

 <p>Agreement on the Conservation of Albatrosses and Petrels</p>	<p style="text-align: center;"><b>Eleventh Meeting of the Advisory Committee</b> <i>Florianópolis, Brazil, 13 – 17 May 2019</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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# **Fifth Population and Conservation Status Working Group Meeting**

*Florianópolis, Brazil, 9 – 10 May 2019*

## **1. WELCOME AND OPENING REMARKS**

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 2017 (AC10), and approved by the Sixth Session of the Meeting of the Parties (MoP6) in 2018. The report also reflects discussions and advice resulting from the Fifth Meeting of the Population and Conservation Status Working Group (PaCSWG5) held from 9 to 10 May 2019 in Florianópolis, Brazil.

## **2. WORKING GROUP MEMBERSHIP AND INTRODUCTION**

The Convenor of the PaCSWG, Richard Phillips, and Vice-convenor Patricia Pereira Serafini, thanked WG members and observers for attending the meeting, and presented apologies from Rosemary Gales (Co-convenor) and Flavio Quintana (Vice-convenor). They also welcomed two new members to the WG since the last meeting, Megan Tierney from the Joint Nature Conservation Committee (JNCC), nominated by the United Kingdom, and Marco Favero from Instituto de Investigaciones Marinas y Costeras, CONICET, nominated by Argentina. Current PaCSWG membership and PaCSWG5 meeting participants are listed in **ANNEX 1**.

The Convenor of the Working Group brought guidance concerning potential conflicts of interest to the attention of participants for their consideration and action. There were no conflicts of interest disclosed by any participants.

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

The WG accepted the proposed agenda and meeting documents (**PaCSWG5 Doc 01 Rev 1** and **PaCSWG5 Doc 02 Rev 3**).

## **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 PaCSWG4. The interface and functionality of the existing model continue to be 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.

Working Group members suggested that it would be helpful to make the database more prominent on the ACAP website so that the availability of this resource is readily apparent, and that an introductory/background paragraph on the contents of the database would also be appreciated.

The Science Officer advised that the design of the ACAP website is due to be updated and these suggestions could be easily implemented as part of that process scheduled for later this year.

## **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 WG noted that the original documents are now out of date and require review. The Science Officer advised that although progress has been made with the updates of these documents, competing priorities in the Secretariat Work Programme meant the revised versions are yet to be finalised and published. The WG encouraged the Science Officer to consider how resources could be reallocated within the Secretariat, or to seek additional resources to allow her to focus on this core task. WG members and other experts reiterated their offer to assist with the revisions of these key products so that swift progress can be made. The WG reflected that the assessments are a valuable resource for the Agreement and other fora, and suggested that those for the Priority Populations species be updated in the first instance, followed by those closest to being finalised.

## **5. POPULATION STATUS AND TRENDS**

### **5.1. Population trends of ACAP species**

There were no major updates to population data which would require the re-assessment of population trends of any ACAP species since the last review at PaCSWG4 in 2017. The most recent summary table of global status and current trends of ACAP species can be found in [MoP6 Doc 13](#) 'Report on Progress with the Implementation of the Agreement 2015 – 2017'. All species will be reviewed again at PaCSWG6 in 2020.

**PaCSWG5 Inf 01** described a study that tested for sex-specific differences in the demography of Northern (NGP) and Southern (SGP) Giant Petrels that breed sympatrically at South Georgia (Islas Georgia del Sur)<sup>1</sup>. The impacts of long-term changes in environmental conditions and commercial fishing on annual adult survival were examined to forecast future trends. There were differences in the survival of male and female NGP due to

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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 of 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.

a variety of factors including prey availability, environmental drivers and longline effort. Survival of SGPs did not differ between sexes; however, survival of males was positively correlated with the Southern Annular Mode (SAM). Two-sex population projections indicated that future environmental conditions are likely to benefit giant petrels, but that any potential increase in pelagic longline fisheries could reduce female survival and population growth of Northern Giant Petrels.

**PaCSWG5 Inf 09** reported early results from a 3-year study on the annual cycle of Southern Giant Petrels in two remote colonies in East Antarctica using automated cameras which can collect data year-round. Associated software has been developed to improve the efficiency of data extraction from the images, providing a detailed phenology of breeding events and activities throughout winter. Although egg laying was synchronous between these two sites, the timing of other events (e.g. pair-formation) differed. The WG welcomed the development and application of new technology that could gather demographic data for ACAP species from isolated breeding sites.

**PaCSWG5 Inf 22** provided an update on the conservation status and population trends of Amsterdam Albatross. The Amsterdam Albatross population has been steadily increasing in size with an annual growth rate of 4.1% over the period from 1983 to 2017. The population is currently estimated at around 216 individuals, of which about half are mature individuals. Several threats to the Amsterdam Albatross still exist (overlap with longline fisheries, predation by introduced mammalian predators, and potential habitat modification and disease). The species has benefited from a national Action Plan, in place since 2011, and a second Plan is scheduled for adoption in 2019. PaCSWG5 welcomed the continuing efforts by France to enhance the conservation status of this globally Endangered species.

## **5.2 Review of application of IUCN Criteria to ACAP species**

**PaCSWG5 Doc 03** provided the results of an intersessional review of the global threat status (IUCN Red List Category of extinction risk) for all ACAP species, undertaken to ensure consistency and strict adherence to the IUCN Categories and Criteria, and associated guidelines. The review found the Criteria and Guidelines had been used appropriately for 29 of the 31 ACAP species. For Salvin's Albatross, the authors believe the number of locations (Area of Occupancy) may have been incorrectly delimited to justify listing under Criterion D2, although it may still qualify as Vulnerable under other criteria. For Shy Albatross, the authors did not believe it approached the thresholds sufficiently closely for listing as Near Threatened (NT) under criterion D2, although a listing of NT under criterion A4(a) may be appropriate. The paper recommended that the status of both species should be reviewed again by BirdLife International. For four other species — Southern Royal Albatross, Northern Royal Albatross, Campbell Albatross and White-chinned Petrel — the Criteria and Guidelines had been appropriately applied but new data are available that may warrant a reassessment.

BirdLife International, as the IUCN Red List Authority for birds, appreciated the early and detailed discussions that had taken place with the authors. They considered the paper to have validated the accuracy of the current application of the IUCN Categories and Criteria. They acknowledged that the identification of at-sea 'locations' requires additional clarification in the IUCN Red List Guidelines, and will be working with IUCN on this issue. The Red List

process depends on experts proposing discussion forums for species for which evidence suggests that a change of status may be warranted. The current timeline is that new information on ACAP species will be collated sometime after July 2019 to inform the comprehensive IUCN Red List update in 2020. It was hoped that ACAP and its Parties will provide information to the 2020 assessment via the updated ACAP species assessments and by proposing and engaging in discussion forums.

BirdLife International noted that for Shy Albatross the discussion of its status remains ongoing on BirdLife's Globally Threatened Birds Forum

For Salvin's Albatross, BirdLife International noted that discussion of this species also is underway. It was suggested that tsunamis may be the most likely stochastic potential threat, and would impact all islets at the Bounty Islands, much as threats within the foraging range would be shared across islets. This should be considered in deciding whether the Bounty Islands form a single site. BirdLife requested that any relevant new information about these species be posted on the GTB Forum by mid-June.

For Campbell Albatross and Southern Royal Albatross, it was noted that, while Campbell Island is geologically stable (as indicated in **PaCSWG5 Doc 03**), many colonies are on seaward-facing slopes that may be prone to land slips. Additionally, the lack of monitoring at this site may prevent the detection of population trends; hence the approach suggested as overly precautionary in **PaCSWG5 Doc 03** may indeed be justified. Concerning the relatively low bycatch in New Zealand fisheries described in the paper, it was noted that both Southern Royal Albatross and White-chinned Petrels from breeding populations in New Zealand forage over vast distances and may face high bycatch risks elsewhere.

PaCSWG5 welcomed the information provided in **PaCSWG5 Doc 03** clarifying aspects of the application of the IUCN guidelines. The WG noted the value of further consideration by IUCN and BirdLife International of the treatment of threats at sea facing wide-ranging species such as albatrosses and petrels, and clarification of the term 'rapidly affect' under Criterion D2.

## **6. THREATS AND PRIORITISATION**

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

Information on management responses to the threats listed in the ACAP database were provided by Parties prior to PaCSWG5 and are summarised in **ANNEX 2**. These included updated information on progress towards eradication of exotic species at Amsterdam Island; plans for eradications in Hawaii to occur next year; Atlantic Yellow-nosed Albatross at increased risk of mouse attacks; and mitigation of risk to North Pacific albatrosses at French Frigate Shoals.

The WG was informed about a catastrophic loss of an important breeding island in October 2018 due to Hurricane Walaka. East Island, at 2.11 ha the second largest islet in the French Frigate Shoals atoll, was completely washed away during the event. East Island held as

many as 2,000 Black-footed Albatross nests (almost 3% of the world population) and 500 Laysan Albatross nests prior to its disappearance.

The Working Group welcomed updates about the progress of several eradication programmes, including the eradication of House Mouse *Mus musculus* at Midway scheduled for July 2020, and the fundraising efforts for the eradication of that species on Gough Island, led by RSPB (UK BirdLife International partner) and also planned for 2020.

The WG was also informed about progress with the Marion Island Mouse Eradication Programme, including in **PaCSWG5 Inf 02**. Draft project and operational plans for the eradication have been produced, building on the feasibility report published in 2016, but are not yet publicly available. Bait uptake trials to demonstrate that all mice will eat bait, including trials to ensure mice in caves are reached by aerial baiting, were also undertaken during the April/May 2018 resupply voyage, as were husbandry trials to assess the feasibility of taking Lesser Sheathbills *Chionis minor* into captivity. During the year, studies/monitoring of the start and end of mouse breeding across an altitudinal gradient, of bait preference and toxicity, and of cloud heights through the proposed winter-baiting window were undertaken on the island. Autumn surveys were conducted for the fourth successive year to monitor the spread of mouse attacks on large chicks of globally Endangered Grey-headed and Sooty Albatrosses.

The meeting was informed about a dedicated website (“Mouse Free Marion”; <https://mousefreemarion.org.za/>) instituted by BirdLife South Africa to raise 30 million South African Rands to cover bait costs for the planned eradication via a “sponsor a hectare campaign” at US\$90/ha or ZAR 1000/ha. To date, 1,244 hectares have been “purchased” by 555 sponsors, representing 4.15% of the island’s area.

PaCSWG5 welcomed news that the Lord Howe Rodent Eradication Project is now underway. The project will occur over the 2019 austral winter and seeks to eradicate introduced Ship Rat *Rattus rattus* and House Mouse *Mus musculus* from this World Heritage site. Eradication will help promote the conservation of burrowing petrel and shearwater populations. A grain-based pellet incorporating the toxin Brodifacoum will be spread over the island by helicopter drop, coupled with bait stations in inhabited areas, including in and around dwellings and other buildings in the settlement area, as well as in pastures. The project is the culmination of planning over many years, working in collaboration with the local community, particularly to help resolve implementation issues and concerns about an eradication programme that includes inhabited areas and pastures.

**PaCSWG5 Inf 15** described a Bayesian approach to estimate the total mortality and response of the Northern Giant Petrel population to the poisoning events during Macquarie Island’s pest eradication programme. Aerial bait drops occurred in 2010 and 2011. The model predicted that despite a loss of approximately 30% of breeding pairs, the population would most likely recover within 10 years. The post-eradication monitoring programme showed the model performed well in predicting the time to recovery for this population. PaCSWG5 recognised the value of such modelling to assess the potential impacts on non-target species during pest eradication programmes.

Details of current and planned eradication programmes for invasive species on some of the Falkland Islands (Islas Malvinas)<sup>1</sup> were also reported to the meeting.

**PaCSWG5 Inf 17** reported on harvesting of Pink-footed Shearwater at Isla Mocha, Chile, which has occurred for over 100 years but is now illegal. Last year, over 300 chicks were found dead which resulted in social conflicts between local inhabitants and conservation managers. Use of social media led to widespread awareness and discussion of the issue and was severely criticised by the community, jeopardizing work on the island by researchers and conservation organisations. The solution was found in improved engagement between governments, local community and schools, in particular by promoting interest in nature and conservation issues.

**PaCSWG5 Inf 22** was considered under Agenda Item 5.1.

## **6.2. BirdLife review of threats to seabirds**

BirdLife International described a quantitative assessment of the threats to 359 species of seabirds, applying the standardized Threats Classification Scheme developed for the IUCN Red List. In this context, a threat is a human activity or other process that affects the current conservation status, causing a population or range reduction. The impact of each threat was based on the scope (% of the population or range affected) and severity (rate of population decline caused by the threat). Only ongoing threats causing a significant impact (i.e. non-negligible), and with a known scope and severity, were considered in the analysis.

The main conclusions for ACAP species were that bycatch is by far the most important threat, affecting 90% of the species; invasive alien species (particularly cats, mice and rats) affect 58%; climate change/severe weather affect almost 30%, all with a medium impact; diseases and hunting/trapping affect 5 and 4 species, respectively. Approximately 60% of the albatrosses are affected by both terrestrial and marine threats with medium, high or very high impact; 10 species are affected simultaneously by invasive alien species at colonies and by bycatch at sea, and; 3 species by diseases and by bycatch. Overall results for seabirds (not just ACAP species) were that 89% of the species affected by climate change were also affected by other threats, usually bycatch or invasive species, with impacts of the same order of magnitude. This emphasises the importance of addressing these other major threats in order to compensate for the negative impacts of climate change.

PaCSWG5 welcomed the study, commenting on limitations of modelling, including large uncertainties, particularly for long-lived species such as albatrosses and petrels.

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

**PaCSWG5 Doc 08** reported a study of the effect of seismic operations, aimed at locating offshore oil fields in Argentine waters, on seabird abundance. Two thirds of the species identified in the survey were procellariiform birds. Results indicated that seabird abundance decreased significantly during seismic operations, irrespective of the feeding tactic (e.g. surface feeders, divers). The study provides evidence of avoidance behaviour in response to the sounds generated by this anthropogenic activity. Additional information will be made

available at PaCSWG6. The WG discussed the importance of such studies, including the relevance for seismic exploration elsewhere.

**PaCSWG5 Inf 03** described the at-sea distributions of adult Indian Yellow-nosed Albatrosses provisioning chicks at Prince Edward Island (PEI). Parents whose partners were brooding small chicks frequently moved north-east of PEI to shallow, productive waters, whereas parents with older chicks that could be left unattended often foraged along the Agulhas Bank. The at-sea distribution of birds breeding at PEI is distinct from those of Indian Yellow-nosed Albatrosses breeding at Ile Amsterdam and Atlantic Yellow-nosed Albatrosses breeding at Gough Island; hence the different populations may face different threats at sea.

**PaCSWG5 Inf 05** reported on segregation of foraging habitat between sexes and age classes of Black-browed Albatrosses, based on models of habitat selection. The study was facilitated by an ACAP secondment for a young scientist, demonstrating the effectiveness of this scheme as a capacity-building tool, and generating collaboration between Argentina, Brazil and Chile.

**PaCSWG5 Inf 06** was considered under Agenda 8.1.

**PaCSWG5 Inf 08** showed the movements of 14 fledgling Black Petrels tracked from Great Barrier Island, New Zealand. The juveniles migrated to the Galapagos Islands and the small number still providing satellite locations then moved to coastal South America. PaCSWG5 noted the potentially high level of interaction with fisheries in these areas and likely subsequent effects on recruitment in the species. Collaborations with Ecuador are in place for improving data collection in their fisheries, including on rates of seabird bycatch.

**PaCSWG5 Inf 14** described the OCEAN SENTINEL programme, designed to improve knowledge on the fine-scale interactions between Wandering Albatross, Amsterdam Albatross and fisheries in the southern Indian Ocean. Birds were fitted with a new generation of loggers recording location and ship radar, indicating the presence of fishing and other vessels. A total of 172 adult and juvenile birds were tagged, and > 5,000 radar detections were obtained. Juveniles had a much lower vessel encounter rate than adults. In the Exclusive economic Zone (EEZ) around Crozet and Kerguelen, all fishing vessels known to be in operation were detected by bird-borne tags. The WG agreed on the usefulness of this approach for investigating interactions with vessels (including potentially to detect IUU fishing), noting that about 50% of vessels detected in international waters had switched off their Automatic Identification System (AIS). PaCSWG5 was informed that deployments of bird-borne loggers were in progress or planned for ACAP species in New Zealand and in the southwest Atlantic.

**PaCSWG5 Inf 18** reported on overlap between albatrosses and White-chinned Petrels from South Georgia (Islas Georgias del Sur)<sup>1</sup> and fisheries. Overlap hotspots occurred in all major ocean basins, particularly the south-east and south-west Atlantic Ocean (longline and trawl), and south-west Indian Ocean (pelagic longline). The discussion emphasized the importance of monitoring bycatch rates, compliance with best-practice mitigation, RFMO engagement and filling gaps in tracking data, mainly for juveniles and immatures.

**PaCSWG5 Inf 19** filled a notable gap in knowledge of at-sea distribution and potential fishery bycatch risk to juvenile Grey-headed Albatrosses (GHA) from South Georgia (Islas

Georgias del Sur)<sup>1</sup>. In the first six months post-fledging, tracked juveniles made greater use of waters in the southeast Atlantic and southwest Indian Oceans than non-breeding adults. Consequently, the major life-history stages differed in spatio-temporal overlap with particular pelagic longline fleets. Juvenile GHAs overlapped mostly with the Japanese fleet in April-June in the central Atlantic Ocean, and adults with the fleet of Chinese Taipei in July-September in the Pacific Ocean. The high fisheries overlap of juvenile GHAs east of Tristan de Cunha coincides with a bycatch hotspot reported by the Japanese Observer Programme, highlighting the importance of further engagement to reduce seabird bycatch.

**PaCSWG5 Inf 20** reported on the development of a methodological framework for estimating population-level density distributions at quarterly and annual resolutions, incorporating tracking, demography and phenological data. This framework represents an improvement on previous estimates by incorporating tracking data for all major life-history stages, including juveniles, immatures and adult non-breeders. Tracking gaps for juveniles and immatures were identified, which are a major limitation given that they represent substantial proportions of the population. The subsequent discussion by the WG emphasised the importance of encouraging data holders to submit tracking data to the BirdLife International Seabird Tracking Database for use in overlap analyses and risk assessments, including to improve bycatch estimation. BirdLife International has asked tracking data holders if they will permit composite maps of species distributions to be made available for such analyses.

**PaCSWG5 Inf 22** was considered under Agenda Item 5.1.

**SBWG9 Inf 05** was considered under Agenda Item 8.1.

## **RECOMMENDATIONS TO THE ADVISORY COMMITTEE**

PaCSWG recommends that the Advisory Committee:

1. commends the advances that are being achieved in planning and implementing large-scale eradication programmes for non-native species that will ultimately benefit the status of ACAP species;
2. recognises the importance of mapping areas of greatest overlap and potential bycatch risk, including for higher risk and bycatch-aggravating species such as White-chinned Petrels (which are deeper divers and more nocturnally active), and for birds of different age and sex in order to identify higher risk regions where increased enforcement of compliance with bird bycatch mitigation requirements and improved bycatch monitoring are required;
3. encourages further research on the possible effects of noise pollution on the distribution and abundance of ACAP species at sea; and
4. encourages data-holders to submit their tracking data to the BirdLife International Seabird Tracking Database to enable analyses of overlap and interactions between ACAP species and fisheries.

## 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**). Data gaps remain mostly for island groups that are logistically difficult to access, and for species that are very challenging to census.

No monitoring has occurred of eight important populations (>5% of global breeding pairs) in the past ten years. Two additional populations have been added: since PaCSWG4 to the list of populations for which updated information is required: White-chinned Petrel on South Georgia (Islas Georgias del Sur)<sup>1</sup> and Southern Royal Albatross on Campbell Island (**Table 2**). The WG noted the challenging scale of effort required to census White-chinned Petrels on South Georgia (Islas Georgias del Sur)<sup>1</sup> and were informed that data from Bird Island are currently being analysed for this species. The meeting was also informed of the possibility of census work on Campbell Island in the next austral summer (2019/20).

The barriers to collecting data on the Short-tailed Albatross at Senkaku Retto were outlined in **PaCSWG5 Doc 04**. **PaCSWG5 Doc 04** noted that the inaccessibility of the disputed Senkaku Islands does not allow the trends, genetic discreteness or at-sea distribution of that population to be determined. The main population of this species breeds on Torishima Island, but knowledge of the breeding population on Senkaku Islands is critical for understanding whether certain recovery goals identified by the Short-tailed Albatross Recovery Team are being reached. PaCSWG5 acknowledged the difficult and sensitive issue of access to these islands and the shared interest in understanding the population breeding there.

**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 2008). Island groups added since PaCSWG4 are highlighted.

Island Group		Species	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	<i>Macronectes giganteus</i>	3500	8	2004
Disputed	Senkaku Retto of southern Ryukyu Islands	<i>Phoebastria albatrus</i>	52	6	2002
Disputed	South Georgia (Islas Georgias del Sur) <sup>1</sup>	<i>Procellaria aequinoctialis</i>	669443*	56	2007
France	Crozet	<i>Procellaria cinerea</i>	5500	7	2005
	Kerguelen	<i>Phoebetria palpebrata</i>	4000	25	1987
New Zealand	Campbell Islands	<i>Diomedea epomophora</i>	7855	99	2008
		<i>Phoebetria palpebrata</i>	1658	10	1996
United Kingdom	Gough	<i>Procellaria cinerea</i>	10000-25000	13-31	2001

\* including 4 regions; north, south, west and north-east mainland

<sup>1</sup>A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty of 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.

One site where a population estimate has not been conducted in at least the last 10 years (for a population with >10% of that species' global breeding pairs) has been removed from the list since PaCSWG4 (**Table 3**): Light-mantled Albatross on Auckland Islands. Five sites have been added: White-chinned Petrel at Nunez and Northwest, Southern Royal Albatross at Campbell Island (as noted in **Table 2**), Balearic Shearwater at Cabrera Island, and Atlantic Yellow-nosed Albatross at Nightingale Island.

Data on breeding success and survival continue to be lacking for Spectacled Petrel and Pink-footed Shearwater (**Table 4**).

**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: 2009) (excludes sites where part-site/study colony counts have been conducted). Sites added since PaCSWG4 are highlighted.

	Island Group	Breeding site	Species	Population estimate (annual breeding pairs)	% of total known global population	Survey Accuracy	Latest year of population estimate
Chile	Islas Diego Ramirez	Isla Bartolome	<i>Thalassarche chrysostoma</i>	10,880	13	High	2003
Disputed	South Georgia (Islas Georgias del Sur) <sup>1</sup>	Bird Island (SGSSI (IGSISS)) <sup>1</sup>	<i>Macronectes halli</i>	2,062	20	High	1996
Disputed	South Georgia (Islas Georgias del Sur) <sup>1</sup>	Nunez	<i>Procellaria aequinoctialis</i>	193,838	16	Medium	2007
Disputed	South Georgia (Islas Georgias del Sur) <sup>1</sup>	Northwest	<i>Procellaria aequinoctialis</i>	146,545	12	Medium	2007
France	Crozet	Ile de l'Est	<i>Phoebetria fusca</i>	1,300	11	Unknown	1984
France	Kerguelen	Golfe du Morbihan#	<i>Phoebetria palpebrata</i>	4,000	26-36		1987
New Zealand	Campbell Islands	Campbell Island	<i>Diomedea epomophora</i>	7855	99	High	2008
New Zealand	Campbell Islands	Campbell Island	<i>Phoebetria palpebrata</i>	1600	10	Low	1996
Spain	Balearic Archipelago	Cabrera	<i>Puffinus mauretanicus</i>	449	14	Low	2008
United Kingdom	Gough	Gough Island	<i>Procellaria cinerea</i>	10000-25000	13-31	Unknown	2001
United Kingdom	Tristan da Cunha	Tristan da Cunha	<i>Phoebetria fusca</i>	2000-3000	16-25	Unknown	1974
United Kingdom	Tristan da Cunha	Tristan da Cunha	<i>Thalassarche chlororhynchos</i>	16000-30000	48-89	Low	1974
United Kingdom	Tristan da Cunha	Nightingale	<i>Thalassarche chlororhynchos</i>	4000	12	Low	2007

# figure is for all Kerguelen

<sup>1</sup>A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty of 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.

**Table 4:** Availability of **demographic information** for all ACAP species

ACAP Common name	Species	Number of sites	Number of Island Groups	Adult survival data Sites	Juvenile survival data Sites	Breeding success data sites
Amsterdam Albatross	<i>Diomedea amsterdamensis</i>	1	1	Plateau des tourbieres	Plateau des tourbieres	Plateau des tourbieres
Antipodean Albatross	<i>Diomedea antipodensis</i>	6	4	Antipodes Island Adams Island	Antipodes Island Adams Island	Antipodes Island Adams Island
Tristan albatross	<i>Diomedea dabbenena</i>	2	2	Gough Island	Gough Island	Gough Island
Southern royal Albatross	<i>Diomedea epomophora</i>	4	2	Enderby Island Campbell Island	Campbell Island	Enderby Island Campbell Island
Wandering Albatross	<i>Diomedea exulans</i>	39	5	Macquarie Island Ile de la Possession Bird Island (SGSSI (IGSISS)) <sup>1</sup> Marion Island	Macquarie Island Ile de la Possession Courbet Peninsula Marion Island Bird Island (SGSSI (IGSISS)) <sup>1</sup>	Macquarie Island Ile de la Possession Bird Island (SGSSI (IGSISS)) <sup>1</sup> Marion Island Albatross Island (SGSSI (IGSISS)) <sup>1</sup> Prion Island(SGSSI (IGSISS)) <sup>1</sup>
Northern royal Albatross	<i>Diomedea sanfordi</i>	5	3	The Forty-fours Taiaroa Head	Taiaroa Head	The Big Sister The Forty-fours The Little (Middle) Sister Taiaroa Head
Short-tailed Albatross	<i>Phoebastria albatrus</i>	2	2	Torishima Mukojima*	Mukojima*	Torishima Mukojima*

ACAP Common name	Species	Number of sites	Number of Island Groups	Adult survival data Sites	Juvenile survival data Sites	Breeding success data sites
Laysan Albatross	<i>Phoebastria immutabilis</i>	17	5	Midway Atoll	Midway Atoll	Midway
				Laysan Island	Laysan Island	Laysan
				French Frigate Shoals	French Frigate Shoals	French Frigate Shoals
				Kaua'i	Kaua'i	O'ahu
				O'ahu	O'ahu	
Waved Albatross	<i>Phoebastria irrorata</i>	2	2	Isla Espanola	Isla Espanola	Isla Espanola
Black-footed Albatross	<i>Phoebastria nigripes</i>	15	4	Midway Atoll	Midway Atoll	Midway
				French Frigate Shoals	French Frigate Shoals	Laysan
				Laysan Island	Laysan Island	French Frigate Shoals
Sooty Albatross	<i>Phoebetria fusca</i>	15	6	Ile de la Possession	Ile de la Possession	Ile de la Possession
						Marion Island
						Gough Island
Light-mantled Albatross	<i>Phoebetria palpebrata</i>	73	9	Ile de la Possession	Macquarie Island	Macquarie Island
						Ile de la Possession
						Campbell Island
						Marion Island
						Bird Island (SGSSI (IGSISS)) <sup>1</sup>
Buller's Albatross	<i>Thalassarche bulleri</i>	10	4	North-East Island	North-East Island	North-East Island
				The Little (Middle) Sister		Great Solander Island
Indian yellow-nosed albatross	<i>Thalassarche carteri</i>	6	5	Falaise d'Entrecasteaux	Falaise d'Entrecasteaux	Falaise d'Entrecasteaux
Shy Albatross	<i>Thalassarche cauta</i>	3	1	Albatross Island (AU)	Albatross Island (AU)	Albatross Island (AU)

ACAP Common name	Species	Number of sites	Number of Island Groups	Adult survival data Sites	Juvenile survival data Sites	Breeding success data sites
Atlantic Yellow-nosed Albatross	<i>Thalassarche chlororhynchos</i>	6	2	Gough Island Tristan da Cunha	Gough Island	Gough Island Inaccessible Island Tristan da Cunha
Grey-headed Albatross	<i>Thalassarche chrysostoma</i>	29	8	Macquarie Island Campbell Island Bird Island (SGSSI (IGSISS)) <sup>1</sup> Marion Island	Macquarie Island Campbell Island Bird Island (SGSSI (IGSISS)) <sup>1</sup>	Macquarie Island Campbell Island Bird Island (SGSSI (IGSISS)) <sup>1</sup> Marion Island
Chatham Albatross	<i>Thalassarche eremita</i>	1	1	The Pyramid	No data	No data
Campbell Albatross	<i>Thalassarche impavida</i>	2	1	Campbell Island	Campbell Island	Campbell Island
Black-browed Albatross	<i>Thalassarche melanophris</i>	65	14	Macquarie Island Jeanne d'Arc Peninsula Bird Island (SGSSI (IGSISS)) <sup>1</sup> New Island	Macquarie Island Jeanne d'Arc Peninsula	Macquarie Island Jeanne d'Arc Peninsula Bird Island (SGSSI (IGSISS)) <sup>1</sup> Saunders Island New Island Steeple Jason West Point Island
Salvin's Albatross	<i>Thalassarche salvini</i>	12	4	Toru Islet	No data	No data
White-capped Albatross	<i>Thalassarche steadi</i>	5	3	Auckland Island		Auckland Island
Pink-footed Shearwater	<i>Ardenna creatopus</i>	3	2	No data	No data	No data

ACAP Common name	Species	Number of sites	Number of Island Groups	Adult survival data Sites	Juvenile survival data Sites	Breeding success data sites
Southern Giant Petrel	<i>Macronectes giganteus</i>	123	26	Bird Island (SGSSI (IGSISS)) <sup>1</sup> Marion Island	Bird Island (SGSSI (IGSISS)) <sup>1</sup>	Isla Arce
						Isla Gran Robredo
						Macquarie Island
						Ile de la Possession
						Laurie Island
						Nelson Island
						Marion Island
						Bird Island (SGSSI (IGSISS)) <sup>1</sup>
						Gough Island
						Golden Knob (Elephant Cays)
						Sandy Cay (Elephant Cays)
						Steeple Jason
						Anvers Island
Northern Giant Petrel	<i>Macronectes halli</i>	52	11	Bird Island (SGSSI (IGSISS)) <sup>1</sup> Marion Island	Bird Island (SGSSI (IGSISS)) <sup>1</sup>	Bird Island (SGSSI (IGSISS)) <sup>1</sup>
						Macquarie Island
						Ile de la Possession
						Marion Island

ACAP Common name	Species	Number of sites	Number of Island Groups	Adult survival data Sites	Juvenile survival data Sites	Breeding success data sites
White-chinned Petrel	<i>Procellaria aequinoctialis</i>	78	8	Ile de la Possession Ile Haute	Ile de la Possession Ile Haute	Ile de la Possession Marion Island Bird Island (SGSSI (IGSISS)) <sup>1</sup> Ile Haute
Grey Petrel	<i>Procellaria cinerea</i>	16	9	Golfe du Morbihan	Golfe du Morbihan	Macquarie Island Marion Island Gough Island
Spectacled Petrel	<i>Procellaria conspicillata</i>	1	1	No data	No data	No data
Black Petrel	<i>Procellaria parkinsoni</i>	2	1	Great Barrier Island	Little Barrier Island Great Barrier Island	Little Barrier Island Great Barrier Island
Westland petrel	<i>Procellaria westlandica</i>	1	1	Punakaiki	Punakaiki	Punakaiki
Balearic Shearwater	<i>Puffinus mauretanicus</i>	5	1	Mallorca Ibiza	Mallorca Ibiza	Mallorca Cabrera Menorca Ibiza

\*translocated population

<sup>1</sup>A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty of 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.

The WG also reviewed the priority programmes identified for each ACAP species by region. Recent progress against these priorities is summarised in **Table 5**.

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

Priority programmes	Progress since AC9 (May 2016)	Progress since AC10 (Sept 2017)
<b>ANTARCTICA</b>		
two species; 50 sites, two of unknown size		
(i) Resurvey Southern Giant Petrel at King George and Nelson Islands, South Shetland Islands	<i>Brazil maintained both programmes</i>	<i>Census of breeding birds conducted at Nelson, King George, Penguin and Livingston Islands</i>
(ii) Maintain long-term population and productivity monitoring of Southern Giant Petrels at Signy Island, South Orkney Islands.	<i>Maintained programme</i>	<i>Maintained all programmes</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		
(i) Maintain population and productivity monitoring at Isla Arce and Isla Gran Robredo.	<i>None reported</i>	<i>None reported</i>
(ii) Resurvey the two sites at Isla de los Estados.	<i>None reported</i>	<i>None reported</i>
<b>AUSTRALIA:</b> eight species at 17 sites in three island groups; 18% of populations of unknown size.		
(i) Maintain long-term demographic, productivity or population monitoring at Macquarie Island (seven ACAP species) and Tasmania (Shy Albatross).	<i>Maintained programme</i>	<i>Maintained programme</i>
(ii) Resurvey Shy Albatross at Mewstone	<i>None reported</i>	<i>None reported</i>
(iii) Resurvey Black-browed and Light-mantled Albatrosses at Heard Island.	<i>None reported</i>	<i>None reported</i>
(iv) Resurvey Black-browed Albatrosses at Bishop and Clerk Islands.	<i>None reported</i>	<i>None reported</i>
<b>CHILE:</b> four species at 36 sites in nine island groups; no demographic data.		
(i) Begin long-term demographic monitoring of Black-browed and Grey-headed Albatrosses at minimum of one island group.	<i>None reported</i>	<i>None reported</i>
(ii) Resurvey all island groups.	<i>None reported</i>	<i>None reported</i>
(iii) Re-survey Southern Giant Petrel at Isla Noir.	<i>None reported</i>	<i>None reported</i>
(iv) Survey Pink-footed Shearwater on Isla Mocha and on at least one of the islands in Juan Fernández archipelago	<i>None reported</i>	<i>None reported</i>
(v) Initiate a long-term demographic monitoring programme for Pink-footed Shearwater in at least one the island groups where it breeds	<i>None reported</i>	<i>None reported</i>

Priority programmes	Progress since AC9 (May 2016)	Progress since AC10 (Sept 2017)
<b>DISPUTED – NORTH PACIFIC:</b> two species at two sites; current population trends unknown; no survival data.		
(i) Confirm breeding and begin long-term population monitoring of Short-tailed Albatross at Minami-Kojima in the Senkaku Islands.	<i>Maintained research program, added Oahu as a calibration site.</i>	<i>None reported</i>
<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.		
(i) 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>	<i>Maintained all programmes</i>
(ii) 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>	<i>Maintained all programmes</i>
(iii) 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 (2015/16). Bird Island census carried out in 2016/17; data are currently being analysed. Feasibility of low-disturbance demographic monitoring being considered for Bird Island.</i>	<i>Monitoring of population size and productivity in study plot, and deployment of acoustic loggers to assess attendance and relate to local population size at Bird Island.</i>
(iv) 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>	<i>Both programmes maintained</i>
(v) Maintain long-term population monitoring of Black-browed Albatrosses elsewhere in the Falkland Islands (Islas Malvinas) <sup>1</sup> .	<i>Full island aerial census planned for austral summer 2017/18</i>	<i>Full island aerial census conducted in October 2017. Photos being analysed and report still to be produced.</i>
(vi) Resurvey Southern Giant Petrels at the Falkland Islands (Islas Malvinas) <sup>1</sup> .	<i>Aerial island-wide census conducted during summer 2015/16. Photographs have been analysed and report has been completed.</i>	<i>No further action required since AC9. Note however, annual monitoring at selected sites has been maintained.</i>

Priority programmes	Progress since AC9 (May 2016)	Progress since AC10 (Sept 2017)
<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, and majority of Wandering Albatross sites re-surveyed in 2014/15. Trends paper published in 2017.</i>	<i>No further action required since AC9.</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>	<i>Exploring funding and logistics, especially access to the centre of the island.</i>
<b>(ii)</b> Establish demographic monitoring in the interior colonies ('Colonia Central') on Española.	<i>None reported</i>	<i>None reported</i>
<b>(iii)</b> Establish long-term population and productivity monitoring at Isla de la Plata.	<i>Data in hand, report in progress.</i>	<i>No further 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 and Indian Yellow-nosed Albatross.		
<b>(i)</b> Maintain long-term demographic or population monitoring at Kerguelen (5 species).	<i>Maintained all programmes</i>	<i>None reported</i>
<b>(ii)</b> Maintain long-term demographic or population monitoring at Crozet (6 species).	<i>Maintained all programmes</i>	<i>None reported</i>
<b>(iii)</b> Maintain long-term demographic or population monitoring at Amsterdam Island (3 species).	<i>Maintained all programmes</i>	<i>None reported</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	<i>Some colonies resurveyed</i>	<i>Resurveyed during last 3 years: 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;</i>
<b>JAPAN:</b> three species; current trend, adult survival and productivity unknown for four populations.		
<b>(i)</b> Establish long-term demographic monitoring at all sites.	<i>Preliminary data available for adult and juvenile survival and breeding success at Mukojima translocation site.</i>	<i>None reported</i>

Priority programmes	Progress since AC9 (May 2016)	Progress since AC10 (Sept 2017)
<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>None reported</i>	<i>None reported</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>No further progress.</i>	<i>Plans are in development for a resurvey in 2019-20, subject to logistical constraints</i>
<b>(ii)</b> Survey Salvin's Albatross at Bounty Islands.	<i>A two-year research project has been planned. Implementation has been postponed until 2018 due to logistical difficulties.</i>	<i>An aerial survey with ground truthing was undertaken in Oct 2018. Results are still in preparation and will be reported prior to AC12.</i>
<b>(iii)</b> Maintain long-term demographic monitoring of Black Petrel at Great Barrier Island.	<i>Programme maintained.</i>	<i>Programme maintained.</i>
<b>(iv)</b> Maintain long-term demographic monitoring of Antipodean Albatross at Adams Island, Auckland Islands.	<i>Programme maintained.</i>	<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 at the Snares continued in 2016/17. Population estimate from the Solander Islands reported.</i>	<i>Demographic monitoring maintained in 2018-19, and resurvey undertaken (though not a complete census due to weather constraints).</i>
<b>(vi)</b> Maintain population monitoring of White-capped Albatross at all sites in the Auckland Islands.	<i>Population estimates and demographic study at Disappointment Island were both continued in 2016/17.</i>	<i>Demographic study at Disappointment Island continued in 2018/19 including successful deployment of cameras to record breeding phenology and success.</i>
<b>(vii)</b> Survey White-chinned Petrel at the Auckland Islands.	<i>Further demographic and tracking data was collected at Adams Island in 2016/17.</i>	<i>Further demographic and tracking data was collected at Adams Island in 2018/19.</i>
<b>(viii)</b> Collate existing data on Light-mantled Albatross populations and survey at major breeding sites.	<i>A range of methods were investigated to allow future population estimates on this difficult to study species, and are reported to PaCSWG4.</i>	<i>Very limited counts at Adams Island continued in 2018/19</i>

Priority programmes	Progress since AC9 (May 2016)	Progress since AC10 (Sept 2017)
<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>Continued to maintain long-term population monitoring of Sooty and Light-mantled Albatrosses at Marion Island.</i>	<i>None reported</i>
<b>(ii)</b> Survey White-chinned and Grey Petrels at Marion and Prince Edward Islands.	<i>None reported</i>	<i>None reported</i>
<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>	<i>None reported</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>	<i>None reported</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>None reported</i>	<i>None reported</i>
<b>(ii)</b> Recover the available information collected in the last 12 years on behalf of the local administration	<i>None reported</i>	<i>Current work to update demographic information under ACAP grant (administration do not seem to have sound data, since that provided in 2010 for the species action plan).</i>

Priority programmes	Progress since AC9 (May 2016)	Progress since AC10 (Sept 2017)
<b>UNITED KINGDOM:</b> 6 species including 16 populations on two island groups		
(i) Maintain long-term demographic monitoring of Tristan and Atlantic Yellow-nosed Albatrosses and Southern Giant Petrels at Gough Island.	<i>Maintained all programmes</i>	<i>Maintained all programmes; discontinued ringing of unmarked adult Southern Giant Petrels</i>
(ii) Maintain long-term demographic monitoring of Atlantic Yellow-nosed Albatross at Tristan and Nightingale islands.	<i>None reported</i>	<i>None reported</i>
(iii) Maintain intermittent population monitoring of Sooty Albatross at Gough Island.	<i>Maintained programme</i>	<i>Modified programme – ringing was discontinued, nest monitoring and counts of coastal cliffs are maintained</i>
(iv) Maintain intermittent population monitoring of Spectacled Petrel at Inaccessible Island.	<i>None reported</i>	<i>Maintained programme (transects counted in Sep/Oct 2018)</i>
(v) Establish intermittent population monitoring of Sooty Albatross at Tristan Island.	<i>None reported</i>	<i>None reported</i>
(vi) Survey Atlantic Yellow-nosed Albatross at Tristan Island.	<i>Aerial survey completed and report due late 2017</i>	<i>None reported</i>
(vii) Survey all island and establish intermittent population monitoring in study plots of Grey Petrel at Gough Island.	<i>Study plot monitoring continued</i>	<i>Study plot monitoring continued</i>
(viii) Confirm breeding of Grey Petrel at Inaccessible and Tristan islands.	<i>None reported</i>	<i>None reported</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 Midway, Tern Island, Laysan, and Kauai.</i>	<i>Survival and breeding probabilities now available for 10 years at Midway and 6 years at Laysan Island. Analyses still in progress for Tern Island, French Frigate Shoals and Kauai</i>
(ii) Survey the five breeding sites where not currently monitored, and at all sites at five-year intervals.	<i>None reported but exploring remote sensing technology for that task</i>	<i>No substantive progress</i>

<sup>1</sup>A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty of 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.

## 7.2. Review of key gaps in tracking data

The WG also reviewed the priority tracking programmes identified for each ACAP species by region, and recent progress against these priorities is summarised in **Table 6**.

**Table 6.** Summary of progress on regional tracking priorities.

Priorities	Progress since AC9 (May 2016)	Progress since AC10 (Sept 2017)
<b>ARGENTINA</b> –Southern Giant Petrels (non-breeding adults and juveniles) at Isla Arce and Isla Gran Robredo.	<i>None reported</i>	<i>None reported</i>
<b>AUSTRALIA</b> - Shy Albatross (juveniles) in Tasmania; juveniles of all albatross species at Macquarie Island.	<i>Tracking studies (PTT) include: Shy Albatross - two juveniles at Albatross Island in April 2016, four juveniles at Albatross Island in April 2017, and four juveniles at the Mewstone in April 2017; and Light-mantled Albatross - two juveniles at Macquarie Island in April 2017</i>	<i>None reported</i>
<b>CHILE</b> i) 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;	<i>None reported</i>	<i>None reported</i>
ii) tracking of Southern Giant Petrels at Isla Noir.	<i>None reported</i>	<i>None reported</i>
<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, 2015 and 2017, and on juvenile Black-browed Albatrosses in April 2016</i>	<i>PTTs deployed on juvenile Grey-headed Albatrosses in May-June 2018, and further deployments planned for May-June 2019</i>
ii) White-chinned Petrel (adults and juveniles) at South Georgia (Islas Georgias del Sur) <sup>1</sup>	<i>Data from 2015/16 season being analysed</i>	<i>Comparison of movements of juveniles and nonbreeding adults in progress</i>
iii) Light mantled Albatross (adults in incubation and brood) at Bird Island, South Georgia (Islas Georgias del Sur) <sup>1</sup> .	<i>Data analysis to start in 2018</i>	<i>No further deployments planned. Can remove as priority</i>

Priorities	Progress since AC9 (May 2016)	Progress since AC10 (Sept 2017)
<b>iv)</b> Wandering Albatross pre-breeders and deferring adults during the breeding season at South Georgia (Islas Georgias del Sur) <sup>1</sup> . (High-resolution data reqd. to map overlap with fleets in SW Atlantic)	<i>New priority</i>	<i>GLS loggers deployed in 2018 and 2019. GPS deployments planned for 2019/20 season</i>
<b>ECUADOR</b> <b>i)</b> Waved Albatross (juveniles) at Galapagos.	<i>None reported</i>	<i>Seeking funds</i>
<b>New ii)</b> Waved albatross (breeding adults during the non-breeding season) at Galapagos.		<i>Existing data on this group of birds are of poor quality due to some issues with trackers.</i>
<b>FRANCE</b> - Grey-headed and Indian Yellow-nosed Albatrosses at Crozet Islands, Grey-headed Albatross at Kerguelen	<i>None reported</i>	<i>None reported</i>
<b>JAPAN</b> - Black-footed Albatross at Ogasawara Islands.	<i>None reported</i>	<i>None reported</i>
<b>NEW ZEALAND</b> <b>i)</b> Salvin's Albatross at Bounty Islands;	<i>A two year tracking programme has been planned, but implementation has been delayed until 2018 due to logistical issues</i>	<i>GLS and satellite transmitting GPS devices were deployed in Oct 2018. A further visit to retrieve GLS devices and deploy further transmitting devices is planned for Oct 2019. Results will be reported to AC12.</i>
<b>ii)</b> <del>White-chinned Petrel</del> at Auckland Islands	<i>Adams Island was visited again in 2016/17 and analysis of tracking data collected to date is underway</i>	<i>Adams Island was again visited in 2017/18 and 2018/19 to collect further tags</i>
<b>iii)</b> Light-mantled Albatross at key sites.	<i>None reported</i>	<i>No further progress</i>
<b>SOUTH AFRICA</b> - Juveniles of all species at Prince Edward Islands ( <i>Phoebetria</i> species higher priority).	<i>PTT were deployed on juvenile sooty albatross in 2015. Analysis has not been completed. Paper has been submitted for publication on foraging distribution and habitat use of Indian Yellow-nosed Albatross</i>	<i>None reported</i>

Priorities	Progress since AC9 (May 2016)	Progress since AC10 (Sept 2017)
<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).	<i>None reported</i>	<i>Work in Dragonera (Mallorca) by Univ. Oxford, mainly focused on tracking</i>
<b>UNITED KINGDOM</b> - Grey Petrel at Gough Island; juveniles of most species at Gough and Tristan da Cunha.	<i>None reported</i>	<i>PTTs deployed on 10 juvenile Tristan Albatrosses in October/November 2018</i>
<b>USA</b> - Black-footed Albatross at Laysan Island.	<i>No progress</i>	<i>No additional progress</i>

<sup>1</sup>A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty of 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.

## RECOMMENDATIONS TO THE ADVISORY COMMITTEE

PaCSWG recommends that the Advisory Committee:

1. encourages ACAP Parties and Range States responsible for breeding populations of ACAP species to implement the priority monitoring programmes to increase current knowledge of their population size, trends and demography;
2. encourages ACAP Parties and others to undertake the identified priority tracking studies, including those applicable to the bycatch-aggravating, more proficient diving and most nocturnally active species, particularly White-chinned and Grey petrel and some of the bycaught species of shearwater;
3. encourages non-Party Range States and others to seek opportunities for population and genetic studies of Short-tailed Albatrosses at the Senkaku Islands.

## 8. ACAP PRIORITY POPULATIONS

### 8.1 Review key research and management actions for current ACAP Priority Populations

The Convenor reminded the WG that 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. The high priority populations could also be used by ACAP as flagships to help communicate the conservation imperatives for the Agreement as a whole. A total of nine populations have been identified as having met the criteria for listing as an ACAP High Priority Population (**Table 7**).

The WG recalled that PaCSWG were tasked to collaborate with SBWG to develop a template to assist reporting on progress of key actions for each High Priority Population. A draft reporting template (**PaCSWG5 Doc 06**) has been prepared (see further discussion under agenda item 8.2). The reporting template aims to solicit information on the very highest priority actions for each High Priority Population, rather than to report comprehensively on all of the actions in a management or action plan.

**PaCSWG5 Inf 21** presented information requested in the draft reporting template for the Waved Albatross *Phoebastria irrorata*. The WG noted that the information provided was based on a current review of the Binational Plan of Action for the Waved Albatross, the original plan having been drafted with inputs from multiple stakeholders in 2007 and 2008.

The WG discussed and identified the key areas where ACAP could provide assistance to help support the conservation requirements of the Waved Albatross. It was noted that there are a range of challenges associated with progressing the actions identified in the Waved Albatross Plan of Action, and in **PaCSWG5 Inf 21**. These include challenges associated with communication and co-ordination of efforts amongst all stakeholders, unclear mandates for the various actions, establishing a clear list of prioritised actions, and limited resources and capacity.

With these challenges in mind, the WG discussed the possibility of setting up an advisory body that could provide expert advice for the effective implementation of the plan and help build and sustain momentum in conservation efforts, as well as enhance further international co-operation. It was considered however that such a proposal should be requested by the governments of Ecuador and Peru, who could in the first instance set up their own Implementation Task Teams. ACAP should highlight the urgency of the matter by providing a clear recommendation on the importance of the Binational Plan of Action.

Responding to the challenge associated with communication and co-ordination, the WG suggested that it would be useful to establish a champion, or co-ordinator, for the Binational Plan of Action who could help facilitate collaboration across multiple levels, from local to international, and help advance the priority actions for the species. It was noted that in many cases there is a poor understanding of what sort of information is already available that could be useful in helping clarify and prioritise the main threats to the Waved Albatross and therefore identify appropriate actions. This is particularly the case with the threat associated with fisheries, which is recognised as one of the main threats affecting the species. The WG also recommended that efforts should be directed towards identifying a manageable list of highest priority actions, as many of the actions in the plan have a broad scope, are very ambitious, and therefore are potentially difficult to initiate. The WG recommended that to better understand which of the fisheries pose the greatest risk to the Waved Albatross, it would be helpful to make use of existing tracking data to update the overlap analysis between the species and fisheries. It was also suggested that information that is already available on the characteristics of the different fisheries in the two countries could be used to

help identify which are most likely to overlap and interact with the Waved Albatross, and would be most amenable to mitigation approaches. Such an exercise should include seabird bycatch and mitigation experts.

The issue of funding was also discussed, and the WG suggested that once the priority actions are clearly defined, some of these could be developed into specific funding proposals.

**PaCSWG5 Inf 06** provided an overview of conservation actions taken, underway or planned to address the threats to the Antipodes Islands population of Antipodean Albatross, an ACAP priority population. Progress took place in two main thematic areas: research and bycatch issues. Fisheries management responses have included ongoing engagement with the New Zealand domestic pelagic longline fishery, increased engagement with RFMOs and the establishment of an arrangement between the New Zealand and Chilean governments. ACAP has been fundamental in helping develop the working relationship with Chile to address the at-sea threats for the Antipodean Albatross. The WG highlighted the importance of progressing the ACAP RFMO engagement strategy concerning the conservation of this ACAP priority population.

**PaCSWG5 Inf 18, PaCSWG5 Inf 19, and SBWG9 Inf 05** brought together available tracking, demography and phenological data to conduct robust analysis on bycatch risk for South Georgia (Islas Georgias del Sur)<sup>1</sup> priority populations. The studies highlighted that hotspots of fisheries overlap occurred in all major ocean basins, particularly the south-east and south-west Atlantic Ocean (longline and trawl), and south-west Indian Ocean (pelagic longline). Overlap scores were dominated by particular fleets: pelagic longline – Japan, Taiwan; demersal longline and trawl - Argentina, Namibia, Falklands (Islas Malvinas)<sup>1</sup>, South Africa; demersal longline – Convention for Conservation of Antarctic Marine Living Resources (CCAMLR) waters, Chile, New Zealand. New tracking data from juveniles provided new insights into bycatch risks for Grey-headed Albatrosses from South Georgia (Islas Georgias del Sur)<sup>1</sup>. Juvenile Grey-headed Albatrosses from South Georgia (Islas Georgias del Sur)<sup>1</sup> overlapped mostly with the Japanese fleet in the central Atlantic Ocean east of Tristan da Cunha, coinciding with a bycatch hotspot reported by the Japanese Fisheries Observer Programme.

The WG highlighted that fisheries effort data are out of date, and that this limits what can be achieved through overlap analysis. It was noted that in some cases fisheries identified as having high overlap scores have been inactive for a period. It has proven difficult to get more recent data from national fisheries; the WG re-iterated that this remains an urgent priority. The WG also highlighted issues concerning key data gaps (i.e. juveniles and immatures) and the need to fill those gaps, because they may show areas of additional risk that are different from the areas used by adults. The WG highlighted the importance of continuing to engage with RFMOs to strengthen the uptake and implementation of effective seabird bycatch mitigation measures, and the importance to South Georgia (Islas Georgias del Sur)<sup>1</sup> populations of Chinese Taipei and Japan's efforts to reduce seabird bycatch in their fleets.

**Table 7.** Populations that have been identified as meeting the criteria for **ACAP High Priority Populations** (declining at more than 3% per year, held more than 10% of the global population, and were at risk from fisheries).

Year Added	Species	Breeding Site or Island Group	Action Plan
2011	1 Wandering Albatross	South Georgia (Islas Georgias del Sur) <sup>1</sup>	<a href="http://www.gov.gs/albatross-action-plans/">http://www.gov.gs/albatross-action-plans/</a>
	2 Black-browed Albatross	South Georgia (Islas Georgias del Sur) <sup>1</sup>	<a href="http://www.gov.gs/albatross-action-plans/">http://www.gov.gs/albatross-action-plans/</a>
	3 Tristan Albatross	Gough Island	<b>Required</b> GenericTristan da Cunha Plan: <a href="http://jncc.defra.gov.uk/pdf/pub10_TristandaCunhaACAPplan.pdf">http://jncc.defra.gov.uk/pdf/pub10_TristandaCunhaACAPplan.pdf</a>
	4 Sooty Albatross	Crozet Island	<b>Required</b>
2016	5 Grey-headed Abatross	South Georgia (Islas Georgias del Sur) <sup>1</sup>	<a href="http://www.gov.gs/albatross-action-plans/">http://www.gov.gs/albatross-action-plans/</a>
	6 Indian Yellow-nosed Albatross	Amsterdam Island	<b>Required</b> Second National Plan of Action for the Amsterdam Albatross 2018-2027which includes some actions relevant to this population is ready for adoption
	7 Balearic Shearwater	Balearic Islands	International Species Action Plan for the Balearic shearwater, <i>Puffinus mauretanicus</i> 2011 (currently being updated)
	8 Waved Albatross	Espanola Island	<a href="#">AC4 Doc 50 Rev 4</a> and <a href="#">AC6 Doc 29</a> (currently being updated, see PaCSWG5 Inf 21)
2017	9 Antipodean Albatross	Antipodes Islands	<b>Required</b> (New Zealand - Chile collaboration in progress)

<sup>1</sup> A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty of 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.

## 8.2 Development of an ACAP strategy for Priority Populations – reporting template

**PaCSWG5 Doc 06** presented the template for reporting on priority populations. PaCSWG5 was asked to provide suggestions for further improvements. It was suggested that the template should consist of only key issues. Priority actions should be raised by the Party responsible for the priority population, and other Parties would then report against these. The Convenor stressed that the template is intended to provide a mechanism to solicit the information, and to make it an integral part of the reporting process. Some uncertainties were expressed regarding who would be responsible for completing the template. While this is clear for land-based threats, where the responsible party is the authority for the breeding site, at-sea threats requires collaboration with SBWG. It has been suggested that marine

champions may be useful and that it would be helpful for ACAP Parties to complete the information for their waters and to incorporate this into the MoP reporting.

The WG drew attention to IWC Conservation Management Plans that are aimed at species with cross-jurisdictional issues, as these may help ACAP develop collective reporting for areas beyond national jurisdiction.

### **8.3. Proposals for high priority species or populations**

There were no proposals for any additional high priority populations.

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

PaCSWG recommends that the Advisory Committee:

1. advises and encourages Peru and Ecuador to implement the Waved Albatross Action Plan to the extent possible; and
2. supports the establishment of a group by PaCSWG to provide advice, when requested, on priority conservation actions for ACAP Priority Populations.

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

### **9.1 Updates to existing guidelines and resources**

The range of existing best practice guidelines that are currently available on the ACAP website (<http://www.acap.aq/en/resources/acap-conservation-guidelines>) is increasing in scope, and these guidelines are viewed as a valuable conservation management resource applicable to ACAP species and more broadly. Importantly, these guidelines can easily be updated as new information becomes available.

PaCSWG5 noted updates had been made to the existing guidelines and resources on the ACAP website concerning removing hooks from bycaught seabirds. The Science Officer advised that ongoing development of the website will help improve its functionality and layout, improving the visibility of the guidelines, among other things. The WG noted that following the recommendation of the *Pterodroma* workshop in 2017, relevant experts have been asked to review the guidelines and, if required, add information on *Pterodroma* species that may be useful for their conservation.

PaCSWG5 noted that further work would occur intersessionally on reviewing the available external guidelines for responding to disease outbreaks, to assess their suitability for ACAP species.

## 9.2 New guidelines on mitigating bird strikes from artificial light

At PaCSWG4 the Working Group had an extensive discussion about bird strikes resulting from artificial lights and noted that it would be useful to make available some guidelines on mitigation of bird strikes on land, particularly for the nocturnally-active petrel species. Hannah Nevins offered to lead the development of such guidelines for ACAP, but this work had not been completed in time for PaCSWG5.

The Working Group agreed that existing guidelines for mitigating the risk of strikes at sea should be made available on the ACAP website. The WG also agreed that it was important to determine whether guidelines for mitigating impacts of artificial lights on land are already available and, if not, to develop those for PaCSWG6. The guidelines would provide advice about ways to minimise impact of lighting, ensure bird strikes are recorded and reported, and provide practical advice about handling of disoriented birds. PaCSWG5 noted that a range of research is underway in this area and any guidance may evolve further over relatively short timeframes.

## 9.3 New guidelines on macroplastic and microplastic assessment tools

**PaCSWG Doc 05** proposed new guidelines on sampling albatrosses and petrels to assess macroplastic (>5mm) and microplastic (<5mm) ingestion. The guidelines provide sampling protocols to assess plastic ingestion (macro, micro and plastic-derived chemicals[additives] and adsorbed organic contaminants) with an array of sample type choices that should facilitate collection in diverse settings (i.e. freshly-dead beached or by-caught specimens, live and dead animals at nesting sites, fresh guano sampling from around nests etc.).

The WG welcomed the guidelines and encouraged researchers to use them when collecting samples to assess plastic ingestion. PaCSWG5 noted the need to avoid contamination by fibrous microplastics when sampling and during analysis at laboratories. The meeting was alerted to the theme of this year's World Migratory Bird Day: "Protect Birds: be the solution to plastic pollution". PaCSWG5 noted the need for, and encouraged further work on better resolving the effects of plastics on albatross and petrel populations.

## 9.4. New guide on removing entangled seabirds from nets

PaCSWG5 noted that **SBWG9 Doc 24** outlined proposed guidelines on removing entangled seabirds from nets. The WG noted that the guidelines would provide clear, step-wise advice and illustrations to assist fishers on trawl, gillnet and other net fishing vessels, and working in commercial, artisanal and recreational net fisheries. The proposed guide had evolved from earlier work outlined in **SBWG7 Doc 21** and the procedures complemented information in the ACAP guidelines on hook removal from seabirds.

PaCSWG joined with SBWG in welcoming the development of the guidelines noting that further improvements were proposed to the content, including considering recent guidelines for handling seabirds entangled in purse seine fisheries (**SBWG9 Doc 26**). PaCSWG5 supported the suggestion that opportunities to supplement printed instructional material with other media types should also be considered, where appropriate and possible.

## RECOMMENDATIONS TO THE ADVISORY COMMITTEE

PaCSWG recommends that the Advisory Committee:

1. encourages the development of guidelines for mitigating the impact of artificial lights on land for ACAP species.

## 10. ACAP FUNDED PROGRAMMES

### 10.1 Small Grants and Secondments 2018

The Secretariat advised that information about the successful projects supported in the 2018 round of Small Grants and Secondments programmes is available in **AC11 Inf 02** and **AC11 Inf 03**. Working Group members were thanked for their assistance and diligence with assessing all applications. It is envisaged that the next call for applications will take place in the second half of 2019.

### 10.2 Funding priorities for 2019 – 2021

No tasks in the Work Programme, or additional to, were singled out by PaCSWG for priority funding at this stage.

## 11. LISTING OF SPECIES ON ANNEX 1

### 11.1 List of candidate species

**AC11 Inf 04** presented all the species that could be listed by ACAP and their scores against criteria used to assess the species' suitability and priority for listing under Annex 1 of the Agreement. The taxonomy used for this list follows the IOC list as adopted by MoP6 (**AC10 Doc 22 Rev 1**). SBWG and PaCSWG will work collaboratively to address some issues identified with the scoring system during a previous update of the scores.

The WG formed an intersessional group to revise and complete the scoring for all species listed in **AC11 Inf 04**. A revised version of the paper will then be submitted to AC12.

The WG noted that any Party preparing a nomination for listing a species under Annex 1 should notify the Secretariat as early as possible. Also it is preferable the nomination is circulated to all Parties at least six months prior to the next MoP. This allows other Parties to complete any domestic consultation processes that are required to determine their view on the nomination prior to the MoP. **AC8 Doc 24 Rev 2** outlines the steps involved in the listing process which would ensure that these timeframes are met.

## 11.2 Proposals to list new species on Annex 1

There were no new proposals to list additional species on Annex 1.

## 12. REVIEWS AND INFORMATION

**PaCSWG5 Inf 07** reported on progress made in the investigation of Persistent Organic Pollutants and chlorpyrifos in adult Black-browed Albatrosses and Cape Petrels *Daption capense* of known sex. More details will be provided at PaCSWG6.

**PaCSWG5 Inf 10** described results of a large-scale beach monitoring project which has been underway along the southern and southeastern Brazilian coast since 2015 as part of the environmental licensing of offshore oil production. Until February 2019, this project has recorded 8,526 Procellariiformes, 2,471 of which were of eight ACAP species and included very high numbers of Atlantic Yellow-nosed and Black-browed albatrosses, and White-chinned petrels. Necropsies were performed on 1,428 carcasses, but because of decomposition, only on 225 was it possible to determine a cause of death. Of those, the most frequent cause was asphyxia (drowning). Signs of interactions with human activities that were likely to have caused death were observed only in 16.4% of animals. Considering that only a fraction of animals that die at sea arrive on the coast, the high number of Procellariiformes observed during beach monitoring implies very high mortalities at sea.

The large numbers of ACAP species recorded by this paper generated lively discussion by PaCSWG5, including about whether the high numbers of dead birds reflected high bycatch rates in fisheries. It was suggested that further work could focus on: modelling of movement patterns of dead birds in currents, which might identify from which areas they originated; and, if it was possible, to improve the ability from the necropsies to determine whether birds drowned due to natural causes or in fisheries (depending on the pathology and body condition). Some caution was considered advisable on assuming that fisheries were responsible unless there was convincing evidence. There was also discussion about whether the seasonality in records could be indicative of effects of climate change or other environmental effects. The Working Group encouraged further analyses of the data and other sources of information to determine factors such as how long carcasses remain buoyant, from which area the beached birds may have originated, causes of mortality, relationships with weather, and other aspects of the environment.

**PaCSWG5 Inf 11** reported on progress made in the investigation of solid (anthropogenic) debris in stranded seabirds along the southern and southeastern Brazilian coast from necropsies of 9,149 seabird carcasses between August 2015 and October 2018. PaCSWG5 noted that stranded seabirds may reveal long-term spatial and temporal trends in chronic pollution and other anthropogenic changes in the marine environment, providing information to guide legislative and management actions. The ACAP guidelines on plastic exposure analysis and sampling (**PaCSWG5 Doc 05**) will be used for further studies in this area.

**PaCSWG5 Inf 12** presented the Brazilian Albatrosses and Petrels Sample Bank (BAAP), created to promote quality and standardized storage of samples of ACAP species,

supporting studies of genetics, health, pollution, plastic prevalence, etc., as well as enhancing collaboration between sample collectors, educational institutions, museums and researchers interested in projects that benefit the conservation of Procellariiformes.

**PaCSWG5 Inf 13** reported initial results of blood analysis of rehabilitated seabirds, including ACAP species, found in poor condition on the southern and southeastern Brazilian coast. Most ACAP species lack haematological and biochemical reference values. Such information is necessary for bird health assessment and to support management decisions and release of rehabilitated birds back to the wild. Richard Phillips and Leandro Bugoni offered to help facilitate the collection of reference values from healthy birds captured at colonies and at sea (including juveniles and immatures which are otherwise hard to sample).

**PaCSWG5 Inf 16** summarised data on Procellariiformes admitted by Instituto de Pesquisa e Reabilitação de Animais Marinhos (IPRAM), in Espírito Santo, Brazil, between 2016–2018. A total of 60 individuals from 10 species were received including Atlantic Yellow-nosed Albatross (8), White-chinned Petrels (4), and Black-browed Albatross (1). Admissions were most frequent from the northern coast of the state, which may be related to the lower human density, the extensive sandy beaches and the shallow waters of the Abrolhos Bank. Each species had a different seasonal distribution, with the most pronounced peaks of admissions in May and October.

### **12.1. 3<sup>rd</sup> World Seabird Conference 2020**

PaCSWG5 was informed that a symposium on “Seabird bycatch in commercial fisheries: progress and challenges” has been proposed for the 3<sup>rd</sup> World Seabird Conference in Hobart, Tasmania, from 19-23 October 2020.

Two other meetings of interest to the PaCSWG were mentioned: a free 2-3 day workshop on seabird translocation and social attraction in Kahuku, Hawaii (Oahu) in May 2020, and the 4<sup>th</sup> International Forum on the sub-Antarctic in Hobart on 29-30 July 2020.

## **13. FUTURE WORK PROGRAMME**

### **13.1. Work Programme 2019 - 2021**

The work programme for 2019 - 2021 (**AC11 Doc 11**) was updated based on discussions during the meeting, to be considered by the Advisory Committee.

## **14. REPORTING TO AC 11**

This report was prepared for consideration by the Advisory Committee.

## **15. ANY OTHER BUSINESS**

The Working Group was informed that election of AC officials will take place at AC11, and the Convenor noted that this will be his last PaCSWG meeting in that role as he is not eligible to be re-elected for this position at AC11, but that he remains committed to the work of this Working Group. The Vice-convenor confirmed that she is eligible and willing to stand for another term.

The Working Group was encouraged to consider the future direction of topics, tasks and priorities. The subsequent discussion recognised that innovative technologies and techniques are available, including remote-sensing, machine-learning, more complex models of species movements, distribution, climate change etc., and translocation techniques. These may assist in better understanding and addressing threats to ACAP species including from climate change, disease, fisheries, etc.

## **16. CLOSING REMARKS**

The Convenor and Vice-convenor thanked those present, and the authors of papers and rapporteurs, for their valuable contributions to the meeting. The Science Officer was thanked for her diligence and commitment to assisting the work of the Working Group during the intersessional period and at the meeting. PaCSWG members and observers, the ACAP Secretariat and ACAP officials were thanked for progressing the work of the PaCSWG during the intersessional period. The Convenor also thanked the hosts, Brazil. Sandra Hale and Cecilia Alal were also gratefully acknowledged for their interpretation services. The group thanked the Convenor, Vice-convenor and Science Officer for chairing the meeting. Particularly warm thanks were extended to Co-convenor Rosemary Gales for her many years of dedication to the Agreement and the PaCSWG and its predecessors.

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

### PaCSWG5 MEETING PARTICIPANTS

<b>PaCSWG Members</b>	
Richard Phillips (Convenor)	British Antarctic Survey, United Kingdom & Scientific Committee on Antarctic Research (SCAR)
Patricia Pereira Serafini (Vice-convenor)	National Center for Bird Conservation and Research/ICMBio Instituto Chico Mendes de Conservação da Biodiversidade, Brazil
Barry Baker	Institute of Marine and Antarctic Studies, University of Tasmania, Australia
Jonathon Barrington	Department of the Environment and Energy, Australian Antarctic Division, Australia
Leandro Bugoni	Universidade Federal do Rio Grande (FURG), Brazil
Igor Debski	Department of Conservation, New Zealand
Marco Favero	Instituto de Investigaciones Marinas y Costeras, CONICET, Argentina
Kathryn (Kate) Huyvaert	Colorado State University, USA
Verónica López	Oikonos Ecosystem Knowledge, Chile
Ken Morgan	Canadian Wildlife Service, Environment and Climate Change Canada
Megan Tierney	Joint Nature Conservation Committee (JNCC), UK
<b>Advisory Committee Members, Advisors, and Officials</b>	
Igor Brito Silva	Alternate, IBAMA -Brazil
Mike Double	Alternate, Australia, and TWG Vice-convenor
Johannes de Goede	Advisor, South Africa
Elisa Goya	AC member, Peru
Caroline Icaza	AC member, Ecuador
Sebastián Jiménez	SBWG Vice-convenor, Uruguay
Tatiana Neves	AC Vice-Chair
Mark Tasker	AC Member, United Kingdom, and TWG Convenor
Anton Wolfaardt	Advisor, United Kingdom, and SBWG Co-convenor
<b>Observers</b>	
Ana Bertoldi Carneiro	BirdLife International
Ebone Blyden	The Bahamas
Jéssica Branco	Projeto Albatroz
Nigel Brothers	Humane Society International

Emanuel Ferreira	Associação R3 Animal, Brazil
Luiza Garcia	Projeto Albatroz, Brazil
Renata Hurtado	Institute of Research and Rehabilitation of Marine Animals (IPRAM), Brazil
Nobuhiro Katsumata	National Research Institute of Far Seas Fisheries, Japan
Mi Ae Kim	USA
Cristiane Kolesnikovas	Associação R3 Animal, Brazil
Caio Marques	Projeto Albatroz, Brazil
Ed Melvin	USA
Daisuke Ochi	National Research Institute of Far Seas Fisheries, Japan
Alice Pereira	Projeto Albatroz, Brazil
Cynthia Ranieri	Projeto Albatroz, Brazil
Andre Silva Barreto	UNIVALI, Brazil
Desmond Tom	Namibia
SachikoTsuji	National Research Institute of Far Seas Fisheries, Japan
Marcela Uhart	Karen C. Drayer Wildlife Health Center, School of Veterinary Medicine, University of California, Davis, USA

### Secretariat

Christine Bogle	Executive Secretary
John Cooper	Information Officer
Wiesława Misiak	Science Officer

### Interpreters

Cecilia Alal	OnCall Latam
Sandra Hale	OnCall Latam

### ***PaCSWG MEMBERS NOT ATTENDING PaCSWG5***

Pep (José Manuel) Arcos	SEO/BirdLife
Javier Arata	Centro FONDAP de Investigación en Dinámica de Ecosistemas Marinos de Altas Latitudes (IDEAL), Universidad Austral de Chile, Chile
Karine Delord	Centre national de la recherche scientifique (CNRS), France
Sebastien Descamps	Nowegian Polar Institute, Norway
Elizabeth Flint	U.S. Fish and Wildlife Service, United States of America
Rosemary Gales (Co-convenor)	Australia
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

Flavio Quintana (Vice-convenor)	National Research Council of Argentina (CONICET), Argentina
Paul Sagar	NIWA, New Zealand
Cleo Small	BirdLife International
Henri Weimerskirch	Centre national de la recherche scientifique (CNRS), France
Barbara Wienecke	Department of the Environment and Energy, Australian Antarctic Division, Australia
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	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	Comments
Tasmania	Albatross Island (AU)	<i>Thalassarche cauta</i>	(Avian pox virus)	Parasite or pathogen - Pathogen	Low	DPIPWE conducting pilot investigation for management of disease and investigating methods to more robustly quantify the impact of the disease on the population.		Nature of disease that affects chicks is poorly understood. Avian pox virus has been detected - mortality of chicks is due to a combination of factors.
	Pedra Branca	<i>Thalassarche cauta</i>	<i>Morus serrator</i> (Australasian gannet)	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.
Isote Albatros	Isote Albatros	<i>Thalassarche melanophris</i>	<i>Neovison vison</i> (American mink)	Predation by alien species - Predation by alien species	Low	Traps for removing all American minks have being implemented in the islet during breeding season 2015/16.		

Island Group	Breeding site	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	Comments
Falkland Islands (Islas Malvinas) <sup>1</sup>	New Island	<i>Procellaria aequinoctialis</i>	<i>Felis catus</i> (Cat)	Predation by alien species - Predation by alien species	Low	Some control of cats was initiated in 2014, and a number of individuals have been shot since then.		Research carried out at New Island has shown that feral cats on New Island feed predominantly on Cottontail Rabbits, Black Rats and Thin-billed Prions (Quillfeldt et al. 2008). There is some evidence that Feral Cats prey on the chicks of White-chinned Petrels, but in spite of this, the relatively small colony of White-chinned Petrels at New Island has remained stable since 1972 (Reid et al. 2007). The current policy at New Island, as expressed in Strange (2007), is to continue to monitor the impact of all invasive mammals to understand better the interactions between the suite of alien species present on the island, and prepare and implement plans, as far as is practicable to control their populations or, where possible, to eradicate them.
Galapagos	Isla Espanola	<i>Phoebastria irrorata</i>	(Mosquito)	Parasite or pathogen - Parasite	Low	Se continua con los monitoreos de enfermedades en los cuadrantes. (Continued monitoring of vectors and affected individuals).		Mosquitoes biting is a known cause of egg abandonment.

Island Group	Breeding site	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	Comments
Isla de La Plata	Isla de La Plata	<i>Phoebastria irrorata</i>		Human disturbance - Recreation/ tourism	High	Durante la temporada de anidación se cierra el Sendero "Machete" para evitar el stress a los albatros. (During nesting, the tourist trail "Machete" is closed to tourists to avoid stressing birds).	Aumento del éxito reproductivo. (Reproductive success improved).	Visitantes en el sendero "Machete" causa stress a los padres que pueden abandonar al nido, reduciendo su éxito reproductivo.
	Isla de La Plata	<i>Phoebastria irrorata</i>		Stress by alien species - Nest desertion	High	Control de la población mediante veneno (anticuagulante) en sitios sensibles	Se mantiene controlada la población lo que se manifiesta en el aumento del éxito reproductivo.	La rata produce stress a los padres que abandonan al huevo / polluelo y depreda a los huevos.
Amsterdam and St Paul	Ile Amsterdam	<i>Phoebetria fusca</i>	<i>Pasteurella multocida</i> (Avian cholera)	Parasite or pathogen - Pathogen	High	Biosecurity measures in place since 2013		see Jaeger et al Plos One 2018
	Falaise d'Entrecasteaux	<i>Procellaria cinerea</i>	<i>Felis catus</i> (Cat)	Predation by alien species - Predation by alien species	Low	Eradication program of Rats, Cats and mice planned from 2022		
	Falaise d'Entrecasteaux	<i>Procellaria cinerea</i>	<i>Rattus rattus</i> (Black (ship) rat)	Predation by alien species - Predation by alien species	Low			
	Falaise d'Entrecasteaux	<i>Thalassarche carteri</i>	<i>Pasteurella multocida</i> (Avian cholera)	Parasite or pathogen - Pathogen	High			see Jaeger et al Plos One 2018

Island Group	Breeding site	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	Comments
Crozet	Ile de la Possession	<i>Procellaria aequinoctialis</i>	<i>Rattus rattus</i> (Black (ship) rat)	Predation by alien species - Predation by alien species	Low	rodenticide used annually on study colonies		
Kerguelen	Baie Larose	<i>Procellariaae quinoctialis</i>	<i>Rattus rattus</i> (Black (ship) rat)	Predation by alien species - Predation by alien species	Low			
	Baie Larose	<i>Procellaria aequinoctialis</i>	<i>Felis catus</i> (Cat)	Predation by alien species - Predation by alien species	Low			
	Baie Larose	<i>Procellaria aequinoctialis</i>	<i>Rangifer tarandus</i> (Reindeer)	Habitat loss or destruction - Habitat destruction by alien species	Low			
	Courbet Peninsula	<i>Diomedea exulans</i>	<i>Felis catus</i> (Cat)	Predation by alien species - Predation by alien species	Low	managed locally		
	Courbet Peninsula	<i>Procellaria aequinoctialis</i>	<i>Felis catus</i> (Cat)	Predation by alien species - Predation by alien species	Low	mananged locally		
	Courbet Peninsula	<i>Procellaria aequinoctialis</i>	<i>Rattus rattus</i> (Black (ship) rat)	Predation by alien species - Predation by alien species	Low			

Island Group	Breeding site	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	Comments
Kerguelen	Golfe du Morbihan	<i>Procellaria cinerea</i>	<i>Rattus rattus</i> (Black (ship) rat)	Predation by alien species - 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> (Black (ship) rat)	Predation by alien species - Predation by alien species	Low			
	Golfe du Morbihan	<i>Procellaria cinerea</i>	<i>Felis catus</i> (Cat)	Predation by alien species - Predation by alien species	Low			
	Golfe du Morbihan	<i>Procellaria aequinoctialis</i>	<i>Felis catus</i> (Cat)	Predation by alien species - Predation by alien species	Low			
	Golfe du Morbihan	<i>Procellaria cinerea</i>	<i>Rangifer tarandus</i> (Reindeer)	Habitat loss or destruction - Habitat destruction by alien species	Low			
	Golfe du Morbihan	<i>Procellaria aequinoctialis</i>	<i>Rangifer tarandus</i> (Reindeer)	Habitat loss or destruction - Habitat destruction by alien species	Low			
	Ile Saint LanneGramont	<i>Procellaria aequinoctialis</i>	<i>Rattus rattus</i> (Black (ship) rat)	Predation by alien species - Predation by alien species	Low			

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Kerguelen	Ile Saint LanneGramont	<i>Procellaria aequinoctialis</i>	<i>Felis catus</i> (Cat)	Predation by alien species - Predation by alien species	Low			
	Joffre Peninsula	<i>Procellaria aequinoctialis</i>	<i>Felis catus</i> (Cat)	Predation by alien species - Predation by alien species	Low			
	Joffre Peninsula	<i>Procellaria cinerea</i>	<i>Felis catus</i> (Cat)	Predation by alien species - Predation by alien species	Low			
	Joffre Peninsula	<i>Procellaria aequinoctialis</i>	<i>Rattus rattus</i> (Black (ship) rat)	Predation by alien species - Predation by alien species	Low			
	Joffre Peninsula	<i>Procellaria cinerea</i>	<i>Rattus rattus</i> (Black (ship) rat)	Predation by alien species - Predation by alien species	Low			
	Joffre Peninsula	<i>Procellaria cinerea</i>	<i>Rangifer tarandus</i> (Reindeer)	Habitat loss or destruction - Habitat destruction by alien species	Low			

Island Group	Breeding site	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	Comments
Auckland Islands	Auckland Island	<i>Diomedea epomophora</i>	<i>Sus scrofa</i> (Pig)	Predation by alien species - Predation by alien species	Low	Field trials are underway on Auckland Island between November 2018 and March 2019 to inform a feasibility study into the eradication of pigs, cats and mice from the site. The trials include testing the proposed eradication methodology for pigs on a 1000 ha peninsula at Auckland Island. This is followed by a non-toxic bait uptake trial for mice across the same peninsula to assess where the parameters outside of best practice include a		
	Auckland Island	<i>Thalassarche steadi</i>	<i>Sus scrofa</i> (Pig)	Predation by alien species - Predation by alien species	Low	lower sowing rate (4 kg/ha compared to 8 kg/ha) and summer timing. Cats have also been caught and collared		
	Auckland Island	<i>Diomedea antipodensis</i>	<i>Sus scrofa</i> (Pig)	Predation by alien species - Predation by alien species	Low	at three sites and validation tools (trail cameras and detection dogs) are being tested onsite. The cat		
	Auckland Island	<i>Thalassarche steadi</i>	<i>Felis catus</i> (Cat)	Predation by alien species - Predation by alien species	Low	detections will be compared to DNA results from samples collected in the trial area.		

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Balearic Archipelago	Ibiza	<i>Puffinus mauretanicus</i>	<i>Rattus rattus</i> (Black (ship) rat)	Predation by alien species - 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)
	Cabrera	<i>Puffinus mauretanicus</i>	<i>Felis catus</i> (Cat)	Predation by alien species - 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 out of 6 breeding islets in Cabrera, affecting about 10% of the local population. No detailed information.
	Formentera	<i>Puffinus mauretanicus</i>	<i>Felis catus</i> (Cat)	Predation by alien species - 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.

Island Group	Breeding site	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	Comments
Balearic Archipelago	Formentera	<i>Puffinus mauretanicus</i>	<i>Rattus rattus</i> (Black (ship) rat)	Predation by alien species - 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.
	Mallorca	<i>Puffinus mauretanicus</i>	<i>Rattus rattus</i> (Black (ship) rat)	Predation by alien species - 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> (Cat)	Predation by alien species - 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> (Black (ship) rat)	Predation by alien species - Predation by alien species	Low	Some eradication trials in Mola de Mao (no success).		Present in almost all colonies (except Illa de l'Aire).

Island Group	Breeding site	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	Comments
Gough	Gough Island	<i>Diomedea dabbenena</i>	<i>Mus musculus</i> (House mouse)	Predation by alien species - Predation by alien species	High	The RSPB and Tristan da Cunha Island Council are leading on preparations for the eradication of mice through the Gough Island Restoration Programme. The UK Government support this project. The budget is estimated at £7.6 million for the entire programme. The mice eradication operation is planned for the winter of 2020. Some funding is already secured. The RSPB and Tristan da Cunha are working towards securing the remainder of the required budget and identify cost savings through procurement efforts that will not jeopardise the eradication goal.		An impact on this species has been assumed because House Mice are affecting Tristan Albatross and burrow-nesting, summer-breeding petrels. Breeding success is 36%, and thus lower than on islands without invasive mice (Caravaggi et al. 2018).
	Gough Island	<i>Procellaria cinerea</i>	<i>Mus musculus</i> (House mouse)	Predation by alien species - Predation by alien species	Low			
Hawaii	French Frigate Shoals	<i>Phoebastria nigripes</i>		Natural disaster Sea-level rise	High	Planning for shoreline protection and elevation of largest islet during a contaminants cleanup		
	French Frigate Shoals	<i>Phoebastria immutabilis</i>		Natural disaster Sea-level rise	High			
	Kaula	<i>Phoebastria immutabilis</i>		Human disturbance - Military action	High	The island is still used as a bombing range for military training.		The island is used by the U.S. Navy as a bombing range for unexploded ordnance.

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Hawaii	Kaula	<i>Phoebastria nigripes</i>		Human disturbance - Military action	High	The island is managed by the U.S. military and is used as a bombing target during military training.		The island is used as a bombing range for non-exploding ordnance.
	Kure Atoll	<i>Phoebastria nigripes</i>		Habitat loss or destruction - Vegetation encroachment	Low	Ongoing eradication program using herbicide and manual control		
	Kure Atoll	<i>Phoebastria immutabilis</i>		Natural disaster - Sea-level rise	High	Propagation and planting of <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 nigripes</i>		Natural disaster - Sea-level rise	High			
	Laysan Island	<i>Phoebastria nigripes</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 immutabilis</i>		Natural disaster - Sea-level rise	High			
	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			

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Hawaii	Midway Atoll	<i>Phoebastria immutabilis</i>	<i>Mus musculus</i> (House mouse)	Predation by alien species - Predation by alien species	Low	Mouse population suppression in the affected areas using trapping and rodenticide. Eradication feasibility study completed in summer 2017. Bait uptake trials completed and implementation planning underway for implementation in 2020.		Population increasing, so flagged as "not a real threat" but recent increases in mouse predation rates and potential exposure of ~50% of world breeding population warrants revisiting threat status.
	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.
	Pearl and Hermes Reef	<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 high islands.		

<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