **PaCSWG2 Doc 03** as having no tracking data are part of island groups for which tracking data are available at other sites, and are therefore of a lower priority for New Zealand.

**Table 6.** Regional tracking priorities.

Priorities	Progress since AC8
<b>ARGENTINA</b> – Southern Giant Petrels (non-breeding adults and juveniles) at Isla Arce and Isla Gran Robredo.	<b>No Progress since AC8</b>
<b>AUSTRALIA</b> - Shy Albatross (juveniles) in Tasmania; juveniles of all albatross species at Macquarie Island.	<b>No Progress since AC8</b>

Priorities	Progress since AC8
<b>CHILE</b> – Juvenile and nonbreeding Black-browed and Grey-headed Albatrosses at all island groups, and particularly at Diego Ramirez; tracking of adults during all breeding stages from Islands Groups other than Diego Ramirez; tracking of Southern Giant Petrels at Isla Noir.	<b>No Progress since AC8.</b>
<b>DISPUTED</b> – i) Black-browed and Grey-headed albatrosses (juveniles) at South Georgia (Islas Georgias del Sur) <sup>1</sup>	<i>GLS loggers were deployed at Bird Island on juvenile Grey-headed Albatrosses in June 2014 and 2015, and on juvenile Black-browed Albatrosses in April 2016.</i>
ii) White-chinned Petrel (adults and juveniles) at South Georgia (Islas Georgias del Sur) <sup>1</sup>	<i>Satellite transmitters deployed at Bird Island on juveniles in April 2015. GPS loggers deployed on adults during incubation in 2015, and GLS loggers deployed to track nonbreeding distribution on adults in 2014 and 2015.</i>
iii) Light mantled Albatross (adults in incubation and brood) at Bird Island, South Georgia (Islas Georgias del Sur) <sup>1</sup> .	<i>GPS loggers deployed on adults during incubation and brood-guard in 2015.</i>
<b>ECUADOR</b> - Waved Albatross (juveniles) at Galapagos.	<b>No Progress since AC8</b>
<b>FRANCE</b> - Grey-headed and Indian Yellow-nosed albatrosses at Crozet Islands, Grey-headed Albatross at Kerguelen	<b>No Progress since AC8</b>
<b>JAPAN</b> - Black-footed Albatross at Ogasawara Islands.	<b>No Progress since AC8</b>
<b>NEW ZEALAND</b> – i) Salvin’s Albatross at Bounty Islands;	<i>24 of the 50 GLS devices deployed on Salvin’s Albatross were retrieved in 2013, but only 13 had complete or partial tracks due to gear failure. Further tracking remains a priority.</i>
ii) White-chinned Petrel at Auckland Islands	<i>62 GLS devices have been deployed at Adams Island, Auckland Islands during 2013-15. Analysis is underway.</i>
iii) Light-mantled Albatross at key sites.	<b>No Progress since AC8</b>
<b>SOUTH AFRICA</b> - Juveniles of all species at Prince Edward Islands ( <i>Phoebetria</i> species higher priority).	<b>No Progress since AC8</b>

Priorities	Progress since AC8
<p><b>SPAIN</b> – Balearic Shearwater juveniles (only pilot study with five birds) and adults in early stages of breeding period. Major effort required in Menorca, where taxonomic status uncertain, influenced by Yelkouan Shearwater <i>Puffinus yelkouan</i> (could affect bird movements).</p>	<p><b>No progress since AC8</b></p>
<p><b>UNITED KINGDOM</b> - Grey Petrel at Gough Island; juveniles of most species at Gough and Tristan da Cunha.</p>	<p><i>GPS loggers deployed on breeding adult Grey Petrels in 2014 (15 birds). Satellite transmitters deployed at Gough Island on fledgling Atlantic Yellow-nosed Albatrosses in 2014 (5 birds), fledgling Sooty Albatrosses in 2013 (5 birds) and fledgling Tristan Albatrosses in 2013 (5 birds) and 2015 (5 birds), and at Tristan Island on fledgling Atlantic Yellow-nosed Albatrosses in 2013 (5 birds).</i></p>
<p><b>USA</b> - Black-footed Albatross at Laysan Island.</p>	<p><b>No Progress since AC8</b></p>

## RECOMMENDATIONS TO THE ADVISORY COMMITTEE

The Working Group recommends that the Advisory Committee:

1. encourages Parties and non-Party Range States responsible for breeding populations of ACAP species to implement the priority monitoring programmes in order to increase current knowledge of their population size, trends and demography;
2. encourages Parties and others responsible for breeding populations of ACAP species to implement the listed priority population and demographic monitoring programmes, and;
3. encourages Parties to undertake the identified priority tracking studies.

## 8. ACAP PERFORMANCE INDICATORS

### 8.1. Review the agreed indicators of population status, breeding site condition and tracking data availability

The Science Officer reported that the suite of breeding sites and status and trend indicators, as well as the two new indicators on tracking data availability will be reviewed at PaCSWG4. The WG noted the preliminary analysis of tracking data availability based on data provided by Birdlife International at PaCSWG2 which highlighted that some island groups and species are better-studied than others.

The WG discussed whether the tracking indicator should reflect differences in number of tracks available for males and females given their potential differences in foraging areas. However, it was agreed that the number of tracks for each species and island group was a more pragmatic way of presenting information on data availability. The working group was reminded that in future, the indicator analysis will include data for the Pink-footed Shearwater.

The WG suggested recommendations to ensure the data available for the indicator analysis would be as comprehensive and current as possible.

#### **RECOMMENDATIONS TO THE ADVISORY COMMITTEE**

The Working Group recommends that the Advisory Committee:

1. encourages data-holders to submit their tracking data to the BirdLife International Seabird Tracking Database to enable multi-species analyses of overlap between ACAP species and fisheries, and;
2. requests Parties assist BirdLife International with a comprehensive tracking data gap analysis.

## **9. BEST-PRACTICE GUIDELINES AND OTHER ONLINE RESOURCES**

### **9.1. Updates to existing guidelines**

The Working Group considered existing guidelines on biosecurity, eradication, census, translocation, and hook removal; these are all currently available online at the ACAP website (<http://www.acap.aq/en/resources/acap-conservation-guidelines>). These guidelines can be readily updated as new information becomes available.

**Biosecurity guidelines:** The WG noted the importance of updating these guidelines to reflect protocols currently in place at Amsterdam Island to reduce the transmission of pathogens. Henri Weimerskirch has already offered to assist with this process, which it is hoped will be completed in coming months. In addition, Marcela Uhart and Anton Wolfaardt offered to review the guidelines to check that they cover best-practise responses to a disease outbreak and if not, to consider whether they can be updated or a separate set of guidelines is required.

**Eradication Guidelines:** The WG was informed that these guidelines will be updated before AC10 based on the recent eradication programmes at Macquarie and South Georgia islands (Islas Georgias del Sur)<sup>1</sup>, and other published literature.

**Census Guidelines:** The WG was informed that the census guidelines will be updated before AC10 to reflect the publication of new guidelines specifically for population surveys of burrowing petrels.

**Translocation Guidelines:** The WG noted that no revisions to the translocation guidelines are required as they are relatively new.

**Hook Removal Guide:** This guide was also discussed in the SBWG7 meeting. The PaCSWG noted that this guide may need amendments based on **SBWG7 Doc 18**. In addition, hook removal guidelines are provided in the new Seabird Bycatch Identification Guide which will allow this information to be circulated more widely.

## 9.2. Photo identification guide for bycaught seabirds

The Seabird Bycatch Identification Guide is now available on the ACAP website in English, French, Spanish, Portuguese, Simplified Chinese, and Traditional Chinese (<http://acap.aq/en/bycatch-mitigation>). High quality print files can be requested from the Secretariat. Feedback and comments are welcome. Some suggestions for improvements have already been received by the Secretariat and a revision of the ID Guide would make a good secondment project for late 2016 or early 2017.

## 9.3. New guidelines

**Burrowing Petrel Guidelines:** These are now available on the website. The WG acknowledged the considerable efforts of New Zealand colleagues in developing these very useful guidelines.

**Sampling Tissues of Bycaught Birds:** The Working Group noted that proposed guidelines for sampling bycaught birds are detailed in **SBWG7 Doc 24**, which was discussed extensively in SBWG7. Table 1 in this document includes a range of options for data and samples that can be collected from a bycaught (or dead) bird. The WG also noted that the proposed guidelines will be tested by observers in countries where bycatch workshops have been conducted to ensure they are practicable. Finally, the WG noted that because sampling of tissues is not exclusive to bycaught birds, the title could be more broadly stated as *Guidelines for Sampling Tissues of Dead Birds*.

**Guidelines for removing entangled seabirds from nets:** **SBWG7 Doc 21** explained a potential set of procedures that might be included in an ACAP best practice guide for removing entangled seabirds from nets. The likelihood of live capture during net hauling varies considerably across fishing gear types, between commercial, artisanal and small-scale fisheries, and in recreational and indigenous fisheries. Such procedures would complement information in ACAP's de-hooking guide, and were drawn, in part, from an existing industry code of practice for the South Coast Purse Seine Managed Fishery in Western Australia (see **SBWG7 Inf 11**).

The WG appreciated the value of a guide to removing entangled seabirds from nets, and noted that animal welfare and humane societies may provide helpful expertise in the development of best-practice advice. Draft guidelines would also be circulated to the WG for feedback.

**Guidelines to quantify the ingestion of plastic by albatrosses and petrels:** Given the discussion on potential impacts of plastics, including microplastics (see **Section 6.3**), the WG agreed that it would be useful to offer instructions on how to collect samples from live and dead albatrosses and petrels in order to increase available data on the scale of the problem. Marcela Uhart, Patricia Serafini, Richard Phillips and Barbara Wienecke volunteered to assist in the preparation of such guidelines before PaCSWG4.

## RECOMMENDATIONS TO THE ADVISORY COMMITTEE

The Working Group recommends that the Advisory Committee:

1. encourages continued review and updating of existing and newly-developed best-practice guidelines;
2. encourages updating of the Biosecurity Guidelines to include specific advice for disease sampling and/or to develop stand alone disease sampling guidelines;
3. endorses the revision of the Seabird Bycatch Identification guide as a joint initiative between the Seabird Bycatch and Populations and Conservation Status Working Groups;
4. encourages development of guidelines and best-practice advice for removing entangled seabirds from nets, and;
5. encourages development of guidelines to quantify the ingestion of plastic (including microplastic) by albatrosses and petrels.

## 10. ACAP-FUNDED PROGRAMMES

### 10.1. Funding priorities for 2016 - 2018

**AC9 Doc 14** and **AC9 Inf 02** describe, respectively, the small grants funding process, and reports from funded projects and secondments. No new funding priorities were identified.

## 11. LISTING OF NEW SPECIES ON ANNEX 1

### 11.1. Criteria for listing and delisting of candidate species

**SBWG7 Doc 25** relates to two criteria relating to at-sea distributions and threats that could be used to assist decisions on listing and delisting of species by ACAP. These are included in the six criteria approved at MoP5; that meeting also endorsed further work to review and update the scores for relevant taxa. This paper provides updated scores for 17 of the 129 procellariiform species, based on range maps in the Handbook of the Birds of the World (15 species) and a reassessment of the level of at-sea threats (two species). The paper noted that a similar review and potential re-scoring process is required for the remaining four criteria.

The WG discussed the importance of the assessment process, especially in the context of listing or de-listing of species. The WG was reminded that an objective of ACAP was to achieve and maintain a favourable conservation status for albatrosses and petrels; and was advised to proceed cautiously if considering recommending de-listing of any species. The authors of **SBWG7 Doc 25** agreed to work intersessionally, along with members from the three Working Groups, to finalize the scores and to develop a new prioritization list before AC10. Barry Baker, Eduardo Espinoza, Hannah Nevins, Igor Debski, Beth Flint, Patricia



Serafini and Jonathon Barrington offered to assist with this process. The WG also noted that the task of selecting a standard taxonomic list would be a useful addition to the work plan of the Taxonomy WG.

## **11.2. Proposals to list new species on Annex 1**

There were no proposals for adding new species to Annex 1. Eduardo Espinoza informed the group that Ecuador were considering a resubmission of the proposal to list the Galapagos Petrel.

## **12. REVIEW AND INFORMATION**

### **12.1. Paper on conservation of ACAP species**

A manuscript reviewing the taxonomy, breeding and foraging distributions, population status and trends, threats and priorities for ACAP species was submitted to the journal *Biological Conservation* in October 2015. This summarises much of the work of the Agreement, particularly that of the working groups. The reviewers' comments were generally favourable, and a revised version was resubmitted at the end of March 2016. The paper should be a valuable resource for highlighting the work of ACAP.

### **12.2. Sixth International Albatross and Petrel Conference**

Attention was called to the IAPC6 to be held in Barcelona, Spain in September 2016. An abstract has been submitted for a talk to be presented by the PaCSWG Convenor on the conservation and management of ACAP species. The talk will also report information on population trends, mitigation successes, and marine and terrestrial threats to the various species. The aim is to inform the research community about ACAP-listed species, to engage with international colleagues and to explore new avenues of further research. The WG discussed other options (e.g. a display or a poster) for promoting the work of ACAP but concluded that a talk would be sufficient.

### **12.3. ACAP breeding site accounts**

**PaCSWG Inf 05** presents options for increasing the profile of the on-line ACAP breeding sites accounts. These descriptions have been prepared by, or under the guidance of, John Cooper (ACAP Information Officer), with the aim of increasing awareness of ACAP species and sites. So far, 82 of about 135 breeding sites have been described on ACAP's website. The paper proposes the completion of descriptions of the remaining sites, and suggests options for publishing a single comprehensive document that covers all localities.

The WG group agreed that a document summarising the accounts of all breeding sites would be a valuable resource for the wider science community and the general public, and discussed several options: 1) e-book, 2) hard copy, 3) both. The WG concluded that a staged approach should be adopted that depended on available funding, with the initial focus on completing the on-line site accounts by AC10. Anticipated costs of a publication will include professional layout and editing, proof reading and (if required) printing and distribution of hard copies. External sources of funding will be explored. Patricia Pereira Serafini, Veronica

Lopez, Juan Pablo Seco Pon, Sally Poncet, Igor Debski, Cristian Suazo, Amanda Kuepfer and Beth Flint offered their assistance in compiling the outstanding site descriptions. Henri Weimerskirch is to be approached seeking support for the outstanding accounts for French sub-Antarctic islands

#### **12.4. Island Invasives Conference 2017**

The WG were informed that the third Island Invasives Conference would be held in Dundee, Scotland, in July 2017.

#### **12.5. Wildlife monitoring using unmanned aerial vehicles**

**PaCSWG Inf 15** provided a recent example of the potential of unmanned aerial vehicles (UAVs) to survey accurately breeding colonies of seabirds. There is an ongoing rapid evolution of UAV technologies, particularly in terms of their operational characteristics, leading to improved performance in varying weather conditions. There is a need for feasible, efficient and effective protocols governing their deployment in proximity to wildlife that minimises the risk of disturbance, and which are not simply based on fixed and rotating wing aircraft separation distances, as a proxy.

The WG agreed on the value of future research concerned with determining appropriate spatial separation between UAVs and breeding populations of seabirds. WG members were asked to provide information to PaCSWG4 on their experiences in using UAVs to monitor albatross and petrel populations, and protocols governing the use of UAVs, e.g. minimum separation distances to avoid disturbance.

#### **RECOMMENDATION TO THE ADVISORY COMMITTEE**

The Working Group recommends that the Advisory Committee:

1. considers supporting the publication of a comprehensive account on all known breeding sites.

#### **13. FUTURE WORK PROGRAMME**

The work programme for 2016 - 2018 (**AC9 Doc 12**) was updated based on discussions during the meeting.

#### **14. REPORTING TO AC9**

This report was prepared for consideration by the Advisory Committee.

#### **15. ANY OTHER BUSINESS**

The Convenor suggested that new techniques for monitoring albatross and petrel populations might be a suitable agenda item for the next meeting. The WG supported this suggestion.

## **16. CLOSING REMARKS**

The Convenor thanked those present for their valuable contributions to the meeting, and authors of papers, rapporteurs and others for contributing text to the report. The Science Officer, Wiesława Misiak was thanked for her diligence and commitment to assisting the work of the Working Group during the intersessional period and at the meeting. The group thanked the Convenor, Vice-convenor and Science Officer for chairing the meeting.

PaCSWG members and observers, the ACAP Secretariat and ACAP officials were thanked for progressing the work of the PaCSWG. Sandra Hale and Maria Laura Speziali were also gratefully acknowledged for their interpretation services.

## ANNEX 1. LIST OF MEETING PARTICIPANTS AND NON-ATTENDING PaCSWG MEMBERS

### MEETING PARTICIPANTS

<b>PaCSWG Members</b>	
Javier Arata	Centro FONDAP de Investigación en Dinámica de Ecosistemas Marinos de Altas Latitudes (IDEAL), Universidad Austral de Chile, Chile
Jonathon Barrington	Australian Antarctic Division, Department of the Environment, Australia
Igor Debski	Department of Conservation, New Zealand
Elizabeth Flint	U.S. Fish and Wildlife Service, United States of America
Kathryn (Kate) Huyvaert	Colorado State University, USA
Ken Morgan	Environment and Climate Change Canada, Canada
Richard Phillips (Convenor)	British Antarctic Survey, United Kingdom & Scientific Committee on Antarctic Research (SCAR)
Patricia Pereira Serafini	Instituto Chico Mendes de Conservação da Biodiversidade, Brazil
Flavio Quintana (Vice-convenor)	National Research Council of Argentina (CONICET), Argentina
Anne Saunders	Joint Nature Conservation Committee (JNCC), UK
Cleo Small	BirdLife International
Barbara Wienecke	Australian Antarctic Division, Department of the Environment, Australia
<b>Expert</b>	
Barry Baker	Institute of Marine and Antarctic Studies, University of Tasmania, Australia
<b>Advisory Committee Representatives and Advisors</b>	
Eduardo Espinoza	Representative, Ecuador
Patricia Hurtado	Representative, Argentina
Amanda Kuepfer	Advisor, United Kingdom
Guillermo Luna-Jorquera	Advisor, Chile
Tatiana Neves	Alternate Representative, Brazil/ SBWG Vice-convenor
Joost Pompert	Advisor, United Kingdom
Sally Poncet	Advisor, United Kingdom
Mark Tasker	Representative, United Kingdom/ Acting AC Chair
Nathan Walker	Alternate Representative, New Zealand
Anton Wolfaardt	Advisor, United Kingdom/ SBWG Convenor
<b>Observers</b>	
Luis Adasme	Instituto de Fomento Pesquero (IFOP), Chile

William Arlidge	University of Oxford, UK
Jorge Azócar	Instituto de Fomento Pesquero (IFOP), Chile
Nigel Brothers	Humane Society International
Sarah Ellgen	NOAA Fisheries, USA
Edison Garces	Instituto de Fomento Pesquero (IFOP), Chile
Héctor Gutiérrez	Oikonos Ecosystem Knowledge
Erin Hagen	Island Conservation
Verónica López	Oikonos Ecosystem Knowledge
Hannahrose Nevins	American Bird Conservancy, USA
Marcela Uhart	University of California, Davis, USA
<b>Secretariat</b>	
Gabriela Blanco	Meeting Staff
John Cooper	Information Officer
Marco Favero	Executive Secretary
Wiesława Misiak	Science Officer
Juan Pablo Seco Pon	Meeting Staff
<b>Interpreters</b>	
Sandra Hale	OnCall Latam
Maria Laura Speziali	OnCall Latam

**PACSWG MEMBERS NOT ATTENDING PACSWG3**

José Manuel Arcos	SEO/BirdLife
Leandro Bugoni	Universidade Federal do Rio Grande (FURG), Brazil
Karine Delord	Centre national de la recherche scientifique (CNRS), France
Sebastien Descamps	Nowegian Polar Institute, Norway
Rosemary Gales (Co-convenor)	Department of Primary Industries, Parks, Water and the Environment (Tasmania), Australia
Hiroshi Hasegawa	Toho University, Japan
Gustavo Jiménez-Uzcátegui	Charles Darwin Foundation, Ecuador
Marcela Mónica Libertelli	Instituto Antártico Argentino, Argentina
Azwianewi Makhado	Department of Environmental Affairs, South Africa
Daniel Oro	Grupo d'Ecologia de Poblacions, IMEDEA (CSIC-UIB), Spain
Henri Weimerskirch (Vice-convenor)	Centre national de la recherche scientifique (CNRS), France
Paul Sagar	NIWA, New Zealand
Carlos Zavalaga	University of Nagoya, Japan

**ANNEX 2. ONGOING MANAGEMENT ACTIONS ASSOCIATED WITH THREATS AT BREEDING SITES OF ACAP-LISTED SPECIES**

Island Group	Breeding site	ACAP Species	Threat species	Nature of threat	Current Threat Magnitude	Ongoing management actions or why no management response in place	Why management response was or was not effective	Additional comments
Amsterdam and St Paul	Falaise d'Entrecasteaux	<i>Thalassarche carteri</i>	<i>Pasteurella multocida</i>	Pathogen	High			Principally linked to chickens
	Falaise d'Entrecasteaux	<i>Procellaria cinerea</i>	<i>Felis catus</i>	Predation by alien species	Low			
	Falaise d'Entrecasteaux	<i>Procellaria cinerea</i>	<i>Rattus rattus</i>	Predation by alien species	Low			
	Ile Amsterdam	<i>Phoebetria fusca</i>	<i>Pasteurella multocida</i>	Pathogen	High			Principally linked to chickens
Auckland Islands	Auckland Island	<i>Diomedea antipodensis</i>	<i>Sus scrofa</i>	Predation by alien species	Low	Eradication, as opposed to ongoing control, is considered to be the only feasible long term option. Preparatory investigations to enable the eradication, including the identification and registration of a suitable poison, have been progressed. Funding for an eradication has not yet secured.		
	Auckland Island	<i>Diomedea epomophora</i>	<i>Sus scrofa</i>	Predation by alien species	Low			
	Auckland Island	<i>Procellaria aequinoctialis</i>	<i>Sus scrofa</i>	Predation by alien species	Low			
	Auckland Island	<i>Thalassarche steadi</i>	<i>Sus scrofa</i>	Predation by alien species	Low			
	Auckland Island	<i>Thalassarche steadi</i>	<i>Felis catus</i>	Predation by alien species	Low			
Balearic Archipelago	Cabrera	<i>Puffinus mauretanicus</i>	<i>Felis catus</i>	Predation by alien species	Low	No measures taken. Local government not prone to address actions to control cats, fear of social opposition.		Detected in Picamosques islet, along with Genet. Cat reported in one of 6 breeding islets in Cabrera, affecting about 10% of the local population. No detailed information.

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Balearic Archipelago	Formentera	<i>Puffinus mauretanicus</i>	<i>Felis catus</i>	Predation by alien species	High	No detailed information, nor measures taken (except old eradication in a small islet, Espalmador). Local government not prone to address actions to control cats, fear of social opposition.		Present in 3 out of 5 colonies (plus eradicated in another) including the historically largest one of the species, which has apparently declined severely in recent years, affecting 89.5% of the current population in Formentera. Predation known, not quantified.
	Formentera	<i>Puffinus mauretanicus</i>	<i>Rattus rattus</i>	Predation by alien species	Low	No measures taken (old eradication, incomplete, in Espalmador)		Present in 4 out of 5 sites, which hold about 94% of the Formentera population. No effect quantified, apparently far less impacting than cats.
	Ibiza	<i>Puffinus mauretanicus</i>	<i>Rattus rattus</i>	Predation by alien species	Low	Attempts of eradication, but not systematic (dependent on low budget, no specific project)		Most islets have rat presence in varying densities, affecting 93% of the estimated population. There have been trials of eradication, apparently not completed - and/or no monitoring programme afterwards. Impact on breeding success, apparently not severe, at least for some islets (e.g. Conillera; higher impact in Bosc)

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Balearic Archipelago	Mallorca	<i>Puffinus mauretanicus</i>	<i>Rattus rattus</i>	Predation by alien species	Low	Action recently taken in Dragonera by local administration. Eradication in 2011, and follow-up work ongoing.		Formerly present in 3 out of 4 colonies, recently eradicated in Dragonera (2012), with current monitoring. Also eradication projects in Conills and Malgrat, but not post-monitoring, probably present (?). Apparently low impact, no severe effects on breeding success.
	Menorca	<i>Puffinus mauretanicus</i>	<i>Felis catus</i>	Predation by alien species	High	Local government not prone to address actions to control cats, fear of social opposition.		Present in Mola de Maó, where the major colony of Menorca is located (75% of the local population). Predation is severe, on chicks and adults (up to >20 adult corpses found in a single visit. Also presence of marten ( <i>Martes martes</i> ).
	Menorca	<i>Puffinus mauretanicus</i>	<i>Rattus rattus</i>	Predation by alien species	Low	Some eradication trials in Mola de Mao (no success).		Present almost in all colonies (except Illa de l'Aire).
Crozet	Ile de la Possession	<i>Procellaria aequinoctialis</i>	<i>Rattus rattus</i>	Predation by alien species	Low	rodenticide used annually on study colonies		



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Falkland Islands (Islas Malvinas) <sup>1</sup>	New Island	<i>Procellaria aequinoctialis</i>	<i>Felis catus</i>	Predation by alien species	Low	Some control of cats was initiated in 2014, and a number of individuals have been shot since then.		The current policy at New Island is to continue to monitor the impact of all invasive mammals.
Galapagos	Isla Espanola	<i>Phoebastria irrorata</i>	(Mosquito)	Parasite or pathogen - Parasite	Low	Continued monitoring of vectors and affected individuals.		Mosquito biting is a known cause of egg abandonment.
Gough	Gough Island	<i>Diomedea dabbenena</i>	<i>Mus musculus</i>	Predation by alien species - Predation by alien species	High	Eradication is still under consideration. All issues identified by the feasibility study (Parkes, 2008) have now been resolved. A programme been developed by the RSPB with a view to deliver the mice eradication operation during winter of 2019. It is estimated that this programme will cost £7.6 million. The RSPB and Tristan da Cunha Island Council are working together to identify funding for the programme. Support from donors and the UK Government will be required to allow the programme to proceed.		
	Gough Island	<i>Procellaria cinerea</i>	<i>Mus musculus</i>	Predation by alien species	Low		An impact on this species has been assumed because House Mice are affecting Tristan Albatross and burrow-nesting, summer-breeding petrels. 60% of chicks failed (n=35 hatchlings) reported by Dilley et al 2015.	

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Hawaii	Kaula	<i>Phoebastria immutabilis</i>		Human disturbance - Military action	High	The island is still used as a bombing range for military training.		
	Kaula	<i>Phoebastria nigripes</i>		Human disturbance - Military action	High			
	Kure Atoll	<i>Phoebastria nigripes</i>		Habitat loss or destruction - Vegetation encroachment	Low	Ongoing eradication programme using herbicide and manual control		
	Kure Atoll	<i>Phoebastria albatrus</i>		Natural disaster - Sea-level rise	High	Propagation and outplanting of a plant species ( <i>Scaevola sericea</i> ) that encourages dune growth and stabilization.		Loss of nests by periodic inundation due to tidal surges, storms and tsunamis.
	Kure Atoll	<i>Phoebastria immutabilis</i>		Natural disaster - Sea-level rise	High			
	Kure Atoll	<i>Phoebastria nigripes</i>		Natural disaster - Sea-level rise	High			
	Laysan Island	<i>Phoebastria immutabilis</i>		Natural disaster - Sea-level rise	High	Continue protection of the low Northwestern Hawaiian Islands to maintain healthy populations while initiating new colonies in the main Hawaiian islands.		Loss of nests by periodic inundation due to tidal surges, storms and tsunamis, especially in low-lying areas.
	Laysan Island	<i>Phoebastria nigripes</i>		Natural disaster - Sea-level rise	High			

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Hawaii	Lisianski Island	<i>Phoebastria immutabilis</i>		Natural disaster - Sea-level rise	High			Loss of nests by periodic inundation due to tidal surges, storms and tsunamis.
	Lisianski Island	<i>Phoebastria nigripes</i>		Natural disaster - Sea-level rise	High			
	Midway Atoll	<i>Phoebastria nigripes</i>		Contamination - Toxins - man made	Low	Lead abatement ongoing.		Lead
	Midway Atoll	<i>Phoebastria albatrus</i>		Habitat loss or destruction - Vegetation encroachment	Low	Ongoing eradication programme has eliminated <i>Verbesina encelioides</i> on Eastern Island.		
	Midway Atoll	<i>Phoebastria albatrus</i>		Natural disaster - Sea-level rise	High			Loss of nests by periodic inundation due to tidal surges, storms and tsunamis. Nest is in low-lying area.
	Midway Atoll	<i>Phoebastria albatrus</i>	<i>Mus musculus</i>	Predation by alien species	Low			
	Pearl and Hermes Reef	<i>Phoebastria immutabilis</i>		Natural disaster - Sea-level rise	High			Loss of nests by periodic inundation due to tidal surges, storms and tsunamis, especially in low lying areas.
	Pearl and Hermes Reef	<i>Phoebastria nigripes</i>		Natural disaster - Sea-level rise	High			Loss of nests, especially those in low-lying areas, by periodic inundation due to tidal surges, storms and tsunamis.

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Heard and McDonald Islands	McDonald Island	<i>Macronectes giganteus</i>		Natural disaster - Volcanic activity	High			Large-scale eruptions (2003-04 in particular) may have caused most birds to desert and the extent of their return after eruptions have diminished is unknown.
	McDonald Island	<i>Phoebastria palpebrata</i>		Natural disaster - Volcanic activity	High			
	McDonald Island	<i>Thalassarche melanophris</i>		Natural disaster - Volcanic activity	High			
Isla de La Plata	Isla de La Plata	<i>Phoebastria irrorata</i>		Human disturbance - Recreation/ tourism	High	During nesting, the tourist trail "Machete" is closed to tourists to avoid stressing birds.	Reproductive success improved.	
	Isla de La Plata	<i>Phoebastria irrorata</i>	<i>Rattus rattus</i>	Stress by alien species - Nest desertion	High	Population control through poison (anti-coagulant) application	Maintains rat population control.	Rats stress breeding birds and they abandon egg/chick and/or chicks are depredated by rats.
Isla Mocha	Isla Mocha	<i>Puffinus creatopus</i>		Human take - Hunting of adults or chicks	Low	CONAF, national agency in charge of the Natural Park, has been undertaking strict control on poaching since 2010, drastically reducing the amount of chicks taken each season.		

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Isla Mocha	Isla Mocha	<i>Puffinus creatopus</i>	<i>Rattus rattus</i>	Predation by alien species	Low			Species present in the island, known to impact the Pink-footed Shearwater, but there are no studies of their population-level impacts.
	Isla Mocha	<i>Puffinus creatopus</i>	<i>Rattus norvegicus</i>	Predation by alien species	Low			The species is known to be present in the island but there is no studies on the population-level impact on the Pink-footed Shearwater
	Isla Mocha	<i>Puffinus creatopus</i>	<i>Canis familiaris</i>	Predation by alien species	Low			
	Isla Mocha	<i>Puffinus creatopus</i>	<i>Felis catus</i>	Predation by alien species	Low			
Islote Albatros	Islote Albatros	<i>Thalassarche melanophris</i>	<i>Neovison vison</i>	Predation by alien species	Low	Trapping for American Mink was implemented on the islet during breeding season 2015/16.		
Izu Shoto	Torishima	<i>Phoebastria albatrus</i>		Natural disaster - Volcanic activity	High	Colony attraction to a safer part of the island with fewer landslide and erosion problems	Effort extremely successful with new, safer subcolony increasing in size rapidly	P. Sievert - Modelling suggests that the worst-case scenario for a volcanic eruption could remove c. 40% of the world population in a single event.

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Izu Shoto	Torishima	<i>Phoebastria immutabilis</i>		Natural disaster - Volcanic activity	High			
	Torishima	<i>Phoebastria nigripes</i>		Natural disaster - Volcanic activity	High			
Juan Fernández Archipelago	Isla Robinson Crusoe	<i>Puffinus creatopus</i>	<i>Oryctolagus cuniculus</i>	Habitat loss or destruction - Habitat destruction by alien species	Low			
	Isla Robinson Crusoe	<i>Puffinus creatopus</i>	<i>Nasua nasua</i>	Predation by alien species	Low			
	Isla Robinson Crusoe	<i>Puffinus creatopus</i>	<i>Felis catus</i>	Predation by alien species	Low			
	Isla Robinson Crusoe	<i>Puffinus creatopus</i>	<i>Rattus spp.</i>	Predation by alien species	Low			
Kerguelen	Baie Larose	<i>Procellaria aequinoctialis</i>	<i>Rangifer tarandus</i>	Habitat loss or destruction - Habitat destruction by alien species	Low			
	Baie Larose	<i>Procellaria aequinoctialis</i>	<i>Felis catus</i>	Predation by alien species	Low			
	Baie Larose	<i>Procellaria aequinoctialis</i>	<i>Rattus rattus</i>	Predation by alien species	Low			

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Kerguelen	Courbet Peninsula	<i>Procellaria aequinoctialis</i>	<i>Felis catus</i>	Predation by alien species	Low	managed locally		
	Courbet Peninsula	<i>Procellaria aequinoctialis</i>	<i>Rattus rattus</i>	Predation by alien species	Low			
	Golfe du Morbihan	<i>Procellaria cinerea</i>	<i>Rangifer tarandus</i>	Habitat loss or destruction - Habitat destruction by alien species	Low			
	Golfe du Morbihan	<i>Procellaria aequinoctialis</i>	<i>Rangifer tarandus</i>	Habitat loss or destruction - Habitat destruction by alien species	Low			
	Golfe du Morbihan	<i>Procellaria cinerea</i>	<i>Rattus rattus</i>	Predation by alien species	Low			Eradicated on Chateau Island (2002) and on Australia Island (2005).
	Golfe du Morbihan	<i>Procellaria aequinoctialis</i>	<i>Rattus rattus</i>	Predation by alien species	Low			
	Golfe du Morbihan	<i>Procellaria cinerea</i>	<i>Felis catus</i>	Predation by alien species	Low			
	Golfe du Morbihan	<i>Procellaria aequinoctialis</i>	<i>Felis catus</i>	Predation by alien species	Low			
	Ile Saint Lanne Gramont	<i>Procellaria aequinoctialis</i>	<i>Rattus rattus</i>	Predation by alien species	Low			
	Ile Saint Lanne Gramont	<i>Procellaria aequinoctialis</i>	<i>Felis catus</i>	Predation by alien species	Low			

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Kerguelen	Joffre Peninsula	<i>Procellaria cinerea</i>	<i>Rangifer tarandus</i>	Habitat loss or destruction - Habitat destruction by alien species	Low			
	Joffre Peninsula	<i>Procellaria cinerea</i>	<i>Felis catus</i>	Predation by alien species	Low			
	Joffre Peninsula	<i>Procellaria cinerea</i>	<i>Rattus rattus</i>	Predation by alien species	Low			
	Joffre Peninsula	<i>Procellaria aequinoctialis</i>	<i>Felis catus</i>	Predation by alien species	Low			
	Joffre Peninsula	<i>Procellaria aequinoctialis</i>	<i>Rattus rattus</i>	Predation by alien species	Low			



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South Georgia (Islas Georgias del Sur) <sup>1</sup>	Barff	<i>Procellaria aequinoctialis</i>	<i>Rattus norvegicus</i>	Predation by alien species	Low	An operation was initiated in 2011 to eradicate all rodents at South Georgia (Islas Georgias del Sur) <sup>1</sup> , the first phase of which was implemented in March-April 2011. The second phase took place in February-June 2013 covering the area west of Cumberland bay to the western tip of the island. A yacht-based monitoring trip investigating the success of the previous year's fieldwork was undertaken in March-April 2014, and found no evidence of surviving rats or mice at a subsample of sites searched in the phase 2 areas, and no rat sign has been found during annual checks of selected sites. The final phase was conducted in February-March 2015, baiting the remaining portion of the island from the Barff Peninsula to Drygalski Fjord.	A final check to confirm rat status is scheduled for 2017-2018 to determine the success of the operation.	
	Harcourt Island	<i>Procellaria aequinoctialis</i>	<i>Rattus norvegicus</i>	Predation by alien species	Low			
	Northwest	<i>Procellaria aequinoctialis</i>	<i>Rattus norvegicus</i>	Predation by alien species	Low			

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South Georgia (Islas Georgias del Sur) <sup>1</sup>	Salisbury	<i>Procellaria aequinoctialis</i>	<i>Rattus norvegicus</i>	Predation by alien species	Low	An operation was initiated in 2011 to eradicate all rodents at South Georgia (Islas Georgias del Sur) <sup>1</sup> , the first phase of which was implemented in March-April 2011. The second phase took place in February-June 2013 covering the area west of Cumberland bay to the western tip of the island. A yacht-based monitoring trip investigating the success of the previous year's fieldwork was undertaken in March-April 2014, which found no evidence of surviving rats or mice in the phase 2 areas. The final phase was conducted in February-March 2015, baiting the remaining portion of the island from the Barff Peninsula to Drygalski Fjord.	A final check to confirm rat status is scheduled for 2017-2018 to determine the success of the operation.	
	Southeast	<i>Procellaria aequinoctialis</i>	<i>Rattus norvegicus</i>	Predation by alien species -	Low			
Tasmania	Pedra Branca	<i>Thalassarche cauta</i>	<i>Morus serrator</i>	Habitat loss or destruction - Increased competition with native species	High	None.		Level of threat to be confirmed. Gannets are increasing throughout their range, and this is evident at Pedra Branca. Number of albatross chicks produced annually has declined & inter-specific interactions observed. Cause & effect needs confirmation.

<sup>1</sup> A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Islas Malvinas), South Georgia and the South Sandwich Islands (Islas Georgias del Sur e Islas Sandwich del Sur) and the surrounding maritime areas